



Broadcast Electronics



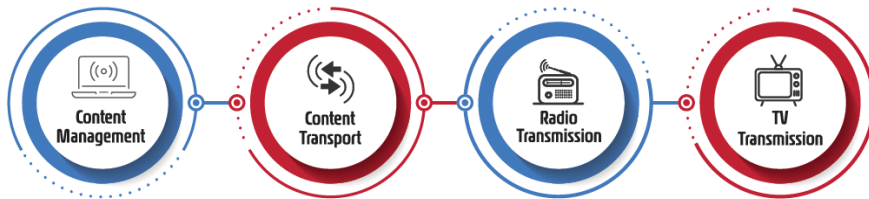
MARTI GRX Series

Studio to Transmitter Link

Overview

Broadcast Electronics has an over 65-year legacy of providing innovative technology to enable radio and TV broadcasters to deliver compelling content to their audiences and create revenue-generating business opportunities. Supporting global innovation and next-generation content delivery, Broadcast Electronics embodies a customer-first approach to the market from the company's headquarters in Quincy, Illinois in the United States.

Customer-focused solutions from Broadcast Electronics are built on four technological areas:

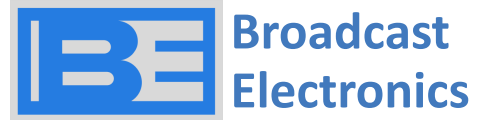


AudioVault is BE's award-winning suite of Content Management software enabling live and automated program creation and playout, news solutions, and digital logging as well as data management.

The Marti range enables content Transportation, powering audio contribution and distribution for point-to-point (STL) wireless connectivity.

Radio Transmission is the heart of Broadcast Electronics with multiple product lines to support AM and FM transmission. The BE STX line of HD Radio® ready FM transmitters provides superior sonic quality and low operating cost. The BE ETX analog FM transmitters deliver compact, efficiency in a redundancy-equipped package. The BE AM line of transmitters provides rugged, reliable, energy-efficient peace of mind for your AM radio station.

Broadcast Electronics' complete line of **low and high-power TV transmitters** are designed around a software defined core exciter that can cover all the global analog and digital TV standards. With solutions covering UHF and VHF frequency bands and air-cooling configurations, BE can craft the right solution to meet your technical, budgetary, and operating requirements.



Broadcast Electronics is a global technology company dedicated to driving innovation in broadcast technology providing market leading solutions for software-based content management, Radio & Television transmission, and scientific applications of radio frequency devices.

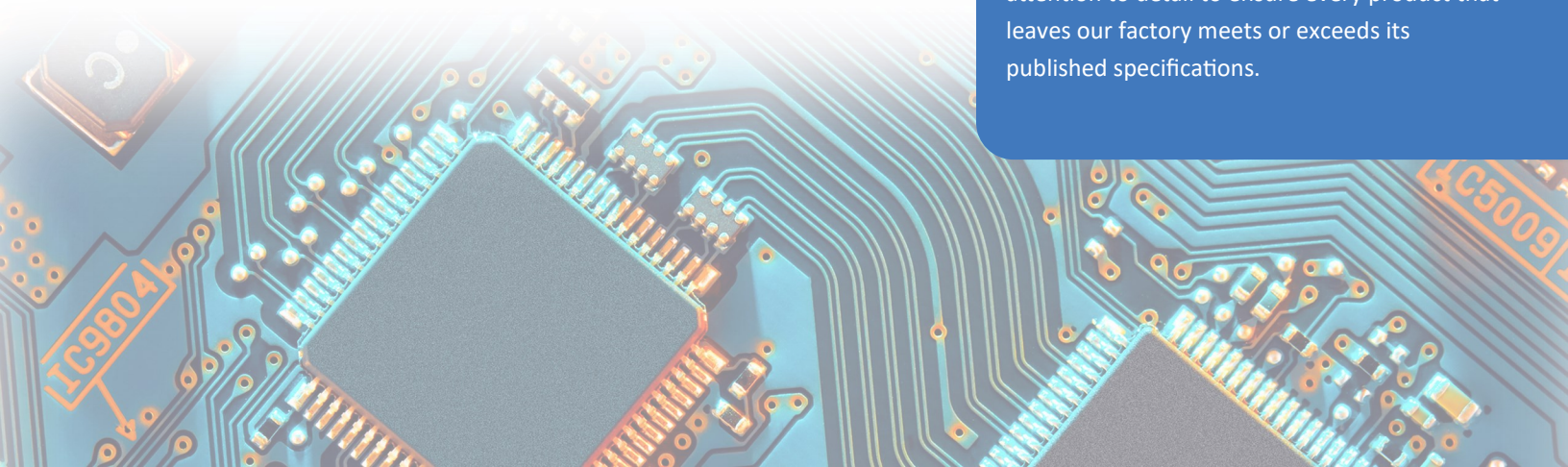
Broadcast Electronics, has been providing high-tech solutions for broadcasters for more than 65 years in over 170 countries. All of our products and services come from a heritage of creativity and innovation unmatched in the industry, focused on developing innovative solutions for customers problems.



Every major innovation that shaped modern radio originated in Quincy, and it is here that BE products are designed, supported, and manufactured today.

Our facility in Quincy employs the latest instruments for research, new product design, prototype fabrication and testing.

We take advantage of the best practices of automated production, adding human attention to detail to ensure every product that leaves our factory meets or exceeds its published specifications.



MARTI GTX Series

The Marti name is synonymous with program audio link equipment since it was established in 1960 by George Marti in Texas. Marti became part of BE in the 1990's continuing a legacy of innovation.

The GRX series is the latest in a long timeline of reliable, efficient, and performance-leading MARTI Studio to Transmitter Link systems from Broadcast Electronics. GRX has been designed for simple frequency agility, world-class audio performance, maximum reliability and uptime, simplified and fast field repair, built-in redundancy, and the flexibility to support continued technological updates over time.

Cost Effective—High Performance

The Marti GRX series is a modern direct-synthesis, frequency-agile Studio to Transmitter Link (STL) with a wide frequency range spanning from VHF to SHF. Both transmitter and receiver offer full digital readout with a simple and intuitive front panel jog wheel, coupled with extensive RS232-based programmability and monitoring. A web-based UI is also available.

Marti GRX series combines the best characteristics from today's cutting-edge technology to deliver a high-performance, cost-effective solution with models from 200MHz to 2.6 GHz.

We didn't stop there, drawing from BE's decades of providing the best-sounding FM exciter on the market, we incorporated a digital direct-to-channel FM modulator and ultra-reliable highly efficient power supplies and RF amplifiers to deliver the maintainability and robustness our customers expect from Marti with a new level of performance and reliability at an exceptional price.

Flexible options

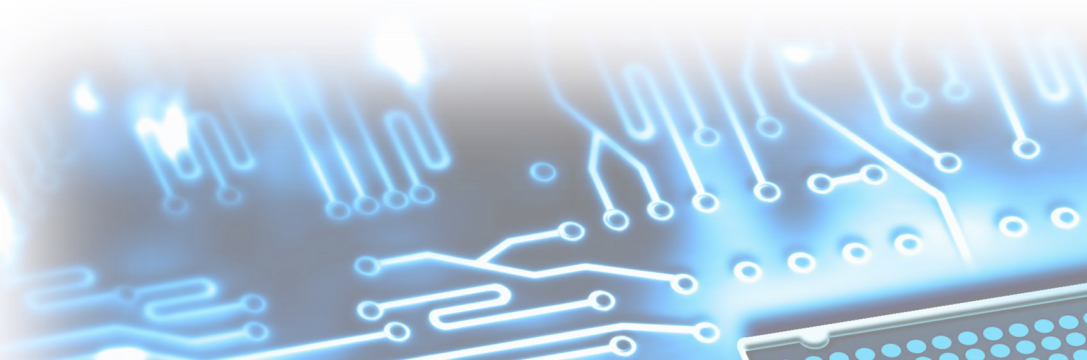
BE knows that in the fast-paced and evolving world of broadcast radio, the adage—the only constant is change—holds. You need to invest in cost-effective tools for today but maintain the flexibility to expand your system when things change tomorrow—all without ripping things out and starting over. The GRX series comes standard with extensive capabilities to address almost all situations, but also we offer a wide selection of cost-effective options to protect your original investment and extend the usability of the STL system to deliver your content to your audience.

Options like a digital stereo generator allows you to configure the STL to match your audio distribution system design, ready for digital, AES inputs can be added, for IP-based control, just add the optional web browser.

You bring the content; we will help you deliver it to your audience cost-effectively!

Put these powerful capabilities to work for you

- Ultra compact size and low weight
- Outstanding Audio performance
- Direct-to-channel digital modulator, with 10 or 25 kHz programming step.
- External in-field programmability of frequency and power, without any special instrument over a broad range.
- Simple and modular internal construction facilitates stage testing and servicing.
- Stable, high precision, and temperature compensated crystal time-base.
- Balance/unbalanced audio, MPX, and separate auxiliary SCA / RDS channel input, wide range level adjustable in small steps.
- Up to 6 separate LF input and output connectors plus RF/IF monitor for extended flexibility of use.
- Optional high-performance digital stereo-encoder and decoder. This option may also be installed as an upgrade in the field.
- Narrow low-loss microwave input filter for high sensitivity and excellent performance in highly noisy RF environments.
- High efficiency, low-noise switch-mode power supply, with extended 90-260 VAC input range and battery backup input with recharging option.
- Complete digital control of all internal circuitry and extremely wide monitoring facilities. RS232 port for complete remote control.



GTX Front & Rear Panel



- 1. Graphic LCD display
- 2. Rotary menu selector
- 3. LED indicators
- 4. Handles for simple removal from rack



- 5. AC power supply input and fuse
- 6. AC Mains On/Off
- 7. DC Power Input
- 8. Ground screw
- 9. RF Input / Output
- 10. Stereo Input/ Output
- 11. Mono Input/ Output
- 12. MPX Input/Output & Monitor
- 13. Remote Control—GPIO
- 14. RS232 connector

Specifications

Frequency Range	Marti Transmitter STL Model	Features
215 – 270 MHz	GTX-200M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GTX-200S	Adds L&R Stereo encoder and inputs to GTX-200M
	GTX-200AES	Adds AES/EBU Digital Audio interface to GTX-200S
300 – 380 MHz	GTX-300M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GTX-300S	Adds L&R Stereo encoder and inputs to GTX-300M
	GTX-300AES	Adds AES/EBU Digital Audio interface to GTX-300S
400 – 470 MHz	GTX-400M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GTX-400S	Adds L&R Stereo encoder and inputs to GTX-400M
	GTX-400AES	Adds AES/EBU Digital Audio interface to GTX-400S
810 – 890 MHz	GTX-800M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GTX-800S	Adds L&R Stereo encoder and inputs to GTX-800M
	GTX-800AES	Adds AES/EBU Digital Audio interface to GTX-800S
890 – 960 MHz	GTX-900M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GTX-900S	Adds L&R Stereo encoder and inputs to GTX-900M
	GTX-900AES	Adds AES/EBU Digital Audio interface to GTX-900S

Frequency Range	Marti Receiver STL Model	Features
215 – 270 MHz	GRX-200M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GRX-200S	Adds L&R Stereo encoder and inputs to GRX-200M
	GRX-200AES	Adds AES/EBU Digital Audio interface to GRX-200S
300 – 380 MHz	GRX-300M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GRX-300S	Adds L&R Stereo encoder and inputs to GRX-300M
	GRX-300AES	Adds AES/EBU Digital Audio interface to GRX-300S
400 – 470 MHz	GRX-400M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GRX-400S	Adds L&R Stereo encoder and inputs to GRX-400M
	GRX-400AES	Adds AES/EBU Digital Audio interface to GRX-400S
810 – 890 MHz	GRX-800M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GRX-800S	Adds L&R Stereo encoder and inputs to GRX-800M
	GRX-800AES	Adds AES/EBU Digital Audio interface to GRX-800S
890 – 960 MHz	GRX-900M	MPX, Mono, and Stereo composite inputs. Full Digital Control. RS232 Port
	GRX-900S	Adds L&R Stereo encoder and inputs to GRX-900M
	GRX-900AES	Adds AES/EBU Digital Audio interface to GRX-900S

Specifications	
Frequency Ranges	215MHz—270 MHz 300 MHz—380 MHz 400 MHz—470 MHz 810 MHz—890 MHz 890 MHz—960 MHz 1.4 GHz—2.6 GHz (Special request)
Output Power	7-15W watts (215 to 960MHz) 2-5 watts 1.4 to 2.6 GHz
Modulation Type	FM, 75kHz Peak Deviation 180kF3E in Mono 256kF3E in stereo
Signal to Noise	80db typical Mono, 77dB typical stereo
Compliance	Meets applicable FCC, IC, ETSI standards
TX Audio/MPX Input Level	-3.5 to +12.5 dBm
RX Audio/MPX Output Level	-1.5 to +12 dBm (Mono & MPX) 0 to +10 dBm (Stereo)
Frequency Selection	Front panel frequency agile selection
Preemphasis	0/50/75us
Distortion	0.020%
RF Connector	N female / 50 Ohm
Audio I/O	Stereo Left and Right XLR, AES XLR, MPX composite BNC
Mains Power Input	AC input: 90-260 Vac 50/60 Hz DC Supply for Backup: 22-28 VDC < 2.8A @24 VDC
Power Consumption	GTX: 45W @ 5W output, <80 W @15 W output GRX: <15W
Operating Temperature	Recommended: 32 to 95° F, 0 to 35° C Maximum: 14 to 113° F, -10 to 45° C
Dimensions	19.02x3.46x12.6 in 483x88x320 mm
Weight	12.13lbs / 5.5 Kg

Service and Support

We know that having the right support behind a product is every bit as important as the features and capabilities it delivers. At Broadcast Electronics we are committed to providing you with not only great products and software but a dedicated team of service experts to help you keep your station running smoothly for years to come.

Training

Broadcast Electronics has long provided training programs for our products to educate and prepare users to operate and maintain them in the most effective possible manner. Training is offered for all styles of transmitters and Audio Vault systems, featuring a mix of instruction with hands-on operation and troubleshooting. Training programs can be crafted to meet your local needs, offered in our facility, at your location or online. Many of our programs can provide SBE ongoing educational credits.

Warranty

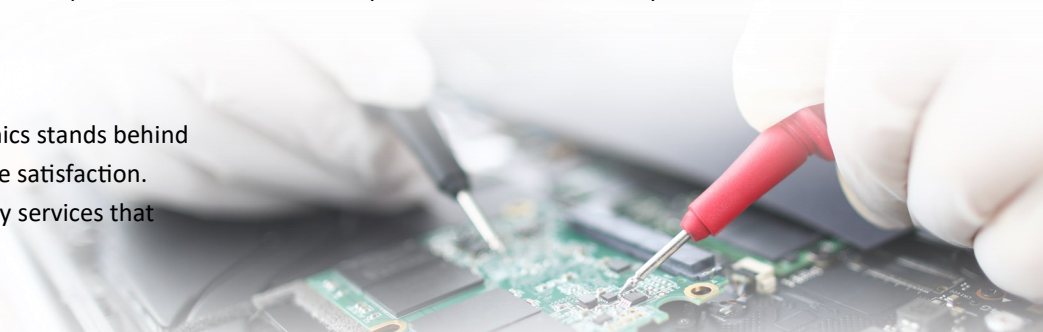
You can rest assured that Broadcast Electronics stands behind its products and services to provide complete satisfaction. Our products offer a standard set of warranty services that exceed others in the industry.

Repair Service

As a leader in providing innovative products and solutions to broadcasters around the globe, Broadcast Electronics understands the need for long life and years of trouble-free service. You can feel secure that if disaster strikes and your products need service, we offer complete repair and refurbishment service to get you back on the air delivering your high-quality programming quickly.

On-Site Service and Installation

Whether you need assistance troubleshooting an existing transmitter or Audio Vault system or require a complete installation of a new one, the global service team at Broadcast Electronics is here to help you get everything up and running quickly. We also offer support for commissioning, on-site set-up and testing, or simply providing an extra pair of hands. Whatever your needs, we can assist you.





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