

Mission Critical Reliability for In-Building Coverage . . .

The New **Signal Booster II** provides Public Safety grade reliability and coverage in disadvantaged RF locations for First Responders, Public Safety/Governmental agencies and Private System Users. Reliable RF coverage is gained in basements, parking garages, correctional facilities, courthouses, hospitals, malls and schools. Other challenging environments covered by the **Signal Booster II** product include subways and rapid transit systems, airports, stadiums/arenas, high-rise buildings and large private enterprise facilities and campuses.

Whether you are on the front line and depend on a reliable communication system or you are the systems integrator responsible for implementing a dependable system, this new compact design facilitates installation and system optimization for rock solid operation via a simple man-machine interface. Imbedded features for ease of initial setup include decoupled test points for signal level detection, menu driven gain setting, front panel LED monitors for amplifier and power status, and an at-a-glance LED bar graph to indicate relative level of Output Level Control (OLC). Additionally, this product offers a unique on-board OLC DataLog feature that archives a User Signal Profile to facilitate optimum system configuration and performance.



Output Level Control (OLC) Circuit Monitors and Controls RF Output Power

- Maintains maximum required output power while preventing damage and excessive emissions per FCC requirements
- Easy-to-read LED bar graph
- Unique OLC DataLog feature facilitates system maintenance and optimization

Microprocessor Controlled System Ensures Reliable Operation and Flexible Configuration

- Simple, back-lit liquid crystal display (LCD) and switch control
- Current, voltage and temperature monitoring
- Fault monitoring and alarm annunciation

Decoupled RF Test Points For Simplified Service

- Allow fast system measurements in both uplink and downlink directions
- Monitor signals for performance optimization
- Integrated design facilitates non-intrusive measurements

Secure, Non-Vented NEMA Enclosure Suitable for Extreme Indoor and Outdoor Environments

Fault Monitoring and Alarming Essential for Maintaining Reliable Communications

- Control system continuously monitors parameters including voltage, current, temperature and OLC activity
- LEDs on each module quickly annunciate source of fault
- Fault triggers annunciation on panel and alarm contact state change
- Fault triggers annunciation on panel, alarm contact closure and internal recording of failed subsystem

Card Cage Modularity

- Easy "slide-in" replacement process
- Facilitates ease of service and system configuration

High Performance Bandpass Filters

- Configured to customer requirements and addresses many specifications requiring custom passbands
- Models available with passbands that range from 3 MHz (NPSPAC with excellent out-of-band rejection) to 18 MHz for full band coverage

Programmable Gain Setting

- Ease of initial configuration via front panel
- When used in conjunction with OLC DataLog, simplifies post-installation adjustments

Three Major Gain Ranges Available Low:+ 45 db maximum, Medium:+ 60 db maximum, High:+ 80 db maximum

Simple Setup is Achieved Via an Integral, Man-Machine Interface - No Tools Required

DC Backup Interface Accepts +24 to +30 VDC



Specifications

800 MHZ

	Low Gain (In-Line) Booster	Medium Gain Booster	High Gain (Head-End) Booster
Maximum Gain:	+45 dB	+60 dB	+80 dB
Gain Adjustment:	Programmable attenuation, 0-30 dB, 0.5 dB steps	Programmable attenuation, 0-30 dB, 0.5 dB steps	Programmable attenuation, 0-30 dB, 0.5 dB steps
3rd Order Output Intercept Point:	+55 dBm minimum, with no attenuation	+55 dBm minimum, with no attenuation	+55dBm minimum, with no attenuation
Maximum Input Level:	0 dBm	0 dBm	0 dBm
Output Power:	+30 dBm (single carrier)	+30 dBm (single carrier)	+30 dBm (single carrier)
RF Sampler:	PA Output sampler ports	PA Output sampler ports	PA Output sampler ports
Noise Figure (without attenuation):	6.5 dB maximum,	6.5 dB maximum,	3.5 dB maximum,
Propagation Delay***:	<1 μ s	<1 μ s	<1 μ s
Operating Temperature Range:	-30°C to +50° C	-30°C to +50° C	-30°C to +50° C
Nominal impedance:	50 ohms, <1.5:1 VSWR	50 ohms, <1.5:1 VSWR	50 ohms, <1.5:1 VSWR
Input/Output connectors:	N female	N female	N female
RF Sampler Connectors:	BNC female	BNC female	BNC female
AC Power Input:	100-240 VAC; 50-60 Hz	100-240 VAC; 50-60 Hz	100-240 VAC; 50-60 Hz
DC Input Voltage:	+24 to +30 VDC	+24 to +30 VDC	+24 to +30 VDC
Unit Power Consumption (AC/DC):	<100 VA	<100 VA	<100 VA
Housing*:	Painted Steel NEMA 4	Painted Steel NEMA 4	Painted Steel NEMA 4
Nominal size:	24" x 24" x 8"	24" x 24" x 8"	24" x 24" x 8"
Net weight:	< 85 lbs.	< 85 lbs.	< 85 lbs.
FCC Type Acceptance**:	EZZ5PI031202	EZZ5PI031202	EZZ5PI031202

*Consult factory for additional housing options.

**Class B Type Booster. Type Acceptance under FCC Rules Part 90.

*** <1.5 μ s for NPSPAC unit.

806-869 MHz Signal Booster II Model Matrix

Model Number	Passbands	Gain
61-89A-50-A18-G1	18 MHz BW (806-824 / 851-869 MHz)	80 dB
61-89A-50-B18-G1	18 MHz BW (806-824 / 851-869 MHz)	60 dB
61-89A-50-C18-G1	18 MHz BW (806-824 / 851-869 MHz)	45 dB
61-89A-50-A03-G1	*NPSPAC (821-824 / 866-869 MHz)	80 dB
61-89A-50-B03-G1	*NPSPAC (821-824 / 866-869 MHz)	60 dB
61-89A-50-C03-G1	*NPSPAC (821-824 / 866-869 MHz)	45 dB
61-89A-50-A05-G1	5 MHz BW (Customer defined)	80 dB
61-89A-50-B05-G1	5 MHz BW (Customer defined)	60 dB
61-89A-50-C05-G1	5 MHz BW (Customer defined)	45 dB
61-89A-50-A10-G1	10 MHz BW (Customer defined)	80 dB
61-89A-50-B10-G1	10 MHz BW (Customer defined)	60 dB
61-89A-50-C10-G1	10 MHz BW (Customer defined)	45 dB
61-89A-50-A15-G1	15 MHz BW (Customer defined)	80 dB
61-89A-50-B15-G1	15 MHz BW (Customer defined)	60 dB
61-89A-50-C15-G1	15 MHz BW (Customer defined)	45 dB

*NPSPAC downlink filter provides >38 dB of rejection \pm 1 MHz from the passband edge (either side).



8625 Industrial Parkway, Angola, NY 14006
 Tel: 716.549.4700
 Fax: 716.549.4772
 Email: sales@txrx.com
 Website: http://www.txrx.com