

The EXPRESS Public Safety platform is a robust Distributed Antenna System (DAS) providing highly reliable, code-compliant public safety radio coverage in buildings and public venues.

It supports all current public safety bands (including FirstNet) necessary for compliance with national and international codes and ordinances. Support for battery backup and external input alarms is also provided.

A web-based management interface simplifies setup, monitoring, and maintenance.

- Lower Equipment Costs – high efficiency with fewer components.
- Lower Operations Costs – rugged design and convection cooling means no moving parts.
- Fiber Efficiency – typically one fiber needed to connect a building.
- Flexible Deployment – small footprint, NFPA 72 Compliant / NEMA 4 Certified, wall or rack mounted remotes.
- Easy Setup – auto-configuration from web-based interface simplifies commissioning.

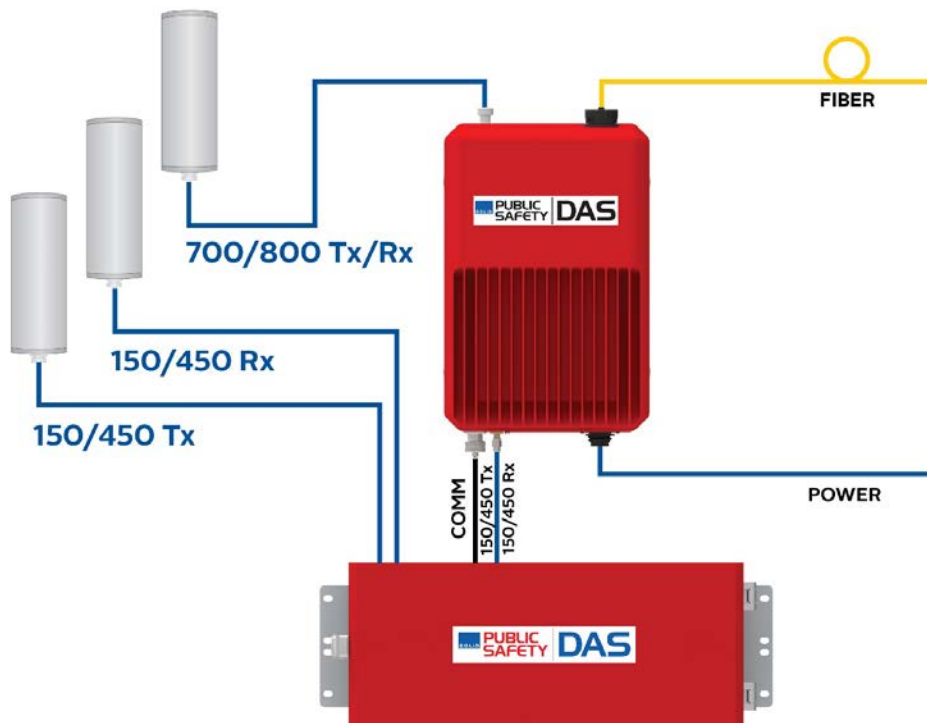
### Specifications

RF Parameters				
RF and Optical Information	700PS + FN	800PS	VHF	UHF
RF Output Power, downlink (dBm)	+27 ± 0.5	+27 ± 0.5	+24 ± 0.5	+24 ± 0.5
RF Output Power, uplink (dBm)	0 ± 0.5	0 ± 0.5	-4 ± 0.5	-4 ± 0.5
Downlink Gain (dB)	22 - 47	22 - 47	14 - 39	14 - 39
Uplink Gain (dB)	25 - 50	25 - 50	25 - 45	25 - 45
TX Frequency Range (MHz)	758 - 775	851 - 869	136 - 174	385 - 512
RX Frequency Range (MHz)	788 - 805	806 - 824	136 - 174	385 - 512
Noise Figure	8dB max	8dB max	7dB max	7dB max
Delay	<3usec for 700/800. <5usec for VHF&UHF (Over 1 meter of fiber)			
Spurious (dBm)	<-13			
Optical Link AGC	Above 10dB			
VSWR	BIU: 1.5 / MRU 1.6			
Passband ripple	4dBp-p per Band			
Optic Link Loss	Max 5dBo			
Optic wavelength	1310nm/1550nm with WDM			
Uplink Input Power	-50dBm			
Gain Control Range	25dB/step 1dB			

Standards and Certifications	
NFPA 72 Code Compliant	National Fire Alarm Code.
NEMA 4	Meets NEMA 4 enclosure standards to withstand rain, sleet, snow, dust, dirt, splashing water, hose-directed water, and corrosion.
UL (North America)	UL 60950-1, 2nd Edition, CSA C22.2 No. 60950-1-07, 2nd Edition, CSA C22.2 No. 60950-1-03, 1st Edition
FCC (North America)	FCC Part24 Subpart D and Part90 Subpart I FCC Part22 Subpart H and Part 27 Subpart C FCC Part24 Subpart E and Part 27 Subpart C
IC (Canada)	RSS-131 (ISSUE 2), ICES-003
Emissions (North America)	FCC Part15 Subpart B, Class A. VHF: F1D, F3E UHF: F1D, F1E, F3E
MTBF (Telecordia SR-332 Issue)	Failure Rate = MRU MTBF = 24.5 Years; BIU MTBF = 8.3 Years

Mechanical Information	MRU 700/800	AOR 150/450
AC Power	Normal Range: 120VAC 50/60Hz Operating range: 108~132VAC, 50/60Hz	
DC Power	Normal: -48 VDC. Operating range: -42 to -56V DC	
RF Output Connector Type	N Female	SMA Female
Tx/Rx Output Configuration	1 port, Tx/Rx 700/800	2 ports, 1 Tx 150/450, 1 Rx 150/450
Dimensions	7.9" W x 11.8" H x 5.5" D 200 x 300 x 138.5 mm	19" W x 6.96" H x 10.16" D 482.6 x 177 x 258 mm
Cabinet Type	Sealed Enclosure	Locking Enclosure with key
Operating Temperature	14 to 122°F (-10 to +50°C)	
Operating Humidity	5% to 90% Non-condensing	
Weight	15.6 lbs (7.1 kg)	24.25 lbs (11 kg)
Power consumption	50W	93W

700 and 800 Public Safety bands are supported in the EXPRESS Main Remote Unit (MRU). VHF and UHF are supported in the optional Add-On Remote (AOR). Battery backup is available for the MRU with support for alarm inputs from external equipment.



**Parts List**

Product Description	Part Number
BIU (Base Station Interface Unit) Signal Source Inputs	
BIU - SISO (Incl. DC/DC PS, MCPU Card, MCDU Card, Blanks) (Power supply not included)	SC_BIU_SISO
700MHz PS & 800MHz PS Input Module for the SC_BIU	SC_MDBU_700PS_800PS
Blank Input Module for the SC_BIU	SC_MDBU_B
Power Supply for the SC_BIU	SC_RMP_480
ODU/OEU Optical Distribution and Expansion Units	
Optical Distribution Unit Chassis. NOTE: Powered by BIU	SC_ODU_C
Blank Optical Module for the ODU	SC_ODU_B / SC_OEU_B
4 Port Optical Module	SC_ODU_OM_4 / SC_OEU_OM_4
OEU Chassis. NOTE: Input Power -48VDC. Power supply not included.	SC_OEU_C
MRU, ARU, and VHF/UHF Add-on Remote	
700 MHz PS & 800 MHz PS Main Remote Unit - AC Power - NEMA Enclosure	MRU_AC_700_800_N_PS
700 MHz PS & 800 MHz PS Main Remote Unit - DC Power - NEMA Enclosure	MRU_DC_700_800_N_PS
150MHz VHF & 450MHz UHF Amplifier Module w/ AC Add-on Cabinet - NEMA	SC_AC_150_450PS
150MHz VHF & 450MHz UHF Amplifier Module w/ DC Add-on Cabinet - NEMA	SC_DC_150_450PS
19" Rack MRU/ARU Chassis (4U Rack Space Requirement)	SC_RM19
Vertical Rack Mount MRU/ARU (9U Rack Space Requirement)	SC_RU_BRK
EXPRESS Public Safety MRU-to-AOR Cable with External Alarm Input Pigtail	CBL_SC_AOR_ALM_PS
EXPRESS Public Safety MRU cable with External Alarm Input Pigtail	CBL_MRU_ALM_PS
DMS (DAS Management System)	
DMS Supporting Bracket	SC_DMS_BRK
DAS Management System for EXPRESS	DMS_600



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