

## Multi-Port Decimator D3

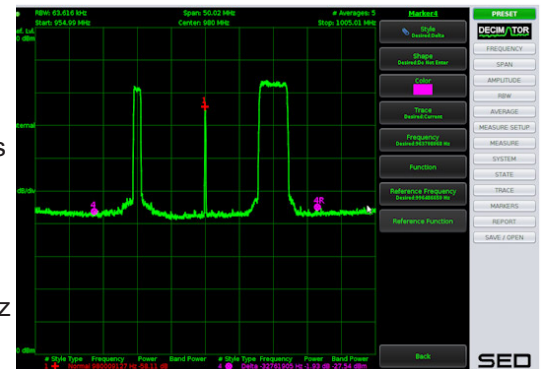
### Monitor Multiple RF Feeds

*Ideal for local or remote monitoring of multiple feeds & carriers in satellite, cable or terrestrial wireless networks.*



SED's Multi-Port Decimator D3 is a third generation spectrum measurement and analysis unit in a 1U chassis with an integrated 8-port RF switching capability. It is ideal for either local or remote monitoring of multiple feeds and carriers in satellite, cable or terrestrial wireless networks.

The Multi-Port 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 a 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. Decimator 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 15 MHz. The Decimator can be connected to an external 10 MHz reference for improved frequency accuracy and stability. All data communications with the Decimator occurs via its built-in Ethernet port.



It can be installed anywhere, occupying only 1U in a standard equipment rack, allowing you to monitor up to 8 different feeds. This is ideal for a teleport, VSAT hub cable head end, cell tower or broadcast facility with multiple feeds to monitor. It is available with 75-ohm F-type connectors or 50-ohm SMA connectors on the inputs. It can also be provided as a 4-Port Decimator, which is the same unit limited to 4 operational ports allowing expansion to the additional 4 ports in the future if required. No additional hardware required.

The 8-Port Decimator's 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. The Decimator GUI also includes two powerful built-in applications: The built-in **Carrier Monitoring** function provides notification via email or SNMP of carrier measurements that exceed user-defined limits, offering you peace of mind that your carriers are operating as expected. The 8-Port Decimator also includes a convenient **Cross-Pol Isolation** measurement function, allowing you to display both Co-Pol and Cross-Pol signals simultaneously, along with the isolation value.

The 8-Port Decimator provides network access to all technical 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.

# Multi-Port D3 Specifications

## Overview

- 8 user-selectable input ports
- Full satellite L-band plus cable & wireless bands from 5 MHz to 3 GHz
- Built-in Carrier Monitoring
- Built-in Cross-Pol isolation
- External 10 MHz reference or internal reference
- Web browser or API control
- SNMP status interface
- Standard 19" 1U rack mount chassis
- Available also as a 4-Port unit
- Private brand labelling for OEM's
- Custom design versions supporting other frequency bands or form factors available upon request
- CarrierWatch enhanced software add-on also available

## Physical Interfaces:

RF Inputs: 8 x Type F, 75 ohms or  
8 x SMA, 50 ohms

Control: RJ-45

Reference: BNC, 50 ohms

AC Power: IEC 60320

Mechanical: 1.75"H x 19"W x 10"D

## Certifications:

EMC/EMI: EN 61326-1  
FCC Title 47, Part 15

Safety: EN 61010-1  
UL 61010-1  
CSA22.2 No. 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 3GHz

Useable Dynamic Range: -110 to +5 dBm (aggregate)

Noise Floor: -150 dBm/Hz (typical at min atten)  
-130 dBm/Hz (typical at max atten)

Phase Noise: -80 dBc/Hz at 1 kHz offset  
(worst case at 3 GHz) -95 dBc/Hz at 100 kHz offset  
-125 dBc/Hz at 1 MHz offset

Maximum Safe Input: +10 dBm

Input Isolation (port to port): 45 dB (min)

Input Return Loss: -15 dB (min)

## Measurements:

Amplitude Accuracy:  $\pm 0.5$  dB (at 25°C)<sup>1</sup>  
 $\pm 1.0$  dB (0 to 40°C)

Frequency Accuracy:  $\pm 2.6$  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)
- Residual:  $< -80$  dBm
- Averaging: up to 255 averages

Measurement Speed<sup>3</sup>

- 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: 90-264 VAC, 50/60 Hz, 25W

Operational Temp. Range: 0 to 40°C

## To learn more, please contact:

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