FLEX Series BDA PS700 - PS800 High Power Digital Signal Boosters

HONBDA-7S

Product Features

- Supports Public Safety 700 & 800 MHz dual bands version
- FirstNet™ Band 14 available
- Fully digital signal boosters, FPGA-based on standards and codes
- Uplink and Downlink Squelch, per channel and per time slot on channel selective mode
- User adjustable gain control, UL and DL Independent, per band, per channel and per time slot on channel selective mode
- Automatic gain control per band; Per channel and per time slot on channel selective mode
- Oscillation detection with alarm and auto-shutdown
- Antenna Isolation measurement feature
- Antenna Isolation Alarm
- Weatherproof enclosure, NEMA4
- NFPA compliant with dry contact alarms
- Upgradeable Options: Class B to Class A & 0.5 W/27 dBm to 2 W/33 dBm
- Assisted GUI Wizard with Automatic Calibration Features (Patent Pending) to reduce the uplink noise
- Auto Diagnostic
- 24hr Battery backup included in the same cabinet
- 3 Year Warranty
- Buy American Compliant: Meets the definition of Domestic Construction Material under the Buy American Act
- FCC (Federal Communications Commission-US)
- Industrial Canada (IC) Compliant
- IFC 2015, 2018, 2021 Edition Standards
- ISO 9001 Compliant
- NFPA 72 2013 Edition, NFPA 1221 2016 2019 Edition, and NFPA 1225 2022 Edition
- RoHS Compliant
- UL2524 3rd Edition Listing with SGS, Nationally Recognized Testing Laboratory (NRTL) approved by OSHA for UL2524



Applications

- For P25 Phase I & Phase II, DMR, NXDN and Conventional Systems
- Indoor Coverage: Buildings, schools, hospitals, casinos, tunnels, metro stations
- Outdoor Coverage: Oil rigs, stadiums, dense urban areas, rural areas

Specification	Value
Type	Dual Band Digital Signal Boosters
Power Supply	AC 110 VAC, 50/60 Hz
Power Consumption	240 W
Frequency Range	Option 1: DL: 758-775 & 851-861MHz | UL: 788-805 & 806-816MHz Option 2: DL: 769-775 & 851-861MHz | UL: 799-805 & 806-816MHz Option 3: DL: 758-776 & 851-869MHz | UL: 788-806 & 806-824MHz
Passband Bandwidth (Minimum)	100 KHz to full band or Channel Selective (After Upgrade to Class A)
BWA Filters	Adjustable from 100 KHz to full band in step in steps of 50 KHz
Number of BWA Filters	2 per band
Number of Channels	32 per band
Number of Passband	• PS700 + FirstNet + PS800: Class B: 2 BWA per band • PS700 + FirstNet + PS800: Class A: 32 channel filters +2 BWA per band
Channel Filter Options	150 KHz, 100 KHz, 75 KHz, 62.5 KHz, 50 KHz, 37.5 KHz, 25 KHz and 12.5 KHz (After Upgrade to Class A)
Gain (Maximum)	85 dB

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Specification	Value
Passband Ripple	+/-2.0 dB
Gain (Manual Control)	30 dB range, digitally controlled in 1 dB steps, per link, per band
Antenna Isolation	Max Gain +20 dB
Composite Output Power (DL)	+27 dBm or +33 dBm (After Upgrade to 2 W) per band
Composite Output Power (UL)	+24 dBm
IM and Spurious Generation	<-13 dBm
Noise Figure	9.0 dB at Maximum Gain
Group Delay	• Channel Selective 150 KHz, 11.5 µS • Channel Selective 100 KHz, 13.5 µS • Channel Selective 75 KHz, 16.0 µS • Channel Selective 62.5 KHz, 18.0 µS • Channel Selective 50 KHz, 21.0 µS • Channel Selective 37.5 KHz, 25.5 µS • Channel Selective 25 KHz, 35.0 µS • Channel Selective 12.5 KHz, 61.5 µS • Or Band Selective: 3.5 to 6.5 µS, depending on BWA after Class A upgrade
Maximum Input Power (No Damage)	+5 dBm (UL), +5 dBm (DL)
Maximum Input Power (Normal Operation)	0 dBm (UL), 0 dBm (DL)
RF Connectors	N (f) as standard
RF Input/Output Impedance	50 Ohms (Ω)
Uplink Squelch Function	Yes, user selectable, to avoid UL noise when no carriers present, per band, per time slot and per channel (On Class A mode)
Self Diagnostic Platform	Microprocessor Based
Alarms	• AC Power Normal • AC Power Failure • Battery Capacity <30% • Battery Charger Fail • Donor Antenna Disconnection • Donor Antenna Malfunction • RF Emitter Fail • System Component Fail • Amplifiers Status • Power Amplifiers Status • Power Supply Failure • Temperature • AGC • RF Overload • Donor Antenna Failure • VSWR Indoor
Housing/Enclosure Rating	NEMA4
Operating Temperature Range	-13º to 131º F (-25º to +55º C)
Cooling	Natural Convection
Weight	52.9 lbs (24 kg)
Dimension	33.7 x 25.3 x 13.5 in (856 x 643 x 343 mm)
Mounting	Wall Mounting (Rack Mounting Option Available)
MTBF	50,000 hours
Local Management and Supervising	Local Access via USB Connection
Remote Management and Supervising	Remote Access via Ethernet Connection

* Value valid for non duplexed units. This value can change depending on the filtering insertion loss of the duplexer.

Battery Backup Specification	Value
Battery Backup Time	24 hr at maximum consumption with Fiplex provided batteries
Quantity of Batteries	2 Units
Batteries Type	Lead Acid
Power Consumption for 24hr backup calculation	65 W or 80 W (After Upgrade to 2 W)
Maximum AC Power Consumption	240 W

* Considering fully discharge batteries

Normative/License/Certification	Value
FCC ID	Class A: P3TDH7S-00XA Class B: P3TDH7S-00X
UL ID	SGSNA/23/SUW/00030

WARNING: This is NOT a CONSUMER device. It is designed for installation by the FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENSE or express consent of an FCC Licensee to operate this device. Unauthorized use may result in significant forfeiture penalties, including penalties in excess of $100,000 for each continuing violation.

Ordering Information

HONBDA-7S27B-IB-10 (Option 1): 0.5 W/27dBm, 800 + 700 + First-Net CLASS B Upgradeable to Class A, 2 W/33dBm options, AC. Batteries Included

HONBDA-7S27B-IN-10 (Option 1): 0.5 W/27dBm, 800 + 700 + First-Net CLASS B, Upgradeable to Class A, 2 W/33dBm options, AC. Batteries NOT Included

HONBDA-7S27B-IB-06 (Option 2): 0.5 W/27dBm, 800 + 700, CLASS B, Upgradeable to Class A, 2 W/33dBm options, AC. Batteries Included

HONBDA-7S27B-IB-18 (Option 2): 0.5 W/27dBm, 800 + 700, CLASS B, Upgradeable to Class A, 2 W/33dBm options, AC. Batteries NOT Included

HONBDA-7S27B-IB-18 (Option 3): 0.5 W/27dBm, 800 Full band + 700 + FirstNet CLASS B, Upgradeable to Class A, 2 W/33dBm options, AC. Batteries Included

HONBDA-7S27B-IN-18 (Option 3): 0.5 W/27dBm, 800 Full band + 700 + FirstNet CLASS B, Upgradeable to Class A, 2 W/33dBm options, AC. Batteries Included

Upgrade License Part Numbers

BDA-LIC-D27B-D27A: From 0.5W/27dBm Class B to 0.5W/27dBm Class A

BDA-LIC-D27B-D33B: From 0.5W/27dBm Class B to 2W/33dBm Class B

BDA-LIC-D27B-D33A: From 0.5W/27dBm Class B to 2W/33dBm Class A

BDA-LIC-D27A-D33A: From 0.5W/27dBm Class A to 2W/33dBm Class A

BDA-LIC-D33B-D33A: From 2W/33dBm Class B to 2W/33dBm Class A

Standards and Codes

The HONBDA-7S units comply with the following standards and codes.

- Buy American Compliant: Meets the definition of Domestic Construction Material under the Buy American Act
- FCC (Federal Communications Commission-US)
- Industrial Canada (IC) Compliant
- IFC 2015, 2018, 2021 Edition Standard
- NFPA 72 2013 Edition, NFPA 1221 2016 2019 Edition and NFPA 1225 2022 Edition Standard
- RoHS Compliant
- UL2524 3rd Edition Standard with SGS, Nationally Recognized Testing Laboratory (NRTL) approved by OSHA for UL2524

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

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