

P25 Mission Critical

ATLAS

4100 Base Station

VHF, UHF, 700 and 800 MHz

Compact scalable multimode IP Base Station/Repeater that enables flexible deployment options in a robust and reliable next generation platform.



Features

The ATLAS 4100 Multimode Base Station/Repeater offers market-leading analog and P25 mixed-mode capabilities in a robust, reliable, and compact form factor. Designed and built to exceed industry standards and specifications, it is available in a range of frequency bands including VHF, UHF, 700, and 800 MHz.

Supports P25 Phase 1 mode of operation only.

Flexible Architecture

Leverages a common hardware platform to support multiple operating modes including analog/P25 conventional and P25 trunked operation

Modular architecture allows flexible expansion of sites and seamless scalability of the system

Compact 2RU form factor maximizes rack space usage

Ease Of Use And Maintainability

Intuitive configuration programming interface to enable quick and trouble-free installation

Interactive front panel design displays status and diagnostics for rapid troubleshooting

Flexible upgrades of software

Advanced Next Generation Design And Performance

Built for continuous duty cycle operation with ruggedized modules, boards, and components

High efficiency power amplifier heatsink design maximizes heat dissipation and equipment longevity

Low current consumption in transmit and receive modes



Making Safe, Simple™

ATLAS 4100 Multimode Base Station Specifications

General	VHF	UHF	700 MHz	800 MHz				
Mounting	19" rack or shelf							
Dimensions (HxWxD)	3.5" x 19" x 14"							
Weight	20 lbs.							
Temperature Range	-30°C to +60°C							
Input Voltage	13.8VDC ±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							
Transmitter	Analog	Digital	Analog	Digital	Analog	Digital		
Frequency Range	135-160, 148-174 MHz		370-400, 400-435, 435-470, 455-490 MHz		769-775 MHz		851-869 MHz	
RF Output Power	2 W - 100 W							
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	± 3110 Hz	± 5 kHz	± 3110 Hz	
Audio Response	As per TIA							
Audio Distortion	2%	N/A	2%	N/A	N/A	2%	N/A	
Emission Designators	11K0F3E	8K10F1E, 8K10F1D	11K0F3E	8K10F1E, 8K10F1D	8K10F1E, 8K10F1D	16K0F3E, 14K0F3E	8K10F1E, 8K10F1D	
Hum & Noise (TIA)	45 dB	N/A	45 dB	N/A	N/A	50 dB	N/A	
Frequency Stability (-30°C to +60°C)	± 1.5 PPM		± 1.0 PPM		± 1.0 PPM	± 1.0 PPM		
Receiver	Analog	Digital	Analog	Digital	Digital	Analog	Digital	
Channel Spacing	12.5 kHz					25, 12.5 kHz	12.5 kHz	
Frequency Range	135-160, 148-174 MHz		370-400, 400-435, 435-470, 455-490, 485-520 MHz		799-805 MHz		806-824 MHz	
Sensitivity: 12dB SINAD	-119 dBm	N/A	-119 dBm	N/A	N/A	-119 dBm	N/A	
Sensitivity: for 5% BER	N/A	-119 dBm	N/A	-119 dBm	-119 dBm	N/A	-119 dBm	
Selectivity	72 dB	60 dB	72 dB	60 dB	60 dB	78 dB	60 dB	
Signal Displacement Bandwidth	± 1 kHz							
Frequency Stability (-30°C to +60°C)	± 1.5 PPM		± 1.0 PPM		± 1.0 PPM	± 1.0 PPM		
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	As per TIA	2%	As per TIA	
Hum & Noise (TIA)	45 dB	As per TIA	45 dB	As per TIA	As per TIA	50 dB	As per TIA	
RF Input Impedance	50 Ohms							

Standards Compliance

EFJohnson's 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)