



Bird Technologies® TX RX Systems Brand

Signal Booster II

UHF Series

Mission Critical Reliability for In-building Coverage . . .

The Bird® 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

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

Simple setup is achieved Via an Integral, Intuitive Web Browser User Interface

- ▶ No Tools Required

Optional Features Available

- ▶ Comm Card II for remote communications and control
- ▶ Fiber optic link interface*
- ▶ Redundant PA configuration*
- ▶ -48 VDC input*
- ▶ Automatic Voice / Pager Dialer

DC Backup Interface Accepts +24 to +27 VDC and optional -48 VDC

*Contact Factory for these models

Microprocessor Controlled Fault Monitoring and Alarming Ensures Reliable Operation and Flexible Configuration

- ▶ Control system continuously monitors parameters including voltage, current, temperature and OLC activity
- ▶ LEDs on each module quickly annunciate source of fault
- ▶ Simple, back-lit liquid crystal display (LCD) and switch control
- ▶ 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
- ▶ Standard models available with a variety of passbands*

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, Medium:+ 60 dB, High:+ 80 dB

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SPECIFICATIONS

Frequency Range	See chart below
Passbands	See chart below
Minimum Gain (dB)* (depending on model)	+45 dB +60 dB +80 dB
Gain Adjustment	Programmable attenuation, 0-30 dB, 0.5 dB steps
3rd Order Output Intercept Point	+54 dBm minimum, with no attenuation
Maximum Input Level	0 dBm
RF Sampler	PA Output sampler (-30 dB)
Operating Temperature Rang	-30°C to +50° C
Nominal impedance	50 ohms, <1.5:1 VSWR
Input/Output connectors	N female
RF Sampler Connectors	BNC female
AC Power Input	100-240 VAC; 50-60 Hz
DC Input Voltage	+24 to +27 VDC -48 VDC optional

Maximum Output Power	32 dBm (single carrier)
Noise Figure (without attenuation)	
61-65-50	8 dB max for narrow BW 3 dB max for wide BW
61-70-50, 61-71-50, 61-72-50	8 dB max for Medium Gain, High Gain (Head end) 11 dB max for Low Gain (in Line)
Propagation Delay	<0.5 µs
Unit Power Consumption (AC/DC)	<150 VA
Housing**	Painted Steel NEMA, Stainless Steel NEMA 4X, 19 inch Rack Mount
FCC Certification***	EZZ5P1616550
Industry Canada Certification***	1940A-PI616550

61-65-50 SERIES SIGNAL BOOSTER II MODEL MATRIX

Model Number	Frequency Range	Passbands	Min. Guardband	Nominal Size	Net Weight
61-65-50-X0.8-XX	406-430 MHz	0.8 MHz	4.0 MHz	30" x 24" x 12"	130 lbs
61-65-50-X1.0-XX	406-430 MHz	1.0 MHz	4.0 MHz	30" x 24" x 12"	130 lbs
61-65-50-X2.0-XX	406-430 MHz	2.0 MHz	3.0 MHz	30" x 24" x 12"	130 lbs
61-65-50-X3.0-XX	406-430 MHz	3.0 MHz	4.0 MHz	30" x 24" x 12"	130 lbs
61-65-50-X5.0-XX	406-430 MHz	5.0 MHz	5.0 MHz	30" x 24" x 12"	130 lbs

61-70-50, 61-71-50, 61-72-50 SERIES SIGNAL BOOSTER II MODEL MATRIX

Model Number	Frequency Range	Passbands	Min. Guardband	Nominal Size	Net Weight
61-70-50-X0.15-XX	450-470 MHz	0.15 MHz	4.85 MHz	30" x 24" x 12"	130 lbs
61-70-50-X0.5-XX	450-470 MHz	0.5 MHz	4.5 MHz	30" x 24" x 12"	130 lbs
61-70-50-X0.75-XX	450-470 MHz	0.75 MHz	4.25 MHz	30" x 24" x 12"	130 lbs
61-70-50-X1.0-XX	450-470 MHz	1.0 MHz	4.0 MHz	30" x 24" x 12"	130 lbs
61-70-50-X1.25-XX	450-470 MHz	1.25 MHz	3.75 MHz	30" x 24" x 12"	130 lbs
61-70-50-X2.0-XX	450-470 MHz	2.0 MHz	3.0 MHz	30" x 24" x 12"	210 lbs
61-71-50-X0.15-XX	470-490 MHz	0.15 MHz	2.85 MHz	30" x 24" x 12"	130 lbs
61-71-50-X0.5-XX	470-490 MHz	0.5 MHz	2.5 MHz	30" x 24" x 12"	130 lbs
61-71-50-X0.75-XX	470-490 MHz	0.75 MHz	2.25 MHz	30" x 24" x 12"	130 lbs
61-72-50-X0.15-XX	488-512 MHz	0.15 MHz	2.85 MHz	30" x 24" x 12"	130 lbs
61-72-50-X0.5-XX	488-512 MHz	0.5 MHz	2.5 MHz	30" x 24" x 12"	130 lbs
61-72-50-X0.75-XX	488-512 MHz	0.75 MHz	2.25 MHz	30" x 24" x 12"	130 lbs

* **X = Gain** A=80 dB, B=60 dB, C=45 dB

** **XX = Housing Options** G1: Painted Steel NEMA 4, G2: Stainless Steel NEMA 4X, RM: 19 inch Rack Mount (Frequencies MUST be provided with order).

Model Number Example 61-70-50-A0.15-G1

*** Class B Type Booster. Type Acceptance under FCC Rules Part 90 and Industry Canada Certification Part RSS-131.

Please Contact Factory 716.549.4700 for non-standard configurations with custom frequency, windows and bandwidth.



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