



C-BAND TRANSCEIVER 2 W TO 10 W
L-BAND INTERFACE
AWMT-1000CL® series

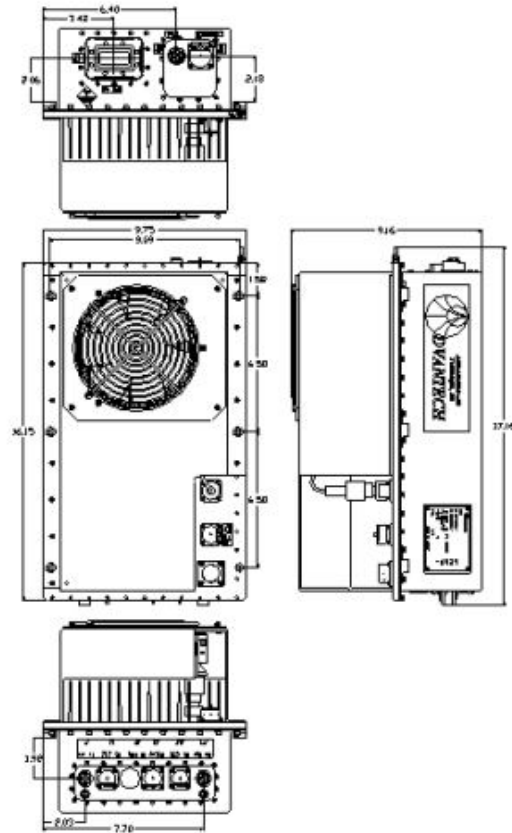


FEATURES

- 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 (RS232 / RS485)
- Relay alarm indicators
- LED status indicators
- Automatic high reflected power protection
- Harmonic Filter
- High stability internal 10MHz reference
- Downloadable PC GUI
- Redundant operation ready

OPTIONS

- Extended C-Band (5.85 – 6.725 GHz)
- LNA operation
- Remote M&C panel (Ethernet port optional)
- External 10 MHz reference with auto sensing



OVERVIEW

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

AWMT-1000CL® is a family of hub-mount transceivers operating in the C-band from 2W to 10W. 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-CL® 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-1000CL® is designed to operate in the C-band with L-band interface. The unit is self-contained and is intended for mounting outdoors, close to the OMT of an antenna.

REDUNDANCY

The AWMT-1000CL® 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.

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

Transceivers RTX AWMT Series

C-BAND TRANSCEIVER 2 W TO 10 W L-BAND INTERFACE AWMT-1000CL® series



Transmit Path			
Model	2W	5W	10W
P1dB min. (dBm)	33	37	40
Gain min @ max. gain set (dB)	54	58	61
Power Consumption	40	60	110

Unit Weight	25 kg (55 lbs)
Dimensions (L x W x H)	16.15" x 9.75" x 9.16" (41.02 x 24.77 x 23.27 cm)

Transmit Path			
L-Band Input		RF Output	
Frequency range	950-1525 MHz	Frequency range	5.850 – 6.425 GHz
Input Connector	Type N female	Frequency range (Non-inverting)	6.425 – 6.725 GHz
Input Return Loss	18 dB / 50 Ω		6.725 – 7.025 GHz
Gain Specification		Output connector	CPR 137G (N-Type option up to 100 W)
Gain control range	20 dB (0.1 dB step size)	Output Return Loss	20 dB (18 dB for coaxial output)
Gain flatness	2.0 dB p-p max	Third order IMD (2 tones 5 MHz apart)	-26 dBc max at 3dB total back-off from rated P1dB
Gain stability	3.0 dB p-p max over temp. range	Spurious	-55 dBc max at rated power
		Noise Power Density	-70 dBm/Hz max in TX band
			-155 dBm/Hz max in 3.4 – 4.2 GHz

Receive Path			
RF Input		LNB Parameters	
RF Input Frequency	3.4 – 4.2 GHz	LNB type	Phase lock to 10 MHz ref. (from Transceiver via coax. cable)
	4.2 – 4.5 GHz (CI)	Noise Temperature	35°K
RF Input Interface	CPR-229G	L-band Output Frequency	950-1750 MHz
Input VSWR	2.5:1	L-band Output Interface	Type N female 50 Ω
L-band Output		Conversion Gain	60 dB
Frequency range	950 – 1750 MHz	DC power	12±18V DC (via coaxial cable)
Output P1dB min	+5 dBm	LNA Parameters (optional)	
Output Connector	Type N female / 50 Ω	Noise Temperature	35°K (30°K optional)
Output Return Loss	18 dB / 50 Ω	Output Interface	Type N female 50 Ω
Gain Specification		Gain	60 dB
Gain (LNB + Receiver)	80 dB @ max gain set	DC power	12±18V DC (via coaxial cable)
Gain control range	20 dB (0.1 dB step size)		
Gain flatness	±2.5 dB max over full RF band		
Gain stability	3.0 dB max over temp. range		
Spurious	-55 dBc max		
Image Rejection	50 dB		

Common Parameters (Tx & Rx)			
Synthesizer step size		Environmental	
1 MHz (option 125 KHz)		Cooling	Forced Air
Frequency Stability		Operational	-30°C to +55°C standard
-40°C to +55°C	±2 x 10 ⁻⁸		(-40°C to +55°C option)
Aging	±1 x 10 ⁻⁷ /year	Storage	-55°C to +85°C
Phase Noise		Humidity	Up to 100% condensing
(With internal 10MHz reference)		Altitude	3,000 m AMSL (derated 2°C/300m)
Offset frequency	Phase noise (max)	Power Requirements	
100 Hz	-60 dBc/Hz -65 dBc/Hz typical	AC input voltage	Auto ranging 110/220±15% (47-63 Hz)
1000 Hz	-70 dBc/Hz -73 dBc/Hz typical	AC Connector	MS3102R10SL-3P
10 KHz	-80 dBc/Hz -85 dBc/Hz typical	Mechanical	
100 KHz	-90 dBc/Hz -95 dBc/Hz typical	Packaging	Weatherproof for outdoor use
Monitor & Control			
Serial port (RS-485)	MS3112E10-6P		
Serial port (RS-232)	MS3112E10-6P		
Redundancy Port	MS3112E16-26P		
Discrete Port	MS3112E12-10P		

PB-WTL110-01 Rev.02 issued on 05/07/2007 Specifications are subject to change without notice



An ISO9001: 2000 Company



SATCOM SERVICES

Mike Termondt
25 Creek Lane
Oak View, CA 93022 USA
Tel.: (805) 649-1284
Fax: (805) 500-4328
Email: Mike@satcom-services.com

