Satellite Link Emulator

POLARIS

PSLE-L-10D

Description

The Polaris PSLE series is a Satellite Link Emulator for geostationary satellites. The PSLE series provides 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 PSLE-L-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 PSLE-L-10D operates from 950MHz to 1,450MHz and provides up to 10MHz bandwidth.

Features

- Built-in L-band Frequency Converters
- Excellent SNR using 14bit ADC
- Stable and reliable simulation for signals with high modulation index

Options

- Option F: Extended Frequency Range (950MHz to 1,950MHz)
- Option T: 64ns Time Resolution

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
Frequency Range		950MHz to 1,450MHz	Option F: 950MHz to 1,950MHz
Operating Bandwidth		10MHz	
RF Power	Input	≤-10dBm	
	Output	-10dBm max. at 0dB attenuation	
Gain		0dB max.	
Attenuation	Range	0dB to -40dB	
	Resolution	0.5dB	
	Accuracy	≤ ±0.5dB	
Spurious		≤-45dBc at in-band (≤-50dBc typ.)	
Return Loss		≤-14dB at 50Ω	
Doppler	Range	-1MHz to +1MHz	
	Resolution	1Hz	
	Absolute Accuracy	based on 10MHz reference	
Delay	Range	265ms max.	
	Resolution	1ms	Option T: 64ns
	Accuracy	based on 10MHz Reference	
Control and Interface	Local	Front panel	
	Remote	RS-232, USB	
Primary Power	Voltage	90VAC to 240VAC	
	Frequency	47Hz to 63Hz	
Operating Temperature		+10°C to +40°C	
Size (Width x Height x Depth)		19″ x 7″ x 21″	

※ PSLE(Polaris Satellite Link Emulator), L(L-Band), 10D(10MHz Bandwidth, Doppler)