CALIAN | SED

Spectare Spectrum Viewer

Cost-Effective Measurement Performance

Spectare is a low-cost spectrum viewer that provides good measurement performance at an ultra-low price. It can function as either an independent spectrum analyzer or can be easily integrated into a satellite terminal, equipment enclosure or as part of a larger measurement network.

Spectare uses digital technology and Discrete Fourier Transforms (DFTs) to make measurements. The device has two 50Ω SMA selectable inputs and accepts signals from 950 MHz to 2150 MHz with input power levels up to +5 dBm.

The spectrum capture is performed using DFT hardware, which transforms the time-sampled input signals to the frequency domain. The DFT function steps across the configured input bandwidth in steps that correspond to the user-specified frequency step size. After all of these spectral snapshots are complete, the snapshots are stitched together to generate the overall frequency spectrum. Measurement time is dependent on the specified band width and frequency step size and is approximately 3.5 seconds for a 950-2150 MHz spectrum capture with a 400 kHz spectrum step size.

Spectare is available in two form factors: a rack mount chassis (19"W x 5.25"D x 1.75"H) and it can be integrated into an equipment rack, while a smaller form factor (6.25"W x 5.25"D x 1.5"H) can be integrated into smaller spaces. Power is provided through an external 5 V power supply brick. An RJ-45 connector is provided for Ethernet-based control and monitor of the device, while the input signals are connected to Spectare through two 50Ω SMA connectors.

Spectare includes a powerful web-based graphical user interface that can be operated from any standard browser. The GUI operates like a traditional spectrum analyzer and provides user-selectable colors for markers and traces.

For integration into a terminal or measurement system, the device can be operated directly via the GUI application or the user can automate the unit using the publicly available API. An SNMP status interface is also available.

OVERVIEW

- Two user selectable input ports
- Covers full satellite L-band from 950 MHz to 2150 MHz
- Powerful web application and API control
- SNMP status interface
- 1U high rack mount chassis or smaller form factor case

PHYSICAL INTERFACES

RF Inputs:	2 x SMA, 50 ohms
Control:	RJ-45
DC Power:	5V DC, includes universal AC adapter, 120/240 VAC, 50-60 Hz
Mechanical:	1.75"H x 19"W x 5.25"D (rackmount)
	1.5"H x 6.25"W x 5.25"D (desktop)

CERTIFICATIONS:

EMC/EMI: EN 61326-1

FCC Title 47, Part 15

Private labelling is available.
Contact SED for more information.

SPECIFICATIONS

RF INPUT:

Input Frequency Range:	950 MHz to 2150 MHz
Useable Dynamic Range:	-50 to +5 dBm (aggregate)
Noise Floor:	-90 dBm (typical)
Maximum Safe Input:	+10 dBm
Input Isolation (port to port):	40 dB (min)
Input Return Loss:	-12 dB (min)

MEASUREMENTS:

Amplitude Accuracy:	± 3.0 dB
Frequency Accuracy:	± 100 ppm
Resolution Bandwidth:	300 Hz to 10 MHz
Measurement Speed:	1200 MHz span, 400 kHz RBW 3.5 seconds

OTHER SPECIFICATIONS:

Control Interface:	TCP/IP API, SNMP, HTTP
Power Requirements:	120-240 VAC, 50/60 Hz, 10W max.
Operational Temperature:	10 to 50°C

All specifications at 25ºC unless otherwise noted and are subject to change.