Satellite Link Emulator

ASLE-70-10D

Description

Polaris' ASLE series products are satellite link emulators for geostationary satellites and provide an ideal solution for satellite modem testing, satellite to Earth station RF link testing, spacecraft payload testing, and general testing systems using satellite communications.

The ASLE-70-10D provides accurate simulation of propagation delay, path loss, and Doppler frequency shift for closed-loop testing of geostationary satellites and earth station terminals. The ASLE-70-10D operates at 70MHz and provides up to 10MHz bandwidth.

Features

- Operating frequency: 70 MHz
- Operating bandwidth: 10 MHz
- Time delay range: 0 to 530 ms (1 us steps)
- Doppler shift range: -1 MHz to 1 MHz (1 Hz steps)
- Noise Floor: < -125 dBc/Hz
- Remote interfaces: USB, RS-232, or RS-422/485

Applications

- Satellite Modem Test
- VSAT Test
- Satellite Payload Test
- UAV Test
- Earth Terminal Test
- Satellite System Integration Test Beds
- Mobile Transceiver Test

Specifications

Parameters		Specifications	Remarks
Operating Frequency		70	
RF Input Power (dBm)		≤ -10	
Maximun Gain (dB)		0±1 at 0dB attenuation & 140MHz	
Operating Bandwidth (MHz)		≥ 10	
Gain Flatness (dBp-p)		≤ 1	
Time Delay	Range (ms)	0 (Bypass), 0.01 to 530	
	Step (us)	1	
	Accuracy (us)	≤ ±0.1	
Attenuation	Range (dB)	0 to -40	
	Step (dB)	0.5	
	Accuracy (dB)	≤ ±0.5	
Doppler Shift	Range (MHz)	-1 to 1	
	Step (Hz)	1	
	Accuracy (Hz)	Based on 10MHz reference	
Spurious (dBc)		≤ -50 at in-band (≤ -55dBc typical)	
Noise Floor (dBc/Hz)		≤ -125	
V.S.W.R. (: 1)		≤ 1.5 at 50Ω	
Control and Interface	Local	Front Panel (VFD & Keypad)	
	Remote	USB, RS-232, or RS-422/485	
Primary Power	Voltage (Vac)	90 to 240	
	Frequency (Hz)	47 to 63	
Operating Temperature (℃)		+10 to +40	
Size (Width x Height x Depth) (inch)		19″ x 5.25″ x 21″	
External Reference Switching		Automatic (Switching Time: 5 sec)	10MHz, 0±2dBm, 50Ω

※ ASLE(Advanced Satellite Link Emulator), 70(70MHz), 10D(10MHz Bandwidth, Doppler)

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