

Test Loop Translator Outdoor Series AWLT-S100 model



Advantages

- Converts S-band 2025 -2120 MHz to 2200-2295 MHz
- Emulates 221/240 ratio from coherent transponder
- 10MHz high stability internal reference, with external switchover
- Full remote control via RS485

Operating Bands

Basic Model	RF Output	RF Input	
number	MHz	MHz	
AWLT- S100	2200 - 2295	2025-2120	

Overview

The Advantech Wireless Test Loop Translator AWLT-S100 model is intended for outdoor application. This translator is designed for testing satellite communications links in S band, where loopback is a coherent conversion with ratio 221/240. If provide extended attenuation range to generate various operation scenarios and to easily adapt to any loopback setup. A single band AWLT unit works with 2025-2120 MHz operating frequency band, translating it to 2200-2295 MHz, ready to be processed by the demodulator. Other frequency bands are also available. Please consult factory.

The flexible and comprehensive monitor and control features on the AWLT-S100 ensure that it will fit into any network management system architecture. The RS485 remote interface will provide full set-up and fault monitoring facilities.

The translator unit is housed in a weatherproof package. It is designed to meet the phase noise and frequency stability requirements of the satellite communications industry.

Options

- Ethernet SNMP or Transparent Packet mode over TCP/IP Monitoring and Control
- Other operating bands, please consult factory



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RF Input			RF Output	
Frequency range	2025-2120 M	Hz	Frequency range	2200-2295 MHz
Input level	0 dBm max		Translation adjustment	174-183MHz, with 1kHz step
input level	+10 dBm no damage		Output impedance	50 Ω
Input impedance	50 Ω		Output Connector	N-type (female)
Input Connector	N-type (female)		Output VSWR	1.2:1
Input VSWR	1.2:1			
Conversion Parameters		Controls & Indicators		
Conversion Gain	-20 dB, +/- 3dB at 0dB attenuation			LO frequency
Gain adjustment	45 dB			Attenuator control
Attenuator step size	0.1 dB		-	
Gain flatness	4.0 dB p-p max. over full band		-	Local/Remote
	0.5 dB p-p max. over any 40 MHz		-	N4
Gain stability	±0.05 dB/°C max30° to +55°C		-	Mute/Un-mute
Input/Output Isolation	-60 dBc		Mechanical	
In-band Spurious	-40 dBc at 0dBm input		Dimensions	Width 4.5" (114 mm)
	-50dBm signal independent		-	Height 5" (127 mm)
Harmonics				Length 21" (533 mm)
	-60 dBc	Power Supply		
			Voltage	90 – 265 VAC (47 – 63 Hz)
Phase noise	10 Hz	-65 dBc	Power	40W
	100 Hz	-80 dBc	Connector	MS3102R16-10P (3 pins)
	1000Hz	-90 dBc	Monitor and Control	
	10 kHz	-95 dBc	RS 485	MS3112E10-6P
	100 kHz	-105 dBc	RS232	MS3112E10-6P
	1 MHz	-115 dBc	Ethernet (optional)	MS3112E12-10P
Reference			Environmental	
External Reference	10 MHz		Operational	-30°C to +50°C standard
External ref. input level	0 dBm ± 5 dB		Storage	-55°C to +85°C
Internal reference stability	+/-5 x 10-8, over -30° to 50°C		Humidity	Non-condensing
Aging	+/-5 x 10-8 / year		Altitude	3,000m AMSL
	+/-1 x 10-9 / day			

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