

# SILVUS

TECHNOLOGIES

a Motorola Solutions Company



**Industry Leading  
Scanning Speed  
144.5 THz/sec**

**FASST™ 6000**  
Spectrum Sensor

**Ultra-low SWaP  
Handheld & OEM  
Form Factors**

## Powerful Spectrum Intelligence At The Tactical Edge

The FASST 6000 Spectrum Sensor represents Silvus Technologies' expansion beyond MANET radio communications and mesh networking into advanced RF sensing and spectrum awareness. Designed to operate at the tactical edge, FASST 6000 delivers ultra-low SWaP RF Spectrum Intelligence capabilities that dramatically enhance situational awareness for the modern warfighter and unmanned systems operators.

FASST (Filtering by Aliasing Spectrum Sensing Technology) is a groundbreaking, proprietary RF signal processing technique that enables the sensor's capabilities, delivering industry-leading spectrum scanning speed of 144.5 THz/sec. This allows FASST 6000 to perform near-instantaneous measurements from 1 MHz to 6 GHz across multiple coherent antenna ports. The result: reliable detection of extremely short-duration, low-power, or low-duty-cycle RF transmissions.

FASST 6000 is capable of high-speed spectrum scanning, signal detection, recording, and direction finding (DF). When paired with a DF antenna head, it provides accurate line-of-bearing to RF emitters, and with three or more networked sensors, enables real-time triangulation for precise geolocation. From dismantled SIGINT and airborne counter-UAS ELINT operations to wide-area distributed RF monitoring, FASST 6000 empowers users to realize a common operational picture across the electromagnetic battlespace.



**LEARN MORE**

# FASST 6000 DELIVERS ULTRA-LOW SWaP SIGINT SENSING AT THE TACTICAL EDGE

# HIGHER PROBABILITY OF DETECTING, INTERCEPTING, EXPLOITING AND GEOLOCATING RF EMITTERS

## KEY FEATURES



### Industry Leading 144.5 THz/sec Scan Speed

- Outperforms competing systems by more than 100x
- Provides near-instantaneous measurements
- Enables detection of extremely short-duration, low-power, or low-duty-cycle RF transmissions



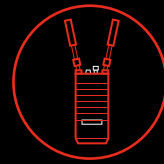
### Wideband RF Spectrum Monitoring

- Quickly scans 1 MHz to 6 GHz with a high probability of detection



### Groundbreaking RFIC Technology

- Culmination of over a decade of focused R&D
- Purpose-built integrated circuit designed from the ground up



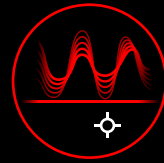
### Compatible with StreamCaster® MANET Radios

- Enables the creation of a networked sensor architecture for distributed RF monitoring
- Automatically filters out emissions from networked radio



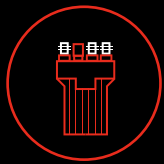
### Ultra-Low SWaP

- Rugged Handheld and OEM Module models
- Ideally suited for dismantled troops, mobile platforms, and small unmanned systems



### Advanced Capabilities

- Ability to detect signals under the noise floor
- Programmable dwell time, scan speed, instantaneous bandwidth, and RF bands of interest



### Multi-Antenna Interface

- Used for direction finding and spatial separation of emitters



### Flexible, Developer-Focused API

- Supports streamlined integration and mission-specific customization

## APPLICATIONS

### DISMOUNTED OPERATIONS



### MANNED VEHICLES



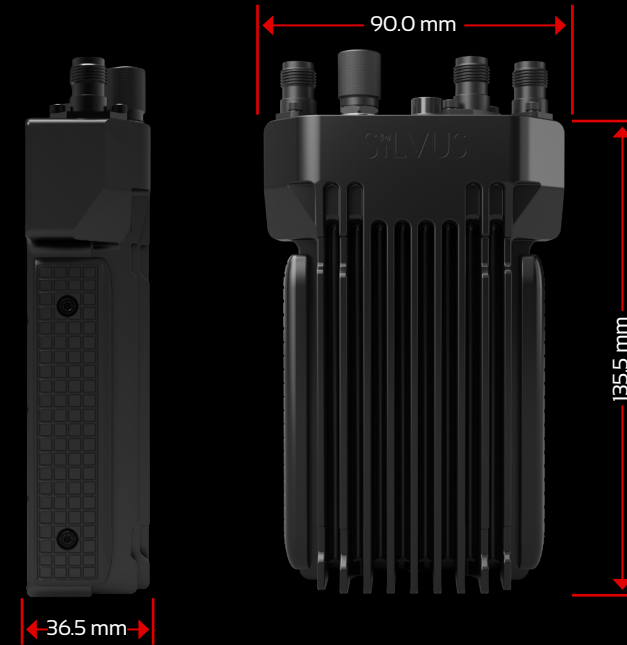
### UNMANNED SYSTEMS



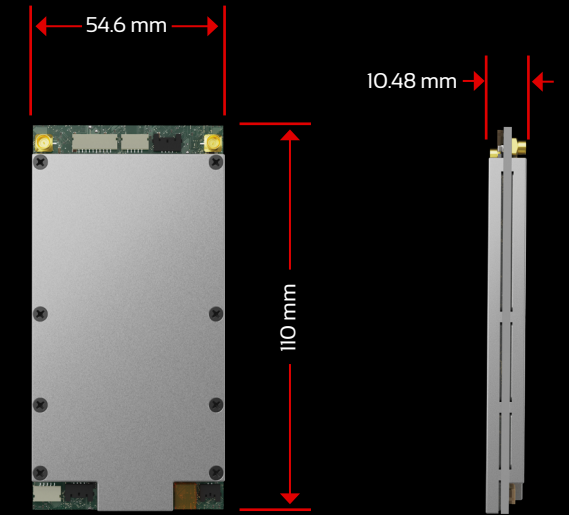
### AT-THE-HALT



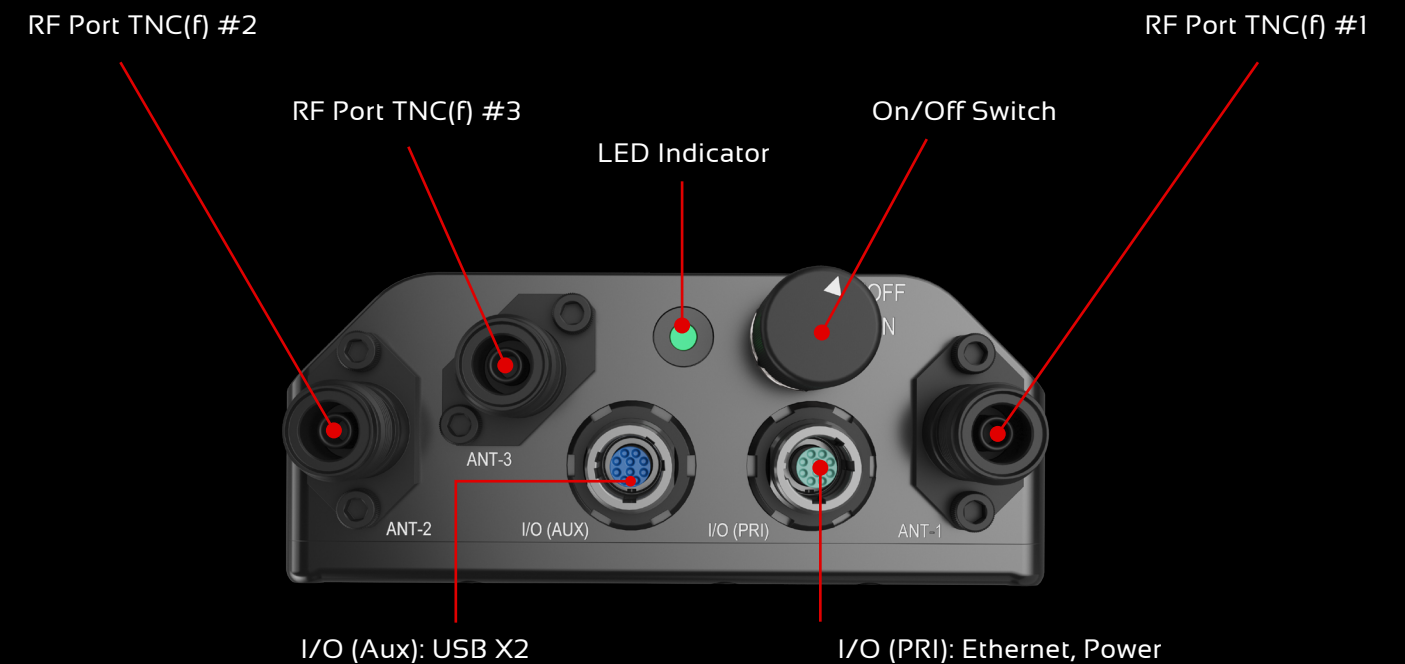
## RUGGED HANDHELD UNIT



## OEM MODULE



## INTERFACE



# SPECIFICATIONS

## GENERAL

	OEM MODULE	RUGGED HANDHELD UNIT
WEIGHT (g)	49.5	464
DIMENSIONS (mm)	110 x 54.6 x 10.48	135.5 x 90 x 36.5
RF PORTS	3x SMP(m)	3x TNC(f)
INTERFACES	ETHERNET, POWER USB x2	PRI: ETHERNET, POWER AUX: USB x2

## POWER & THERMAL

USE	100%	INTERMITTENT	STANDBY
POWER DRAW*	17W	13W	10W
TEMPERATURE (°C)** @ 25°C AMBIENT	55 to 60	45 to 50	40 to 45

\*Requires 6-36V DC

\*\*Rugged Handheld Unit

## RADIO FREQUENCY

	200 MHz	2 GHz	4.5 GHz
NF @ MAX GAIN (dB)	2.9	3.9	14.6
MAX RF GAIN (dB)	27	40.5	33.1
SFDR (dB)		> 60	
INSTANT BANDWIDTH (MHz)	26.875 (x4 CHANNELS)		
RESOLUTION BANDWIDTH (kHz)	52.5 – 1680		

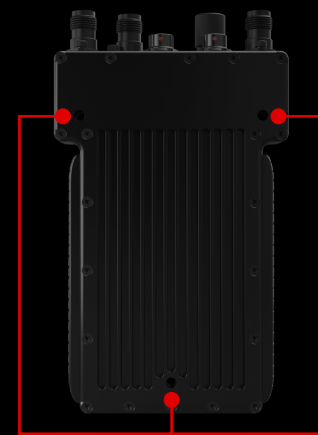
## SCANNING MODES

MODE	SPEED (THz/sec)	5 GHz SCAN (ms) *	7 GHz SCAN (ms) *	FFT RESOLUTION (kHz)
1	5.6	0.922	3.686	52.5
2	11.12	0.464	1.857	105
3	21.86	0.236	0.943	210
4	42.64	0.121	0.486	420
5	80.25	0.0643	0.257	840
6	144.5	0.0357	0.143	1680

\*Scan time is doubled in spurious free mode whereby scans are repeated twice to remove offsets.

## MAX HOLD OPTIONS – RAW SPECTRUM DATA

FFT MAX HOLD	DATA RATE CONTINUOUS SCAN (Mbps)	UPDATE INTERVAL (sec) IN MODE 1
64	512	0.0594
128	256	0.119
256	128	0.238
512	64	0.475
1024	32	0.95



Mounting Holes

**SILVUS**  
TECHNOLOGIES  
a Motorola Solutions Company

P: (310) 479-3333

W: [www.silvustechologies.com](http://www.silvustechologies.com)

E: [info@silvustechologies.com](mailto:info@silvustechologies.com)

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