

# PUBLIC SAFETY 800 MHz DIGITAL SIGNAL BOOSTERS

## PS800 MHz • Class A

**DHS Series**

### Product Features

- Channel Selective, software programmable
- Fully digital signal boosters, FPGA based
- 12 channel independent UL and DL expandable to 24
- Auto diagnostic
- Uplink and downlink squelch, per channel and per time slot
- User adjustable gain control, UL and DL independent, per channel
- Automatic Gain Control, per channel and per time slot
- Weatherproof enclosure, IP67/NEMA4X
- NFPA compliant
- Built-in input and output spectrum analyzer



DHS30 Digital Signal Boosters

### Applications

- For P25, TETRA, DMR, NXDN and Conventional systems
- Indoor coverage: tunnels and mobile fast-deploy communication units
- Outdoor coverage: oil rigs, stadiums, dense urban areas, rural areas, cliffs



Specification	Value
Type	Digital Signal Boosters
Frequency range	806-824 / 851-869 MHz
Passband BW. min	Channel Selective (90KHz, 45KHz, 30KHz, 20KHz, and 15KHz BW)
Number of Passband	Channel Selective (90KHz, 45KHz, 30KHz, 20KHz, and 15KHz BW), 1 to 12. Expandable up to 24 channels. (See option DS-12)
Gain, maximum	80dB
Passband ripple	+/- 2.0 dB
Gain, manual control	28dB range, digitally controlled in 1dB steps
Antenna isolation	Max Gain + 15dB
Composite output power, DL	DHS30: +30dBm                      DHS37: +37dBm
Composite output power, UL	+24dBm
IMD	< -13dBm
Noise figure	7.0dB max at maximum gain
Impedance	50 Ω
Group delay	Channel Selective 90KHz, 14μS Channel Selective 45KHz, 23μS Channel Selective 30KHz, 32μS Channel Selective 20KHz, 45μS Channel Selective 15KHz, 55μS
Maximum input power, no damage	0dBm (UL) -20dBm (DL)
Connectors	N(f) as standard
VSWR at operating frequencies	1.5:1 max
Uplink squelch function	Yes, user selectable, to avoid UL noise when no carriers present, by time slot and by channel (Channel Selective model only)
Self diagnostic platform	Microprocessor based

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### Specifications

### Value

Alarms	Yes, amplifiers status, power amplifiers status, power supply failure, temperature, AGC, RF overload.
Local management and supervising	Local access via USB and Ethernet (web browser)
Remote management and supervising	Remote access via Ethernet. Wireless MODEM (SNMP) as optional (RC-G)
RoHS compliance	Yes
AC Supply	110/220 VAC, 50/60 Hz.
Power Consumption	120W (160W with 24 channels expansion)
DC Supply	Optional, see table
Housing	IP67 / NEMA4X
Temperature range	-13° to 131° F • -25° to +55° C
Cooling	Natural convection
Dimensions	20.2 x 18.2 x 9 inches • 514 x 462 x 230 mm
Weight	55 lbs - 25 Kgs
Mounting	Wall mounting
MTBF	>50.000 hours

MODEL	NFPA	RC-G	110-220VAC	+24VDC	-48VDC	UPGRADE TO 24CH (DS-12)
DHS30-005	X		X			
DHS30-006	X			X		
DHS30-011	X				X	
DHS30-007	X	X	X			
DHS30-008	X	X		X		
DHS30-012	X	X			X	
DHS37-004	X		X			
DHS37-005	X			X		
DHS37-006	X				X	
DHS37-010	X	X	X			
DHS37-011	X	X		X		
DHS37-012	X	X			X	
DHS30-2-004	X		X			X
DHS30-2-005	X			X		X
DHS30-2-006	X				X	X
DHS30-2-010	X	X	X			X
DHS30-2-011	X	X		X		X
DHS30-2-012	X	X			X	X
DHS37-2-004	X		X			X
DHS37-2-005	X			X		X
DHS37-2-006	X				X	X
DHS37-2-010	X	X	X			X
DHS37-2-011	X	X		X		X
DHS37-2-012	X	X			X	X

WARNING: This is NOT a CONSUMER device. It is designed for installation by 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.

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