



Features

- 70 MHz or 140 MHz IF
- S-Band 2000 – 2400 MHz option 2000 – 2500 MHz
- 1 kHz step size
- Superior phase noise performance
- Built-in internal reference with auto-sensing
- On-site reference aging correction capability
- High linearity
- Input and output monitors
- RS232, RS485 interfaces
- Ethernet interface with SNMP and Web Interface

Overview

The Advantech Wireless S-band series of converters uses the latest technology in conversion, local and remote control thus providing the ultimate in performance and user friendly operation at a very competitive price.

The spectral purity, low phase noise and stability exceed the requirements of all major international satellite network operators.

Remote management interfaces ensures complete flexibility of integration into existing or new installations. The RS485 remote interface will provide full set-up and fault monitoring facilities. Ethernet option will allow the operator to pilot system operation either through SNMP or Web based interface.

The system reference guaranteeing conversion function's accuracy can optionally be provided externally, internally as a highly stable temperature compensated oscillator, or with auto-detection capacity that will use internal reference only in the absence of an externally provided one.

The S-band series of converters provides an industry leading MTBF of over 120,000 hours.

Models

Up-Converters

AWUN-70S	70 MHz to S-Band
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Down-Converters

AWDN-70S	S-Band to 70 MHz
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S-Band Transceiver

AWMT-70S	70 MHz to S-Band Up/Down-converter Up/Down NINV
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Options

- 140 MHz IF Frequency
- 75 ohms IF impedance
- 1:1 Hot Swap Redundancy
- Ethernet interface with SNMP and Web Interface
- S-Band 2000 – 2500 MHz

S-Band HP Converters Outdoor series

Technical Specifications							
Up-Converter				Down-Converter			
IF Input		RF Output		RF Input		IF Output	
Frequency range	70 ± 20 MHz 140 ± 40 MHz (optional)	Frequency range	2000 – 2400 MHz Option 2000 – 2500 MHz	Impedance	50 Ω*	Impedance	50 Ω
Input connector	Type N (female)	Output connector	Type N (female)	Return loss	23dB	Return loss	16 dB
Input monitor connector	Type N (female)*	Input monitor connector	Type N (female)*	Input monitor coupling	-20dBc	Input monitor coupling	-20dBc
Output level	+15 dBm at P1dB	Output level	+15 dBm at P1dB	IMD3 (two tone)	-50 dBc max @ 0 dBm output	IMD3 (two tone)	-50 dBc max @ 0 dBm output
Output connector	Type N (female)*	Output Connector	Type N (female)*	Output monitor connector	Type N (female)*	Output monitor connector	Type N (female)*
Connector Impedance	50 Ω	Connector Impedance	50 Ω *	Output monitor coupling	-20dBc	Output monitor coupling	-20dBc
Return loss	16 dB	Return loss	23 dB	Transfer Characteristics			
Gain	30 dB @ max gain setting						
Gain adjustment	20 dB (0.1 dB step size)						
Gain flatness	0.8 dB p-p max. 40 MHz 1.0 dB p-p max. 80 MHz						
Gain stability	±0.25 dB max. /24 hours ±1.5 dB over temp. range						
Spurious (in band)	<-60 dBc carrier related @ 0 dBm <-70 dBm non-carrier related						
Noise Figure	15 dB						
Synthesizer step size	1kHz						
Group delay : 70MHz IF 140MHz IF	Linear 0.030 ns/MHz 0.025 ns/MHz	Image rejection	-60dBc	Ripple	1ns p-p 1ns p-p		
Phase noise @	10Hz	100Hz	1kHz	10kHz	100kHz	1MHz	
dBm/Hz	-65	-80	-90	-95	-100	-115	
Reference				Mechanical			
External Reference	10 MHz (optional)	Dimensions	Width 4.5"				
Internal reference stability	± 2 x 10 ⁻⁸ over 0° to +50°C		Height 5.0"				
Aging	± 2 x 10 ⁻¹⁰ / day ± 5 x 10 ⁻⁸ / year		Depth 21"				
Environmental				Power Supply			
Operational	-30°C to +55°C standard	Voltage	90 – 265 VAC (47 – 63 Hz)				
Storage	-55°C to +85°C	Power	40W typ.				
Humidity	Non-condensing	Connector	MS3102R16-10P				
Altitude	3,000m AMSL						
* Other options				Monitor and Control			
1) 10MHz auto-sensing reference				RS 485	MS3112E10-6P		
2) 75 ohms IF impedance				RS 232	MS3112E10-6P		
3) SMA 50 Ω IF connector				Discrete	MS3112E10-6P		
4) SMA 50 Ω RF connector				Redundancy	MS3112E16-16P		
5) Auto-sensing reference				Ethernet (optional)	MS3112E10-6P		

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