KENWOOD

ATLAS®
P25 Mission Critical

4100 Base Station

VHF, UHF, 700 and 800 MHz

Making Safe, Simple™

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

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 in. (89 x 483 x 356 mm)			
Weight	20 lbs. (9 kg)			
Temperature Range	-22°F to +140°F (-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 [-22°F to +140°F (-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 Bandwith	± 1 kHz						
Frequency Stability [-22°F to +140°F (-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

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)

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