

P25 Mission Critical

## 4100 Station

VHF, UHF 700 and 800 MHz



Compact scalable multimode IP based station that enables flexible deployment options in a robust and reliable next generation platform.

The ATLAS 4100 Multimode Station 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.

### 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

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	148-174 MHz		450-490, 485-520 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	
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

<i>EFJohnson's stations comply with the following standard specifications:</i>	
P25 Digital Operation	TIA 102.CAAB-C
Analog FM Operation	TIA 603-D
EMI/EMC	NTIA Manual Chapter 5
PSTN Line Isolation	FCC Part 68 (USA)