



NEBRASKA
DEPT. OF ADMINISTRATIVE SERVICES

Proposal

GatesAir
5300 Kings Island Drive, Suite 101
Mason, OH 45040
Phone: 951-294-4365
Nick.Vanhaaster@GatesAir.com

**13kW UHF Transmitter, Mask Filter, Backup Transmitter,
and Installation**

ITB # 5970 OF Rebid

Presented to:

Julie Dabydeen, Buyer—State Purchasing Bureau

By:

Nick Van Haaster, Regional Sales Manager



5300 Kings Island Dr
Mason, OH USA 45040
1 800.622.0022
gatesair.com

December 28, 2018

State of Nebraska
Attn. Julie Dabydeen,
State Purchasing Bureau
1526 K Street, suite 130
Lincoln, NE 68508

Dear Julie Dabydeen:

On behalf of GatesAir Inc., we are pleased to submit the following response to your Invitation to Bid #5970 OF REBID "13kW UHF Transmitter, Mask Filter, Backup Transmitter and Installation".

We are proposing our Maxiva™ ULXTE-24 Solid-State Liquid-Cooled UHF transmitter for the 13kW Main transmitter requirement. For the 600W backup, we are proposing the Maxiva™ UAXTE-1 Solid-State Air-Cooled UHF transmitter. These transmitters include the GatesAir PowerSmart® technology architecture providing high efficiency, allowing an increase in power density, lower operating costs, and reduced cost of ownership over the life of the transmitters. All GatesAir products are manufactured and assembled in Quincy, IL USA.

Should you require additional information or have any questions, please do not hesitate to contact Nick VanHaaster, Regional Sales Manager at 951-294-4365, or myself at 513-459-3482.

Thank you for your consideration. We look forward to a successful relationship.

Sincerely,

A handwritten signature in blue ink that reads "Rich Lohmueller".

Rich Lohmueller
Proposal Manager
GatesAir
5300 Kings Island Drive
Mason, OH 45040
Ph.: 513-459-3482
Email: rlohmuel@gatesair.com



Publication Information

Corporate Office Location

5300 Kings Island Drive
Cincinnati, OH, USA, 45040
Tel: 1 800-622-0022
Fax: 513-459-3796

Factory Location

3200 Wismann Lane
PO Box 4290
Quincy, IL, USA, 62301
Tel: 217-222-8200



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This document including any attachments or addendums contains material that is confidential or proprietary to GatesAir. It is meant solely for use by the intended recipient. Any review, reliance or distribution of such material by others, or forwarding of such material without express permission, is strictly prohibited.

GatesAir reserves the right, without notice to make such changes in equipment, design, specifications, components, or documentation as progress may warrant to improve the performance of the product.

Trademarks

Maxiva™, Flexiva™, Intraplex®, PowerSmart® are trademarks of GatesAir or its subsidiaries. Microsoft® and Windows® are registered trademarks of Microsoft Corporation. All other trademarks and tradenames are the property of their respective companies.

Contact Information

GatesAir has office locations around the world. For locations and contact information see: <http://www.gatesair.com/contact>





Primary Contacts

Sales Team

Nick Van Haaster

Regional Sales Manager

GatesAir

5300 Kings Island Drive

Mason, OH 45040

Phone: 1-951-294-4365

Nick.VanHaaster@gatesair.com

Systems Architect

Rich Lohmueller

Proposal Manager

GatesAir

5300 Kings Island Drive

Mason, OH 45040

Phone: 1-513-459-3482

Fax: 1-513-459-3796

rlohmuell@gatesair.com

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Detailed Price Quotation

Compliance Form

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Company Information

State of Nebraska - INVITATION TO BID

ONE TIME PURCHASE

Return to:
 State Purchasing Bureau
 1526 K Street, Suite 130
 Lincoln, Nebraska 68508

Telephone: 402-471-6500
 Fax: 402-471-2089

Date	12/14/18	Page	1 of 2
Solicitation Number	5970 OF REBID		
Opening Date and Time	12/28/18	2:00 PM	
Buyer	JULIE DABYDEEN (AS)		

DESTINATION OF GOODS
 EDUCATIONAL TELECOMM COMM
 KHNE - 1105 W 6 RD
 TO SCHEDULE DELIVERY
 CONTACT ROBERT VOS 308-991-7443
 GILTNER NE 68841-0216

Per Nebraska's Transparency in Government Procurement Act, DAS is required to collect statistical information regarding the number of contracts awarded to Nebraska contractors. This information is for statistical purposes only and will not be considered for contract award purposes.

NEBRASKA CONTRACTOR AFFIDAVIT: Bidder hereby attests that bidder is a Nebraska Contractor. "Nebraska Contractor" shall mean any bidder who has maintained a bona fide place of business and at least one employee within this state for at least the six (6) months immediately preceding the posting date of this ITB.

I hereby certify that I am a Resident disabled veteran or business located in a designated enterprise zone in accordance with Neb. Rev. Stat. §73-107 and wish to have preference, if applicable, considered in the award of this contract.

One Time Purchase to supply and deliver 13kW UHF TRANSMITTER, MASK FILTER, BACKUP TRANSMITTER, AND INSTALLATION to the State of Nebraska as per the attached specifications.

A response to this Solicitation is subject to, but not limited to, the Standard Terms and Conditions. PLEASE READ CAREFULLY!

This form is part of the specification package and must be signed and returned, along with all documents, by the opening date and time specified.

No facsimile or email solicitation responses will be accepted on bids \$25,000 and over.

(vc 11/16/18)

INVITATION

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	13KW UHF TRANSMITTER WITH DUAL EXCITERS AND RF MASK FILTER	1.0000	EA	\$346,137.43	\$346,137.43
2	4 PORT RF TRANSFER SWITCH	1.0000	EA	\$12,526.05	\$12,526.05

BIDDER MUST COMPLETE THE FOLLOWING

DISCOUNT PAYMENT TERMS: N/A % N/A DAYS

By signing this Invitation to Bid form, the bidder guarantees compliance with the provisions stated in this Invitation to Bid, agrees to the terms and conditions unless otherwise agreed to (see Section III) and certifies that bidder maintains a drug free work place environment. Vendor will furnish the items requested within 70 days after receipt of order. Failure to enter Delivery Date may cause quotation to be REJECTED.

Sign Here *Nick VanHaaster*
 (Authorized Signature MANDATORY - MUST BE SIGNED IN INK)

Enter Contact Information Below

VENDOR# _____
 VENDOR: GatesAir
 Address: 5300 Kings Island Dr.
Mason, OH 45040

Contact Nick VanHaaster
 Telephone 951-294-4365
 Facsimile 513-459-3796
 Email Nick.Vanhaaster@gatesair.com

State of Nebraska - INVITATION TO BID

ONE TIME PURCHASE

Return to:
 State Purchasing Bureau
 1526 K Street, Suite 130
 Lincoln, Nebraska 68508

Telephone: 402-471-6500
 Fax: 402-471-2089

Date	12/14/18	Page	2 of 2
Solicitation Number	5970 OF REBID		
Opening Date and Time	12/28/18	2:00 PM	
Buyer	JULIE DABYDEEN (AS)		

DESTINATION OF GOODS
 EDUCATIONAL TELECOMM COMM
 KHNE - 1105 W 6 RD
 TO SCHEDULE DELIVERY
 CONTACT ROBERT VOS 308-991-7443
 GILTNER NE 68841-0216

INVITATION

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
3	LIQUID COOLED DUMMY LOAD	1.0000	EA	<u>\$16,863.60</u>	<u>\$16,863.60</u>
4	3-PHASE SURGE SUPPRESSOR FOR 13KW TRANSMITTER	1.0000	EA	<u>\$1,510.82</u>	<u>\$1,510.82</u>
5	600-800 WATT BACK-UP TRANSMITTER WITH RF MASK FILTER	1.0000	EA	<u>\$26,171.31</u>	<u>\$26,171.31</u>
6	1-PHASE SURGE SUPPRESSOR FOR 600-800 WATT TRANSMITTER	1.0000	EA	<u>\$1,510.82</u>	<u>\$1,510.82</u>
7	INSTALLATION AND PROOF OF PERFORMANCE TESTING	1.0000	EA	<u>\$33,510.60</u>	<u>\$33,510.60</u>
8	DELIVERY INCLUDING ALL COSTS ASSOCIATED	1.0000	EA	<u>\$3,400.00</u>	<u>\$3,400.00</u>
9	EXTRA COST PER DAY FOR STATE DELAY/ISSUES THE ONLY ADDITIONAL COST ALLOWED WOULD BE FOR DELAYS DUE TO THE STATE. BIDDER SHOULD PROVIDE A DAILY COST INCLUDING ALL PER DIEM FOR DELAYS DUE TO THE STATE OR REQUESTED BY THE STATE	1.0000	EA	<u>\$1,600.00</u>	<u>\$1,600.00</u>

Form A
Bidder Contact Sheet
Invitation To Bid Number 5970 OF REBID

Form A should be completed and submitted with each response to this ITB. This is intended to provide the State with information on the Bidder's name and address, and the specific person(s) who are responsible for preparation of the Bidder's response.

Preparation of ITB Contact Information	
Bidder Name:	GatesAir
Bidder Address:	5300 Kings Island Dr. Mason, OH 45040
Contact Person & Title:	Rich Lohmueller
E-mail Address:	rlohmuell@gatesair.com
Telephone Number (Office):	513-459-3482
Telephone Number (Cellular):	
Fax Number:	513-459-3796

Each Bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the Bidder's response should become necessary.

Communication with the State Contact Information	
Bidder Name:	GatesAir
Bidder Address:	5300 Kings Island Dr. Mason, OH 45040
Contact Person & Title:	Nick VanHaaster
E-mail Address:	Nick.VanHaaster@gatesair.com
Telephone Number (Office):	951-294-4365
Telephone Number (Cellular):	
Fax Number:	513-459-3796

**ADDENDUM ONE,
REVISED INVITATION TO BID**

Date: December 14, 2018

To: All Bidders

From: Julie Dabydeen, Buyer
AS Materiel State Purchasing

RE: Addendum for Invitation to Bid Number 5970 OF REBID to be opened December 28,
2018 at 2:00 p.m. Central

REVISED INVITATION TO BID

Invitation to Bid dated December 12, 2018 is hereby deleted and replaced with Revised Invitation to Bid dated December 14, 2018

This addendum will become part of the ITB and should be acknowledged with the Invitation to Bid response.

STATE OF NEBRASKA

United States of America, } ss.
State of Nebraska }

Secretary of State
State Capitol
Lincoln, Nebraska

I, John A. Gale, Secretary of State of the
State of Nebraska, do hereby certify that

GATESAIR, INC.

a Delaware corporation is authorized to transact business in Nebraska;

**that no occupation taxes due from and assessable against the Corporation are
unpaid and have become delinquent;**

**that no annual or biennial report required to be forwarded by the
Corporation to the Secretary of State has become delinquent;**

that a Certificate of Withdrawal has not been filed.

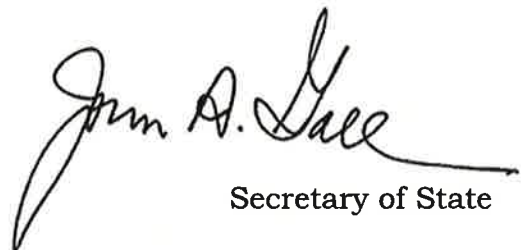
*This certificate is not to be construed as an endorsement,
recommendation, or notice of approval of the entity's financial
condition or business activities and practices.*

In Testimony Whereof,



I have hereunto set my hand and
affixed the Great Seal of the
State of Nebraska on this date of

April 23, 2018


Secretary of State



Quote Number: Q-79819
www.gatesair.com

To:

Nebraska ETV Commission
1526 K Street, suite 130
Lincoln NE, 68508 USA

Attn: Julie Dabydeen
(407) 471-6500

From:

GatesAir, Inc.
5300 Kings Island Drive, Suite 101
Mason OH, 45040 USA

Nick Van Haaster
Regional Sales Manager
nick.vanhaaster@gatesair.com

Summary – All Prices are in USD

Summary	Amount
13kW UHF Transmitter with Dual Exciters and RF Mask Filter	\$346,137.43
4-Port RF Transfer Switch	\$12,526.05
Liquid-Cooled Dummy Load	\$16,863.60
3-Phase Surge Suppressor	\$1,510.82
600-800 Watt Back-Up	\$26,171.31
1-Phase Surge Suppressor	\$1,510.82
Installation and Proof	\$33,510.60
Total Equipment/Services	\$438,230.63
Estimated Shipping from Factory	\$3,400.00
Total Quote Price (Optional Items Not Included)	\$441,630.63

Any freight amount shown is estimated and actual amounts will be billed to customer

Is the purchase of this equipment or services exempt from sales tax? YES or NO
If NO - sales tax will be added to your invoices at the rate assigned to the ship to address.

If YES - Sales Tax Exemption Number _____ COPY OF CERTIFICATE MUST BE ATTACHED

Who can we contact regarding sales tax questions on behalf of your company?

Name: _____

Phone Number: _____



Quote Number: Q-79819
www.gatesair.com

Bill To:
 Nebraska ETV Commission
 1526 K Street, suite 130
 Lincoln NE, 68508 USA
Attn:
 Julie Dabydeen
 (407) 471-6500

Ship To:
 Nebraska ETV Commission
 1105 W. 6 Rd.
 Giltner NE, 68441 USA
Attn:
 Julie Dabydeen
 (407) 471-6500

Quote #: Q-79819
Payment Terms: Net 30 Days
Effective Date: December 28, 2018
Valid Through: February 28, 2019
 Send Orders to
orders@gatesair.com
Freight Terms: Destination Prepaid
Estimated Shipment from Factory: 10 Weeks

13kW UHF Transmitter with Dual Exciters
 and RF Mask Filter

No.	Product #	Qty	Net Unit Price	Ext. Price
1	ULXTE-24	1	\$280,980.00	\$280,980.00

TRANSMITTER, ULXTE-24
 GatesAir Maxiva Series ULXTE-24 High Efficiency Broadband Liquid-Cooled, Solid-State, Television Transmitter, 4-1/16in flanged.
 Transmitter output power before mask filter: E-Type Band A Power Amplifier Module 470-590Mhz: 16100W
 Three-Phase 208/220/240 Volts, or 380/400/415 Volts WYE, 50/60Hz.

I. TRANSMITTER CONTROL SUPPLIED WITH:

- (1) System / Transmitter Manager (STM) with:
 - Web Remote with RJ45 connector
 - Transmitter Monitor & Display Logic Board
 - Life Support Logic Board
 - Exciter switcher assembly
- (2) redundant Switch Mode Power supplies (hot swappable)
 - System forward & reflected power monitoring
 - Wireless access point/device

(1) XTE (TM) Multi Standard Exciter with:

- Modulation software upgradeable
 - RTAC(TM) (Real-Time Adaptive Correction)
 - Easy-to use operator interface via standard Web browser and external PC
 - Front panel display and control
 - Built-in compliance monitoring
 - (2) ASI/SMPTE-310 inputs with auto-switching
 - (2) IP Transport inputs with auto-switching
 - 10MHz and 1PPS input for timing reference
 - Integrated GPS receiver (Antenna/cable sold separately)
 - Built in battery UPS
 - For ATSC 1.0 modulation, optional SFN (software key required)
- Note: secondary exciter available as an option

II. TRANSMITTER SYSTEM:

- (3) 13RU PA power block with:
 - (8) Compact UHF High Efficiency Plug-In LDMOS Power Amplifier Modules with pre-driver
 - (2) Phase and gain modules with auto switching
 - (9) Compact High Efficiency Switch Mode Plug-In Power Supplies
 - (1) 8-Way RF Power Splitter/Divider
 - (1) 8-Way Liquid Cooled RF Power Combiner with Reject Loads
- Power Block controller includes:



No.	Product #	Qty	Net Unit Price	Ext. Price
	<ul style="list-style-type: none"> - Power block control, monitoring & protection - Liquid flow monitoring - Cooling systems pump control - Power block forward & reflected power monitoring (1) Transmitter Equipment cabinet, designed for multi block systems. Standard AC distribution includes: <ul style="list-style-type: none"> - Control AC breakers and wiring - Power block AC Distribution without power block breakers Note: Customer supplies AC wall breakers for each block and control AC input. (1) Power block 3 port Hybrid combiner with liquid cooled reject loads. External I/O board with parallel remote interface III. MISCELLANEOUS COMPONENTS INCLUDED <ul style="list-style-type: none"> (1) System Directional Coupler Assembly for Power Metering and RTAC (Pre-Filter) (2) Power block Directional Coupler Assembly (1) Broadband Low Pass filter (Harmonic Filter) (1) Factory Test at Rated Customer Power IV. (1) External indoor Pump Module & cooling system (typical), not included with transmitter sold separately (see line item below), line items include: <ul style="list-style-type: none"> (1) external indoor pump module with: <ul style="list-style-type: none"> - Pump module control interface board - (2) Pump AC inverters - (2) Heat exchanger AC inverters - (2) Liquid cooling pumps (1) Heat Exchanger & cooling lines: <ul style="list-style-type: none"> - 50kW Heat Exchanger (dual fan) - Kit cooling system hose assembly and hardware V. TECHNICAL MANUALS <ul style="list-style-type: none"> (1) Maxiva ULXTE Series Transmitter Manual (1) Maxiva ULXTE Series Transmitter Drawing Package VI. OPTIONS (not included, sold separately): <ul style="list-style-type: none"> - Mask Filter - Post Mask Filter Directional Coupler - Secondary exciter 			
2	PA-ULXTE-E-BAND-A	24	\$0.00	\$0.00
	ASSY, PA MODULE, ULXTE, BAND "A" "888E BAND A PALLET/MODULE TYPE" UHF 470-590MHz BANDED MODULE "FOR PA MODULE SELECTION WITH MAIN TRANSMITTER LINE ITEM" "MUST HAVE TRANSMITTER LINE ITEM"			
3	XTE-EXCITER-MS	1	\$12,650.00	\$12,650.00
	XTE Multi Standard Exciter with: <ul style="list-style-type: none"> - Modulation software upgradeable - RTAC(TM) (Real-Time Adaptive Correction) - Easy-to use operator interface via standard Web browser and external PC - Front panel display and control - Built-in compliance monitoring - Two ASI inputs with auto switching - IP input - 10MHz and 1PPS inputs - Integrated GPS (Antenna sold separately) - Built in UPS -For ATSC modulation optional SFN (software key required) 			
4	XTE-SW-AT-1-2	2	\$0.00	\$0.00



No.	Product #	Qty	Net Unit Price	Ext. Price
XTE ATSC 1.0/2.0 MODULATION SOFTWARE				
5	9710080087	1	\$382.25	\$382.25
KIT, ULXTE SYSTEM THIS KIT INCLUDES 50FT CU STRAP, 100FT RG223 COAX CABLE, 150FT 2 COND CABLE (INTERLOCK), SMA & N CONNECTORS, WAGO TOOL				
6	9929139090	1	\$382.25	\$382.25
KIT, INSTALL MATERIAL, MAXIVA 1 PA CAB INCLUDES MATERIAL TO INSTALL SINGLE PA CAB, UNISTRUT 10 FT LENGTH				
7	9950333006	1	\$6,600.00	\$6,600.00
ASSY, EXTERNAL (INDOOR) PUMP MODULE, HE II 50/60HZ, 208-240V/308-415V INCLUDES: (2) PUMPS (1) PUMP CONTROLLER (2) PUMP INVERTERS 2HP (2) HEAT EXCHANGER INVERTERS 2HP PUMP MODULE FRAME				
8	9810147001	1	\$3,129.00	\$3,129.00
HEAT EXCHANGER, GATESAIR 50HE, DUAL FAN 3 PHASE INVERTER RATED, 1HP FAN MOTORS 50KW NOMINAL HEAT DISIPATION				
9	7740156080	1	\$2,401.60	\$2,401.60
KIT, PLUMBING FLX/VLX/ULXT HOSE Plumbing Kit, Hose For use with FLX/VLX/ ULXT transmitter. Includes: * 2 - 50ft Hoses * Hose Barbs * Manifold * Sight Flow Indicator * Misc. plumbing parts * Hardware Kit				
10	511010030	2	\$116.36	\$232.72
EXTENDED LIFE ANTIFREEZE/COOLANT_ CONCENTRATE _ETHYLENE GLYCOL, DIETHYLENE GLYCOL_CASE OF SIX (1-GALLON CONTAINERS)_AF2000-6PK_ *MSDS REQD EACH SHIPMENT**				
11	FLUL-22000-6AT-C	1	\$21,986.76	\$21,986.76
Reflective ATSC Critical Mask Filter, 20-22kW Liquid Cooled, UHF, 8 Pole filter, Factory Tunable Band Width 6MHZ, 4-1/16in Flanged Input & Output				
12	7740156095	1	\$160.82	\$160.82
Kit, Mask filter plumbing kit for use with external Pump Module System				
13	9710023510	1	\$730.56	\$730.56
CPLR FLANGED 4-1/16 4 PORT MALE ENDS 48D				
14	9929138139	1	\$6,403.91	\$6,403.91
KIT, RF LINE, 4-1/16" 50 OHM INCLUDES 4-1/16" FLANGED XMISSION LINE (10 FT LENGTHS) 1.0 EA 0860004046 * FLUX, SILVER BRAZING 1.0 TZ 0860004060 SOLDER, HARD SILVER, 1/16 DIA 4.0 EA 3591055000 PIPE HANGER, J-TYPE 4.00" INS				



Quote Number: Q-79819
www.gatesair.com

No.	Product #	Qty	Net Unit Price	Ext. Price
3.0 EA 6180709000 XMSN LINE 4-1/16U 120" (CU) 2.0 EA 6202137000 *CONN, AIC 4-1/16 4.0 EA 6202142000 EQ ELBOW/90 4-1/16EIA (CU) THK WL 6.0 EA 6202172000 HDWE KIT FOR 4-1/16EIA (SST) 6 EA 6202393000 FLANGE, FIXED 4-1/16EIA (BRASS)				
15	6202396000	1	\$944.00	\$944.00
REDUCER, 6-1/8 TO 4-1/16 Adapter to connect antenna transmission line to coax switch.				
16	480TO208-75KVA	1	\$2,611.46	\$2,611.46
75 Kva Transformer three phase 480v Delta primary, 208v Wye secondary, K-13 Rated				
17	9710080017	1	\$5,775.00	\$5,775.00
SPARE ASSY, PA MODULE, ULXTE, BAND "A" "888E BAND A PALLET/MODULE TYPE" UHF 470-590MHz BANDED MODULE				
18	7360583010	1	\$767.10	\$767.10
SPARE PSU, 54VDC 3500W , 1RU				
19	ULXTE-36M_WARRANTY	1	\$0.00	\$0.00
Maxiva ULXTE Product 36-Month Warranty Transmitter and Exciter - Warranty Valid for 36 months from date of shipment For Additional Products and Accessories, Customer Special Products, and B-Stock Equipment - See Standard Equipment Warranty on the GatesAir General Terms and Conditions.				
13kW UHF Transmitter with Dual Exciters and RF Mask Filter TOTAL:				\$346,137.43

4-Port RF Transfer Switch

No.	Product #	Qty	Net Unit Price	Ext. Price
20	DIE60000-400	1	\$8,864.61	\$8,864.61
DIE 4-1/16 4PORT 115VAC SWITCH				
21	DIE11000010590	1	\$3,408.00	\$3,408.00
Dielectric Dual Switch Controller DSC2 Features Include: - Allows control of one or two 2-ways switches (coaxial or WR) - Local touch screen GUI, remote LAN, or lockout operation - Adjustable delay in switching - 12 V DC or 24 V DC voltage control relay selection - Dimensions 3.5" (2RU) H x 19" W x 8" D (89 mm x 482.6 mm x 203 mm) AC Power Requirements 120-240 V AC/50-60 Hz AC Power Consumption (Controller only) 60 W Note: Controller comes less cables. The 25 foot cable part number is DIER0101873-025. 50 foot DIER0101873-050. Cables are quantity 1, for two switches two cables are required.				
22	DIE101873-050	1	\$253.44	\$253.44
DIE 50FT CBL 60000 SW-SW CNTRL				
4-Port RF Transfer Switch TOTAL:				\$12,526.05



Liquid-Cooled Dummy Load				
No.	Product #	Qty	Net Unit Price	Ext. Price
23	7020014000	1	\$4,607.85	\$4,607.85
80kW WATER COLUMN RF LOAD, HORIZ MOUNT DIELECTRIC R46390 6-1/8" INPUT				
24	9950333025	1	\$12,255.75	\$12,255.75
ASSY INCLUDES SINGLE PUMP MODULE, SINGLE 50HE EXCHANGER, 1-1/4" HOSE, 1" HOSE, **DOES NOT INCLUDE LOAD**				
Liquid-Cooled Dummy Load TOTAL:				\$16,863.60

3-Phase Surge Suppressor For 13kW Transmitter				
No.	Product #	Qty	Net Unit Price	Ext. Price
25	7401278000	1	\$1,510.82	\$1,510.82
PARALLEL SURGE SUPPRESSOR, FOR 3PH WYE OR DELTA. Parallel surge protection device combining spark gap type 1 lightning protection and pluggable MOV type 2 transient protection in a NEMA 4X polycarbonate enclosure for 115V-200V, 120V-208V, 120V-240V, 240V-277V & 380V-415V 3 phase Wye or Delta applications with common neutral & ground or Separate neutral & ground.				
3-Phase Surge Suppressor TOTAL:				\$1,510.82

600-800 Watt Back-Up Transmitter with RF Mask Filter				
No.	Product #	Qty	Net Unit Price	Ext. Price
27	UAXTE-1R37	1	\$21,780.00	\$21,780.00
<p>UAXTE-1R37 Maxiva Series High Efficiency UAXTE-1R37 Air-Cooled, Solid-State, Digital Television Transmitter. Band IV/V, 470-750MHz. 7-16 DIN transmitter output connector. Transmitter installed in a 37 RU standard 19in rack. 600W Average Power Out (Before Mask filter) Single-Phase, 208-240 Volts -15%/+10%, 47-63Hz. Optional: Three-Phase, 208-240 or 380-415 Volts, -15%/+10%, 47-63Hz (see Transmitter Technical Manuals for AC installation information)</p> <p>TRANSMITTER INCLUDES: (1) 2 RU Multi-Standard XTE Exciter/Driver with: RTAC(TM) (Real-Time Adaptive Correction) - Modulation software upgradeable - Easy-to use operator interface via standard Web browser and external PC - RTAC(TM) (Real-Time Adaptive Correction) - Front panel display and control - Built-in compliance monitoring - (2) ASI/SMPTE-310 inputs with auto-switching - (2) IP Transport inputs with auto-switching - 10MHz and 1PPS input for timing reference - Integrated GPS receiver (Antenna/cable sold separately) - Built in battery UPS - For ATSC 1.0 modulation, optional SFN (software key required) - (1) UHF Broadband LDMOS Power Amplifier</p>				



No.	Product #	Qty	Net Unit Price	Ext. Price
	- (1) PA Power Supply HIGH EFFICIENCY POWER AMPLIFIER BLOCK: (1) 3 RU High Efficiency Amplifier Block, including: - (3) UHF High efficiency LDMOS Power Amplifier Pallets - (1) High efficiency switch mode Power Supply (1) Pre-filter measurement coupler (1) Low pass (Harmonic) Filter (1) Factory Test at Rated Customer Power (1) 37 RU standard Rack (1) Maxiva UAXTE Series Transmitter Manual Options (not included, sold separately): - Secondary Exciter (Dual Exciter Option) - Redundant switch mode power supply - Integrated I/O panel with wiring from transmitter to the I/O panel - Internal Rack AC Distribution - Mask Filter - Post Mask Filter Coupler			
28	PA-UAXTE-E+-BAND-A	1	\$0.00	\$0.00
	PAB, UAXTE, 3RU, BAND A, MODEL			
29	UAXTE-SW-AT	1	\$0.00	\$0.00
	UAXTE ATSC Modulation Software			
30	FLUA-00625-6AT	1	\$2,667.15	\$2,667.15
	Reflective Standard ATSC Mask Filter, 625W Air Cooled, UHF, 6 Pole filter, Factory Tunable Band Width 6MHZ, 7-16DIN Input & Output			
31	9710078029	1	\$531.98	\$531.98
	KIT, UAXTE RF ACCESSORIES 7/16DIN, DUAL LPU Post Filter RTAC Samples - Single Drive Includes: (1) Coupler 8-Port, 50DB (2) Attenuators, SMA (3) Coax Cables, RG-223/U w/Plugs			
32	STDFLEX7-820FT7-16	1	\$162.50	\$162.50
	ASSY, 20FT FLEX, 7/8 W/ 7/16 MALE			
33	6203314000	1	\$482.18	\$482.18
	REDUCER 3-1/8EIA:TO:7/16-JACK Adapter to connect transmitter to coax switch.			
34	6202395000	1	\$547.50	\$547.50
	Step reducer, flanged , 4 1/16" 50 ohm to 3 1/8" 50 ohm. Includes 3 1/8" anchor insulator connector, "O" ring, and hardware kit. Approx. Wt. 8.1 lbs. Adapter to connect transmitter to coax switch.			
35	WARRANTY_TV_SPEC	1	\$0.00	\$0.00
	Special Warranty Terms for GatesAir Manufactured Equipment 36 Months of warranty service of GatesAir TV Transmitters and GatesAir Manufactured TV Transmitter Equipment from the date of shipment. Conditions subject to GatesAir Standard Equipment Warranties per GatesAir Standard Terms and Condition of Sale			
600-800 Watt Back-Up TOTAL:				\$26,171.31



1-Phase Surge Suppressor				
600-800 Watt Transmitter				
No.	Product #	Qty	Net Unit Price	Ext. Price
36	7401278000	1	\$1,510.82	\$1,510.82
PARALLEL SURGE SUPPRESSOR, FOR 3PH WYE OR DELTA. Parallel surge protection device combining spark gap type 1 lighting protection and pluggable MOV type 2 transient protection in a NEMA 4X polycarbonate enclosure for 115V-200V, 120V-208V, 120V-240V, 240V-277V & 380V-415V 3 phase Wye or Delta applications with common neutral & ground or Separate neutral & ground.				
1-Phase Surge Suppressor TOTAL:				\$1,510.82

Installation and Proof				
of Performance Testing				
No.	Product #	Qty	Net Unit Price	Ext. Price
37	INSTALL	1	\$33,510.60	\$33,510.60
<p>ULXTE-24-UAXTE-3P-C INST. COMM.</p> <p>GatesAir Standard Terms and Conditions and GatesAir standard statement of Work for Services Apply</p> <p>Includes labor and expenses for (2) GatesAir Service Representatives to perform work on site as listed below or as listed in the GatesAir Standard Terms and Conditions and GatesAir standard statement of Work</p> <p>Includes complete installation and interconnection of a quantity of (1) complete ULXTE-24 and a UAXTE-3P-C transmitter system and associated equipment such as the cooling pump module assembly, Dual Fan Heat Exchanger, Dual HT Exchanger plumbing kits, and ULXT Hose Plumbing Kits.</p> <p>Includes installation of cooling system utilizing GatesAir supplied rubber hose plumping kit.</p> <p>Includes installation of RF components utilizing clip coupling components and assumes soft soldering of cooling system components as necessary on site. Customer to supply appropriate acetylene and oxygen tanks.</p> <p>Includes complete system commissioning into a known good test load. The commissioning test will be performed utilizing GatesAir calibrated test equipment and standard commissioning test/documentation to GatesAir standard specifications.</p> <p>The project will be considered and planned to be a start to finish project without delay from installation to commissioning of the ULXTE-24 and UAXTE-3P-C transmitter systems into known good test load. Any customer delays or issues that delay the project once GatesAir personnel are on site will be charged to the customer at GatesAir Standard rates plus expenses.</p> <p>Project details and assumptions:</p> <p>Assumes all GatesAir supplied equipment has been delivered to site prior to the arrival of the GatesAir service representative</p> <p>Assumes the customer will take care of all required permits needed for the GatesAir Service Representatives to perform the installation and commissioning work for the ULXTE-24 and UAXTE-3P-C installation project.</p> <p>Assumes site access a minimum of 6 days a week and 10 hours per day.</p> <p>Assumes there is adequate space within the facilities to support the installation of all supplied equipment without the removal of any existing equipment.</p> <p>Assumes adequate and proper space existing external to the building to support cooling system.</p> <p>Assumes appropriate electrical and HVAC work to support new equipment has been completed prior to the arrival of the GatesAir service representative.</p> <p>Assumes the customer hired electrician shall be on site day of or day after the arrival of the GatesAir service representatives to site to discuss equipment layout and final AC connection to each. Assumes electrical work can be completed without delaying installation and commissioning of equipment.</p> <p>Any delays that a considered customer delays can be charged to the customer at GatesAir daily rates plus expenses.</p> <p>Assumes customer qualified staff shall be available to support GatesAir Service Representatives with appropriate site access and other needs as they arise. The standard GatesAir work schedule is (6) days a week and a maximum of (10) hours per day unless other arrangements are negotiated prior to project start dates or depending on the expected project duration time.</p> <p>Assumes customer's antenna connection is within 12ft of location of RF mask filter.</p> <p>Does not include repair of any existing transmitters or any other customer equipment that will be reused in final configuration. Repairs if required and agreed upon will be charged at the standard GatesAir daily rates plus expenses.</p> <p>Does not include any disposal of any equipment that may have been removed during installation process. The customer shall be responsible for proper storage or disposal.</p> <p>Does not include Installation or Commissioning Services of any GatesAir supplied equipment as related to towers, antennas or transmission line from tower to building. Does not include any work beyond commissioning and operational testing of any GatesAir supplied remote control equipment at site, customer responsible for configuration and connection to any link to studio that may exist.</p>				



No.	Product #	Qty	Net Unit Price	Ext. Price
Please refer to GatesAir Standard Terms and Conditions of installation and the GatesAir Standard Statement of Work for Services for other details Does not include any taxes, duties or VAT as related to services performed on-site.				
38	TV-ULXTE-FTNG	2	\$0.00	\$0.00
<p>FACTORY ULXTE Maxiva UHF TX Training</p> <p>GatesAir Standard Terms and Conditions Apply Includes labor and expenses for (1) GatesAir Service Representative to provide Factory Training on the ULXTE product. Includes formal training on customer specific GatesAir products (ULXTE) for a maximum of (3) days at the GatesAir facility (Quincy, Illinois) for (1) customer representative. Classes will be scheduled 8:30AM to 4:30PM each day with approximately 1 hour break for lunch for the Factory Training. Includes all training material necessary for ULXTE customer training. Assumes customer representatives can read, write and speak English. The Customer will provide an interpreter on-site to communicate to local staff as necessary The customer is responsible for all living expenses which include travel, lodging, meals, any other expenses during the Factory Training.</p> <p>DOES NOT INCLUDE EMERGENCY MEDICAL CARE. The customer shall be responsible for the reimbursement to any facility that provides any type of medical treatment to any of the customer representatives/employees while attending GatesAir Factory Training. Please refer to GatesAir Standard Terms and Conditions of installation for other details Does not include any taxes, duties or VAT as related to services performed on-site.</p>				
Installation and Proof TOTAL:				\$33,510.60
TOTAL:				\$438,230.63



Quote Number: Q-79819
www.gatesair.com

This Quote, and any Order resulting from this Quote, is subject to the Standard Terms and Conditions of Sale for GATESAIR which can be located at <http://www.gatesair.com/company/legal-compliance/terms-conditions>, which are incorporated herein by reference. The Standard Terms and Conditions for GATESAIR shall apply to the exclusion of any other terms and conditions except where expressly agreed in writing and signed by GATESAIR. For a hard copy of the terms and conditions, please call U.S. (513) 459-3502 or fax your request to (513) 459-3796, Attn.: Legal Dept., or email your request to GAContracts@gatesair.com.

As a part of its marketing efforts, GatesAir may publish general information about this order including customer name, solutions acquired, application for which the solutions are intended, and deal value. GatesAir will not publicize specific prices or other specific Confidential Information.

I do not authorize GatesAir to publicize this order.

Total Equipment/Services	\$438,230.63
Estimated Shipping from Factory	\$3,400.00
Total Quote Price (Optional Items Not Included)	\$441,630.63

Any freight amount shown is estimated and actual amounts will be billed to customer

GatesAir Approval: _____
Nick Van Haaster , Regional Sales Manager

Customer Approval: _____

Title: _____

Date: _____

Purchase Order #: _____

Return signed quote to orders@gatesair.com or nick.vanhaaster@gatesair.com



Optional Line Items

Extra Cost Per Day for State Delay Issues			
Product #	Qty	Net Unit Price	Ext. Price
GA999TS	1.00	\$1,600.00	\$1,600.00
Daily GatesAir Expense Charge for Delay by State on Services. Additional cost to the State for delays due to the State or requested by the State. Includes all per diem.			
Extra Cost Per Day for State Delay Issues TOTAL:			\$1,600.00

Optional Items - not included in Quote Total

II. TERMS AND CONDITIONS

Bidders should complete Section II through IV as part of their bid. Bidder is expected to read the Terms and Conditions and must initial either accept, reject, or reject and provide alternative language for each clause. The Bidder should also provide an explanation of why the Bidder rejected the clause or rejected the clause and provided alternate language using 'Track Changes'. Upon request an electronic copy of the bid with 'Track Changes' must be submitted in an editable Word format. By signing the ITB Bidder is agreeing to be legally bound by all the accepted terms and conditions, and any proposed alternative terms and conditions submitted with the bid. The State reserves the right to negotiate rejected or proposed alternative language. If the State and Bidder fail to agree on the final Terms and Conditions, the State reserves the right to reject the bid. The State is soliciting bids in response to the ITB. The State reserves the right to reject bids that attempt to substitute the Bidder's commercial contracts and/or documents for this ITB.

The Bidder should submit with their bid any license, user agreement, service level agreement, or similar documents that the Bidder wants incorporated in the Contract. Upon notice of Intent to Award, the Bidder must submit a copy of these documents in an editable Word format. The State will not consider incorporation of any document not submitted with the Bidder's bid. These documents shall be subject to negotiation and will be incorporated as addendums if agreed to by the Parties.

If a conflict or ambiguity arises after the addendums have been negotiated and agreed to, the addendums shall be interpreted as follows:

1. If only one (1) Party's document has a particular clause then that clause shall control;
2. If both Party's documents have a similar clause, but the clauses do not conflict, the clauses shall be read together;
3. If both Party's documents have a similar clause, but the clauses conflict, the State's clause shall control.

A. GENERAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
R			

The contract resulting from this ITB shall incorporate the following documents:

1. Invitation to Bid and Addenda;
2. Amendments to the ITB;
3. Questions and Answers;
4. Contractor's bid (ITB);
5. Award;
6. The executed Contract and any Addenda; and,
7. Amendments to the Contract

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a future contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to the executed Contract with the most recent dated amendment having the highest priority, 2) executed Contract and any attached Addenda, 3) Amendments to ITB and any Questions and Answers, 4) the original ITB document and any Addenda, and 5) the Contractor's submitted Bid.

Any ambiguity or conflict in the contract discovered after its execution, not otherwise addressed herein, shall be resolved in accordance with the rules of contract interpretation as established in the State.

B. NOTIFICATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
Ry			

Contractor and State shall identify the contract manager who shall serve as the point of contact for the executed contract.

Communications regarding the executed contract shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth below, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or five (5) calendar days following deposit in the mail.

Vendor Contract Manager	Agency Contract Manager Julie Dabydeen
Vendor	Agency Department of Administrative Services, State Purchasing Bureau
Vendor Street Address	Agency Street Address 1526 K Street, Suite 130
Vendor City, State, Zip	Agency City, State, Zip Lincoln, NE 68508

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

C. GOVERNING LAW

Notwithstanding any other provision of this contract, or any amendment or addendum(s) entered into contemporaneously or at a later time, the parties understand and agree that, (1) the State of Nebraska is a sovereign state and its authority to contract is therefore subject to limitation by the State's Constitution, statutes, common law, and regulation; (2) this contract will be interpreted and enforced under the laws of the State of Nebraska; (3) any action to enforce the provisions of this agreement must be brought in the State of Nebraska per state law; (4) the person signing this contract on behalf of the State of Nebraska does not have the authority to waive the State's sovereign immunity, statutes, common law, or regulations; (5) the indemnity, limitation of liability, remedy, and other similar provisions of the final contract, if any, are entered into subject to the State's Constitution, statutes, common law, regulations, and sovereign immunity; and, (6) all terms and conditions of the final contract, including but not limited to the clauses concerning third-party use, licenses, warranties, limitations of liability, governing law and venue, usage verification, indemnity, liability, remedy or other similar provisions of the final contract are entered into specifically subject to the State's Constitution, statutes, common law, regulations, and sovereign immunity.

The Parties must comply with all applicable local, state and federal laws, ordinances, rules, orders, and regulations.

D. BEGINNING OF WORK

The Contractor shall not commence any billable work until a valid contract has been fully executed by the State and the successful Contractor. The Contractor will be notified in writing when work may begin.

E. CHANGE ORDERS OR SUBSTITUTIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
Ry			

The State and the Contractor, upon the written agreement, may make changes to the contract within the general scope of the ITB. Changes may involve specifications, the quantity of work, or such other items as the State may find necessary or desirable. Corrections of any deliverable, service, or work required pursuant to the contract shall not be deemed a change. The Contractor may not claim forfeiture of the contract by reasons of such changes.

The State or Contractor may prepare a written description of the work required due to the change and the Contractor shall prepare an itemized cost sheet for the change. Changes in work and the amount of compensation to be paid to the Contractor shall be determined in accordance with applicable unit prices if any, a pro-rated value, or through negotiations. The State shall not incur a price increase for changes that should have been included in the Contractor's bid, were foreseeable, or result from difficulties with or failure of the Contractor's bid or performance.

No change shall be implemented by the Contractor until approved by the State, and the Contract is amended to reflect the change and associated costs, if any. If there is a dispute regarding the cost, but both parties agree that immediate implementation is necessary, the change may be implemented, and cost negotiations may continue with both Parties retaining all remedies under the contract and law.

Vendor will not substitute any item that has been awarded without prior written approval of SPB.

F. BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
Rd			

Either Party may terminate the contract, in whole or in part, if the other Party breaches its duty to perform its obligations under the contract in a timely and proper manner. Termination requires written notice of default and a thirty (30) calendar day (or longer at the non-breaching Party's discretion considering the gravity and nature of the default) cure period. Said notice shall be delivered by Certified Mail, Return Receipt Requested, or in person with proof of delivery. Allowing time to cure a failure or breach of contract does not waive the right to immediately terminate the contract for the same or different contract breach which may occur at a different time.

In case of breach by the Contractor, the State may, without unreasonable delay, make a good faith effort to make a reasonable purchase or contract to purchased goods in substitution of those due from the contractor. The State may recover from the Contractor as damages the difference between the costs of covering the breach. Notwithstanding any clause to the contrary, the State may also recover the contract price together with any incidental or consequential damages defined in UCC Section 2-715, but less expenses saved in consequence of Contractor's breach.

The State's failure to make payment shall not be a breach, and the Contractor shall retain all available statutory remedies. (See Indemnity - Self-Insurance and Payment)

G. NON-WAIVER OF BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
Rd			

The acceptance of late performance with or without objection or reservation by a Party shall not waive any rights of the Party nor constitute a waiver of the requirement of timely performance of any obligations remaining to be performed.

H. SEVERABILITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
Rd			

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the provision held to be invalid or illegal.

I. INDEMNIFICATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
Rd			

1. GENERAL

The Contractor agrees to defend, indemnify, and hold harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State for personal injury, death, or property loss or damage, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the Contractor, its employees, Subcontractors, consultants, representatives, and agents, resulting from this contract, except to the extent such Contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. INTELLECTUAL PROPERTY

The Contractor agrees it will, at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all claims, to the extent such claims arise out of, result from, or are attributable to, the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the Contractor or its employees, Subcontractors, consultants, representatives, and agents; provided, however, the State gives the Contractor prompt notice in writing of the claim. The Contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the Contractor has indemnified the State, the Contractor shall, at the Contractor's sole cost and expense, promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the Contractor, and the State may receive the remedies provided under this ITB.

3. PERSONNEL

The Contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel, including subcontractor's and their employees, provided by the Contractor.

4. SELF-INSURANCE (Statutory)

The State is self-insured for any loss and purchases excess insurance coverage pursuant to Neb. Rev. Stat. § 81-8,239.01 (Reissue 2008). If there is a presumed loss under the provisions of this agreement, Contractor may file a claim with the Office of Risk Management pursuant to Neb. Rev. Stat. §81-8,829 through 81-8,306 for review by the State Claims Board. The State retains all rights and immunities under the State

Miscellaneous (Section 81-8,294), Tort (Section 81-8,209), and Contract Claim Acts (Section 81-8,302), as outlined in Neb. Rev. Stat. § 81-8,209 et seq. and under any other provisions of law and accepts liability under this agreement to the extent provided by law.

J. ATTORNEY'S FEES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RL			

In the event of any litigation, appeal, or other legal action to enforce any provision of the contract, the Parties agree to pay all expenses of such action, as permitted by law and if order by the court, including attorney's fees and costs, if the other party prevails.

K. ASSIGNMENT, SALE, OR MERGER

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RL			

Either party may assign the contract upon mutual written agreement of the other party. Such agreement shall not be unreasonably withheld.

The Contractor retains the right to enter into a sale, merger, acquisition, internal reorganization, or similar transaction involving Contractor's business. Contractor agrees to cooperate with the State in executing amendments to the contract to allow for the transaction. If a third party or entity is involved in the transaction, the Contractor will remain responsible for performance of the contract until such time as the person or entity involved in the transaction agrees in writing to be contractually bound by this contract and perform all obligations of the contract.

L. CONTRACTING WITH OTHER POLITICAL SUB-DIVISIONS OF THE STATE OR ANOTHER STATE

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RL			

The Contractor may, but shall not be required to, allow agencies, as defined in Neb. Rev. Stat. §81-145, to use this contract. The terms and conditions, including price, of the contract may not be amended. The State shall not be contractually obligated or liable for any contract entered into pursuant to this clause.

The Contractor may, but shall not be required to, allow other states, agencies or divisions of other states, or political subdivisions of other states to use this contract. The terms and conditions, including price, of this contract shall apply to any such contract, but may be amended upon mutual consent of the Parties. The State of Nebraska shall not be contractually or otherwise obligated or liable under any contract entered into pursuant to this clause. The State shall be notified if a contract is executed based upon this contract.

M. FORCE MAJEURE

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

Neither party shall be liable for any costs or damages, or for default resulting from its inability to perform any of its obligations under the contract due to a natural or manmade event outside the control and not the fault of the affected party ("Force Majeure Event"). The Party so affected shall immediately make a written request for relief to the other party, and shall have the burden of proof to justify the request. The other Party may granted the relief requested; relief may not be unreasonably withheld. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event.

N. CONFIDENTIALITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

All materials and information provided by the Parties or acquired by a Party on behalf of the other Party shall be regarded as confidential information. All materials and information provided or acquired shall be handled in accordance with federal and state law, and ethical standards. Should said confidentiality be breached by a Party, the Party shall notify the other Party immediately of said breach and take immediate corrective action.

It is incumbent upon the Parties to inform their officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable by 5 U.S.C. 552a (m)(1), provides that any officer or employee, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than \$5,000.

O. EARLY TERMINATION


Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

The contract may be terminated as follows:

1. The State and the Contractor, by mutual written agreement, may terminate the contract at any time.
2. The State, at its sole discretion, may terminate the contract for any reason upon thirty (30) calendar day's written notice to the Contractor. Such termination shall not relieve the Contractor of warranty or other service obligations incurred under the terms of the contract. In the event of termination the Contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.
3. The State may terminate the contract immediately for the following reasons:
 - a. if directed to do so by statute;

- b. Contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
- c. a trustee or receiver of the Contractor or of any substantial part of the Contractor's assets has been appointed by a court;
- d. fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its Contractor, its employees, officers, directors, or shareholders;
- e. an involuntary proceeding has been commenced by any party against the Contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) calendar days; or (ii) the Contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the Contractor has been decreed or adjudged a debtor;
- f. a voluntary petition has been filed by the Contractor under any of the chapters of Title 11 of the United States Code;
- g. Contractor intentionally discloses confidential information;
- h. Contractor has or announces it will discontinue support of the deliverable; and,
- i. In the event funding is no longer available.

P. CONTRACT CLOSEOUT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
			

Upon termination of the contract for any reason the Contractor shall within thirty (30) days, unless stated otherwise herein:

1. Transfer all completed or partially completed deliverables to the State;
2. Transfer ownership and title to all completed or partially completed deliverables to the State;
3. Return to the State all information and data, unless the Contractor is permitted to keep the information or data by contract or rule of law. Contractor may retain one copy of any information or data as required to comply with applicable work product documentation standards or as are automatically retained in the course of Contractor's routine back up procedures;
4. Cooperate with any successor contractor, person or entity in the assumption of any or all of the obligations of this contract;
5. Cooperate with any successor contractor, person or entity with the transfer of information or data related to this contract;
6. Return or vacate any state owned real or personal property;

Nothing in this Section should be construed to require the Contractor to surrender intellectual property, real or person property, or information or data owned by the Contractor for which the State has no legal claim.

III. CONTRACTOR DUTIES

A. INDEPENDENT CONTRACTOR / OBLIGATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

It is agreed that the Contractor is an independent contractor and that nothing contained herein is intended or should be construed as creating or establishing a relationship of employment, agency, or a partnership.

The Contractor is solely responsible for fulfilling the contract. The Contractor or the Contractor's representative shall be the sole point of contact regarding all contractual matters.

The Contractor shall secure, at its own expense, all personnel required to perform the services under the contract. The personnel the Contractor uses to fulfill the contract shall have no contractual or other legal relationship with the State; they shall not be considered employees of the State and shall not be entitled to any compensation, rights or benefits from the State, including but not limited to, tenure rights, medical and hospital care, sick and vacation leave, severance pay, or retirement benefits.

By-name personnel commitments made in the Contractor's bid shall not be changed without the prior written approval of the State. Replacement of these personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The Contractor warrants that all persons assigned to the project shall be employees of the Contractor or a Subcontractor, and shall be fully qualified to perform the work required herein. Personnel employed by the Contractor or a subcontractor to fulfill the terms of the contract shall remain under the sole direction and control of the Contractor or the subcontractor respectively.

With respect to its employees, the Contractor agrees to be solely responsible for the following:

1. Any and all pay, benefits, and employment taxes and/or other payroll withholding;
2. Any and all vehicles used by the Contractor's employees, including all insurance required by state law;
3. Damages incurred by Contractor's employees within the scope of their duties under the contract;
4. Maintaining Workers' Compensation and health insurance that complies with state and federal law and submitting any reports on such insurance to the extent required by governing law;
5. Determining the hours to be worked and the duties to be performed by the Contractor's employees; and,
6. All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination alleged against the Contractor, its officers, agents, or subcontractors or subcontractor's employees).

If the Contractor intends to utilize any subcontractor, the Subcontractor's level of effort, tasks, and time allocation must be clearly defined in the Contractor's bid. The Contractor shall agree that it will not utilize any Subcontractors not specifically included in its bid in the performance of the contract without the prior written authorization of the State.

The State reserves the right to require the Contractor to reassign or remove from the project any Contractor or Subcontractor employee.

Contractor shall insure that the terms and conditions contained in any contract with a sub-contractor does not conflict with the terms and conditions of this contract.

The Contractor shall include a similar provision, for the protection of the State, in the contract with any Subcontractor engaged to perform work on this contract.

B. EMPLOYEE WORK ELIGIBILITY STATUS

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing work within the State. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal

program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of an employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the DAS website at <http://das.nebraska.gov/materiel/purchasing.html>

The completed United States Attestation Form should be submitted with the ITB response.

2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the U.S. Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.
3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. § 4-108.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION (Statutory)

The Contractor shall comply with all applicable local, state, and federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits Contractors of the State, and their Subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions, compensation, or privileges of employment because of race, color, religion, sex, disability, marital status, or national origin (Neb. Rev. Stat. §48-1101 through 48-1125). The Contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The Contractor shall insert a similar provision in all Subcontracts for goods or services to be covered by any contract resulting from this ITB.

D. COOPERATION WITH OTHER CONTRACTORS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RK			

Contractor may be required to work with or in close proximity to other contractors or individuals that may be working on the same or different projects. The Contractor shall agree to cooperate with such other contractors or individuals, and shall not commit or permit any act which may interfere with the performance of work by any other contractor or individual. Contractor is not required to compromise Contractor's intellectual property or proprietary information unless expressly required to do so by this contract.

E. PERMITS, REGULATIONS, LAWS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RK			

The contract price shall include the cost of all royalties, licenses, permits, and approvals, whether arising from patents, trademarks, copyrights or otherwise, that are in any way involved in the contract. The Contractor shall obtain and pay for all royalties, licenses, and permits, and approvals necessary for the performance of the contract. The Contractor must guarantee that it has the full legal right to the materials, supplies, equipment, software, and other items used to execute this contract.

F. INSURANCE REQUIREMENTS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
R			

The Contractor shall throughout the term of the contract maintain insurance as specified herein and provide the State a current Certificate of Insurance/Accord Form (COI) verifying the coverage. The Contractor shall not commence work on the contract until the insurance is in place. If Contractor subcontracts any portion of the Contract the Contractor must, throughout the term of the contract, either:

1. Provide equivalent insurance for each subcontractor and provide a COI verifying the coverage for the subcontractor;
2. Require each subcontractor to have equivalent insurance and provide written notice to the State that the Contractor has verified that each subcontractor has the required coverage; or,
3. Provide the State with copies of each subcontractor's Certificate of Insurance evidencing the required coverage.

The Contractor shall not allow any Subcontractor to commence work until the Subcontractor has equivalent insurance. The failure of the State to require a COI, or the failure of the Contractor to provide a COI or require subcontractor insurance shall not limit, relieve, or decrease the liability of the Contractor hereunder.

In the event that any policy written on a claims-made basis terminates or is canceled during the term of the contract or with in one (1) year of termination or expiration of the contract, the contractor shall obtain an extended discovery or reporting period, or a new insurance policy, providing coverage required by this contract for the term of the contract and one (1) year following termination or expiration of the contract.

If by the terms of any insurance a mandatory deductible is required, or if the Contractor elects to increase the mandatory deductible amount, the Contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

Notwithstanding any other clause in this Contract, the State may recover up to the liability limits of the insurance policies required herein.

1. WORKERS' COMPENSATION INSURANCE

The Contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the Contractor shall require the Subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the Subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. **The policy shall include a waiver of subrogation in favor of the State. The COI shall contain the mandatory COI subrogation waiver language found hereinafter.** The amounts of such insurance shall not be less than the limits stated hereinafter. For employees working in the State, the policy must be written by an entity authorized by the State of Nebraska Department of Insurance to write Workers' Compensation and Employer's Liability Insurance for Nebraska employees.

2. COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The Contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect Contractor and any Subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the Contractor or by any Subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an **occurrence basis**, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury, and Contractual Liability coverage. **The policy shall include the State, and others as required by the contract documents, as Additional Insured(s). This policy shall be primary, and any insurance or self-insurance**

carried by the State shall be considered secondary and non-contributory. The COI shall contain the mandatory COI liability waiver language found hereinafter. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned, and Hired vehicles.

REQUIRED INSURANCE COVERAGE	
COMMERCIAL GENERAL LIABILITY	
General Aggregate	\$2,000,000
Products/Completed Operations Aggregate	\$2,000,000
Personal/Advertising Injury	\$1,000,000 per occurrence
Bodily Injury/Property Damage	\$1,000,000 per occurrence
Fire Damage	\$50,000 any one fire
Medical Payments	\$10,000 any one person
Damage to Rented Premises	\$300,000 each occurrence
Contractual	Included
XCU Liability (Explosion, Collapse, and Underground Damage)	Included
Independent Contractors	Included
If higher limits are required, the Umbrella/Excess Liability limits are allowed to satisfy the higher limit.	
WORKER'S COMPENSATION	
Employers Liability Limits	\$500K/\$500K/\$500K
Statutory Limits- All States	Statutory - State of Nebraska
Voluntary Compensation	Statutory
COMMERCIAL AUTOMOBILE LIABILITY	
Bodily Injury/Property Damage	\$1,000,000 combined single limit
Include All Owned, Hired & Non-Owned Automobile liability	Included
Motor Carrier Act Endorsement	Where Applicable
UMBRELLA/EXCESS LIABILITY	
Over Primary Insurance	\$5,000,000 per occurrence
MANDATORY COI SUBROGATION WAIVER LANGUAGE	
"Workers' Compensation policy shall include a waiver of subrogation in favor of the State of Nebraska."	
MANDATORY COI LIABILITY WAIVER LANGUAGE	
"Commercial General Liability & Commercial Automobile Liability policies shall be primary and any insurance or self-insurance carried by the State shall be considered secondary and non-contributory. State of Nebraska shall be included as additionally insured."	

If the mandatory COI subrogation waiver language or mandatory COI liability waiver language on the COI states that the waiver is subject to, condition upon, or otherwise limit by the insurance policy a copy of the relevant sections of the policy must be submitted with the COI so the State can review the limitations imposed by the insurance policy.

3. EVIDENCE OF COVERAGE

The Contractor should furnish the State, prior to beginning work and upon, a certificate of insurance coverage complying with the above requirements to the attention of:

Julie Dabydeen
 State Purchasing Bureau
 1526 K Street, Suite 130
 Lincoln, NE 68508


These certificates or the cover sheet shall reference the ITB number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration, and amounts and types of coverage afforded. If the State is damaged by the failure of the Contractor to maintain such insurance, then the Contractor shall be responsible for all reasonable costs properly attributable thereto.

Reasonable notice of cancellation of any required insurance policy must be submitted to Administrative Services State Purchasing Bureau when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

4. DEVIATIONS

The insurance requirements are subject to limited negotiation. Negotiation typically includes, but is not necessarily limited to, the correct type of coverage, necessity for Workers' Compensation, and the type of automobile coverage carried by the Contractor.

G. NOTICE OF POTENTIAL CONTRACTOR BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
			


If Contractor breaches the contract or anticipates breaching the contract the Contractor shall immediately give written notice to the State. The notice shall explain the breach or potential breach, and may include a request for a waiver of the breach if so desired. The State may, at its discretion, temporarily or permanently waive the breach. By granting a temporary waiver, the State does not forfeit any rights or remedies to which the State is entitled by law or equity, or pursuant to the provisions of the contract. Failure to give immediate notice, however, may be grounds for denial of any request for a waiver of a breach.

H. ANTITRUST

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
			

The Contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

I. CONFLICT OF INTEREST

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
			

By submitting a bid, Contractor certifies that there does not now exist a relationship between the Contractor and any person or entity which is or gives the appearance of a conflict of interest related to this ITB or project.

The Contractor certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the delivery of its goods hereunder or which creates an actual or an appearance of conflict of interest.

The Contractor certifies that it will not employ any individual known by Contractor to have a conflict of interest.

The Parties shall not knowingly, for a period of two years after execution of the contract, recruit or employ any employee or agent of the other Party who has worked on the ITB or project, or who had any influence on decisions affecting the ITB or project.

J. STATE PROPERTY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

The Contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the Contractor's use during the performance of the contract. The Contractor shall reimburse the State for any loss or damage of such property; normal wear and tear is expected.

K. SITE RULES AND REGULATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

The Contractor shall use its best efforts to ensure that its employees, agents, and Subcontractors comply with site rules and regulations while on State premises. If the Contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to in writing between the State and the Contractor.

L. ADVERTISING

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

The Contractor agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its goods are endorsed or preferred by the State. Any publicity releases pertaining to the project shall not be issued without prior written approval from the State.

M. DRUG POLICY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

Contractor certifies it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

IV. PAYMENT

A. PROHIBITION AGAINST ADVANCE PAYMENT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

Payments shall not be made until contractual deliverable(s) are received and accepted by the State.

B. TAXES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

The State is not required to pay taxes and assumes no such liability as a result of this solicitation. The Contractor may request a copy of the Nebraska Department of Revenue, Nebraska Resale or Exempt Sale Certificate for Sales Tax Exemption, Form 13 for their records. Any property tax payable on the Contractor's equipment which may be installed in a state-owned facility is the responsibility of the Contractor.

C. INVOICES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

Invoices for payments must be submitted by the Contractor to the agency requesting the services with sufficient detail to support payment. Mail invoices to NET, 1800 N 33rd St., Lincoln, NE 68503. The terms and conditions included in the Contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

D. INSPECTION AND APPROVAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within ITB Response (Initial)	NOTES/COMMENTS:
RJ			

Final inspection and approval of all work required under the contract shall be performed by the designated State officials.

The State and/or its authorized representatives shall have the right to enter any premises where the Contractor or Subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work

being performed. All inspections and evaluations shall be at reasonable times and in a manner that will not unreasonably delay work.

If a simple inspection of the goods would reveal nonconformity, notice of nonconformity should be provided to the vendor as soon as reasonably practical, but not to exceed thirty (30) days from receipt of goods. This includes visual inspection of product to ensure packaging is not damaged, dented or compromised.

E. PAYMENT (Statutory)

State will render payment to Contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the Contractor as solely determined by the State. (Neb. Rev. Stat. Section 73-506(1)). The State may require the Contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the Contractor prior to the Effective Date of the contract, and the Contractor hereby waives any claim or cause of action for any such services.

F. LATE PAYMENT (Statutory)

The Contractor may charge the responsible agency interest for late payment in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §§ 81-2401 through 81-2408).

G. SUBJECT TO FUNDING / FUNDING OUT CLAUSE FOR LOSS OF APPROPRIATIONS (Statutory)

The State's obligation to pay amounts due on the Contract for a fiscal years following the current fiscal year is contingent upon legislative appropriation of funds. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal year(s) for which such funds are not appropriated. The State will give the Contractor written notice thirty (30) calendar days prior to the effective date of termination. All obligations of the State to make payments after the termination date will cease. The Contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the Contractor be paid for a loss of anticipated profit.

H. RIGHT TO AUDIT (Statutory)

The State shall have the right to audit the Contractor's performance of this contract upon a thirty (30) day written notice. Contractor shall utilize generally accepted accounting principles, and shall maintain the accounting records, and other records and information relevant to the contract (Information) to enable the State to audit the contract. (Neb. Rev. Stat. §84-304 et seq.) The State may audit and the Contractor shall maintain the information during the term of the contract and for a period of five (5) years after the completion of this contract or until all issues or litigation are resolved, whichever is later. The Contractor shall make the Information available to the State at Contractor's place of business or a location acceptable to both Parties during normal business hours. If this is not practical or the Contractor so elects, the Contractor may provide electronic or paper copies of the Information. The State reserves the right to examine, make copies of, and take notes on any Information relevant to this contract, regardless of the form or the Information, how it is stored, or who possesses the Information. In no circumstances will contractor be required to create or maintain documents not kept in the ordinary course of contractor's business operations, nor will contractor be required to disclose any information, including but not limited to product cost data, which is confidential or proprietary to contractor.

The Parties shall pay their own costs of the audit unless the audit finds a previously undisclosed overpayment by the State. If a previously undisclosed overpayment exceeds three percent (3%) of the total contract billings, or if fraud, material misrepresentations, or non-performance is discovered on the part of the Contractor, the Contractor shall reimburse the State for the total costs of the audit. Overpayments and audit costs owed to the State shall be paid within ninety (90) days of written notice of the claim. The Contractor agrees to correct any material weaknesses or condition found as a result of the audit.

V. SCOPE OF WORK

The Bidder must provide the following information in response to this ITB.

A. SCOPE

It is the intent of this bid invitation to issue a purchase order for the item(s) requested.

All items bid shall be of the latest manufacture in production as of the date of the ITB and be of proven performance and under standard design complete as regularly advertised and marketed. All necessary materials for satisfactory performance of the supplies shall be incorporated into the 13kW UHF Transmitter, Mask Filter, Backup Transmitter, and Installation whether or not they may be specifically mentioned below.

Complete specifications, manufacturer's current descriptive literature and/or advertising data sheets with cuts or photographs must be included with the bid for the IDENTICAL items proposed. Any information necessary to show compliance with these specifications not given on the manufacturer's descriptive literature and/or advertising data sheets must be supplied in writing on or attached to the bid document. If manufacturer's information necessary to show compliance with these specifications is not attached to the bid document, the Bidder may be required to submit requested information within three (3) business days of a written request. Failure to submit requested descriptive literature or advertising data sheets may be grounds to reject the bid.

B. CHANGE ORDER

This Purchase Order may be amended in writing, within scope, upon the agreement of both parties.

C. REVISIONS

In the event any product is discontinued or replaced upon mutual consent prior to delivery of the goods, the State reserves the right to amend this purchase order to include the alternate product.

D. STATE REQUIREMENTS AND GENERAL INFORMATION

NET will be employing an electrical contractor to perform electrical work. NET and NET's electrical contractor will be responsible for providing all raceway, electrical, including any service entry modifications, building penetrations.

NET will be responsible for disposal of refuse after installation. NET will be responsible for demolition and removal of old equipment and systems, including approved EPA disposal of glycol and oil filled high voltage transformers.

NET will be responsible for providing a roll off dumpster for disposal.

NET will be ready for installation when equipment is delivered. NET has a temporary 400W backup transmitter that will keep the site on the air during demolition phase and installation of new transmitters. This existing backup transmitter will be decommissioned by NET staff following installation of new transmitters. This temporary backup transmitter is placed in an area that will not interfere with installation of new equipment.

NET will be providing IP access and services for remote monitoring and IP control. NET will interface new transmitters to the existing remote control systems.

This is not an FCC repack station. Absolute deadline to be on the air is June 2019. It is not necessary to stagger delivery of backup and high power transmitters. No tower or antenna work are required for this installation.

Contractor will be allowed to work extended hours and weekends.

A bid bond is not required with this ITB. ITB does not have Liquidated Damages

Billing and payment will be lump sum at final acceptance.

VI. INVITATION TO BID - TECHNICAL SPECIFICATIONS

A. BIDDER INSTRUCTIONS

Bidder must respond to each of the following statements. Specifications listed are minimum conditions that must be met in order for a Bidder to qualify for the award.

“YES” response means the Bidder guarantees they can meet this condition.

“NO” response means the Bidder cannot meet this condition and will not be considered.

“NO & PROVIDE ALTERNATIVE” responses should be used only with a narrative response in the NOTES/COMMENTS section explaining in detail any deviation from the Bidder’s ability to meet the condition, and an explanation of how this would be determined to be an acceptable alternative to meeting the condition. Alternatives must be detailed in such a way that allows such deviations to be fully evaluated. The State shall determine at its sole discretion whether or not the Bidder’s alternative is an acceptable alternative.

B. NON-COMPLIANCE STATEMENT

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			1. Read these specifications carefully. Any and all exceptions to these specifications must be written on or attached to quotation request. Any noncompliance may void your quotation. Non-compliance to any single specification can void your quotation.
Yes			2. It is the responsibility of Bidders to obtain information and clarifications as provided below. The State is not responsible for any erroneous or incomplete understandings or wrongful interpretations of this ITB by any Bidder.
Yes			3. No interpretation related to the meaning of bid specifications or other pre-bid documents will be made orally to any Bidder by the State. Any ITB interpretation must be put in writing and faxed by the Bidder to: the State Purchasing Bureau, Fax (402) 471-2089 or e-mailed to AS Materiel Purchasing as.materielpurchasing@nebraska.gov by the last day to submit written questions that is specified in the Schedule of Events. (Inquiries received after the last day to submit written questions may not be addressed).
NOTES/COMMENTS:			

C. TECHNICAL SPECIFICATIONS: 13kW (at output of mask filter) Main Transmitter, High-Efficiency, Solid State, Liquid Cooled Digital UHF Channel 28 Television Transmitter, 480V 3 phase electrical hookup

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			1. 13kW (at output of mask filter) High-Efficiency, Solid State Liquid Cooled Digital UHF Television Transmitter, Channel 28, 480V 3 phase WYE electrical hookup.
Yes			2. Liquid cooled dummy load must be included in RF system. Please note that existing liquid cooled dummy load on site will be decommissioned by NET.
Yes			3. Transmitter is to be capable of producing 13kW at output of mask filter.
Yes			4. The FCC Facility ID for this site is 47987

Yes			5.	Dual Multi-Standard Exciter/Driver ATSC 3.0 capable, with web browser interface, front panel display of transmitter parameters, and built-in compliance monitoring.
Yes			6.	The exciter shall include at least one (1) ASI/SMPTE-310M input for ATSC 1.0. For ATSC 3, 0 the exciter shall include at least one (1) native 1GBE TSolP input. TSolP input connectors shall be RJ-45, female.
Yes			7.	Exciter upgradeable to ATSC 3.0 mode with minimum effort. Exciter to be shipped with ATSC 1.0 configuration. Provide description of process for upgrading to ATSC 3.0 <u>Load ATSC 3.0 modulation software in exciter for upgrade</u>
Yes			8.	A UPS or battery back-up system capable of maintaining exciter operation (except for final amplifier) for up to 15 minutes after an AC power loss shall be included.
Yes			9.	PA modules and associated power supplies must be hot swappable to maintain transmitter functionality.
Yes			10.	Transmitter shall be designed for unattended remote control operation, compatible with standard commercial parallel remote control systems and must be capable of remote control from either a web interface or SNMP protocol. External remote control system will be provided on site and all wiring/interfaces to remote control will be completed by NET.
Yes			11.	Complete liquid cooling system must be included with transmitter. This must include all components and installation needed for a complete cooling system. Cooling system must be of the type that employs dual pumps. Cooling system heat exchanger will be installed on existing outdoor concrete pad with overhead ice bridge. See Diagram 2 for placement details. Existing wall penetrations can be used for new installation. If existing penetrations are not adequate, NET will provide new penetrations. Contractor must supply any indoor or outdoor cable tray and supports used for routing, support, management, and protection of cooling hoses.
Yes			12.	Appropriate 3 Phase surge suppressor for transmitter only must be included.
Yes			13.	Manufacturer shall include one shelf spare PA module and associated power supplies to operate one module.
Yes			14.	PA modules must be broadband in operation with peak performance at UHF channel 28.
Yes			15.	Manufacturer shall be responsible for providing all recommended coolant needed for installation and final fill for operation.
Yes			16.	Channel 28 8-pole mask filter capable of handling transmitter TPO shall be included as part of the RF system. Output of mask filter needs to feed input of RF switch. RF system must include sampling ports on both sides of mask filter.
Yes			17.	4 port RF motorized switch that is capable of remote control operation must be part of RF system. Output of switch must tie into existing 6 1/8" line to antenna. All components needed for RF system are to be supplied with switch. Switch controller and interconnect cables are to be included. Placement of this motorized switch will be in approximate location of existing RF patch panel as shown in Diagram 2. NET staff will remove existing RF patch panel.
Yes			18.	Information regarding placement of this transmitter and RF system can be found in Diagram 2 included with this ITB.

Yes			19. Please note that more than 100' of 4" grounding strap will be required for this installation.
Yes			20. State length of time manufacturer has been established in the design and manufacture of broadcast television transmitters: 53 years Manufacturers with less than five (5) years transmitter manufacturing experience may be a factor in award consideration.
Yes			21. Does the transmitter manufacturer maintain a service department that is staffed twenty four (24) hours a day, three hundred sixty five (365) days a year?
Yes			22. Does the manufacturer maintain a staff of fully trained customer service engineers available for telephone assistance or on-site service? State technical hotline support availability: 24/7/365
Yes			23. The manufacturer shall provide replacement parts and service for the equipment offered for a minimum of ten (10) years after the sale of the equipment. Parts warehouse, inventory, and shipping point shall be located in the United States. Replacement parts, or repairs requiring shipment from locations outside the United States will not be allowed.
NOTES/COMMENTS:			

D. TECHNICAL SPECIFICATION: 600-800W BACKUP TRANSMITTER TECHNICAL SPECIFICATIONS

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			1. 600W-800W TPO is acceptable for this transmitter
Yes			2. 208-240VAC, Single Phase electrical hookup
Yes			3. Appropriate single phase surge suppressor for backup transmitter only must be included.
Yes			4. Physical size requirement 4-8RU
Yes			5. External channel 28 mask filter, 6 pole air cooled with insertion loss <1.0dB
Yes			6. Single exciter configuration. Dual exciter not necessary for this transmitter.
Yes			7. Configured for ATSC 1.0 modulation upgradable to ATSC 3.0
Yes			8. Output of RF system must connect to RF Switch mentioned in above specification for larger transmitter
Yes			9. Must include remote control monitoring and control capability with either web interface or SNMP and must include legacy parallel remote control connection interface. External remote control system will be provided on site and all wiring/interfaces to remote control will be completed by NET.
Yes			10. This transmitter should be air cooled design.

Yes			11. Transmitter must be installed in vendor supplied rack.
Yes			12. Transmitter is to be placed between new high power transmitter and existing FM transmitter. Additional information regarding placement of this transmitter and RF system can be found in Diagram 2 included with this ITB.
NOTES/COMMENTS:			

E. INSTALLATION & PROOF OF PERFORMANCE

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			1. Proof-of-performance testing for both transmitters to insure compliance with Federal Communications Commission (FCC) requirements and manufacturer specifications. Proof-of-performance testing to be coordinated with site contact Robert Vos (308) 991-7443
Yes			2. Documentation for both transmitters will be provided to NET upon completion of performance testing and FCC compliance.
Yes			3. Provide factory training on specified main high power transmitter for two site engineers following installation.
NOTES/COMMENTS:			

F. ADDITIONAL INSTALLATION SITE CONDITIONS

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			1. State Delays/Issues – The only additional cost allowed would be for delays due to the State. Bidder should provide a daily cost including all per diem for delays due to the State or requested by the State. Please see line 5 on Invitation to Bid Form.
Yes			2. NET will coordinate with contractor all equipment that has been delivered to site prior to INSTALLER installation arrival.
Yes			3. Site access allowed a minimum of 7 days a week and 10 hours per day.
Yes			4. NET will remove equipment prior to new installation and There will adequate space within the facilities to support the installation of all supplied equipment.
Yes			5. NET will have adequate and proper space existing external to the building to support cooling system.
Yes			6. NET will complete Appropriate electrical and HVAC work to support new equipment prior to installation work start.
yes			7. NET hired electrician shall be on site day of or day after INSTALLER arrival to site to discuss equipment layout and final AC connection to each.

Yes			8. Electrical work can be completed without delaying installation and commissioning of equipment by NET.
Yes			9. Delays that are considered NET delays can be charged to NET at INSTALLER daily rates plus expenses. See Invitation to Bid Form.
Yes			10. NET staff shall be available to support INSTALLER Service Representatives with appropriate site access and other needs as they arise.
Yes			11. Existing combiner and mask filter will be removed. New mask filter if ceiling mounted can be positioned within 10'. If not ceiling mounted the dimensions and physical layout will determine the length of this run, please see Diagram 2.
Yes			12. NET to supply appropriate acetylene and oxygen tanks for all soft solder and welding requirements.
Yes			13. The Station will not have a pallet Jack suitable for moving around and setting cabinets and Heat exchangers.
Yes			14. Station will have Ladders on site suitable for operating at facility interior ceiling elevations. Yes
Yes			15. Standard HOTEL Rates. Seasonal or Rates beyond Hotel allocation will be included in unit price.
Yes			16. The State will not agree to any major design changes, example additional materials, Primary, or 3rd Party material repairs.
Yes			17. All work must be completed within one mobilization and within initial proposed time allocation.
Yes			18. Any revision or changes associated with cost will have to be agreeable to all parties and formalized through the State Purchasing Bureau as a change order after award has been completed.
Yes			19. No additional cost to the State will be allowed for travel from INSTALLER to NET location.
Yes			20. Contractor to provide offloading equipment for debris disposal. See section V. D. of ITB for information on debris disposal.
Yes			21. NET shall be responsible for proper storage or disposal of any equipment that may have been removed during installation process.
Yes			22. Installation or of Commissioning Services any INSTALLER supplied equipment as related to towers, antennas or transmission line from tower to building is not included in this ITB.
Yes			23. NET is responsible for work beyond commissioning and operational testing, example, interfacing Remote control, interlocks, and all other external equipment.
Yes			24. Installation does not require exterior wall penetrations, Ice Bridge, Electrical, or mechanical additions or modifications unless otherwise specified by customer.
Yes			25. INSTALLER will assist NET with Video Input, Remote Control, Network, and Interlock locations; however, NET not INSTALLER will be responsible for all associated wiring, commissioning, programming, and labor related to devices outside the transmitter cabinet.

G. DELIVERY ARO

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			1. Bidder must provide both transmitters at the same time. There is no need to stagger delivery for this installation.
Yes			2. It is understood by NET that currently all transmitter manufacturers have long lead times due to the TV repack. However due to state of current transmitter and urgency of replacement, shorter lead times are an award consideration. Absolute deadline for transmitter to be operational on the air is June 2019.
			3. State delivery time ARO: <u>10 Weeks</u>
NOTES/COMMENTS:			

H. DELIVER LOCATIONS/INSTRUCTIONS (BIDDER IS CERTIFYING THAT THEY CAN MEET THE DELIVER LOCATIONS/INSTRUCTIONS)

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			1. KHNE-TV Transmitter site, 1105 W 6 Rd., Giltner, NE 68441
Yes			2. Contact Site Manager Robert Vos at 308-991-7443 at least three (3) business days prior to delivery.
Yes			3. Must be delivered with vehicle with lift gate. Contractor must provide all equipment required to unload and facilitate installation (including fork lift.) No loading dock on site. Storage facility is available on site if needed.
Yes			4. NET staff will be present at site and could help with offloading but anything beyond that is responsibility of contractor.
Yes			5. Secure storage garage available for contractor use if needed. Contractor will be responsible for moving equipment from storage garage to final destination.
NOTES/COMMENTS:			

I. PACKAGING

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			<p>1. Cartons are to be clearly marked with size, weight, color, quantity, and the purchase order number. Cartons must be of suitable size and of sufficient strength to protect the contents during shipping, handling and storage.</p>
<p>NOTES/COMMENTS:</p>			

J. QUALITY

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			<p>1. Product quality must meet specifications and be consistent for the term of the contract. A guarantee of satisfactory performance by the supplier and meeting delivery dates are considered to be an integral part of the purchase contract resulting from this bid invitation. All materials must be of first quality, under standard production by the manufacturer and be of standard design, complete as regularly advertised and marketed and be of proven performance. Products are to be fully guaranteed and may be returned for full credit or replacement (at the State's option) for any reason during the initial warranty period with no additional charges for shipping or restocking.</p>
<p>NOTES/COMMENTS:</p>			

K. PRICES

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			<p>1. Price quoted shall be unit price and shall be firm for sixty (60) days from date of an award and are to be net; including transportation and delivery charges fully prepaid by the Bidder F.O.B. Destination as specified. No additional charges will be allowed for packing, handling, fuel surcharge, or partial delivery costs. Any request for an increase must be submitted in writing to the SPB a minimum of thirty (30) days prior to proposed effective date of increase, and must show cause and be accompanied by supporting documentation (such as notification letter from manufacturer). Further documentation may be required by the State, to authenticate the increase (such as manufacturer invoices). Failure to supply any requested supporting documentation may be grounds to cancel the contract. In no instance may a price increases be billed to the State until the contract is amended. The State further reserves the right to reject any proposed price increase(s), cancel the contract and re-bid if determined to be in the best interest of the State. The State will be given full proportionate benefit of any decrease for the term of the contract. Contract supplier or suppliers may honor pricing and extend the contract to political sub-divisions, cities, and counties. Terms and conditions of the contract must be met by political sub-divisions, cities, and counties.</p>
<p>NOTES/COMMENTS:</p>			

L. GRAY MARKET PRODUCTS PROHIBITION

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			<p>1. The State will not accept Gray Market Products for this solicitation. Gray Market is defined as the trade of a commodity through distribution channels which, while legal, are unofficial, unauthorized, or unintended by the original manufacturer. Gray Market items are not designed to be sold in a particular market and cannot be supported by the authorized importer because of various reasons.</p>
<p>NOTES/COMMENTS:</p>			

M. WARRANTY

YES	NO	NO & PROVIDE ALTERNATIVE	
Yes			<p>1. Contractor must warrant the average life expectancy supplies hereunder to be not less than that stated in the manufacturer's price list and agree to replace, without cost, all supplies failing to meet this requirement, except where the reduced life is due to conditions beyond the control of the Contractor. Defective parts or those damaged in shipment must be replaced by the Contractor at no charge to the State. The manufacturer's standard warranty shall apply and be in effect for at least three (3) years from the date the equipment was placed in service.</p>
Yes			<p>2. The manufacturer shall warrant the transmitter to be free from defects in the material and workmanship under normal use and service for a period of three (3) years from the date of final acceptance.</p>
Yes			<p>3. Please provide a copy of the warranty terms and conditions with ITB.</p>
<p>NOTES/COMMENTS:</p>			

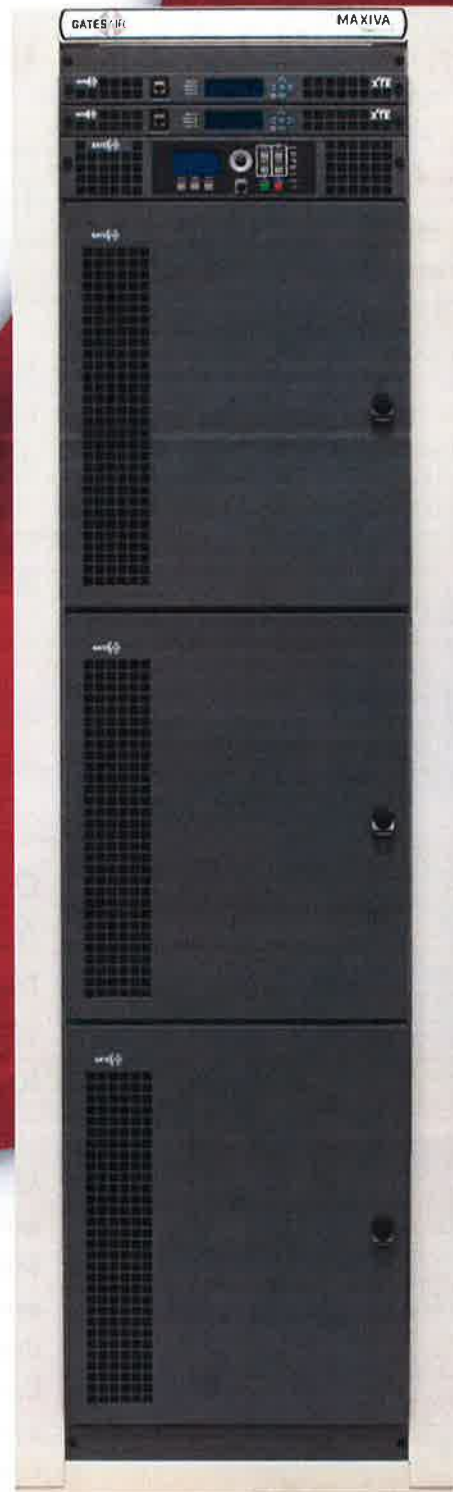
N. SECRETARY OF STATE REGISTRATION REQUIREMENTS

CHOOSE "YES" TO BEST ANSWER ONLY, CHOOSE "NO" FOR REMAINING LINES

YES	NO	*Prior to contract award and/or upon request of SPB, potential award recipient(s) will be asked to certify compliance with Nebraska Secretary of State Registration by providing a true and exact copy of current (dated within 90 days) valid Certificate of Good Standing or Letter of Good Standing.
	No	<p>1. Bidder is a SOLE PROPRIETORSHIP (in which case, no Letter of Good Standing/Certificate of Good Standing is required)</p> <p>If the Bidder is an Individual or Sole Proprietorship, the following applies:</p> <p>a. The Bidder must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at http://das.nebraska.gov/materiel/purchasing.html</p> <p>The completed United States Attestation Form should be submitted with the Invitation to Bid response.</p> <p>b. If the Bidder indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the U.S. Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.</p> <p>c. The Bidder understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. § 4-108.</p>
	No	<p>2. Bidder is a GENERAL PARTNERSHIP (in which case, no Letter of Good Standing/Certificate of Good Standing is required).</p>
Yes		<p>3. Bidder is a FOREIGN or DOMESTIC CORPORATION or BUSINESS and a copy of current Letter of Good Standing/Certificate of Good Standing from the Nebraska Secretary of State is provided within bid submission documents.</p>
	No	<p>4. Bidder is a FOREIGN or DOMESTIC CORPORATION or BUSINESS and a copy of current Letter of Good Standing/Certificate of Good Standing from the Nebraska Secretary of State will be provided in a timely manner upon request prior to award.</p>



Connecting What's Next



PowerSmart Plus 

Maxiva™ ULXTE with PowerSmart® Plus
High-Efficiency UHF Liquid-Cooled TV Transmitter

Maxiva™ ULXTE with PowerSmart® Plus

We did it again.

GatesAir has once again shattered the expectations of what is possible with high-power, solid-state transmitters in terms of efficiency, power density, and performance.



High-efficiency Power Amplifiers, optimized for equal power levels with either ATSC 1.0, ATSC 3.0, DVB-T2, ISDB-T, and other OFDM modulations

Lighter power amplifier (PA) module - 1/3 of the weight of other products currently available

Simpler spares handling, easy one-person task

Separate, hot-swappable, compact power supply for each PA

Optimized higher performance Real-Time Adaptive Correction. Ensures maximum transmitter performance continuously, under varying operating conditions, without the need for manual adjustment

More services usually means higher expenses. Higher operating expenses challenge the bottom line. Maxiva ULXTE transmitters with PowerSmart® Plus technology drive down total cost of ownership while allowing broadcasters to get the most out of their spectrum. Optimized designs that increase bandwidth while simplifying maintenance. Superior power density that maximizes TV coverage while reducing transmitter size and weight. Unparalleled performance that enhances picture quality while lowering utility bills. GatesAir has once again shattered the expectations of what is possible with high-power, solid-state transmitters.





Product Overview


The Maxiva ULXTE is a liquid-cooled TV transmitter that powers over-the-air delivery across the UHF television spectrum. Built on GatesAir's groundbreaking PowerSmart® Plus architecture, Maxiva ULXTE offers today's digital broadcaster the most compact, energy-efficient solutions to reliably deliver rich, high-quality multi-format content to viewers at home, or on the move.

The new PowerSmart® Plus architecture used in Maxiva ULXTE assures low cost of ownership through reduced size, weight and energy use while improving performance.

The Maxiva ULXTE transmitter utilizes the latest 50-Volt LDMOS amplifier devices, new compact high-efficiency power supplies and the new Maxiva XTE exciter with advanced real-time adaptive correction (RTAC) for outstanding signal performance.

The Maxiva ULXTE power amplifiers have been optimized to provide the best possible performance and efficiency for 8-VSB and all OFDM modulations, including ATSC 3.0. The ULXTE transmitter is rate for identical average power levels for all modulations, assuring a simple and cost-effective upgrade path for future modulations, including ATSC 3.0.

Modular designs simplify installation and reduce ongoing maintenance, dramatically lowering total cost of ownership over the life of the transmitter.



Designed with future broadcasting needs in mind, the ULXTE transmitter is capable of equal power levels for ATSC 1.0, ATSC 3.0 and other OFDM modulations.

Savings You Can Count On!

The Maxiva ULXTE with PowerSmart® Plus is the highest efficiency broadband UHF transmitter on the market.



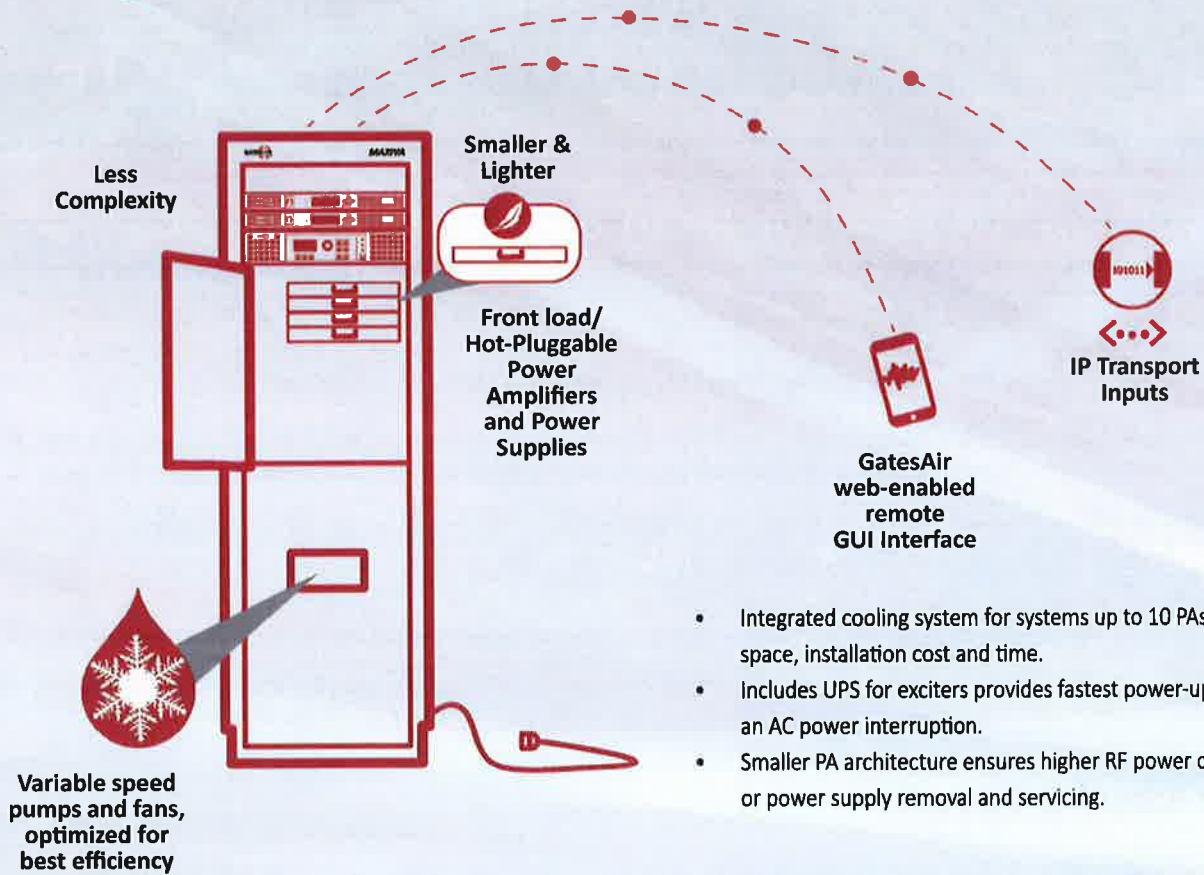
New PowerSmart® Plus amplifier technology for UHF provides a market-leading combination of efficiency, power density, and broadband operation

Savings in The Details!

- Simple and cost-effective upgrade path from ATSC 1.0 to ATSC 3.0 or other modulations, at the same power level
- New high-efficiency DC power supplies
- Integrated high-efficiency pump system for certain power classes
- Hot-swappable light-weight PA modules
- Hot-swappable compact DC power supplies
- Incorporates the newest technology Maxiva XTE exciter for best-in-class adaptive precorrection and native IP transport inputs
- RoHS compliant / CE compliant
- Support for all worldwide digital modulation standards
- Modular & upgradeable architecture
- All-digital linear and nonlinear pre-correction: Real-Time Adaptive Correction (RTAC)
- Rugged, reliable design and construction
- Ideal for N+1 configurations since all transmitters can be identical and use the same PA's, minimizing spares requirements
- Lowest energy usage
- Minimum operating cost



Savings You Can Count On!



- Integrated cooling system for systems up to 10 PAs. Saves floor space, installation cost and time.
- Includes UPS for exciter provides fastest power-up time following an AC power interruption.
- Smaller PA architecture ensures higher RF power during PA module or power supply removal and servicing.

Key Features

Features	Included	Available
Equal power levels for ATSC 1.0 and all OFDM modulations, including ATSC 3.0	•	
Fast-acting linear and non-linear Real-Time Adaptive Correction (RTAC), for optimum performance at all times	•	
Web remote with SNMP	•	
Parallel Remote Control	•	
Exciter internal UPS	•	
Internal dual redundant cooling pumps (for models ULXTE-2 to ULXTE-10)	•	
ASI/T2MI over IP / IP transport input (Ready for ATSC 3.0)	•	
Internal GPS/GLONASS receiver for SFN timing	•	
Dual exciters and switcher		•
N+1 systems and multi-transmitters per rack		•
Extended warranties and Service Level Agreements (SLA) to suit any requirement		•



102 Hz 17.88

INPUT
OUTPUT
POWER
FAULT

Mux:1
Input 1: IP 1 650MHz
Input 2: ASI2 OK
IP: 172.20.11.202 OK



Maxiva
XTE

Maxiva™ XTE – The Heart of the Transmitter

The new GatesAir Maxiva™ XTE exciter provides broadcasters with a powerful, software-defined platform, enabling the ultimate in performance, stability and durability. Featuring unparalleled signal processing power, a smaller footprint and advanced native IP transport input capabilities, Maxiva XTE builds upon a strong legacy of groundbreaking technological advances, pioneered by several decades of GatesAir innovations. Dramatically increased processing power together with new, advanced Real Time Adaptive Correction techniques, provides optimum signal performance over a wide variety of modulations and RF amplifier topologies.

The Maxiva XTE is the only exciter designed and manufactured in the USA that is 100% ready for ATSC 3.0.

Real-Time Adaptive Correction

GatesAir's exclusive Real-Time Adaptive Correction (RTAC) technology, standard in Maxiva transmitters, keeps your station within compliance while maximizing coverage. Featuring simultaneous linear and nonlinear adaptive pre-correction, RTAC interoperates with the Maxiva XTE exciter to continuously monitor transmitter output and performance while automatically adapting for system nonlinearities — delivering the optimal level of correction for your digital over-the-air signal. Real-time measurement of shoulder levels and SNR/MER are also provided.

Advanced Global Monitoring and Control



In addition to local control, the Maxiva ULXTE transmitter can be controlled from anywhere in the world with an intuitive, browser-based graphical user interface (GUI) over TCP/IP via a telecom or network connection with password protection. A rear RJ-45 jack is provided for LAN/WAN connection.

Full Simple Network Management Protocol (SNMP) facilities are provided for network management of the entire transmission system using industry-standard MIB protocols.

Remote Communication

The following remote interfaces are available:

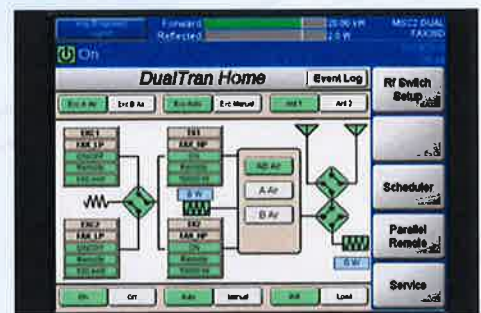
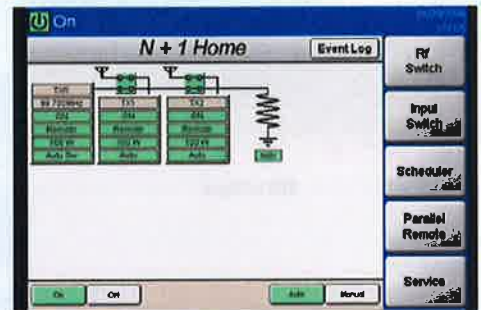
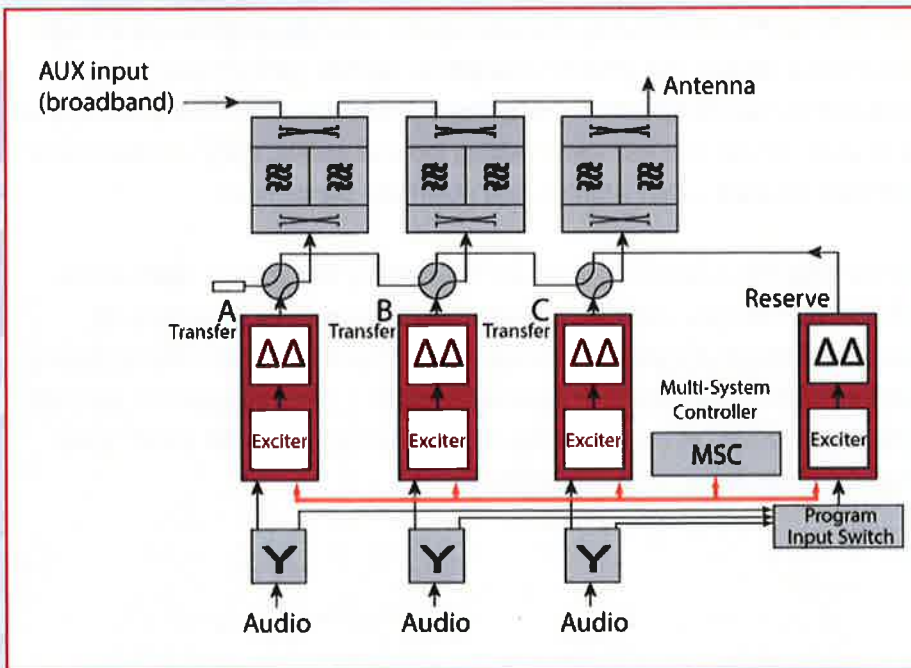
- Web GUI / Local GUI
- Ethernet network connection RJ-45 (10/100Base-T) with TCP/IP protocol



- Automated remote alarms in the event of a fault, which are sent via SNMP or e-mail with the connection to a network
- Simple, parallel interface to panels and legacy remote control systems

Multi-System Controller (MSC3)

To support greater redundancy, the Multi-System Controller (MSC3) supports a range of backup options, including 1+1, full N+1 and dual-transmitter installations. The MSC3 monitors and controls the transmitter systems and controls RF switching.



What is Total Cost of Ownership (TCO)?

TCO is the total cost to own and operate the transmitter system over time. This includes the initial equipment cost, installation/commissioning cost, routine and unscheduled maintenance costs, and ongoing repair and operational costs — and don't forget, rising energy costs. In fact, the lifetime operational expense of a transmitter is estimated at greater than five times the initial product cost.

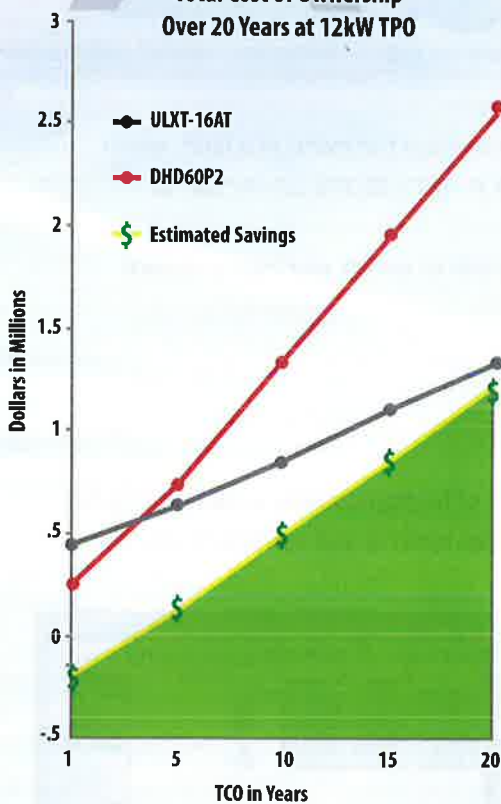
While power to the transmitter is the biggest item, other factors can also adversely affect the system efficiency. These include:

- AC transformers and voltage regulators ahead of transmitter
- Heat load to the room (affects HVAC costs)
- RF system losses
- RF feeder loss to antenna
- Antenna gain and pattern

Maxiva UHF transmitters now incorporate GatesAir PowerSmart®Plus technology to help broadcasters save money and reduce carbon footprints. PowerSmart®Plus technology delivers superior operational efficiency through broadband designs that simplify installation, improve performance, and streamline ongoing operation — including maintenance. This comes courtesy of a modular design that eliminates tuning, reduces weight, enhances redundancy through separate power supplies, and minimizes overall labor.

PowerSmart®Plus technology also lowers monthly bills through sharp power efficiency increases, and reduces rack space requirements (exceeding 50 percent) through a dramatic increase in power density. These industry-leading strides in performance and physical size reduction combine to deliver the best possible total cost of ownership over the life of the transmitter — and return money to the pockets of our customers.

**Total Cost of Ownership
Over 20 Years at 12kW TPO**



PowerSmart[®] Plus

Optimized Amplification

The Maxiva ULXTE power amplifiers have been optimized to provide the best possible performance and efficiency for all TV modulations, including 8-VSB and OFDM. The ULXTE transmitter is rate for identical average power levels for both modulations, assuring a simple and cost-effective upgrade path for future ATSC 3.0 operation.

Compact Footprint

As the most compact, liquid-cooled UHF transmitter, the Maxiva ULXTE is ideal for crowded, shared transmitter sites. The Maxiva ULXTE transmitter reduces facility space requirements, simplifies installation, lowers shipping costs and streamlines maintenance.

Highest Power Density

The Maxiva ULXTE provides the highest power density per rack in a UHF transmitter. Fewer amplifier racks are required for all power levels and modulations.

Reduced Service Costs

Hot-pluggable, redundant power amplifier (PA) and universal power supply (PS) modules make on-air servicing easy and eliminate costly service interruptions. Light-weight universal PA pallets and modules facilitate overnight/same-day shipping for simple, cost-effective spares management. With lightweight subassemblies, the Maxiva ULXTE eliminates two-person lift requirements for routine maintenance and troubleshooting.

Global Monitoring and Control

The Maxiva ULXTE transmitter can be controlled from anywhere in the world with an intuitive, browser-based GUI or SNMP over TCP/ IP via a telecom or network connection with password protection.



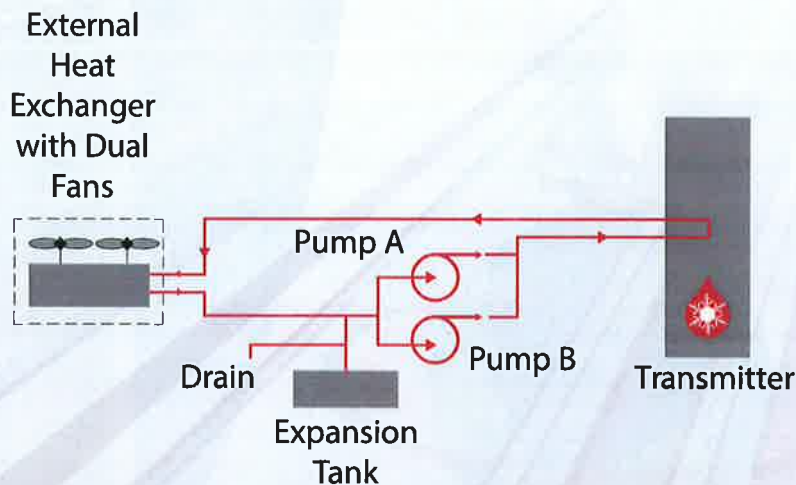
High-Efficiency Liquid-Cooling System

All Maxiva ULXTE systems feature a high-efficiency liquid-cooling system that has been carefully engineered for maximum efficiency over a wide range of ambient conditions and operating power levels.

Integrated or external high-efficiency, low-noise pump modules are available for all single power block versions of Maxiva ULXTE. The integrated pump option minimizes the use of valuable floor space and simplifies installation requirements. Higher power level systems use a compact and efficient external pump module.

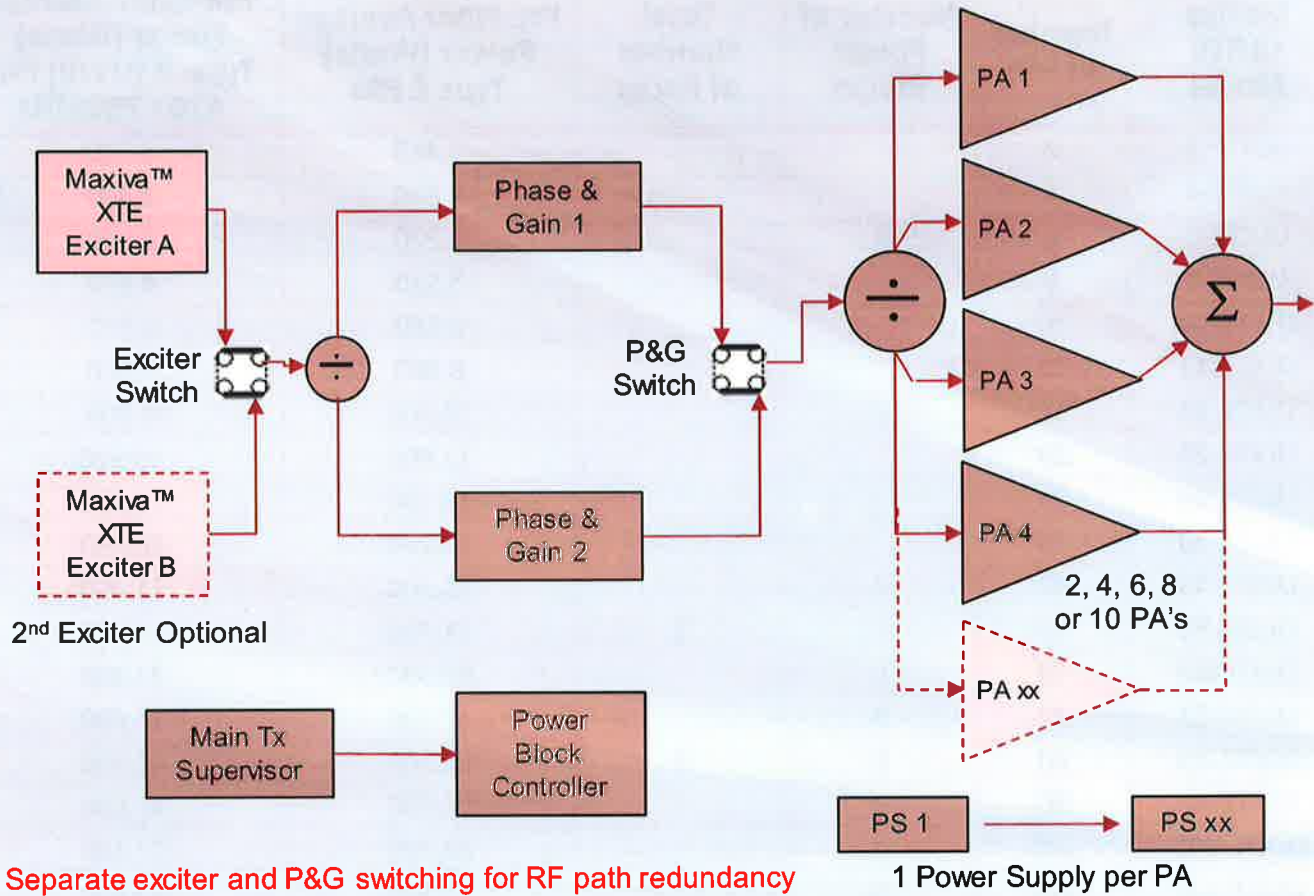
The closed-loop liquid-cooling system utilizes a pump module with 100% redundant cooling pumps and auto-changeover capability. The liquid-to-air outdoor heat exchanger also includes dual fans for maximum redundancy. The pump motor speed is controlled based on coolant requirements, and the heat exchanger fan motors are also speed controlled to provide the optimum cooling performance over a wide range of ambient weather conditions. These design features translate to maximum reliability at the lowest energy consumption in a small footprint.

The Maxiva ULXTE cooling system has been carefully engineered to allow for on-air servicing or replacement of pumps and fans, further maximizing on-air availability and minimizing revenue loss.



Maxiva ULXTE Block Diagram

2-10 PA system, Dual Drive System Shown



Separate exciter and P&G switching for RF path redundancy

Legend:

P&G: Phase and Gain
 PA: Power Amplifier
 PS: Power Supply

: Drive Switch
 : Power Divider
 : Power Combiner

Maxiva ULXTE Models and Power Levels

Maxiva ULXTE Model	Number of PAs	Number of Power Blocks	Total Number of Racks	Pre-Filter Average Power (Watts) Type E PAs	Pre-Filter Average Power (Watts) Type D (UWB) PAs 470 - 750MHz
ULXTE-2	2	1	1	1,440	1,200
ULXTE-4	4			2,880	2,400
ULXTE-6	6			4,320	3,600
ULXTE-8	8			5,520	4,600
ULXTE-10	10			6,600	5,500
ULXTE-12	12	2	1	8,500	7,000
ULXTE-16	16			10,900	9,000
ULXTE-20	20			12,900	10,900
ULXTE-24	24	3	1	16,100	13,400
ULXTE-30	30			19,200	16,100
ULXTE-40	40	4	2	25,300	21,400
ULXTE-50	50	5		31,700	26,500
ULXTE-60	60	6		38,000	31,800
ULXTE-72	72	9	3	47,200	39,900
ULXTE-80	80	8		50,100	42,300
ULXTE-90	90	9		56,400	47,500
ULXTE-100	100	10	4	62,700	52,400
ULXTE-120	120	12		75,100	62,800
ULXTE-150	150	15	5	92,800	78,400
ULXTED-20 ¹	20	2	2 + 1 Control	13,200	10,900
ULXTED-40 ¹	40	4	2 + 1 Control	25,800	21,600
ULXTED-60 ¹	60	3x2	2 + 1 Control	38,500	32,200
ULXTED-80 ¹	80	4x2	4 + 1 Control	50,700	42,800
ULXTED-100 ¹	100	5x2	4 + 1 Control	63,400	53,000
ULXTED-120 ¹	120	6x2	4 + 1 Control	76,100	63,600
ULXTED-144 ¹	144	9x2	6 + 1 Control	94,400	79,800
ULXTED-160 ¹	160	8x2	6 + 1 Control	100,300	84,600
ULXTED-180 ¹	180	9x2	6 + 1 Control	112,900	95,000
ULXTED-240 ¹	240	12x2	8 + 1 Control	150,200	125,600

¹RF Power for Dualtran models do not include final combiner losses

Specifications

Specifications and designs are subject to change without notice.

General	
Frequency Range	UHF TV Band
Transmission Standards	ATSC 1.0, ATSC 3.0, DVB-T/H, DVB-T2, DVB-T2 Lite, ISDB-Tb
Channel Bandwidth.....	6, 7 or 8 MHz (system dependent)
Rated Power Output	See chart on previous page
Output Power Reduction Range.....	0 to -10 dB
RF Load Impedance	50 ohms
VSWR.....	Protected against open or short circuit, all phase angles. Capable of operation into infinite VSWR with user-adjustable fold back threshold. Factory pre-set to 2.8% of nominal nameplate power (VSWR = 1.4:1)
RF Output Connector.....	1-5/8", 3-1/8" or 4-1/16" EIA (dependent upon power level)
Transmitter Dimensions.....	See chart on previous page
Transmitter Weight	See chart on previous page

AC Mains	
AC Line Voltage	3 phase: 380 to 415 V, or 208 to 240 V, 47-63Hz- specify voltage when ordering
AC Line Variation	±15%, between 208 to 230 V or 380 to 400 V
Power Factor	>0.95

Environmental	
Altitude.....	Up to 3,000 m (9,843 ft) elevation above mean sea level
Ambient Temperature.....	0° to 45° C (32° to 113° F) at sea level (upper limit derated 2° C (3.6°F) per 300 m (984 ft) elevation AMSL)
Storage Temperature	-10° to 65°C (14° to 149° F)
Humidity.....	95%, non-condensing
Cooling Method	Liquid-cooled, using 50/50 mix of ethylene or propylene glycol and water
Acoustic Noise.....	<65 dBA (measured 1 m (3.3 ft) in front of cabinet)
Frequency Stability	Without precision frequency control/GPS: ±150 Hz/month (2.3 x 10 ⁻⁷ ppm)

External Inputs	
GPS Input	SMA female, 50 ohms, (+5 V DC @ 100 mA max output for active antenna)
1 PPS Input	BNC female, user selectable 50 ohms or high impedance termination
10 MHz Reference Frequency Input.....	BNC female, 50 ohms

Monitoring Outputs	
RF monitor (exciter)	SMA female
1 PPS.....	BNC female
10MHz.....	BNC female

ATSC 1.0 Specification	
Power Output (average)	Power levels available for all applications [see table]
Standards	ATSC A-53, 8-VSB DTV standard, ATSC Mobile DTV
Data Input	19.39 Mb/s, configurable as SMPTE-310M or ASI (user selectable)
Impedance	75 ohms, unbalanced
Input Connector.....	2 inputs, BNC female
Signal to Noise (EVM)	>27 dB (EVM <4%), Typical >32 dB (EVM <2.5%)
Phase Noise.....	<104 dBc/Hz @ 20 kHz offset (ATSC A/64)
Harmonic Radiation & Spurious	Meets mask requirements specified in FCC 5th and 6th report and order
Sideband Performance	Compliant with FCC radiation mask, when measured at the output of GatesAir-supplied output filter

ATSC 3.0, DVB-T/H, DVB-T2, DVB-T2 Lite, ISDB-Tb Specification	
Power Output (average)	Power levels available for all applications [see table]
Standards	ATSC 3.0: A/321:2016, A/322:2017, A/330:2016 DVB-T/H: standard EN 300 744 DVB-T2, DVB-T2 Lite: standards EN 302755 v1.4.1, TS 102 831 v1.2.1, TS 102 773 v1.3.1 ISDB-Tb: Brazil ANATEL standard
ASI/T2MI Inputs	2 inputs BNC female; 75 ohms according to EN 50083-9 Supports seamless switching between ASI/T2MI inputs for DVB-T2 (for DVB-H: 1 main / 1 hierarchical)
IP Transport Inputs.....	2 inputs, 1000Base-T, RJ-45
Crest Factor.....	13 dB maximum
Shoulder Level.....	<-37 dB (before mask filter)
END	<0.5 dB
MER.....	≥34 dB (typically >36 dB)
Harmonics (before filter)	<-60dB, or FCC 5th and 6th report and order, measured after Low Pass filter
Central Carrier Suppression.....	>75 dB
Spurious Emissions	<-60dB, measured after Low Pass and Mask Filters
DVB-T2 Modes	Supports multiple PLP's, MISO, extended bandwidth mode, PAPR reduction, DVB-T2 Lite
SFN Delay	Static and Dynamic, 0 to 1 second per ETSI TS 101 191 V1.4.1 (2004-06)

Remote Control	
Parallel Remote	Sub-D connector
Ethernet/SNMP	RJ-45, twisted pair

Compliance.....	RoHS 2002/95/EC R&TTE 1999/5/EC Safety: EN 60215 EMC: EN 301-489-1 Manufacturing: ISO 9001: 2008
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Maxiva™ XTE

Software-Defined Exciter for All TV and DAB/DAB+ Radio Standards



The new GatesAir Maxiva™ XTE exciter provides broadcasters with a powerful, software-defined platform, enabling the ultimate in performance, stability and durability.

Featuring unparalleled signal processing power, a smaller footprint and advanced Transport Stream over IP (TSoIP) input capabilities, Maxiva XTE builds upon a strong legacy of groundbreaking technological advances, pioneered by several decades of GatesAir innovations. Dramatically increased processing power together with new, advanced Real-Time Adaptive Correction techniques, provides optimum signal performance over a wide variety of modulations and RF amplifier topologies.

The Maxiva XTE supports a full range of digital broadcast standards, including ATSC, DVB-T/H, DVB-T2, ISDB-T, DTMB, DAB/DAB+/DMB. It is upgradeable to future new modulations, including ATSC 3.0, as they become available.

Maxiva XTE Features

- Advanced Real-Time Adaptive Correction (RTAC)
- Optimized correction for all amplifier types
- Frequency Agile - Band I, III, IV and V
- Supports all widely used TV standards and DAB/DAB+ radio
- Upgradeable to emerging digital standards
- Available Internal GNSS (GPS/GLONASS) receiver for precision frequency control and/or timing required for SFN
- Available Internal UPS
- Compact 1RU design
- Dual redundant TSoIP inputs with seamless auto-switching
- Dual redundant transport stream inputs with seamless auto-switching for ASI/T2MI
- Integrated ISDB-Tb Remux
- Seamless integration with GatesAir transmitters
- Intuitive Web GUI interface with HTML
- Advanced monitoring and diagnostics support

Product Details

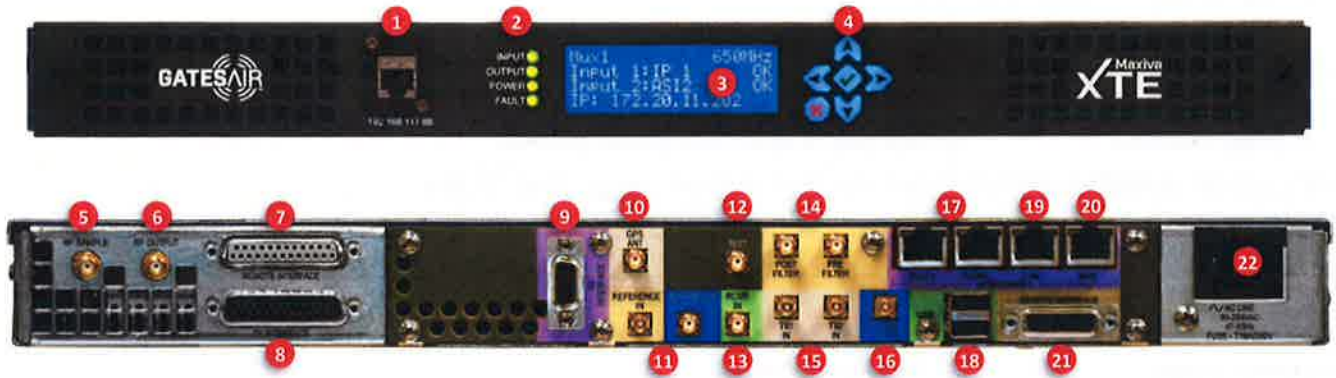
Cost-Efficient, Advanced Pre-correction

The Maxiva XTE incorporates advanced pre-correction techniques that assure optimum signal performance, linearity and efficiency for all types of power amplifiers. The GatesAir RTAC™ system operates continuously, adapting to varying environmental and other conditions that could otherwise impact on-air performance.

Upgradeable & Flexible Design

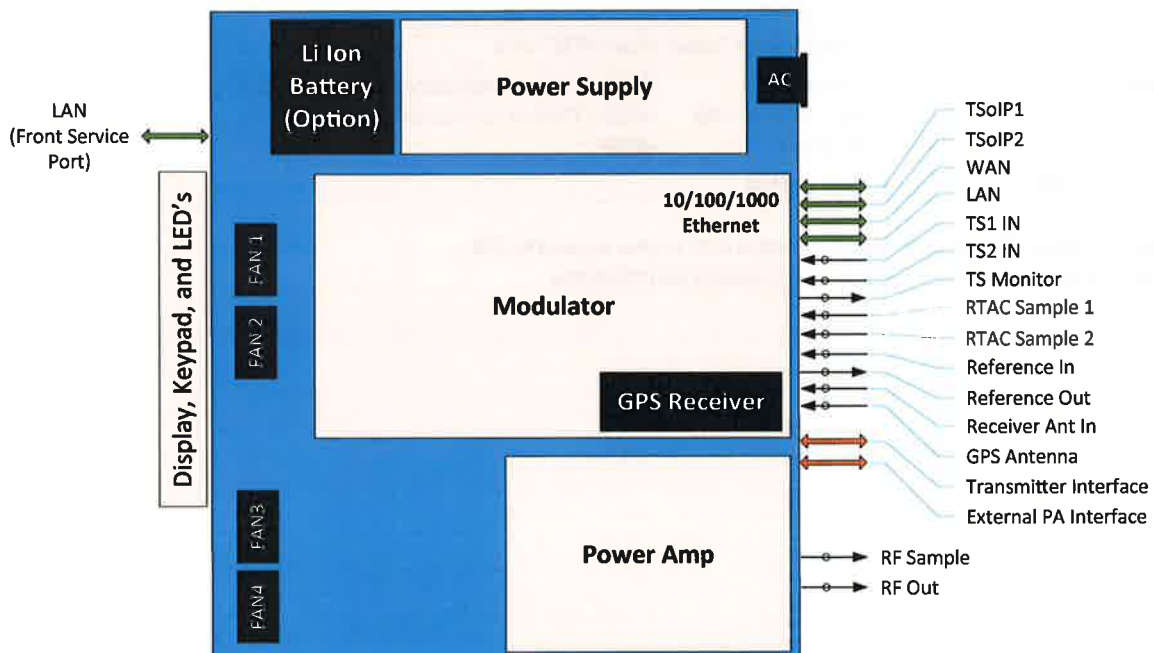
The software defined XTE provides broadcasters the latest technology and digital correction for today's transmitter amplifier technologies. For example, SMPTE 2022 standardized IP technology for transport stream input and precision timing per IEEE 1588 lower overall infrastructure costs.

Maxiva XTE Front and Rear Panels



- | | |
|--------------------------------------------------|----------------------------------------------|
| 1 Front Ethernet for Control/Set-up | 12 Test |
| 2 Status LEDs | 13 Receiver Input |
| 3 Local GUI | 14 RTAC Inputs (Pre & Post Filter) |
| 4 Pushbutton GUI Navigation | 15 Transport Stream Input 1 / Input 2 |
| 5 RF Sample | 16 TS Monitor Output |
| 6 RF Output | 17 TSolP Input 1 / Input 2 |
| 7 Remote Interface | 18 USB Mass Storage |
| 8 Transmitter Interface | 19 LAN (10/100/1000 BaseT) |
| 9 PA Interface | 20 WAN (10/100/1000 BaseT) |
| 10 GNSS Antenna Input (GPS/GLONASS) | 21 PA Interface |
| 11 10MHz/1PPS Reference In/Out (User Selectable) | 22 AC Power Input (90 to 264VAC, 47 to 63Hz) |

Maxiva XTE Block Diagram



Maxiva XTE Specifications

Specifications and designs are subject to change without notice

General	
Main RF Output Connector	1 Rear SMA, 50 ohms, Max. +20dBm (100mW)
Aux. RF Output Connector	1 Rear SMA, 50 ohms, Max. +20dBm (100mW)
RF Input Samples for Adaptive Correction	2 Rear SMA, 50 ohms, dynamic range: -20 to +10 dBm
Frequency Range	VHF and UHF, Bands I/III/IV/V
Transport Stream Inputs	2 Rear HD-BNC, 75 ohms, configurable as DVBASI/T2-MI/SMPTE 310M/ETI
Transport Steam over IP Inputs	2 Rear RJ-45 10/100/1000 BaseT
10 MHz Reference Input	1 Rear HD-BNC 0 to +18dBm
1 PPS Reference Input	1 Rear HD-BNC TTL level
10 MHz Reference Output	1 Rear HD-BNC
1 PPS Reference Output	1 Rear HD-BNC
Ethernet	1 Front RJ-45, DHCP enabled, customer access
LAN	1 Rear RJ-45 10/100/1000 BaseT
WAN	1 Rear RJ-45 10/100/1000 BaseT
USB Mass Storage	2 Rear (USB 2.0 High Speed)
GNSS Antenna Input (GPS/GLONASS)	1 Rear SMA 50 Ohms
AC Power Input	90 to 264 VAC, 47 to 63 Hz, autoranging
Environmental	Temperature range: 0° to 50°C (32° to 122°F) up to 4,500 m (14,764 ft) AMSL. Derate 2° C (3.6°F) per 984 t (300 m) of elevation Humidity: Up to 95% relative humidity, noncondensing
Physical	19 in. EIA rack standard, 1RU high, 19 in. depth
ATSC Specifications	
Standards	ATSC A/53, A/153, A/110:2011
Maximum Power Output	+20dBm (100mW) Average
Regulation of Output Power	<0.25dB
Pilot Frequency Stability	Without precision frequency control/GPS: ±150 Hz/month (2.3 x 10 ⁻⁷ ppm)
Frequency Setting / Offsets ¹	Any frequency within band, with 1Hz setting increments
Frequency Response variation	0.2dB, typical
Group Delay	2nS, typical
Phase Noise	<104dBc/Hz@ 20kHz offset (ATSC A/64)
Spurious Output ²	In Band: -68dB (-45dB as measured in 30kHz RBW) Adjacent channels -68dB (-45dB as measured in 30kHz RBW) All others -40dB
Signal to Noise Ratio (SNR)	35dB, typical

Note:

¹ High-stability external 10MHz/1PPS reference, or optional built-in GNSS receiver required for SFN

² Signals referenced to center channel, at rated output power, measured with 30kHz RBW

ATSC 3.0, DVB-T, DVB-T2, ISDB-Tb, DAB/DAB+/DMBT Specifications	
Maximum Power Output	+20dBm (100mW) Average
Regulation of Output Power	<0.25dB
Frequency Stability	Without precision frequency control/GPS: ± 150 Hz/month (2.3×10^{-7} ppm)
Frequency Setting / Offsets ¹	Any frequency within band, with 1Hz setting increments
Frequency Response Variation	0.2dB, typical
Group Delay	2nS, typical
Phase Noise	10Hz ≤ -55 dBc/Hz 100Hz ≤ -85 dBc/Hz 1kHz ≤ -90 dBc/Hz 10kHz ≤ -95 dBc/Hz 100kHz ≤ -112 dBc/Hz 1MHz ≤ -130 dBc/Hz
Spurious Output ²	In Band -68dB (-45dB as measured in 30kHz RBW) Adjacent channels -68dB (-45dB as measured in 30kHz RBW) All others -40dB
Modulation Error Ratio (MER)	38dB, typical
Central Carrier Suppression	>75dB relative to average power
Out of Band Shoulders	>50dB, uncorrected, at rated average power

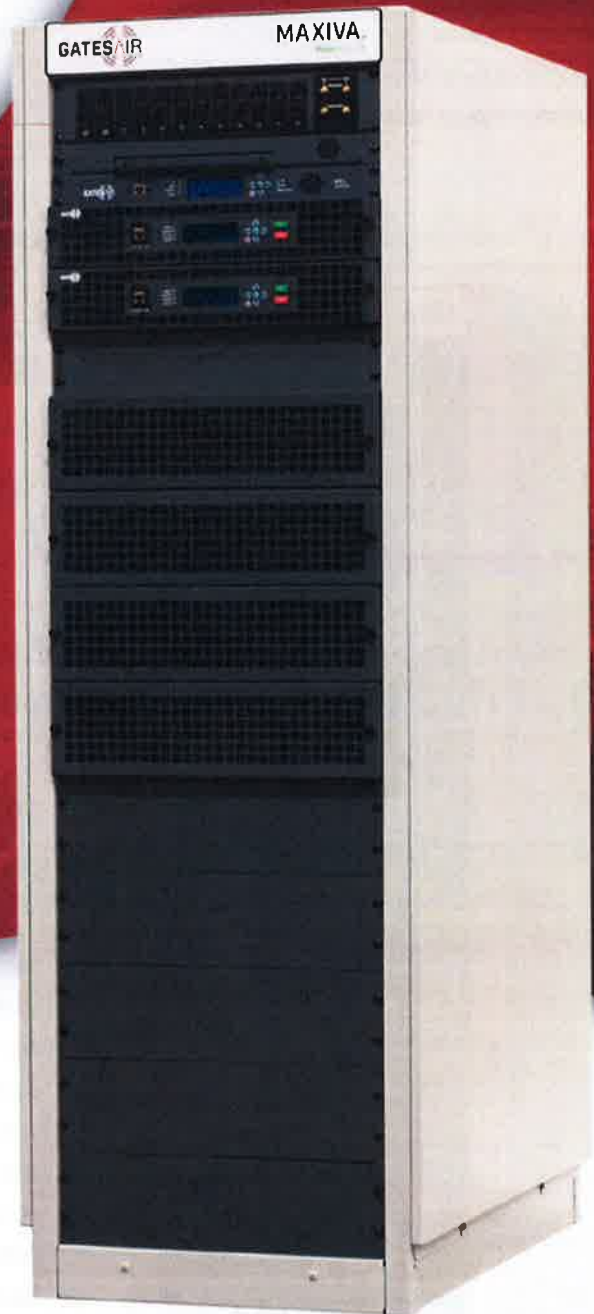
Note:

¹ High-stability external 10MHz/1PPS reference, or optional built-in GNSS receiver required for SFN

² Signals referenced to center channel, at rated output power, measured with 30kHz RBW



Connecting What's Next



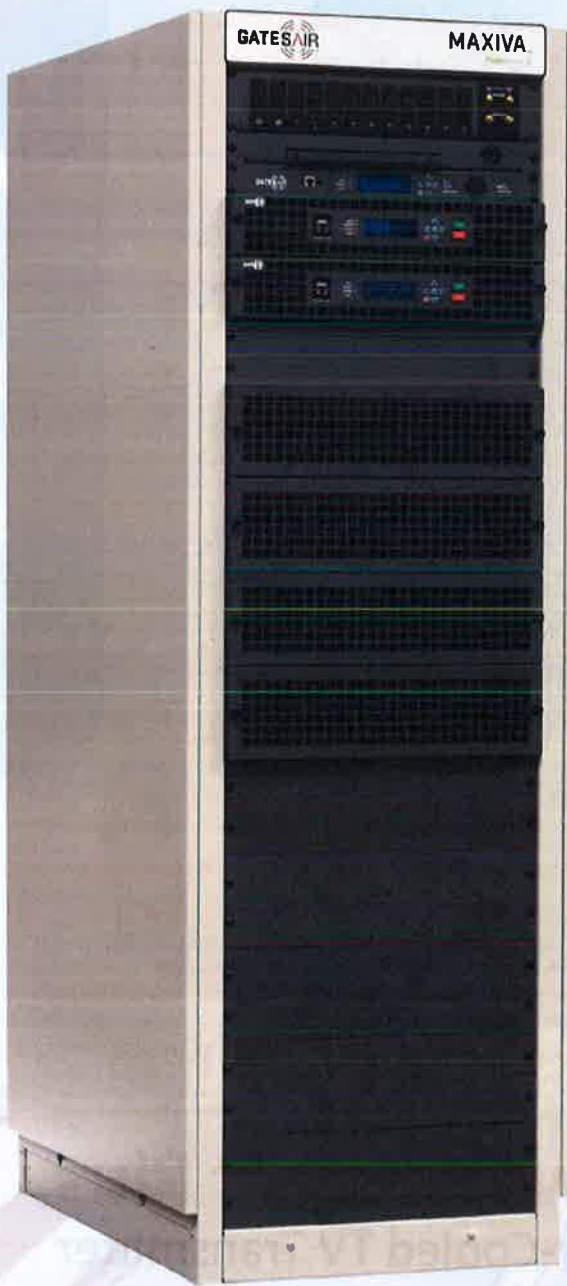
PowerSmart^{Plus} 

MaxivaTM UAXTE with PowerSmart[®] Plus
High-Efficiency UHF Air-Cooled TV Transmitter

Maxiva™ UAXTE with PowerSmart® Plus

We did it again.

GatesAir has once again shattered the expectations of what is possible with air-cooled, solid-state transmitters from a cost versus performance ratio.



High-efficiency Power Amplifiers optimized for equal power levels with either ATSC 1.0 or ATSC 3.0 modulation

Modular architecture for ease of installation. Multiple transmitters in a single rack saves valuable floor space.

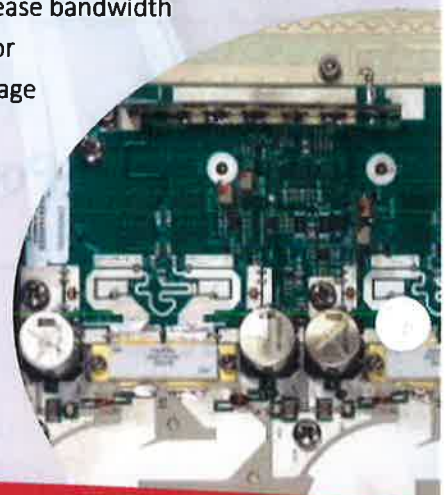
Power levels up to 19.2kW

Separate, hot-swappable, compact power supply for each PA. Redundancy options available.

Separate, hot-swappable, high-efficiency power amplifiers

Optimized Real-Time Adaptive Correction (RTAC™) provides the best performance all the time

More services usually means higher expenses. Higher operating expenses challenge the bottom line. Maxiva UAXTE transmitters with PowerSmart Plus technology drive down total cost of ownership while allowing broadcasters to get the most out of their spectrum. Optimized designs that increase bandwidth while simplifying maintenance. Superior power density that maximizes TV coverage while reducing transmitter size and weight. Unparalleled performance that enhances picture quality while lowering utility bills. GatesAir has once again shattered the expectations of what is possible with high-power, solid-state transmitters from a cost versus performance ratio.

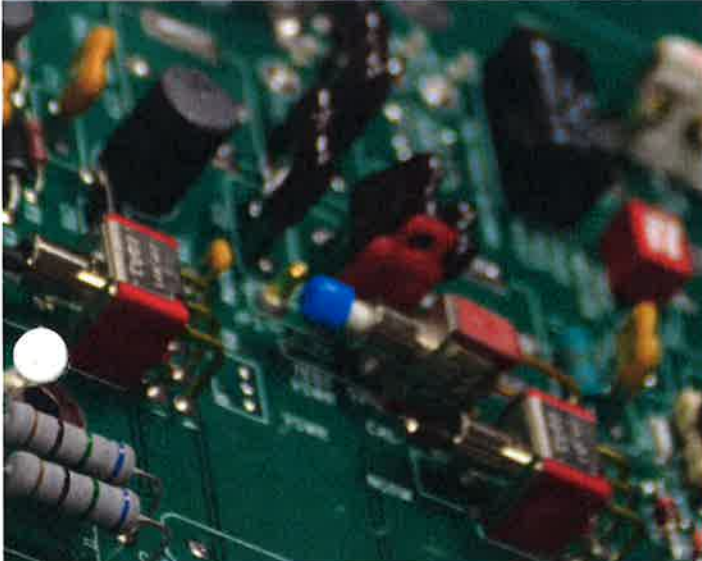


Product Overview

The Maxiva UAXTE is a compact air-cooled TV transmitter that provides over the air delivery in the UHF spectrum. Built on GatesAir's groundbreaking PowerSmart Plus architecture, the Maxiva UAXTE provides an energy-efficient, broadband solution to reliably deliver rich, high-quality multiformat content to viewers at home or on the move.

The core PowerSmart Plus technology of Maxiva UAXTE assures lowest cost of ownership through reduced size, weight and energy use, while providing the highest reliability and performance.

The Maxiva UAXTE utilizes the latest generation 50 volt LDMOS amplifier devices, new compact high-efficiency power supplies and the Maxiva Compact series exciter/driver along with real-time adaptive correction (RTAC) for outstanding signal performance. The Maxiva UAXTE power amplifiers have been optimized to provide the best possible performance and efficiency for both ATSC 1.0 and ATSC 3.0. The UAXTE transmitter is rate for identical average power levels for both modulations, assuring a simple and cost-effective upgrade path for future ATSC 3.0 operation. The modular design further simplifies installation and reduces maintenance costs, dramatically lowering the total cost of ownership over the transmitters life-cycle.



Designed with future broadcasting needs in mind, the UAXTE transmitter is capable of multiple modulation types for UHF digital operation - including ATSC, ATSC 3.0, DVB-T/H, DVB-T2, ISDB-Tb, and future digital standards.

Savings You Can Count On!

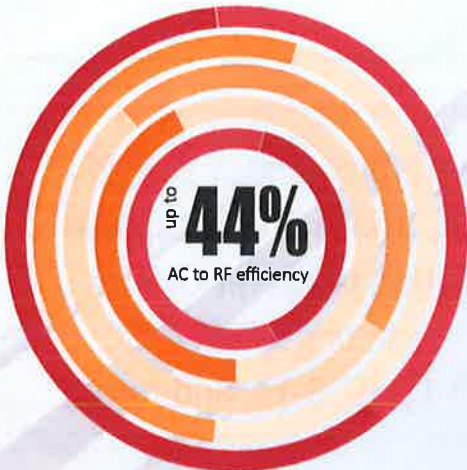
The Maxiva UAXTE with PowerSmart Plus is an efficiency-optimized UHF transmitter. This all-new design includes several energy saving features.



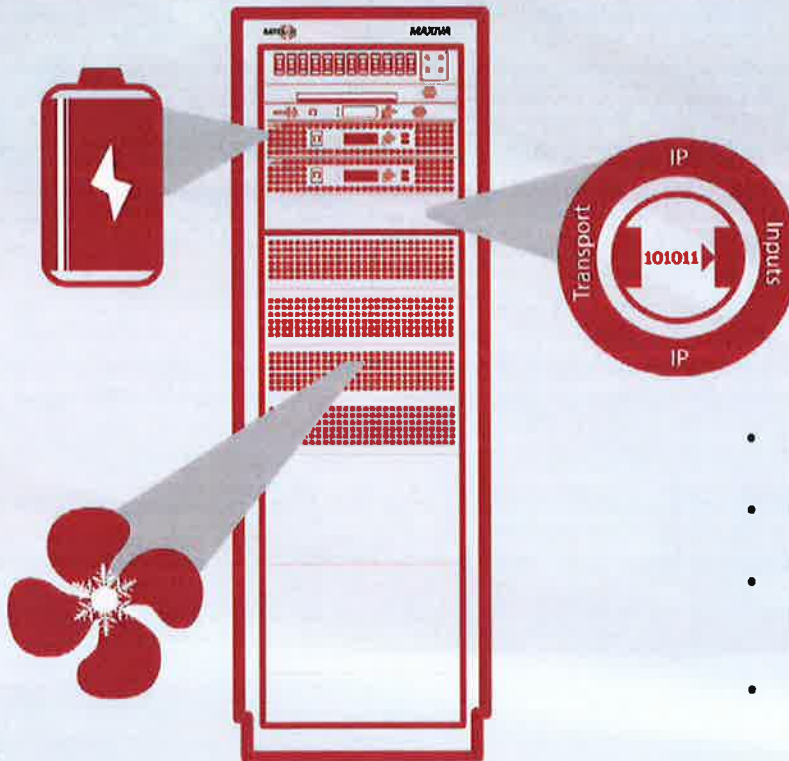
New PowerSmart® Plus amplifier technology for UHF provides a market-leading combination of efficiency and broadband operation

Savings in The Details!

- Simple and cost-effective upgrade path from ATSC 1.0 to ATSC 3.0 at the same power level.
- Efficiency-optimized – for highest efficiency and lowest cost of ownership
- Variable speed fans to intelligently save energy
- Hot-swappable, compact, high-efficiency DC power supplies
- Hot-swappable, compact, high-efficiency power amplifiers
- Incorporates the XTE-based Maxiva Compact exciter/driver for best-in-class performance
- RoHS compliant / CE compliant
- Support for all worldwide digital modulation standards
- Modular & upgradeable architecture
- All-digital linear and nonlinear pre-correction: Real-Time Adaptive Correction (RTAC)
- Rugged, reliable design and construction
- Ideal for N+1 configurations since all transmitters are identical and use the same PA's, minimizing spares requirements
- Lowest energy usage
- Minimum operating cost



Savings You Can Count On!



- Intelligent cooling system with variable speed fans to reduce energy consumption.
- Included UPS for the exciter section provides fastest system power-up following an AC power interruption.
- Smaller and lighter PA architecture provides higher RF power during PA or power supply removal and replacement.
- Separate power supplies are easily accessible and hot-swappable from the front of each PA module.

Key Features

Features	Included	Available
Equal power levels for ATSC 1.0 and ATSC 3.0	•	
Fast-acting linear and non-linear Real-Time Adaptive Correction (RTAC) for optimum performance at all times	•	
Web remote with SNMP	•	
Parallel Remote Control	•	
Internal GPS/GLONASS receiver for SFN timing	•	
Exciter internal UPS option	•	
ASI/T2MI over IP / IP transport input (Ready for ATSC 3.0)	•	
Dual exciters and switcher		•
Redundant power supplies for each PA module		•
Local touch-screen GUI		•
N+1 systems and multi-transmitters per rack		•
Extended warranties and Service Level Agreements (SLA) to suit any requirement		•



Maxiva UAXTE Drive — The Heart of the Transmitter

The software-defined Maxiva UAXTE Drive takes digital and mobile TV to the next level. Offering the most advanced exciter technology available, the core Maxiva XTE platform used in the UAXTE Drive employs advanced Real Time Adaptive Precorrection techniques, Native dual TSoIP inputs and many other updates, providing a truly future-proof design.

Integrated within all Maxiva UAXTE air-cooled transmitters, the Maxiva UAXTE Drive delivers an RF signal with complete technical and regulatory compliance for all solid-state digital transmitters. The Maxiva XTE is the only exciter designed and manufactured in the USA that is 100% ready for ATSC 3.0.

Real-Time Adaptive Correction

GatesAir's exclusive Real-Time Adaptive Correction (RTAC) technology, standard in Maxiva transmitters, keeps your station within compliance while maximizing coverage. Featuring simultaneous linear and nonlinear adaptive pre-correction, RTAC interoperates with the Maxiva Compact Drive exciter to continuously monitor transmitter output and performance while automatically adapting for system nonlinearities — delivering the optimal level of correction for your digital over-the-air signal.

Advanced Global Monitoring and Control

In addition to local control, the Maxiva UAXTE transmitter can be controlled from anywhere in the world with an intuitive, browser-based graphical user interface (GUI) over TCP/IP via a telecom or network connection with password protection. A rear RJ-45 jack is provided for LAN/WAN connection.



Full Simple Network Management Protocol (SNMP) facilities are provided for network management of the entire transmission system using industry-standard MIB protocols.



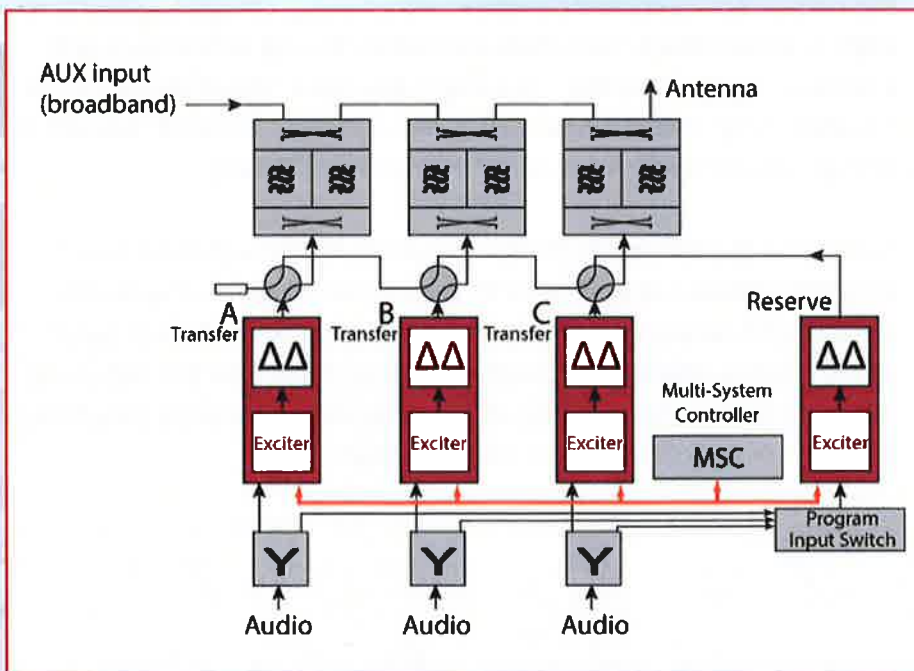
Remote Communication

The following remote interfaces are available:

- GUI
- Ethernet network connection RJ-45 (10/100Base-T) with TCP/IP protocol
- Automated remote alarms in the event of a fault, which are sent via SNMP or e-mail with the connection to a network
- Simple, parallel interface to panels and legacy remote control systems

Multi-System Controller (MSC3)

To support greater redundancy, the Multi-System Controller (MSC3) supports a range of backup options, including 1+1, full N+1 and dual-transmitter installations. The MSC3 monitors and controls the transmitter systems and controls RF switching.



What is Total Cost of Ownership (TCO)?

TCO is the total cost to own and operate the transmitter system over time. This includes the initial equipment cost, installation/commissioning cost, routine and unscheduled maintenance costs, and ongoing repair and operational costs — and don't forget, rising energy costs. In fact, the lifetime operational expense of a transmitter is estimated at greater than five times the initial product cost.

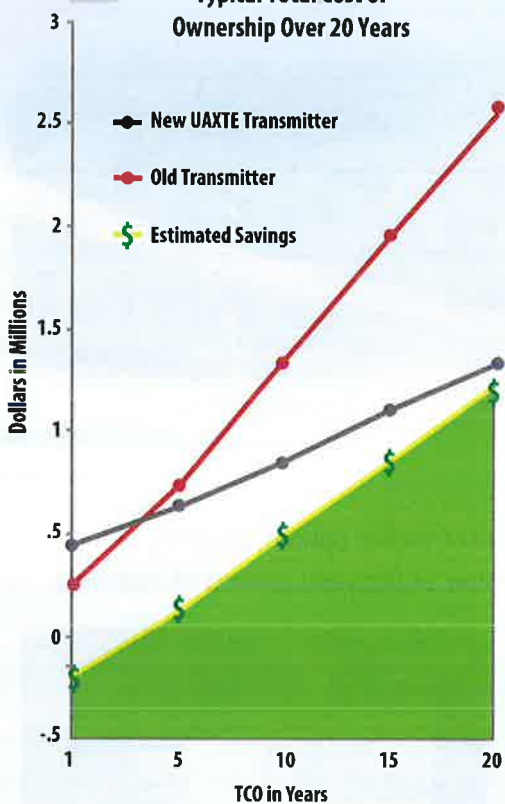
While power to the transmitter is the biggest item, other factors can also adversely affect the system efficiency. These include:

- AC transformers and voltage regulators ahead of transmitter
- Heat load to the room (affects HVAC costs)
- RF system losses
- RF feeder loss to antenna
- Antenna gain and pattern

Maxiva UHF transmitters now incorporate GatesAir PowerSmart Plus technology to help broadcasters save money and reduce carbon footprints. PowerSmart Plus technology delivers superior operational efficiency through fully broadband, single-amplifier designs that simplify installation, improve performance, and streamline ongoing operation – including maintenance. This comes courtesy of a modular design that eliminates tuning, reduces weight, enhances redundancy through separate power supplies, and minimizes overall labor.

PowerSmart Plus technology also lowers monthly bills through sharp power efficiency increases (up to 45 percent), and slashes rack space requirements (exceeding 50 percent) through a dramatic increase in power density. These industry-leading strides in performance and physical size reduction combine to deliver the best possible total cost of ownership over the life of the transmitter – and return money to the pockets of our customers.

Typical Total Cost of Ownership Over 20 Years



PowerSmart[®] Plus

Broadband Amplification

PowerSmart Plus incorporates groundbreaking broadband amplifier designs into Maxiva UAXTE transmitters. The Maxiva UAXTE power amplifiers have been optimized to provide the best possible performance and efficiency for both ATSC 1.0 and ATSC 3.0. The UAXTE transmitter is rate for identical average power levels for both modulations, assuring a simple and cost-effective upgrade path for future ATSC 3.0 operation. These designs also consolidate spare parts and eliminate tuning and adjustments to further simplify maintenance and ongoing operation.

Compact Design

The reduced size of the UAXTE transmitter will minimize the use of valuable rack space in your transmitter facility. This provides space for other equipment, or multiple transmitters in a single rack, often eliminating the need for additional racks and the associated floor space needed.

Global Monitoring and Control

The Maxiva UAXTE transmitter can be controlled from anywhere in the world with an intuitive, browser-based GUI or SNMP over TCP/IP via a telecom or network connection with password protection.

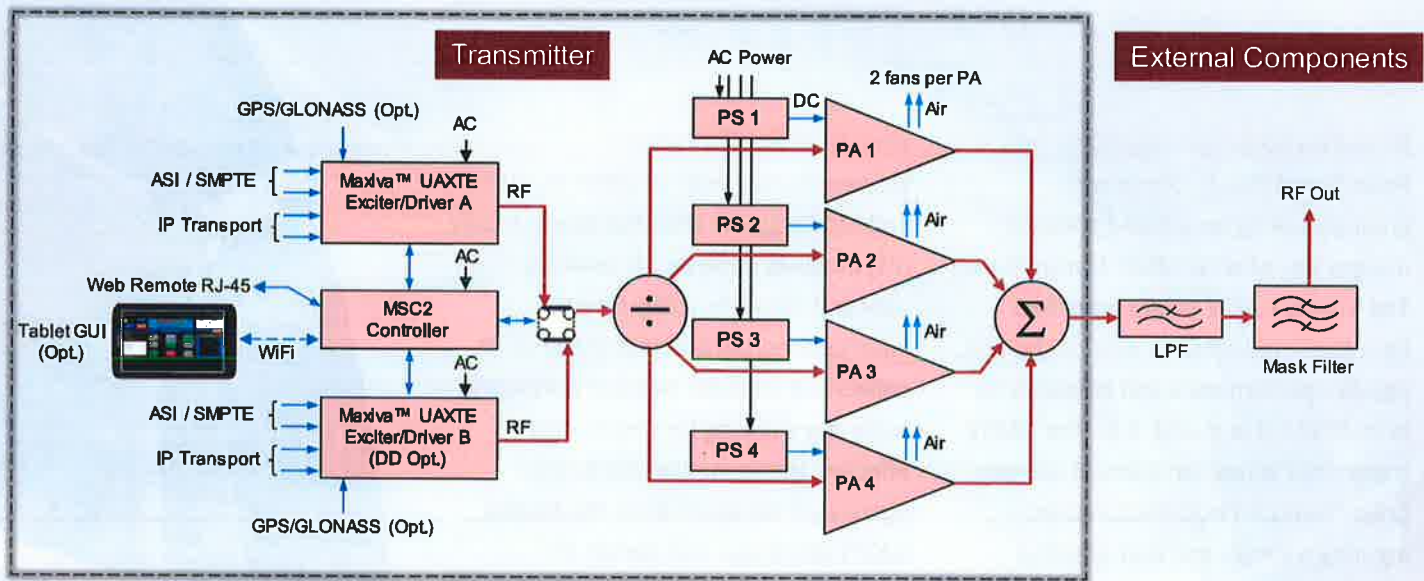
Reduced Service Costs

Easy access to power amplifier modules and hot-pluggable universal power supply (PS) modules make on-air servicing easy and eliminate costly service interruptions. Light-weight universal PA pallets and modules facilitate overnight/same-day shipping for simple, cost-effective spares management. With lightweight subassemblies, the Maxiva UAXTE eliminates two-person lift requirements for routine maintenance and troubleshooting.



Maxiva UAXTE Block Diagram

4 PA system with dual drive option shown
(Models up to 32 PAs available)



Maxiva UAXTE Models and Power Levels

Model Number	RF Power Before Filter (Watts) UWB PA's (470-750MHz)	RF Power Before Filter (Watts) Type "E" PA's (470-608MHz)	RF Output Connector	Total Rack Space (Single Drive)	Total Rack Space (Dual Drive)
UAXTE-10	16	16	N-F	2RU	5RU (1+1)
UAXTE-50	75	75	N-F	2RU	5RU (1+1)
UAXTE-100	150	150	N-F	2RU	5RU (1+1)
UAXTE-1P-C	165	200	DIN 7-16	4RU	9RU (1+1)
UAXTE-2P-C	312	400	DIN 7-16	4RU	9RU (1+1)
UAXTE-3P-C	500	600	DIN 7-16	4RU	9RU (1+1)
UAXTE-1	500	600	DIN 7-16	5RU / 37RU Rack	8RU / 37RU Rack
UAXTE-2	1,000	1,200	DIN 7-16	8RU / 37RU Rack	11RU / 37RU Rack
UAXTE-3	1,500	1,800	1-5/8" EIA	11RU / 37RU Rack	14RU / 37RU Rack
UAXTE-4	2,000	2,400	1-5/8" EIA	14RU / 37RU Rack	17RU / 37RU Rack
UAXTE-6	3,000	3,600	3-1/8" EIA	1 x 44RU Rack	1 x 44RU Rack
UAXTE-8	4,000	4,800	3-1/8" EIA	1 x 44RU Rack	1 x 44RU Rack
UAXTE-12	6,000	7,200	3-1/8" EIA	2 x 44RU Rack	2 x 44RU Rack
UAXTE-16	8,000	9,600	3-1/8" EIA	2 x 44RU Rack	2 x 44RU Rack
UAXTE-24	12,000	14,400	3-1/8" EIA	3 x 44RU Rack	3 x 44RU Rack
UAXTE-32	16,000	19,200	4-1/16"	4 x 44RU Rack	4 x 44RU rack

Specifications

Specifications and designs are subject to change without notice.

General	
Frequency Range.....	UHF-TV
Transmission Standards	ATSC 1.0, ATSC 3.0, DVB-T, DVB-T2, ISDB-Tb (Contact GatesAir for availability of other standards)
Channel Bandwidth	6, 7 or 8 MHz (system dependent)
Rated Power Output	10W to 19.2kW (all modulations), measured before DTV mask filter
Output Power Reduction Range.....	Adjustable from 0 to -10 dB of rated transmitter power
RF Load Impedance	50 ohms
VSWR	Protected against open or short circuit, all phase angles. Capable of operation into infinite VSWR with user-adjustable foldback threshold. Factory pre-set to 4% of nominal nameplate power (VSWR = 1.5:1)
RF Output Connector	Dependent on transmitter power. Refer to GatesAir drawing for details

AC Mains	
AC Line Voltage.....	10W to 150W Models: Single-phase, 110-240V, 50/60Hz Models over 150W: Three-phase: 380 to 415 V, or 208 to 240 V, 50/60 Hz, or single-phase 220 to 240 V, 50/60 Hz (specify when ordering)
AC Line Variation	±15%, between 208 to 230 V, or 380 to 400 V
Power Factor	>0.95 (typically >0.98)

Environmental	
Altitude	Up to 2,500 m (8,200 ft.) elevation above mean sea level (See temperature derating)
Ambient Temperature.....	0° to 45° C (32° to 113° F) at sea level (upper limit derated 2° C (3.6° F) per 300 m (984 ft.) elevation AMSL)
Storage Temperature	-10° to 65°C (14° to 149° F)
Humidity	0 to 95%, non-condensing
Cooling Method.....	Air-cooled with internal fans, air flow front to rear (external ducted air using optional front air plenum)
Acoustic Noise	<65 dBA (measured 1 m in front of cabinet), with external input air plenum/door
Frequency Stability	Internal OCXO: 5 x 10 ⁻⁷ ppm per year With internal GNSS: ±0.5 Hz

External Inputs	
Internal GNSS antenna input	GPS/GLONASS, SMA female, 50 ohms, (+5 V DC @ 100 mA max output for active antenna)
1 PPS/10 MHz Input.....	SMA Female (rear of exciter/LPU). BNC female (racked systems), user selectable 50 Ohms, or high impedance termination

Monitoring Outputs	
RF monitor (exciter)	SMA female
1 PPS/10MHz Output	SMA Female (rear of exciter/LPU). BNC female (racked systems), 50 Ohms

ATSC 1.0/2.0 (8-VSB) Specification	
Power Output (average).....	10W to 19.2 kW models available, measured before mask filter [See power level table]
Standards	ATSC A-53, 8-VSB DTV standard
Transport Stream Inputs.....	2 x SMPTE-310M or ASI (user selectable), 19.39Mb/s
Impedance	75 ohms, unbalanced
Input Connector	2 inputs, HD-BNC female (rear of exciter). BNC female (racked systems)
Signal to Noise, EVM	>30 dB (typical >36 dB), EVM <2.9 (typical <1.5 %)
Shoulder Level	<-47 dB (Measured per ATSC doc. A/64B)
Sideband Performance	Compliant with FCC emission mask, when measured at the output of GatesAir supplied output filter
Harmonic Radiation & Spurious	Meets mask requirements specified in FCC 5th and 6th report and order

DVB-T / DVB-T2 / ISDB-Tb / ATSC 3.0 (OFDM) Specification	
Power Output (average).....	10W to 19.2 kW models available, measured before mask filter [See power level table]
Systems	DVB T: Standard EN 300744 v1.6.1 DVB -T2: Standard EN 302 755 v1.3.1/1.4.1; TS 102 773 v1.3.1 ISDB -Tb: Brazil ANATEL standard ATSC 3.0: Standard A/322:2017 (Physical Layer Protocol)
Transport Stream Inputs.....	2 inputs BNC female; 75 ohms according to EN 50083-9. Supports seamless switching between ASI/T2MI inputs for DVB-T2
TSolP / IP Transport Inputs	2 inputs, 1GbE. IP Transport per ATSC 3.0. Supports seamless input switching.
Crest Factor	13 dB maximum
MER.....	>34 dB (typical >37 dB)
Shoulder Level (before mask filter)	<-37 dB (typically < -39dB)
Intermodulation	>37 dB
Harmonics (after filter).....	<-60 dB
Central Carrier Suppression	>75 dB
DVB-T2 Modes.....	Supports multiple PLP's (8), MISO, extended bandwidth mode, PAPR Reduction
SFN Delay	Static and Dynamic, 0 to 1 second per ETSI TS 101 191 V1.4.1 (2004-06)

Remote Control	
Parallel Remote	15 conductor D-sub for single-drive models, 25 conductor D-sub for dual-drive models. Optional I/O at top of rack.
Ethernet/SNMP	RJ-45, twisted pair
Compliance.....	RoHS 2011/65/EU Directive 2014/53/EU Safety: EN 60215 EMC: EN 301-489-1 FCC Part 73 Manufacturing: ISO 9001: 2008 Brazil ANATEL Russia GOST





For information about products or support services:

Call: North America + 1 217-222-8200

Website: <http://www.gatesair.com>

To register products or update company information visit:

www.ecustomer.gatesair.com

PROFESSIONAL SERVICES COMMITMENT

We are serious about our professional services business. We strive to provide the highest level of support in the industry and offer a complete set of integrated support solutions designed to help our customers across every phase of their business. GATESAIR works with you to provide the type of coverage you need. We are committed to service excellence.

Standard Warranty Services

- Technical support 9 hours a day, 5 days a week
- After-hours emergency "Down or Off-air" phone support
- 5-day advance exchange of parts
- Software updates and bug fixes

- Access to technical knowledge bank

Optional Gold ServicePAK

- Technical phone support 24 hours a day, 7 days a week
- Next-day advance exchange of parts

**GATESAIR
STANDARD WARRANTY POLICY STATEMENT**

Effective May 22, 2014

STANDARD EQUIPMENT WARRANTY

Unless otherwise provided in writing by GATESAIR, Inc. or a legally affiliated entity ("GATESAIR"), GATESAIR warrants that all GATESAIR-manufactured equipment will substantially conform to the GATESAIR specifications for such Equipment and be free of any defect in materials or workmanship (the "Standard Equipment Warranty") for the period of time specified in the table below (the "Equipment Warranty Period"); such period is measured from the date of shipment from a GATESAIR facility. This warranty is extended to customers and applies to all GATESAIR-manufactured equipment purchased, installed, and used for the purpose for which such equipment was originally designed.

Product Family	Standard Equipment Warranty Period
Over the Air Transmitters: AM, FM, DAB and Television, Exciters, Networked Digital Audio Consoles, Network Audio Management Routing, Studio-Transmitter Links	15 months from shipment
Additional Products and Accessories: (Furniture, Racks, AtoD Converters, ATU, Phasors & RF Systems, AM/FM Flyaway Systems, Distribution System, HDI200 Data Importer, Talent Control Systems, World Feed panel)	15 months from shipment
Customer Specials: Products specifically modified to meet a customer's custom configuration or specification	15 months from shipment
B-Stock Equipment	90 days from shipment
Equipment Sold as Resale	As provided by Manufacturer
Replacement Parts – within Equipment Warranty Period	Longer of (i) applicable product warranty or (ii) 90 days from shipment
Replacement Parts – Post Equipment Warranty Period	90 days from shipment
Used Equipment	"AS IS" AND WITHOUT WARRANTY

WARRANTY CLAIMS AND PROCEDURES

1. Upon breach of the Standard Equipment Warranty and GATESAIR's receipt of notice of such breach, the customer's sole and exclusive remedy will be, at GATESAIR's sole discretion and option, repair or replacement of the defective equipment or component with functionally equivalent equipment or components. Components that the customer claims to be defective shall be available to GATESAIR for inspection and testing. Unless otherwise agreed in writing, the customer shall be solely responsible for customs clearance for all repaired or replacement equipment and components under the Standard Equipment Warranty. To be entitled to rights under the Standard Equipment Warranty, the customer shall open a service request by contacting the relevant GATESAIR help desk by phone or web interface within thirty (30) days after discovering a suspected defect in any equipment or component, but in any event prior to the expiration of the applicable Equipment Warranty Period, and shall request a return authorization from GATESAIR. Notice to a GATESAIR dealer, systems integrator, sales representative or other third party is not notice to GATESAIR. Following its receipt of any such customer notice, GATESAIR will determine whether the reported problem is covered by the Standard Equipment Warranty. If GATESAIR determines that the problem is covered by the Standard Equipment Warranty, GATESAIR will authorize repair or replacement of the defective equipment or component by issuing a return authorization. For clarification purposes, any technical support provided by GATESAIR will be for the sole purpose of fulfilling GATESAIR's warranty obligations. If GATESAIR determines that the customer is using technical support as a substitute for training of the customer's personnel, then such technical support will be subject to additional charges at GATESAIR's then prevailing unit rate for such services.
2. Before shipping any equipment or component to GATESAIR, the customer must obtain a written return authorization from GATESAIR and provide any proof of warranty eligibility requested by GATESAIR. Any equipment or component received by GATESAIR without a return authorization may, at GATESAIR's option, be returned to the customer collect. Once a return authorization is obtained, the customer is responsible for packing and shipping the equipment or component to which its warranty claim relates to a service facility designated by GATESAIR within thirty (30) days after receipt of the return authorization. GATESAIR will pay for return of the repaired or replacement equipment or component to the customer if the repaired or replacement product is shipped to a designated GATESAIR service facility. In the event that the foregoing procedure is not followed by the customer, the customer shall pay for return shipping of the defective equipment or component to GATESAIR and GATESAIR shall only pay delivery charges of the replacement equipment or component to the customer. GATESAIR will use commercially reasonable efforts to supply equipment or components from the geographical region of the customer's site, so as to minimize freight and duty. GATESAIR bears the risk of loss or damage while the equipment or component is in transit to the customer from the GATESAIR service center, and the customer bears the risk of loss or damage while the equipment (or part thereof) is in transit back to the GATESAIR service center.
3. Upon receipt of replacement equipment or component, the customer has thirty (30) days to tender the defective equipment or component to the return carrier for shipment to the service center designated by GATESAIR. If the customer does not timely return the defective equipment or component, the customer shall pay to GATESAIR the list price of such equipment or component, plus applicable shipping. Such failure to return the equipment or component may, in GATESAIR's discretion, be grounds for termination of the warranty and/or suspension of any future advance exchange privileges until such outstanding defective equipment or component has been returned. Under the Standard Equipment Warranty GATESAIR will provide the customer with new, rebuilt, refurbished or alternate equipment or component of equal or improved quality, as exchange equipment or component to replace eligible defective equipment or component. Any alternate equipment or component will meet or exceed the specifications of the replaced equipment or component. Rebuilt or refurbished equipment or components may bear cosmetic blemishes that do not affect performance. Unless otherwise specified by GATESAIR in writing, repaired or replaced equipment or components are covered only for the remainder of the term of the applicable Standard Equipment Warranty. All defective equipment or components replaced by GATESAIR become the property of GATESAIR. GATESAIR has no obligation to (i) service, exchange or otherwise replace any equipment or component that has been damaged, modified, abused, misused or over-used as determined by GATESAIR or has been used with non-GATESAIR supplies or products that have caused damage or malfunction; (ii) paint, refinish, refurbish, restore or exchange any equipment or component with cosmetic

blemishes; (iii) service, exchange or otherwise replace any equipment or component if the same would interfere with, impede or be redundant with normal or scheduled maintenance of such equipment or component; (iv) service, exchange or otherwise replace any equipment or component that is within sixty (60) days of the end of its production life; or (v) provide any application software support or service involving application hardware or replace any accessories. If GATESAIR elects to perform any such services at the customer's request, then such services will be deemed a service call and all labor, parts and materials used for the service call will be charged at GATESAIR's then-prevailing rates.

EQUIPMENT WARRANTY EXCLUSIONS

To the full extent permitted by law, GATESAIR does not warrant or guarantee, and is not responsible for:

1. Defects, failures, damages or performance limitations caused in whole or in part by (A) power failures, surges, failures in third-party communication networks, fires, floods, snow, ice, lightning, excessive heat or cold, highly corrosive environments, accidents, actions of third parties, or other events outside of GATESAIR's control, or (B) the customer's abuse, mishandling, misuse, computer viruses, negligence, improper storage, servicing or operation, or unauthorized attempts to repair or alter the equipment or component in any way. The customer shall provide qualified technical personnel to maintain and repair the equipment and components.
2. Equipment built to the customer's specifications that is later found not to meet the customer's needs or expectations.
3. The performance of the equipment or components when used in combination with equipment not purchased from GATESAIR, or specified or approved by GATESAIR in writing.
4. Signal coverage delivered by antenna equipment whether or not supplied by GATESAIR.

ADDITIONAL WARRANTY NOTES

1. OEM or third party equipment that is incorporated into GATESAIR equipment is covered for the same period as such GATESAIR equipment's Standard Equipment Warranty unless the OEM or third party equipment carries its own limited warranty.
2. **Items Sold As Resale.** Items sold as resale are such items that are not manufactured by GATESAIR but may be utilized in conjunction with, independently of or incorporated into, GATESAIR manufactured equipment (such as tubes, printers and antenna transmission lines) and are covered only by the specific warranty terms of the supplier or original equipment manufacturer of those items. IF AN ORDER COVERS EQUIPMENT NOT OWNED BY GATESAIR, IT IS SOLD SUBJECT TO GATESAIR'S ACQUISITION OF SUCH EQUIPMENT.
3. **B-Stock Equipment.** B-Stock equipment is defined as equipment repurchased or repurposed by GATESAIR that is reconditioned or refurbished for sale to a second generation owner by GATESAIR, and is covered for a period of ninety (90) days from the date such equipment is shipped.
4. **Used Equipment.** IF THE EQUIPMENT SPECIFIED IN AN ORDER IS DESCRIBED AS USED, IT IS SOLD "AS IS" AND WITH NO WARRANTY.

SERVICES WARRANTY

GATESAIR warrants that the services will be performed in a professional manner (the "Services Warranty"). Notice of a breach of the Services Warranty shall (i) specify in reasonable detail, the nature of the claim, and (ii) be received by GATESAIR within ninety (90) days from the last day of performance of the services. Upon breach of the Services Warranty and GATESAIR's notice of such breach, the customer's sole and exclusive remedy will be for GATESAIR to reperform the applicable services at GATESAIR's expense.

SOFTWARE WARRANTY

1. **Software.** Unless otherwise provided by GATESAIR in writing, GATESAIR warrants that the GATESAIR-manufactured software (the "Software") will operate substantially in compliance with GATESAIR's specifications for the Software (the "Standard Software Warranty") for a period of ninety (90) days from the date such Software is shipped or otherwise made available by GATESAIR (the "Software Warranty Period"). Upon breach of the Standard Software Warranty and GATESAIR's receipt of notice of such breach, the customer's sole and exclusive remedy will be, at GATESAIR's sole discretion and option, repair or replacement of the defective Software with functionally equivalent Software. GATESAIR does not warrant that the Software is error free or that the customer will be able to operate the Software without problems or interruptions. Corrections to the Software beyond the Software Warranty Period will only be made by GATESAIR pursuant to a ServicePAK agreement.
2. **Physical Media.** During the Software Warranty Period, GATESAIR warrants all physical media for the Software to be free of defects in material or workmanship. The customer's sole and exclusive remedy under this limited warranty will be, at GATESAIR's option, repair or replacement of the physical media for the Software.
3. **Software Warranty Exclusions.** The Standard Software Warranty does not apply to any Software that (A) has been altered or modified, except by GATESAIR; (B) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by GATESAIR; (C) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident; or (D) is used in ultra-hazardous activities.

DISCLAIMER OF WARRANTY

EXCEPT AS EXPRESSLY PROVIDED IN THIS STANDARD WARRANTY POLICY STATEMENT, GATESAIR HEREBY EXPRESSLY DISCLAIMS ALL REPRESENTATIONS, CONDITIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING BY WAY OF EXAMPLE AND NOT LIMITATION, THE IMPLIED WARRANTIES OF TITLE, MERCHANTABILITY, NONINFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE.

LIMITATION ON LIABILITY

NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, IN NO EVENT WILL GATESAIR BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING LOSS OF PROFITS, WHETHER ARISING IN CONTRACT, TORT, WARRANTY OR OTHERWISE, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE LIMITATIONS SET FORTH HERE WILL APPLY EVEN IF THE REMEDIES OF ERROR CORRECTION, REPAIR OR REPLACEMENT, REPERFORMANCE OF SERVICES AND REFUND OF PAYMENTS COMPLETELY FAIL OF THEIR ESSENTIAL PURPOSE. NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THE LIMIT OF GATESAIR'S LIABILITY (WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, BY STATUTE OR OTHERWISE) TO THE CUSTOMER OR TO ANY THIRD PARTY CONCERNING THE GATESAIR EQUIPMENT OR SOFTWARE LICENSES SOLD TO THE CUSTOMER AND WARRANTED HEREUNDER, GATESAIR'S PERFORMANCE OR NONPERFORMANCE, OR IN ANY MANNER RELATED TO THIS STANDARD WARRANTY POLICY STATEMENT, FOR ANY AND ALL CLAIMS WILL NOT IN THE AGGREGATE EXCEED THE ACTUAL AMOUNTS RECEIVED BY GATESAIR FOR THE SPECIFIC PRODUCT WITH RESPECT TO WHICH SUCH CLAIM IS MADE.

GOVERNING LAW AND JURISDICTION

Applicable Law, Venue and Jurisdiction. This Standard Warranty Policy Statement, and any disputes related hereto, shall be governed by and interpreted in accordance with the laws of the state of Ohio, USA, regardless of any law principles requiring the application of any other law. The parties agree that the exclusive venue for any action related to the dispute or interpretation of this Standard Warranty Policy Statement shall be in the courts with the appropriate jurisdiction located in Mason, Ohio, and each party irrevocably submits to the jurisdiction of each such court in any such action and waives any objection it may now or hereafter have to venue or personal jurisdiction in each such court. The prevailing party in any action related to the dispute or interpretation of this Standard Warranty Policy Statement shall be entitled to recover its reasonable attorneys fees incurred in pursuing the action, including those fees incurred throughout all bankruptcy and appellate proceedings.

Jury Waiver. THE PARTIES FURTHER AGREE, TO THE EXTENT PERMITTED BY LAW, TO WAIVE ALL RIGHTS TO A TRIAL BY JURY OF ANY ACTION RELATING TO THE DISPUTE OR INTERPRETATION OF THIS STANDARD WARRANTY POLICY STATEMENT, WHETHER SOUNDING IN CONTRACT, TORT, OR OTHERWISE. THE PARTIES SPECIFICALLY ACKNOWLEDGE THAT THIS WAIVER IS MADE KNOWINGLY AND VOLUNTARILY AFTER AN ADEQUATE OPPORTUNITY TO NEGOTIATE ITS TERMS.



GatesAir efficiently leverages wireless spectrum to maximize performance for multichannel TV and radio services, offering the industry's broadest portfolio helping broadcasters wirelessly deliver and monetize content. With nearly 100 years in broadcasting, GatesAir's exclusive focus on the over-the-air market helps broadcasters optimize services today and prepare for future revenue-generating business opportunities. All research, development and innovation is driven from the company's facilities in Mason, Ohio and fulfilled by the long-standing manufacturing center in Quincy, Illinois.

GatesAir's turnkey solutions are built on three pillars: Create, Transport and Transmit. The company is best known for powering over-the-air analog and digital radio/TV stations and networks worldwide with the industry's most operationally efficient transmitters. Groundbreaking innovations in low, medium and high-power transmitters reduce footprint, energy use and more to establish the industry's lowest total cost of ownership. Support for all digital standards and convergence with mobile networks ensure futureproof systems.

In television, GatesAir supplies proven, trusted wireless UHF and VHF solutions across all power requirements to support single-station over-the-air broadcasters on up to large national networks. The industry's most reliable software-definable exciters ensure broadcasters can optimize analog networks and quickly transition to digital TV in the field, with support for all major global DTV standards. GatesAir also supplies a wide array of over-the-air accessories to maximize transmitter control, network redundancy and signal compliance – along with installation, commissioning and ongoing support services – to deliver the industry's strongest turnkey approach for customers worldwide.

GatesAir has a well-established, on-the-ground presence in markets around the world. Every day, our more than 300 employees strive to deliver world-class solutions and service to customers in more than 130 countries. And we staff dozens of sales and support facilities in markets as diverse as France, Germany, China, Argentina, Mexico, Singapore, Australia and Dubai. This round-the-world presence ensures that every customer feels comfortable doing business with GatesAir.

Contact Information

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EMEA-APAC@gatesair.com

For more information, please visit gatesair.com

Global Service Locations



Meeting Customer Requirements

GatesAir is a company that can serve any need — from a single component to the design and deployment of an entire facility. Customers who partner with GatesAir not only gain access to the industry's broadest technology portfolio, they also gain access to a team of industry insiders who will collaborate to specify a broadcast operation's technology requirements by business outcomes — enabling broadcast operations to work smarter, faster and more profitably.

Technology Innovation

For nearly a century, GatesAir has pioneered the technologies that drive the world's leading television and radio broadcast operations. Our legacy of innovation has earned us nearly 250 global patents and more than 50 industry awards. From developing the world's first digital broadcast FM exciter, to helping launch the first commercial DTV station in the U.S., to enabling the first TV broadcast of a sporting event in 3D, GatesAir innovation helps our global customers keep pace with a continually evolving market.

Company Ownership

GatesAir is a portfolio company of The Gores Group, a global investment firm headquartered in Los Angeles, California. Founded in 1987, The Gores Group has approximately \$3.3 billion in assets under management and a diverse portfolio that includes technology, telecommunications, business services, industrial, health-care, media & entertainment, and consumer products.

The Gores Group collaborates closely with portfolio companies to establish viable operational blueprints, launch marketing and product initiatives and determine areas to invest for growth, to build stronger and better companies. For more information, please visit www.gores.com

Global Service and Support

GatesAir provides unrivaled long-term customer support for users of GatesAir-branded hardware and GatesAir-developed software solutions, as well as GatesAir-distributed equipment.

One of the most compelling reasons for selecting broadcast equipment from GatesAir is the level of support you will receive. We call it sustaining support, because its purpose is to sustain your equipment to a level that provides the highest return on your investment. We also want to sustain your confidence in GatesAir as your preferred supplier.

Service Bulletins

Service bulletins are produced to make customers aware of performance improvement, field modifications requirements and other corrective measures when it is considered to be of significant importance to the operation and performance of the equipment. GatesAir sends the bulletins to the original purchaser or if known, to the current user of the product in question. All bulletins are kept on file in the event there is a request for all bulletins of a particular model.

Update Kits

In addition to the service bulletins mentioned above, GatesAir makes available update parts kits that may be purchased by customers wishing to keep their equipment up-to-date. In cases where the updates involve issues of safety or necessary corrections to meet specifications, the kits are provided at no cost to the end user.

Hardware and Equipment

Our customers can call Field Service during our regular business hours, 8-5 M-F. Customers who require off-air emergency support can call 24 hours a day, 7 days a week and be connected with an on-call engineer.

Call +1 217-222-8200 end_of_the_skype_highlighting or e-mail: tsupport@gatesair.com; tsupport.europe@gatesair.com; tsupport.asia@gatesair.com

On Hand for Timely Delivery

Need something repaired? Notify the service support center for your product and region and call us for a RMA so we know it is coming. The GatesAir in-house technical repair facility provides our customers with the best repair, refurbishment, and upgrade opportunities available. Staffed by technically expert and product knowledgeable engineers and technicians, we perform services ranging from simple troubleshooting and component replacement to complete overhauls and refurbishments of all types of equipment. Our process includes testing your equipment using original factory test procedures. No repaired equipment will be returned until it performs to "as new" functionality or we will contact you to explain the problem and work out an alternative course of action.

Need short term replacement modules? Our services also include a rental program, which enables you to stay on the air while your equipment is being repaired. We have over 60 modules available for rent to support the vast majority of GatesAir –built equipment in service. For a complete list of rental equipment please contact the repair call center at 1-888-534-8246.

Onsite Support

When it's critical to have an added level of onsite support, GatesAir has an experienced team ready to assist you:

- ✦ Diagnose, troubleshoot, calibrate and check network interoperability
- ✦ Maintain, proof or evaluate current and existing systems
- ✦ Customize onsite support packages specifically to your needs.

Specialized Services

Onsite Field Checkout Commissioning Services: One of our trained engineers will review and verify that your installation meets manufacturer specifications. They will ensure product integration and interfaces for interoperability, and make sure your new or existing project gets online quickly.

GoLive Support Services: For on-air cutovers or system launches. Arrange to have a factory-trained specialist onsite when your system goes live to make sure you have the support you need while you perform this critical operation.

Radio and Television Transmission Services: GatesAir's highly trained, highly experienced staff has installed, commissioned and maintained hundreds of radio and television transmitters worldwide. Transmission onsite field engineers from GatesAir provide these ongoing transmission services:

- ✦ Turnkey installations
- ✦ Installation assistance and commissioning
- ✦ Preventive and after-warranty maintenance
- ✦ Troubleshooting and equipment repair

Support Pre-staging

Factory pre-staging is available on large system installs and makes sure everything is working as a complete system before it gets shipped to a remote location. It also reduces onsite setup time. Customers may preview their systems in person by visiting the factory for a Factory Acceptance Test.

Interoperability

Understanding how your existing products will operate with new products is one of the key components to ensuring your systems' interoperability. At GatesAir we recognize this is critical to the build-out success, so we've defined a group of pre-qualified product, guaranteed to be interoperable. Whether your product came from GatesAir or from another third-party provider, GatesAir will test and evaluate the interoperability of those products, before you've designed the complete system. This is the GatesAir Interoperability Evaluation Service. For more information, contact us.

Project Management

Make your next project a huge success with GatesAir's project management services. GatesAir Professional Services allows your organization to leverage our technology leadership, project management, and broadcast and media expertise to build and grow your business. Whether you are upgrading or expanding your current plant, designing a disaster recovery solution, building a new facility, or re-engineering your workflows, GatesAir has consultants that can help you plan and deliver successful projects.

Perform an onsite survey of all broadcast-related products

- ✦ Review your system for interoperability issues
- ✦ Perform a cost-saving study
- ✦ Create a customer service support plan
- ✦ Workflow requirements
- ✦ Design and training
- ✦ Identify project needs
- ✦ Maintenance projections
- ✦ Outsourcing resources
- ✦ Align strategic plan
- ✦ Coordinate project to ensure performance
- ✦ Collaborate and define ongoing needs for system lifecycle

Training

Investing in the industry's most advanced and dependable broadcasting equipment is the first step to building a reliable and efficient operation. The second is securing the knowledge your team needs to maintain and operate your equipment at peak performance. GatesAir is also the only manufacturer to sponsor a training center with a full complement of general training classes as well as GatesAir product courses. Customized training is also available.

International Training

As part of our commitment to helping broadcasters around the world, GatesAir offers an annual two-week training session for broadcast engineers from developing nations. This program is a joint effort between GatesAir and the United States Telecommunications Training Institute (USTTI). Since 1983 over 250 engineers from 60 countries have participated in this program.

Service Agreements

GatesAir Service agreements ensure your products are supported after their standard warranty period expires. Have your service in place to take over when your warranty expires. GatesAir offers multiple levels of Services to fit your individual needs. Let us help you find the right level of support coverage.

GatesAir performs services ranging from simple troubleshooting and component replacement to complete overhauls and refurbishments of all types of equipment. Staffed by expert engineers and technicians, our process includes testing your equipment using original factory test procedures. GatesAir also offers a rental program, which enables you to stay on the air while your equipment is being repaired. We have modules available for rent to support the vast majority of GatesAir-built equipment in service.

World's Largest Transmitter Facilities!

Meeting customer requirements for delivery and quality is foremost for Gatesair. GatesAir maintains an ISO9001 registered transmitter manufacturing facility in Quincy, IL USA.

Several buildings in the Quincy location are dedicated to manufacturing. The main manufacturing building at 30th and Wisnann Lane is 125,000 square feet and houses the following functions: Sheet Metal and Machine Shop, Printed Wiring Board Assembly and Test, Cable Assembly, High Power Module Assembly and Test, L-Band/UHF/VHF Product Assembly and Test and FM Radio Product Assembly and Test.

There are three leased buildings totaling 55,000 square feet used for AM Radio Product Assembly and Test and Phasor/Antenna Control Unit Assembly and Test. These buildings are located 3 miles north of the main manufacturing facility.

Beyond the manufacturing space in Quincy, Illinois there is a 100,000 square foot administrative building which houses Manufacturing Engineering, Finance, Order Administration, Service, Service Parts, Sales Support and the Order Administration functions. There is also a separate 15,000 square feet building where technical training courses are offered to customers.

Production capacity

In any given day, there are approximately 15 different models of transmitters simultaneously being assembled and tested at the Quincy, Illinois manufacturing facilities:

- FM transmitters, a mix of solid state and tube units
- AM transmitters, all solid state
- VHF transmitters, all solid state
- UHF transmitters, a mix of solid state and tube units.
- L-Band transmitters, all solid state

The mix and volume of product coming out of the GateAir factory is unmatched by any other transmitter manufacturer. The operation runs one full shift per day. There are only a couple of areas where there are 2 shifts running today, so future needs for expanded output will come from more personnel working on a second shift.

Types of Machinery

\$2-3 million of capital is invested in the Manufacturing operation each year. All GatesAir manufacturing plants are a subject of continuous improvement and capital investment. Most of the capital investment is driven by new technologies, new products and efficiency improvements for the operation.

Other major equipment in the plants:

Sheet Metal Shop: 2 Wiedematic Punch Presses, 2 Amada Press Brakes, 2 Haeger Insertion Presses, Timesaver Sanding/Finishing Machine.

Machine Shop: 3 Manual Lathes, 2 Bridgeport Manual Mills, 2 NC Bridgeport Mills, NC Okuma Milling Center, NC Mazak Lathe, Coil Winding Machine.

Cable and Printed Wiring Board Assembly:

Flow Solder Machine, Automatic Coaxial Strippers, Automatic Wire Marking Machine, and Automated Wire Cutting/Stripping Machines.

High Power Module Assembly and Test: Video Demodulators, Video Test Signal Generators, Power Meters, Signal Generators, and Digital Generators. Temperature Probe, Network Analyzers, Video Measurement Set, and Spectrum Analyzers.

Radio Assembly and Test: 10 Precision Audio Test Stations, Pulse Generators, Function Generators, Oscilloscopes, Frequency counters, Sweep Generators, Modulation Monitors, Digital Power Analyzer, Spectrum Analyzers, Network Analyzers, FM Digital Stereo Modulation Monitor, and R&S Modulation Analyzers.

TV Assembly and Test: Signal Generators, Vectorscopes, Frequency Counter, Waveform Monitor, Video Multiplexers, Tracking Generators, Oscilloscopes, Spectrum Analyzers Modulation Analyzers, PAL and NTSC Video Measurement Equipment, Digital Oscilloscopes, Network Analyzers, Digital Video Measurements System, Digital Average Power Meter, and Tektronix TV Demodulator. Customer Acceptances

Formal customer acceptance is an option available that demonstrates the product performing to specification, at the same time, giving the customer an opportunity to confirm confidence by inspecting the manufacturing process. The number of formal customer acceptances performed in the plant each year varies. Overall, the average is two formal customer acceptances per month. Most products ship directly to the customer after the factory test is completed.

Quality

GatesAir manufacturing facilities have been ISO 9001 registered since December 1994. There is a comprehensive and documented quality system in place that covers all major facets of the operation: the management review process, product design, order administration, inspections, all manufacturing operations, purchasing, equipment calibration, and training. This system is monitored through an on-going internal and external audit program.

There is an intense focus on improving the manufacturing operation. A team of 10-15 people work to transform and change an area. The team is given a very specific mandate on what goals need to be achieved. The team is trained on some very specific principles, which will help them achieve the goals: once piece flow, waste identification and removal, spaghetti diagrams, kanban pull systems, and workplace organization. The team then implements the changes.

To ensure transmitters are manufactured under the most exacting conditions, GatesAir has voluntarily sought and achieved ISO Quality Standard registration. GatesAir is registered with current certification on file for the following manufacturing, testing, environmental and quality standards:

ISO 9001:2008 – Certificate of Registration of Quality Management System; ISO 14001:2004 – Certificate of Registration of Environmental Management System; OSHAS 18001:2007 – Certificate of Registration of Occupational Health and Safety Management System

RoHS – All products/parts/materials offered conform fully with Directive 2011/65/EU – European Union (EU) Restriction on Hazardous Substances – sets limits on the use of restricted substances found in electronic equipment: Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent Chromium (Cr-V1), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE).

WEEE Directive – HBC is fully compliant with EU Directive 2002/96/EC– The European Union Directive on Waste from Electrical and Electronic Equipment

Shipping

Our shipping and packing department is the best in the world for getting the orders to the customer on time and undamaged. The Shipping department ships product to over 100 countries each year. There is extensive traffic knowledge on how to ship product anywhere in the world using almost any mode of transportation. The packing and crating for all shipments (domestic and international) is done in-plant. The knowledge gained in preparing shipments for international shipment over the past 40 years is important to making sure the equipment arrives in good condition.



NSAI

Certificate of Registration of Occupational Health and Safety Management System to OHSAS 18001:2007

The National Standards Authority of Ireland certifies that:

GatesAir
3200 Wismann Lane
Quincy, IL 62305
USA

has been assessed and deemed to comply with the requirements of
the above standard in respect of the scope of operations given
below:

**Manufacturing, Order Management, Program
Management, Supply Chain Management, Sustaining
Engineering and Repair of Radio, Television, and
Networking Products for use in Broadcast
Communications and Related Media Industries.**

Approved by:
Kevin D. Mullaney
Chief Executive Officer

Approved by:
Lisa Greenleaf
Operations Manager

Registration Number: 18.4117X
Certification Granted: Sep 04, 2007
Effective Date: Mar 08, 2016
Expiry Date: Feb 22, 2019



National Standards Authority of Ireland, 20 Trafalgar Square, Nashua, New Hampshire, NH 03063, USA T +1 603 882 4412



NSAI

Certificate of Registration of Quality Management System to ISO 9001:2008

The National Standards Authority of Ireland certifies that:

GatesAir
3200 Wismann Lane
Quincy, IL 62305
USA

has been assessed and deemed to comply with the requirements of the above standard in respect of the scope of operations given below:

Manufacturing, Order Management, Program Management, Supply Chain Management, Sustaining Engineering and Repair of Radio, Television, and Networking Products for use in Broadcast Communications and Related Media Industries.

Approved by:
Kevin D. Mullaney
Chief Executive Officer

Approved by:
Lisa Greenleaf
Operations Manager

Registration Number: 19.1841/A
Certification Granted: Dec 22, 1994
Effective Date: Feb 23, 2016
Expiry Date: Sep 15, 2018



National Standards Authority of Ireland, 20 Trafalgar Square, Nashua, New Hampshire, NH 03063, USA T +1 603 882 4412



NSAI

Certificate of Registration of Environmental Management System to ISO 14001:2004

The National Standards Authority of Ireland certifies that:

GatesAir
3200 Wismann Lane
Quincy, IL 62305
USA

has been assessed and deemed to comply with the requirements of
the above standard in respect of the scope of operations given
below:

**Manufacturing, Order Management, Program
Management, Supply Chain Management, Sustaining
Engineering and Repair of Radio, Television, and
Networking Products for use in Broadcast
Communications and Related Media Industries.**

Approved by:
Kevin D. Mullaney
Chief Executive Officer

Approved by:
Lisa Greenleaf
Operations Manager

Registration Number: 14.4127X
Certification Granted: Sep 04, 2007
Effective Date: Mar 08, 2016
Expiry Date: Sep 15, 2018



National Standards Authority of Ireland, 20 Trafalgar Square, Nashua, New Hampshire, NH 03063, USA T +1 603 882 4412