ATLAS®

P25 Mission Critical

ATLAS
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.

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

Making Safe, Simple™

ATLAS 1200 P25 Base Station Specifications

General	VHF	UHF	800Mhz
Mounting	19″ rack or shelf		
Dimensions (HxWxD)	3.5″ x 19″ x 13″		
Weight	20 lbs.		
Temperature Range	-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	Digital	Analog	Digital
Frequency Range	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 (-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	Digital	Analog	Digital
Channel Spacing	12.5 kHz					
Frequency Range	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 Bandwith	± 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)

All specifications are subject to change without notice. Please check the website for the latest version.

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