



16W to 125W
AWMT-3000LK® series



Features

- Operating Ku-Band Tx: 14.00 - 14.50 GHz
13.75 - 14.50 GHz (optional)
12.75-13.25 GHz (optional)
Rx: 10.95 - 12.75 GHz (sub-bands)
- L-band Tx and Rx interface
- Easy to install and operate
- Compact light weight design
- Weatherproof package
- Phase Locked LNB
- Low phase noise
- Remote Monitor & Control (RS-232/RS-485)
- Relay alarm indicators
- LED status indicators
- Automatic high reflected power protection
- Harmonic Filter
- High stability internal 10MHz reference
- Downloadable PC GUI
- Redundant ready operation

Overview

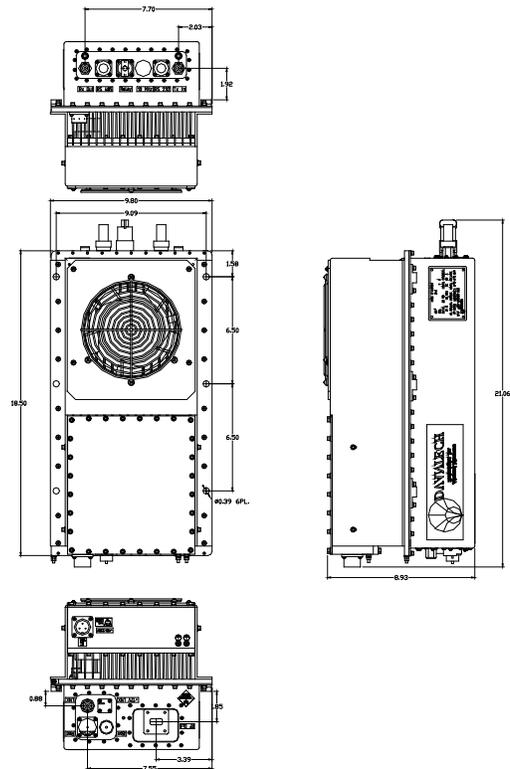
The Advantech range of transceivers uses the latest technology, thus providing the ultimate in performance and user friendly operation at a very competitive price.

AWMT-3000LK® is a family of hub-mount transceivers operating in the Ku-band from 16W to 125 W. These transceivers are designed for continuous operation in the harshest outdoor environment. The built-in microprocessor controller provides for external monitoring and control of the operating parameters, and for the redundancy control. The LNB is connected to the transceiver with a single coaxial cable. Apart from the LNB, the complete unit is available in a single integrated package. Higher power transceivers are also available in the AWMT-LK® series for up to 500W.

The flexible and comprehensive monitor and control features on the transceiver ensure that it will fit into any network management system architecture. The user-friendly RS-232 interface will provide full set-up and fault monitoring facilities via a PC terminal mode communication or a hand-held terminal. The RS-485 interface will provide functional remote Monitor & Control, using the Graphic User Interface (GUI) or the Monitor & Control Panel.

Application

The AWMT-3000LK® is designed to operate in the Ku-band with L-band interface. The unit is self-contained and is intended for mounting outdoors, close to the OMT of an antenna.



Options

- Extended Ku-band (13.75 – 14.5 GHz)
- Low Ku-band (12.75-13.25 GHz)
- LNA operation
- Remote M&C panel (Ethernet port optional)
- External 10 MHz reference with auto sensing

Accessories

- Mounting kits for transceiver installation
- Redundancy kits
- Mounting frame for redundancy applications
- Transmit Reject Filter and/or Receive Reject Filter (external)
- Remote Control Panel
- Hand-Held terminal

Redundancy

The AWMT-3000LK® series of transceivers may be configured to operate in 1:1 redundancy mode. No extra controller is required for redundancy operation, as the built-in controller in each amplifier provides this function. Redundancy kits are required for redundant operation.

Ku-Band Transceiver L-Band IF Interface



Technical Specifications										
Transmit Path										
Model	16W	20W	25W	30W	40W	50W	60W	80W	100W	125W
P1dB min. (dBm)	41	42	43	44	45	46	47	48	49	50
Gain min @ max. gain set (dB)	62	63	64	65	66	67	68	69	70	71
Power Consumption	200	250	300	400	500	600	700	800	900	1000
Unit Weight	24 kg (53 lbs)									
Dimensions (L x W x H)	18.50" x 9.80" x 8.93" (46.99 x 24.89 x 22.68 cm)									
Transmit Path										
RF Input					Gain Specification					
RF Input Frequency	10.95 – 12.75 GHz				Gain (LNB + Receiver)	75 dB @ max gain set				
	* Field selectable bands				Gain control range	20 dB (0.1 dB step size)				
Bands	1) 10.95 – 11.70 GHz 2) 11.70-12.20 GHz 3) 12.25-12.75 GHz				Gain flatness	±2.5 dB max over full RF band				
					Gain stability	±3.0 dB max over temp. range				
RF Input Interface	WR75				Spurious	-55 dBc max				
Input VSWR	2.5:1				Image Rejection	50 dB				
L-band Output					LNB Parameters					
Frequency range	950 – 1450 MHz 950 – 1700 MHz (optional)				LNB type	Phase locked to 10 MHz ref. (from Transceiver via coax. cable)				
Output P1dB, min	+10 dBm				Noise Temperature	65°K				
Output Connector	Type N female / 50 Ω				L-band Output Frequency	950-1750 MHz				
Output Return Loss	18 dB/50 Ω				L-band Output Interface	Type N female 50 Ω				
					Conversion Gain	60 dB				
					DC power	12÷18V DC (via coaxial cable)				
					LNA Parameters (optional)					
					Noise Temperature	85°K				
					Output Interface	Type N female 50 Ω				
					Gain	60 dB				
					DC Power	12÷18V DC (via coaxial cable)				
Common Parameters (Tx & Rx)										
Frequency Stability					Environmental					
± 2 x 10 ⁻⁸ over 0°C to +50°C	± 2 x 10 ⁻¹⁰ / day				Cooling	Forced Air				
Aging	± 5 x 10 ⁻⁸ / year				Operational	-30°C to +55°C standard (-40°C to +55°C option)				
Phase Noise					Storage	-55°C to +85°C				
	(With internal 10MHz reference)				Humidity	Up to 100% condensing				
Offset frequency	Phase noise (max)				Altitude	3,000 m AMSL (derated 2°C/300m)				
100 Hz	-63 dBc/Hz									
1000 Hz	-73 dBc/Hz				Power Requirements					
10 KHz	-83 dBc/Hz				AC input voltage	Auto ranging 110/220±15% (47-63 Hz)				
100 KHz	-93 dBc/Hz				AC Connector	MS3102R16-10P				
Monitor & Control					Mechanical					
Serial port (RS-485)	MS3112E10-6P				Dimensions	See Table above				
Serial port (RS-232)	MS3112E10-6P				Packaging	Weatherproof for outdoor use				
Redundancy Port	MS3112E16-26P									
Discrete Port	MS3112E12-10P									

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