

Atlas MKII - Digital Terrestrial Receiver

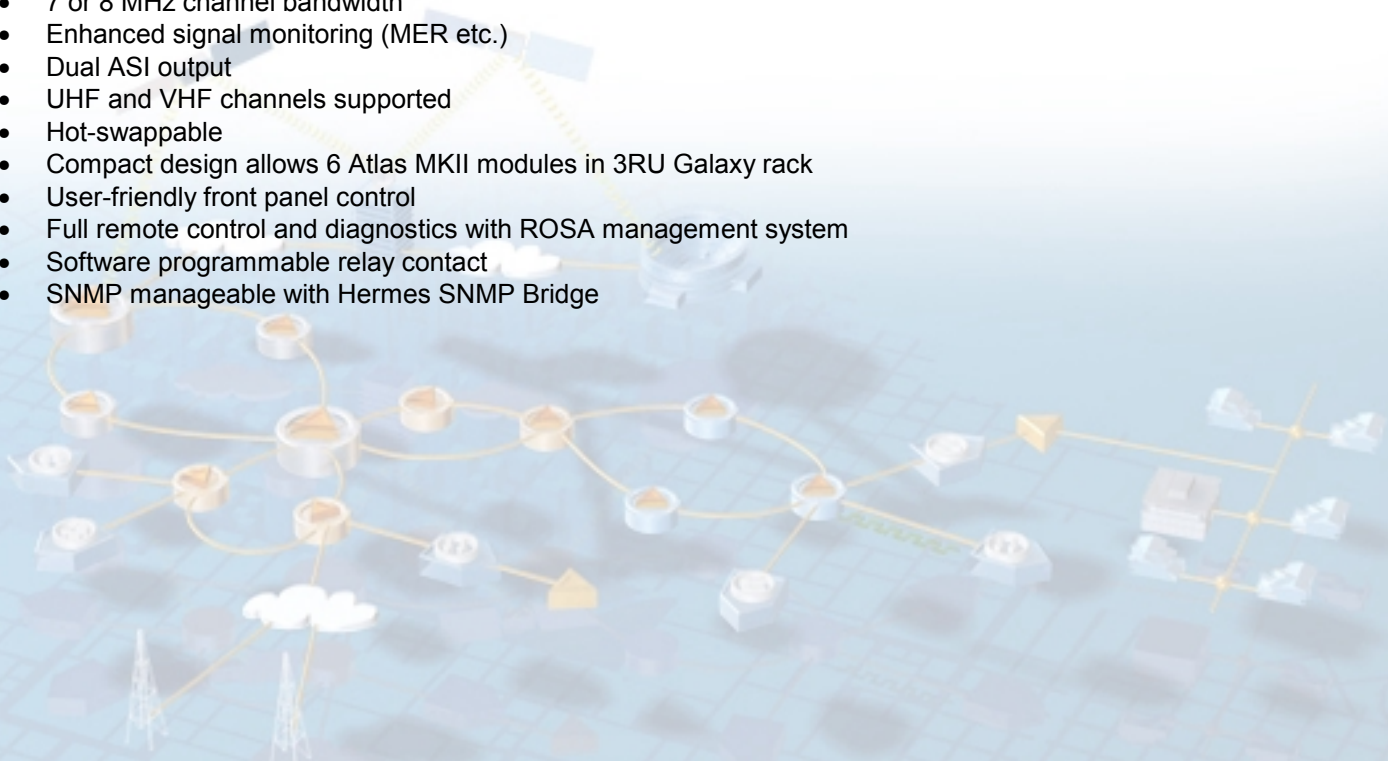
Description

The Atlas MKII DVB-T Receiver is a compact C-OFDM demodulator compliant with the DVB-T (ETSI standard ETS 300 744) standard. It can be used in both DVB-T, cable TV and Broadband applications. The Atlas MKII Receiver has the capability of accepting a dual -48 V DC power supply and switches automatically to the backup supply if the main supply fails without any signal disturbance. The operator may control the unit locally from the front panel using the push buttons and LCD or remotely using the ROSA™ management system. The output signal is a MPEG-2 transport stream compliant with the DVB Asynchronous Serial Interface (ASI) specifications. A dual output is available.

The Atlas MKII Receiver fits into the 3U Galaxy Modular Rack System. Thanks to its compact design the 3U Galaxy Modular Rack System can contain up to 6 receivers without forced cooling, providing a 1U gap is present below the unit.

Features

- Digital terrestrial receiver fully compliant with the DVB-T specification
- Support 2K and 8K FFT size
- All guard intervals and code rates
- Non-hierarchical and hierarchical modes
- Automatic or manual OFDM mode selection
- Provisions for 1/6 MHz and 1/8 MHz frequency offset
- 7 or 8 MHz channel bandwidth
- Enhanced signal monitoring (MER etc.)
- Dual ASI output
- UHF and VHF channels supported
- Hot-swappable
- Compact design allows 6 Atlas MKII modules in 3RU Galaxy rack
- User-friendly front panel control
- Full remote control and diagnostics with ROSA management system
- Software programmable relay contact
- SNMP manageable with Hermes SNMP Bridge



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Specifications

Electrical Specifications	
Modulation format	C-OFDM according to ETS 300 744
FFT size	2K and 8K
Guard interval	1/4, 1/8, 1/16, 1/32
Viterbi code rates	1/2, 2/3, 3/4, 5/6, 7/8
Non-hierarchical	QPSK, 16 QAM, 64 QAM
Hierarchical	16 QAM, 64 QAM
Channel bandwidth	7 or 8 MHz (selectable)
RF Input	
Connector (on paddle board)	F-type, BNC or N-type
Impedance	75 Ω
Frequency range	170 to 230 MHz 470 to 860 MHz
Frequency offset	$\pm 1/6$ MHz (8 MHz), $1/8$ MHz (7 MHz)
Signal level	-70 to -20 dbm
ASI Output	
Number of outputs	2
Connector (on paddle board)	BNC
Impedance	75 Ω
Interface type	Asynchronous Serial Interface (according to EN 50083-9)
Packet format	204 byte packets RS decoded
Bit rate	Max. 31.7 Mbit/s (payload)
Syntax	Single or multi-program transport (according to ISO/IEC 13818)
Relay Contact	
Connector (on Galaxy Chassis)	2 x 25 pins female Sub D on rack
Contacts	Common, normal open and normal closed available per card
Contact type	Relay
Alarms	Software configurable

Remote Control	
Connector (on Galaxy Chassis)	9-pins male Sub D on rack
Type	RS-485
Format	RCDS (Scientific-Atlanta specific)
Speed	Up to 19200 bit/s

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Specifications - continued

Front Panel Functions	
Configuration	
Channel number	
Channel frequency	
Frequency offset	
Bandwidth	
FFT mode	
Constellation type	
Hierarchy / constellation ratio	
High / low priority selection	
Viterbi code rates	
Guard intervals	
Communications port messages, baud rate and address	
Save and recall user settings	
Recall factory default settings	
Status and Alarm	
Signal locked	
OFDM & FEC sync	
Transmission Parameter Signaling (TPS)	
Channel State Information (CSI)	
Channel symbol errors	
BER before RS (after Viterbi)	
RS uncorrected error count	
Modulation Error Ratio (MER)	
Errored seconds count	
Severely errored seconds count	
Alarm Indication Signal (AIS) status	
Temperature & voltage monitoring	

Environmental Specifications	
Temperature within specs	+50°F to +104°F (10°C to 40°C)
Operating temperature	+32°F to +113°F (0°C to 45°C)
Storage temperature	-4°F to +158°F (-20°C to 70°C)
Power supply (nominal)	-48 VDC
Power consumption (nominal)	11 W

Mechanical Specifications	
Height	3.94 in. / 100 mm
Width	2.36 in. / 60 mm
Depth	7.87 in. / 200 mm
Weight	Approx. 0.573 lbs / 0.26 kg
Module width	12 HP (2 slot in Galaxy rack)

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Ordering Information

Atlas MKII	Part Number
Atlas MKII Digital Terrestrial Receiver	V9521875
Paddles for Atlas MKII	
Connector Card, type 1, BNC-75 Ohm connector Input & 2 x BNC Output	V9521350
Connector Card, type 2, F-75 Ohm connector Input & 2 x BNC Output	V9521351
Connector Card, type 3, N-50 Ohm connector Input & 2 x BNC Output	V9521352



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