

P25 Mission Critical

ATLAS

4200 Base Station

VHF, UHF, 700 and 800 MHz

Compact scalable IP based simulcast station that simplifies deployment and support while reducing life time ownership costs.



The ATLAS 4200 Multimode Simulcast Station/Repeater offers market-leading simulcast capabilities for analog and P25 Phase 1 mixed mode 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.

Flexible Architecture

Support for analog and P25 Phase 1 conventional simulcast and P25 trunked simulcast operation

Synchronized timing throughout the network is enabled with an integrated time synchronization interface and GPS receiver input

Integrated simulcast manager provides launch time for all repeaters of a simulcast channel

P25 and analog voting functionality implemented with an integrated voter comparator

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

Supports external high stability frequency reference to achieve ± 0.1 ppm frequency accuracy



Making Safe, Simple™

ATLAS 4200 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	
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)	± 0.1 PPM/2 Yr (with external reference standard)							
Receiver	Analog		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 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)	± 1.0 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)