



Bird Technologies®

Digital Signal Booster

613-8-Series

Bird Technologies, TX RX Systems Digital Signal Booster operates in the 700/800 MHz range with 1-60 programmable digital filters for both uplink and downlink. Filter center frequency and characteristics are fully programmable to meet the demands of various systems and signals such as APCO 25 phase II. Filter bandwidth is user programmable from 6.25 kHz to 15 MHz. All state-of-the-art product components are protected by a NEMA 4 style enclosure to meet the demands of the NFPA requirements. Intuitive web browser interface allows booster to be easily configured for changing RF environments.

PROBLEMS ▶ SOLUTIONS

Noise and Interference that cause communication problems in a crowded spectrum.

- ▶ Digital booster can amplify several individual channels or narrow bands of frequencies (amplifying the desired spectrum and preventing interference to other users).

Changes in RF environment.

- ▶ An intuitive web browser user interface offers not only local but also remote access from any compatible PC on the network maximizing flexibility to easily implement system changes such as output power, center frequency, filter shape, and group delay.

System coverage is difficult to assess.

- ▶ Built-in pilot signal capability. The 1 kHz FM modulated carrier allows simple SINAD qualification testing.

APPLICATIONS

The Digital booster provides Public Safety grade reliability and coverage in challenging disadvantaged RF conditions.

Use as head-end booster for a system that is donored "off the air" in an RF congested area.

One digital booster can connect to any number of broadband boosters (SBII or SBI).

Minimizes noise and interference potential in urban RF congested areas.

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OPTIONS

Enclosure Dimensions 24" x 16" x 8"
Single Band

Enclosure Dimensions 30" x 20" x 10"
Dual Band

NFPA/IFC Compliance

10 MHz High Precision Reference Improve stability for Filters with sharp roll off

Fiber Optic Interface

MODEL NOMENCLATURE 613-8XX-YYUD-Z-O

XX 3B - 764-806 MHz
9A - 806-869 MHz
3E - 764-869 MHz

YY A - 1 x 14 (700 MHz) or (800 MHz) Filter
B - 1 x 30 (700 MHz) or (800 MHz) Filter
AA - 1 x 14 (700 MHz) Filter and 1 x 14 (800 MHz) Filter
BB - 1 x 30 (700 MHz) Filter and 1 x 30 (800 MHz) Filter
AB - 1 x 14 (700 MHz) Filter and 1 x 30 (800 MHz) Filter
BA - 1 x 30 (700 MHz) Filter and 1 x 14 (800 MHz) Filter

UD HH - High Power Uplink and Downlink
HL - High Power Uplink and Low Power Downlink
LH - Low Power Uplink and High Power Downlink
LL - Low Power Uplink and Downlink
FH - High Power Fiber Remote
FL - Low Power Fiber Remote
HF - High Power Fiber Head-end
LF - Low Power Fiber Head-end

Z G1 - Painted Enclosure
G2 - Stainless Steel Enclosure

O Optional Features (Blank for no options)

N - NFPA/IFC Configuration
P - 10 MHz High Precision Reference
D - -48VDC
H - Dual Port (Head End)
R - Dual Port (Remote End)
1 - 3 MHz Preselector NPSPAC Pre-Rebanding (866-869 MHz)
2 - 3 MHz Preselector NPSPAC Post-Rebanding (851-854 MHz)
3 - 10 MHz Preselector (851-861 MHz)

OPERATING CHARACTERISTICS

Filters	1-30 uplink filters per band 1-30 downlink filters per band
Frequency Range	700 Band 764-776, 794-806 MHz 800 Band 806-824, 851-869 MHz
Filter Bandwidth	Programmable standard filters include 12.5 kHz, 12.5 kHz low delay, 25 kHz, 3 MHz, 9 MHz. Other custom filters can be configured by the user or factory to meet specific system requirements.
Maximum Gain	95 dB
Output Power	High Power +34 dBm Low Power +22 dBm
Maximum Input Level	-20 dBm
RF Input/Output impedance	50 Ohms nominal
External RF Connectors	N - Female
Alarms	Form-C Contacts (NO or NC)
Control & monitoring	Intuitive web browser interface over an Ethernet connection, local individual module status LED's.
Power	90-250 VAC, 50/60 Hz or -48 VDC
Operating Temperature Range	-30 °C to +60 °C
Enclosure Type	Modified NEMA 4 w/o Fans
Weight	70 lbs. single band 95 lbs. dual band
FCC Certification**	EZZ6138
Industry Canada Certification**	1940A-6138

**Class A Type Booster Equipment Authorization under FCC Rules Part 90, Canada Certification Part RSS-131



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