

1200 Base Station

VHF, UHF and 800 MHz

Compact scalable base station/repeater that enables flexible deployment options in a robust and reliable next generation platform. The ATLAS 1200 P25 Base Station/Repeater offers market-leading analog and P25 mixed-mode capabilities in a robust, reliable, and compact form factor. The ATLAS 1200 is designed and built to exceed industry standards and specifications.¹



Making Safe, Simple™



Features

- Repeats Mixed Mode, P25 Digital & analog transmissions, Automatically switch to P25 mode on reception of P25 carrier
- Passes P25 NAC unchanged
- Passes P25 private call and group call in clear or AES-256 encrypted
- Front panel indicators show P25 status
- Benefits of Digital Audio Performance
- Tone Remote Control with E&M, 2 / 4 wire audio interface.
- Programmable External PTT mode (P25 or Analog)
- AMBE™ 2+ Enhanced Vocoder
- P25 Digital audio to speaker & line
- P25 Digital audio from microphone socket & line

Flexible Architecture

- Leverages a common hardware platform to support multiple operating modes including Analog Conventional, P25 Conventional and optional Console interface
- Compact 2RU form factor maximizes rack space usage
- Flash based software design allows future upgrades for new features

Optional Fixed Station Interface (FSI)

- Ethernet interface with digital audio or digitized analog audio
- DFSI P25 Stream AMBE™ and DFSI Analog Stream G711
- Passes through P25 encrypted to Ethernet
- Conforms to Standards to TIA102-BAHA

ATLAS 1200 P25 Base Station Specifications

General	VHF			UHF		800Mhz			
Mounting	19" rack or shelf								
Dimensions (HxWxD)	3.5 x 19 x 13 in. (89 x 483 x 330 mm)								
Weight	20 lbs. (9 kg)								
Temperature Range	-22°F to +140°F (-30°C to +60°C)								
Input Voltage	13.8VDC ±10%				13.8VDC ±10% and 27.6VDC ±10%				
Power Consumption	100 W Tx - 220 W 15 W Rx				100 W Tx - 300 W 15 W Rx				
Frequency Resolution	12.5 kHz								
FCC Compliance	Parts 15 and 90								
Number of Selectable Channels	16								
Transmitter	Analog		Digital	Analog		Digital	Analog		Digital
Frequency Range ¹	148-174 MHz			450-485 MHz			851-869 MHz		
RF Output Power	50W and 100W, adjustable			100W, adjustable			100W, adjustable		
Duty Cycle	100%								
Output Impedance	50 Ω								
Spurious Emissions	100 dB								
Harmonic Emissions	100 dB								
Maximum Deviation	± 2.5 kHz	± 3110 Hz		± 2.5 kHz	± 3110 Hz		± 5 Hz	± 3110 Hz	
Audio Response	As per TIA								
Audio Distortion	2%	N/A		2%	N/A		2%	N/A	
Emission Designators	11K0F3E	8K10F1E, 8K10F1D		11K0F3E	8K10F1E, 8K10F1D		16K0F3E, 14K0F3E	8K10F1E, 8K10F1D	
Hum & Noise (TIA)	45 dB	N/A		45 dB	N/A		50 dB	N/A	
Frequency Stability [-22°F to +140°F (-30°C to +60°C)]	± 1.5 PPM (Standard) ± 0.5 PPM (with HI Stab option, no external reference generator required)					± 1.0 PPM			
Receiver	Analog		Digital	Analog		Digital	Analog		Digital
Channel Spacing	12.5 kHz								
Frequency Range ²	148-174 MHz			450-485 MHz			806-824 MHz		
Sensitivity: 12dB SINAD	-117 dBm	N/A		-117 dBm	N/A		-117 dBm	N/A	
Sensitivity: for 5% BER	N/A	-117 dBm		N/A	-117 dBm		N/A	-117 dBm	
Selectivity	72 dB	60 dB		72 dB	60 dB		72 dB	60 dB	
Signal Displacement Bandwidth	± 1 kHz								
Intermodulation Rejection	82 dB								
Spurious & Image Rejection	90 dB								
Audio Response (1000 Hz ref.)	As per TIA								
Audio Distortion (at 1000 Hz)	2%	As per TIA		2%	As per TIA		2%	As per TIA	
Hum & Noise (TIA)	45 dB	As per TIA		45 dB	As per TIA		50 dB	As per TIA	
RF Input Impedance	50 Ω								

Standards Compliance	
ATLAS stations comply with the following standard specifications:	
P25 Digital Operation	TIA 102.CAAB-D
Analog FM Operation	TIA 603-D
EMI/EMC	NTIA Manual Chapter 5
PSTN Line Isolation	FCC Part 68 (USA)

¹ This product has been certified to P25CAP2010 standard and published in P25 CAP network. This product is not certified to P25CAP2017 or later standard, but all performances still comply to TIA standard.

² ATLAS 1200 is pre-tuned in factory prior to shipment and is configurable only within the pre-tuned frequency range. Altering or attempting to alter the tuning of the repeater is not permitted and may void warranty.

All specifications are subject to change without notice. Please check the website for the latest version.

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