Satellite Link Emulator



PSLE-140-36D

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-140-36D 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-140-36D operates at 140MHz and provides up to 36MHz bandwidth.

Features

- Excellent SNR using 14bit ADC
- Low Noise Floor below -125dBc/Hz
- Wide Doppler Frequency Shift from -3MHz to +3MHz
- · Stable and reliable simulation for signals with high modulation index

Applications

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

Options

• Option T: 64ns Time Resolution

Specifications

| Parameters | | Specifications | Remarks |
|-------------------------------|-------------------|-----------------------------------|----------------|
| Center Frequency | | 140MHz | |
| Operating Bandwidth | | 36MHz | |
| 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.) | |
| Noise Floor | | ≤-125dBc | |
| Return Loss | | ≤-17.5dB at 50Ω | |
| Doppler | Range | -3MHz to +3MHz | |
| | 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 5.25" x 21" | |

X PSLE(Polaris Satellite Link Emulator), 140(140MHz), 36D(36MHz Bandwidth, Doppler)

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