

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.



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	
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 Ohms					
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	
Channel Spacing	12.5 kHz					
Frequency Range ¹	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 Ohms					

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)

EF Johnson Technologies, Inc.

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¹ 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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