CALIAN | SED

Portable Decimator D3

Conveniently Transports in a Standard Laptop Case

Install anywhere in a satellite, cable or terrestrial wireless network, connect to any AC power source worldwide.

SED's Portable Decimator D3 is a third generation spectrum measurement and analysis product providing high-end performance at a low price. It is conveniently packaged for use by field technologists or it can be installed anywhere in a satellite, cable or terrestrial wireless network. It is a small enclosure easily transported in a typical laptop case. It can be connected to any AC power source worldwide. The powerful GUI is available using any standard web browser.

The Portable Decimator D3 uses state of the art digital technology and Fast Fourier Transformations to make lightning fast and accurate measurements. With a very low noise floor and large dynamic range, it is well-suited to measure any type of satellite, cable or terrestrial wireless carrier, including very small carriers, beacon signals and for carrier monitoring applications. Portable Decimator D3 accepts all signals from 5 MHz to 3 GHz and input power levels ranging from –110 to +5 dBm. RBW varies from 1 Hz to 1.5 MHz.

The Portable Decimator D3 can be connected to an external 10 MHz reference for improved frequency accuracy and stability. All data communications with the Portable Decimator D3 occurs via its built-in Ethernet port.

It can be easily transported anywhere, providing an instant 5 MHz to 3 GHz spectrum analyzer, in conjunction with a laptop and any web browser.

The powerful Graphical User Interface (GUI) is available using any standard web browser. No additional software is required. The GUI is very easy to use and operates like most traditional spectrum analyzers. It provides user-selectable colors for markers and traces, allows storage of multiple traces and provides measurement reporting. It also includes a powerful built-in **Carrier Monitoring** function, which provides notification via email or SNMP of carrier measurements that exceed user-defined limits, offering you peace of mind that up to 100 of your carriers are operating as expected.

When installed in a facility, the Portable Decimator D3 provides network access to all staff connected to the facility network or a corporate wide area network. This allows all technical staff the ability to monitor feeds and carriers at any time and from any location in the world using only a web browser.

Portable D3 Specifications

Overview

- Full satellite L-band plus cable & wireless bands
  from 5 MHz to 3 GHz
- Built-in Carrier Monitoring
- External 10 MHz reference or internal reference
- Web browser control
- Small enclosure
- Connects to AC power worldwide
- Custom design versions supporting other frequency
  bands or form factors available upon request
- CarrierWatch enhanced software add-on also available

Physical Interfaces:

RF Inputs:	SMA, 50 ohms
Control:	RJ-45
Reference:	BNC, 50 ohms
AC Power:	External AC adapter with IEC 60320
Mechanical:	2.3"H x 6.9"W x 9.5"D
Weight:	3.6 pounds

Certifications:

EMC/EMI:	EN 61000-6-2, EN 61000-6-4
Safety:	EN 61010-1

Notes:

1. Measurement conditions: 10 averages, input level
   between -8 dBm and -68 dBm, 3 sigma.

2. Resolution bandwidths auto or manual adjustable.

3. Expected rates with 10 averages, speed optimization.

4. All specification at 25°C unless otherwise noted and
   are subject to change without notice.

RF Input:

Input Frequency Range:	5 MHz to 3 GHz
Useable Dynamic Range:	-110 to +5 dBm (aggregate)
Noise Floor:	-160 dBm/Hz (typical at min atten)
	-140 dBm/Hz (typical at max atten)
Phase Noise:	- 80 dBc/Hz at 1 kHz offset
	-95 dBc/Hz at 100 kHz offset
	-125 dBc/Hz at 1 MHz offset
Maximum Safe Input:	+15 dBm

Measurements:

Amplitude Accuracy:	± 0.5 dB (at 25°C)[1]
	± 1.0 dB (0 to 50°C)
Frequency Accuracy:	± 2.6 ppm (internal)
	or as per external
Frequency Resolution:	1 Hz
Resolution Bandwidth:	1 Hz to 15 MHz
Analysis Bandwidth:	up to 220 MHz
Spurious:	
- Images:	< -55 dBc (typical)
- Aliasing:	< -55 dBc (typical)
- DC Offset:	< -30 dBc (typical)
- Averaging:	up to 255 averages

Measurement Speed[3]

- 500 MHz span, 1 MHz RBW	200 ms
- 200 MHz span, 30 kHz RBW	630 ms
- 80 MHz span, 100 kHz RBW	170 ms
- 3.5 MHz span, 8 kHz RBW	90 ms

Other Specifications:

Reference Input:	10 MHz, -5 dBm to +13 dBm,
	+3 dBm to +13 dBm
	(auto-sensing)
Control Interface:	TCP/IP API, SNMP, HTTP
Power Requirements:	100-240 VAC, 50/60 Hz, 20W
Operational Temp. Range:	0 to 50°C