

# SAT-DSP-5000

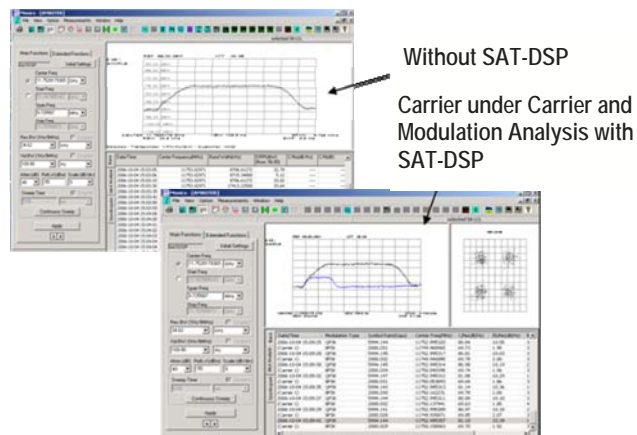
## High Speed Measurement Instrument



### INTERFERENCE: DETECT. LOCATE. RESOLVE

SAT Corporation is a trusted global satellite communications monitoring, interference detection and geolocation company.

SAT Corporation's products, SAT-DSA®, Monics®, satID®, and SigMon® use patented algorithms, complex science and cutting edge technology to monitor all your satellite frequencies for Quality of Service; identifying anomalies, including interfering signals, and geolocation sources of interference. No one in the industry can match the speed or accuracy of our products and services.



### Key Features

- ◆ 80 MHz Instantaneous Bandwidth
- ◆ On-board Decimation Option
- ◆ Built in 10 MHz Reference Oscillator
- ◆ Sampling Rate: 213 Msps/12-Bit
- ◆ 1RU Chassis
- ◆ Gigabit Ethernet data transport to Monics® or SAT-DSA®

### Overview

SAT Corporation's SAT-DSP-5000 instrument provides the latest in Digital Signal Processing by unlocking the full potential of the Monics® Carrier Monitoring and Interference Detection System. With 80 MHz of instantaneous bandwidth, an operator can analyze a full 72 MHz wide carrier and determine the modulation type, symbol rate, measured Eb/No and analyze any interfering signals lurking underneath.

### Applications/Usage

The SAT-DSP™ instrument is specifically designed as a measurement instrument to be used with SAT Corporation's Monics® and SAT-DSA® Satellite Carrier Monitoring and Interference Detection Systems. The SAT-DSP instrument can also be included as part of SAT's SigMon® RF Monitoring and Direction Finding solutions. The SAT-DSP instrument enables\*:

- ◆ Modulation and FEC Analysis
- ◆ Carrier Under Carrier Analysis
- ◆ Frequency Scan Analysis
- ◆ Spectrogram for TDMA analysis

\* When operating with Monics® and/or SAT-DSA® systems

**SAT** CORPORATION  
A KRITOS Company

# SAT-DSP-5000

## Technical Specifications SAT-DSP-5000

### L-Band to 266 MHz Agile Down Converter

Input Frequency	950 MHz to 2150 MHz
Output Frequency	266 MHz
Frequency Step Size	1.0 MHz
Gain	25dB Max.
Gain Adjustment	25dB Range in 1dB Steps
Noise Figure	15dB
Output Compression Point	10dB
Gain Stability	+/- 0.25dB over 24 hours
Spectrum Inversion	Non-Inverting

### Digitizer

IF Input/Output	266 MHz
Input/Output Power Level	-90dBm to -15dBm
Reference Input	10 MHz
Sampling Rate	213 Msps (Locked to Reference)
Data Interface	TCP-IP RJ45

### SAT-DSP Chassis

#### Physical Size

Width	19" Rack Mount
Depth	14" (15" Populated)
Height	1 Rack Unit
RF Connector	SMA In and Out (50 Ohms)
Control Interface	TCP-IP RJ45
10 MHz Reference Output	BNC
10 MHz Reference Output Level	+12dBm
10MHz Reference Input Level	+3dBm +/- 3dBm

#### Power Supply

AC Supply	100 – 240 V AC, 50/60 Hz
DC Output	250W (MAX)
Fuse Rating	6.3 A/250V

*The operating temperature range for all assemblies is 0 to 50°C.*

## Ordering Information

### Part numbers and descriptions:

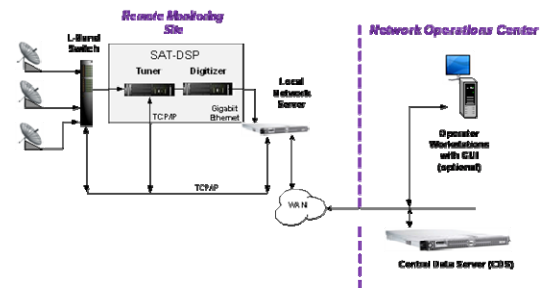
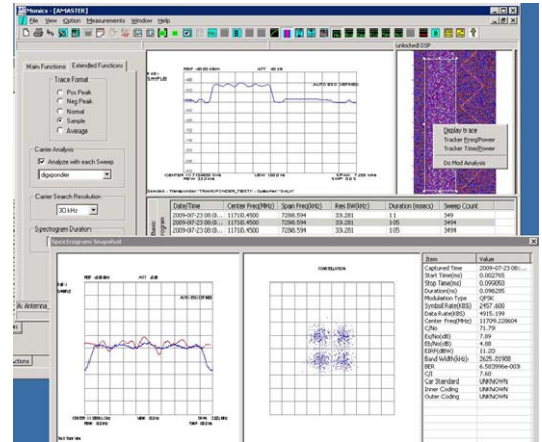
**SAT-DSP-5010**  
High Speed SAT-DSP with SAT-DSP software with on-board decimation included

**SAT-DSP-5000**  
High Speed SAT-DSP with SAT-DSP software

**SAT-DSP-5000-HWR**  
High Speed SAT-DSP Instrument (SAT-DSP Software not included)

**SAT-DSP-0BD**  
On-board decimation option (upgrades SAT-DSP-5000 to SAT-DSP-5010)

For more information on any of our products or services please visit us on the web at: [www.sat.com](http://www.sat.com)



**SAT CORPORATION**  
A KRATOS Company

321 Soquel Way, Sunnyvale CA 94085  
Ph.: +1 408.220.9200 Fax: +1 408.530.1030  
[sales@sat.com](mailto:sales@sat.com)  
[www.sat.com](http://www.sat.com)