PS 700 + PS 800
DIGITAL SIGNAL BOOSTERS

DH7S-A
DH7S-D

Product Features

- Supports Public Safety 700 & 800 MHz in single or dual band versions
- FirstNet Band 14 available
- Upgradeable options: single to dual band, low to high power, class B to class A
- Channel Selective, software programmable or adjustable bandwidths
- Fully digital signal boosters, FPGA based
- US and Canada 700MHz band compatible, software adjustable
- Auto diagnostic
- Automatic gain control per band, per channel, per time slot
- Oscillation detection with alarm and auto-shutdown
- Antenna Isolation measurement feature
- Antenna Isolation alarm
- Built-in input and output spectrum analyzer
- Weatherproof enclosure, IP67/NEMA4X
- NFPA compliant with dry contact alarms
- 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
- PS700 and PS800 High capacity versions (64 channels)
- UL2524 2nd Edition Listing with SGS, Nationally Recognized Testing Laboratory (NRTL) approved by OSHA for UL2524
- IFC 2015, 2018, 2021 Edition
- NFPA 72 2013 Edition, NFPA 1221 2016 2019 Edition

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	Single and Dual Band Digital Signal Boosters
Frequency range	758-775 / 788-805 MHz or 764-776 / 794-806 MHz (software adjustable) & 806-824 / 851-869MHz
Passband BW. min	Channel Selective (150KHz, 100Khz, 75KHz, 62.5KHz, 50KHz, 37.5KHz, 25KHz and 12.5KHz) or 100KHz to full band (depends of configuration)
Number of Passband	PS700 + FirstNet Class B: 1 FirstNet + 1 BWA PS700 + FirstNet Class A: 32 channel filters + 1 FirstNet + 1 BWA PS700 + FirstNet High Capacity: 64 filters + 1 FirstNet PS800 Class B: 2 BWA PS800 Class A: 32 channel filters + 2 BWA PS800 + High Capacity: 64 filters PS700 + FirstNet + PS800: Class B: 2 BWA per band PS700 + FirstNet + PS800: Class A: 32 channel filters + 2 BWA per band
Channel Filter Options	150KHz, 100Khz, 75KHz, 62.5KHz, 50KHz, 37.5KHz, 25KHz and 12.5KHz
BWA Filters	Adjustable from 100KHz to fullband in step in steps of 50KHz
Gain, maximum	85 dB
Passband ripple	+/- 2.0 dB
Gain, manual control	30dB range, digitally controlled in 1dB steps, per link, per band
Antenna isolation	Max Gain + 20dB

PS 700 + PS 800
DIGITAL SIGNAL BOOSTERS

DH7S-A
DH7S-D

Composite output power, DL	+33dBm or +27dBm (depending on configuration) per band
Composite output power, UL	+27dBm
IMD	< -13dBm
Noise figure	9.0dB max
Group delay	Channel Selective 150KHz, 11.5µS Channel Selective 100KHz, 13.5µS Channel Selective 75KHz, 16.0µS Channel Selective 62.5KHz, 18.0µS Channel Selective 50KHz, 21.0µS Channel Selective 37.5KHz, 25.5µS Channel Selective 25KHz, 35.0µS Channel Selective 12.5KHz, 61.5µS or Band Selective: 3.5 to 6.5µS, depending on BWA
Maximum input power, no damage	+5dBm (UL), +5dBm (DL)
Maximum input power, normal operation	0dBm (UL), 0dBm (DL)
Connectors	N(f) as standard
RF Input/Output impedance	50Ω
Uplink squelch function	Yes, user selectable, to avoid UL noise when no carriers present, per band, per time slot and per channel (on channel selective mode)
Self diagnostic platform	Microprocessor based
Alarms	Yes, amplifiers status, power amplifiers status, power supply failure, temperature, AGC, RF overload, donor antenna failure, VSWR Indoor.
Local management and supervising	Local access via USB and Ethernet (web browser)
Remote management and supervising	Remote access via Ethernet
RoHS compliance	Yes
Power Supply	AC 110 VAC, 50/60 Hz or DC +24VDC & -48VDC (depending on configuration)
Power consumption	80W in dual band, 62W in single band
Housing	IP67 / NEMA4X
Temperature range	-13° to 131° F • -25° to +55° C
Cooling	Natural convection
Weight	52.9 lbs • 24 kg
Dimension	17.7 x 17.3 x 5.1 in • 450 x 440 x 130 mm
Mounting	Wall or pole mounting (Rack mounting option available)
MTBF	250000 hours

Configurations	**CLASS A**			
Bands	**+33 dBm AC**	**+33 dBm DC**	**+27 dBm AC**	**+27 dBm DC**
700 + FirstNet	DH7S-A-733A	DH7S-D-733A	DH7S-A-727A	DH7S-D-727A
800 MHz	DH7S-A-S33A	DH7S-D-S33A	DH7S-A-S27A	DH7S-D-S27A
800 + 700 + FirstNet	DH7S-A-7S33A	DH7S-D-7S33A	DH7S-A-7S27A	DH7S-D-7S27A
700MHz High Capacity	DH7S-A-733AH	DH7S-D-733AH	DH7S-A-727AH	DH7S-D-727AH
800MHz High Capacity	DH7S-A-S33AH	DH7S-D-S33AH	DH7S-A-S27AH	DH7S-D-S27AH

Configurations	**CLASS B**			
Bands	**+33 dBm AC**	**+33 dBm DC**	**+27 dBm AC**	**+27 dBm DC**
700 + FirstNet	DH7S-A-733B	DH7S-D-733B	-	-
800 MHz	DH7S-A-S33B	DH7S-D-S33B	-	-
800 + 700 + FirstNet	DH7S-A-7S33B	DH7S-D-7S33B	DH7S-A-7S27B	DH7S-D-7S27B

PS 700 + PS 800
DIGITAL SIGNAL BOOSTERS

DH7S-A
DH7S-D

Available Upgrades

MODELS Replace "X" for A: AC or D: DC	DESCRIPTION	PWR from +27dBm to +33dBm. Same Class and Band	From Class B to Class A. Same Band and PWR	From Single to Dual Band. Same Class and PWR	From Class B to Class A and from Single to Dual Band. Same Power	From +27dBm to +33dBm and from Single to Dual Band. Same Class	PWR from +27dBm to +33dBm and from Class B to Class A
DH7S-X-7S27B	PS800 + 700 MHz + FirstNet, Dual Band +27dBm p/b, Class B, 2 Adj sub band p/b, NFPA	●	●				●
DH7S-X-733B	PS700 MHz + FirstNet, Single Band +33dBm, Class B, 2 Adj sub band, NFPA		●	●	●		
DH7S-X-S33B	PS800 MHz, Single Band +33dBm, Class B, 2 Adj sub band, NFPA		●	●	●		
DH7S-X-7S33B	PS800 + 700 MHz + FirstNet, Dual Band +33dBm p/b, Class B, 2 Adj sub band p/b, NFPA		●				
DH7S-X-727A	PS700 MHz + FirstNet, Single Band +27dBm, Class A, 32 filters + 2 Adj sub band, NFPA	●		●		●	
DH7S-X-S27A	PS800 MHz, Single Band +27dBm, Class A, 32 filters + 2 Adj sub band, NFPA	●		●		●	
DH7S-X-7S27A	PS800 + 700 MHz + FirstNet, Dual Band +27dBm p/b, Class A, 32 filters p/b + 2 Adj sub band, NFPA	●					
DH7S-X-733A	PS700 MHz + FirstNet, Single Band +33dBm, 32 filters + 2 Adj sub band, NFPA			●			
DH7S-X-S33A	PS800 MHz, Single Band +33dBm, Class A, 32 filters + 2 Adj sub band, NFPA			●			

Upgrades Code	Description
UPGR-DH7S-7S27B-7S33B	CONFIGURATION UPGRADE DH7S FAMILY. From PS700, +27dBm, Class B to PS700, +33dBm, Class B
UPGR-DH7S-7S27B-7S27A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700&PS800, +27dBm, Class B to PS700&PS800, +27dBm, Class A
UPGR-DH7S-7S27B-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700&PS800, +27dBm, Class B to PS700&PS800, +33dBm, Class A
UPGR-DH7S-733B-733A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700, +33dBm, Class B to PS700, +33dBm, Class A
UPGR-DH7S-S33B-S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS800, +33dBm, Class B to PS800, +33dBm, Class A
UPGR-DH7S-7S33B-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700&PS800, +33dBm, Class B to PS700&PS800, +33dBm, Class A
UPGR-DH7S-733B-7S33B	CONFIGURATION UPGRADE DH7S FAMILY. From PS700, +33dBm, Class B to PS700&PS800, +33dBm, Class B
UPGR-DH7S-S33B-7S33B	CONFIGURATION UPGRADE DH7S FAMILY. From PS800, +33dBm, Class B to PS700&PS800, +33dBm, Class B
UPGR-DH7S-733A-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700, +33dBm, Class A to PS700&PS800, +33dBm, Class A
UPGR-DH7S-S33A-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS800, +33dBm, Class A to PS700&PS800, +33dBm, Class A
UPGR-DH7S-733B-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700, +33dBm, Class B to PS700&PS800, +33dBm, Class A
UPGR-DH7S-S33B-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS800, +33dBm, Class B to PS700&PS800, +33dBm, Class A
UPGR-DH7S-727A-733A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700, +27dBm, Class A to PS700, +33dBm, Class A
UPGR-DH7S-S27A-S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS800, +27dBm, Class A to PS800, +33dBm, Class A
UPGR-DH7S-7S27A-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700&PS800, +27dBm, Class A to PS700&PS800, +33dBm, Class A
UPGR-DH7S-727A-7S27A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700, +27dBm, Class A to PS700&PS800, +27dBm, Class A
UPGR-DH7S-S27A-7S27A	CONFIGURATION UPGRADE DH7S FAMILY. From PS800, +27dBm, Class A to PS700&PS800, +27dBm, Class A
UPGR-DH7S-727A-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS700, +27dBm, Class A to PS700&PS800, +33dBm, Class A
UPGR-DH7S-S27A-7S33A	CONFIGURATION UPGRADE DH7S FAMILY. From PS800, +27dBm, Class A to PS700&PS800, +33dBm, Class A

WARNING: This is NOT a CONSUMER device. It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENCE 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.