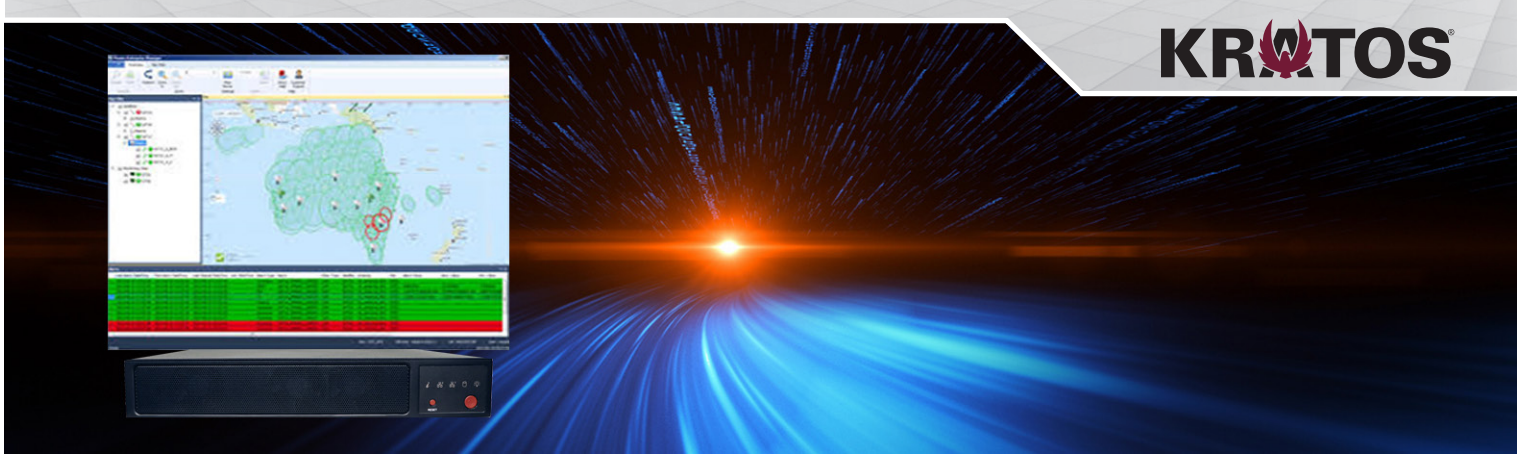
Monics® 400 – Carrier Monitoring Sized for Every Beam



High-throughput satellites have changed how carriers are monitored. Multi-spot-beam architectures deliver more capacity than ever, but they are also more complex, more dynamic, and more vulnerable to interference. Operators now need visibility into many smaller beams, and traditional monitoring approaches were not built to do that economically.

Key Features

- *Monitor and analyze signals*
- *125 MHz of instantaneous bandwidth*
- *Small form factor*
- *Frequency range of 950 to 2450 MHz*
- *Storage capacity of 480 GB*
- *Supports DIFI standard*

Monics 400: Compact RF Insight for HTS Beams and Remote Deployments

The Monics 400 is a stand-alone, small-form-factor carrier monitoring sensor that brings proven Monics capabilities wherever needed. It can be placed at the edge of the network, in a fly-away kit, or at a remote teleport to provide clear, real-time insight into the communications payloads. Deploy the Monics 400 without the cost or footprint of a full carrier monitoring system.

The result: protect your bandwidth, safeguard Quality of Service (QoS), and resolve issues before any customer issues occur.

Go Beyond a Spectrum Analyzer

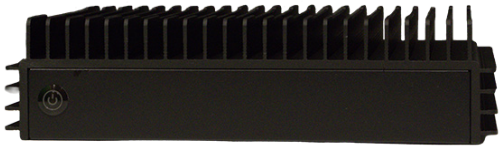
Built on advanced Digital Signal Processing (DSP), the Monics 400 does not just show the spectrum, it helps operators understand what is in it. It allows operators to choose the operating mode that fits the mission:

- **Spectrum Mode: Fast, everyday visibility.** Rapid frequency-domain measurements for routine remote operations such as antenna alignment. Add modulation analysis as needed to support missions.
- **Site Mode: Deep carrier insight**. Provides full modulation analysis, including modulation type, symbol rate, Es/No, Eb/No, and optional FEC detection. Detect and characterize interference hiding beneath revenue-generating carriers, without interrupting service.

To accommodate a wide range of operational environments, the Monics 400 is offered in both fan-cooled and fan-less versions.



Monics 400 fan version



Monics 400 fanless version

Phone: 703.254.2000 • EMail: Space@KratosDefense.com • Web: www.KratosDefense.com

Standard Frequency Domain Measurements	Kratos DSP Enabled Time Domain Measurements
Center Frequency	Modulation Type
Bandwidth	Symbol Rate
EIRP	Es/No
C/No	Data Rate
C/N	BER
Backoff	C/I
PEB (Lease Blocks)	Optional Carrier Standard Detection
(Co+No)/No	Optional FEC Detection



The Monics 400 provides advanced time domain measurements.



The DSP enabled measurement capabilities with Monics deliver sophisticated interference detection capabilities.

Monics Sensor 400 Specifications

Hardware	Monics 400
Number RX Interfaces	1
Connector	1x SMA, 50Ω
Frequency (MHz)	950 – 2450
RX Input Range	-50 dBm to 0 dBm
RX LNB Power	13 VDC or 18 VDC
LNB Configurable On/Off Tone	22KHz
Instantaneous Bandwidth	1 Channel x 125 MHz IBW
Timing, Frequency, GPS Interfaces	Single SMA connector configurable as: 1 PPS, 10 MHz, IRIG-DC or GPS Antenna
Data Interface	PCIe Gen 3 x 4 Lanes
Digitizer Standard Support	DIFI/IEEE-ISTO Std 4900-2021 or VITA 49
Power in the System	180W
Compute	**Monics 400**
Processor	10 C/ 20 vCPU 3rd Gen Intel Xeon D 1700
RAM	Intel Xeon D 1700
Storage	480 GB NVMe SSD
Data Interfaces	2 x SFP28 25 GbE LAN 2 x RJ45 1 GbE LAN (Intel® I350-AM2) 2 x RJ45 1 GbE LAN (Intel® I210-IT) 1 x RJ45 1 GbE Dedicated IPMI LAN
Peripheral Interfaces	1 x VGA 2 x USB 2.0
Mechanical and Environmental	
Storage Temperature	-40C to 70C (-40F to 158F)
Operating Temperature	0C~40C (32F~104F)
Operating Relative Humidity	8% to 90% (non-condensing)
Dimensions	Height: 1.69" x Width 10.43" x Depth 8.89"
Weight	7.5 lbs (3.4 kg)