GRIMM

GLOBAL | RF | INTERDICTION | MULTI-MISSION

Small form factor spectrum dominance solution enabling direction finding (DF), geolocation, and electromagnetic attack (EA) missions on uncrewed systems

GRIMM is a compact, high-performance spectrum dominance solution designed for real-time geolocation and direction-finding of adversary signals and emitters of interest.

GRIMM

Engineered for low size, weight, power and cost (SWaP-C), this payload delivers unparalleled situational awareness, intelligence support and force protection capabilities. GRIMM empowers advanced operations across diverse environments around the world, including contested electromagnetic spectrum scenarios.

Mission Application

- Military operations and national security.
- Counterterrorism and counternarcotics.
- Intelligence, surveillance and reconnaissance (ISR).
- Border security and law enforcement.
- Electromagnetic warfare (EW) , EA and RF-enabled cyberspace operations.

Mission Types

- Passive detection, identification, and DF/Geolocation of emitters.
- Electromagnetic attack including Decoy, radar & C2.
- Spectrum recording and data logging on internal HDD.

Platform Integration

- Plug and play with all MOD payload compliant platforms.
- Rapid integration with unmanned platforms (UAS, USV, UUV, and high altitude platforms).
- Remotely operable with automated collection modes.
- Conforms to VITA 49 and JICD open standards.
- IATT certified.
- Operator configurable SOI/emitter list for adaptation to new/emerging threats.

Advantages

- **Force Protection and Threat Awareness:** Enables rapid detection and location of hostile communications, radar and other electronic threats from unmanned platforms.
- **Scalable and Modular:** Adaptable for standalone or networked operations, enhancing battlefield coordination.

GRIMM Transceiver

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Specifications

System Specifications:	
Input Power	18V – 36V
Size	6.3" x 4.3" x 1.5"
Weight	1.9 lbs
Power Draw	40W max
RF Specifications	
ES Front End	10 MHz – 18,000 MHz: 1,000 MHz IBW
EA Front End	10 MHz – 6,000 MHz: 5,990 MHz IBW
Sampling Rate	5 GSPS
Resolution	14-bits
FPGA	
	Xilinx RFSoC XCZU47DR
System Interfaces	
	Gigabit Ethernet
	100 Gigabit Ethernet
Volitile System Memory	
Processing System	4GB 2133 MHz LPDDR4
Programmable Logic	4GB 2400 MHz DDR4
Non-Volatile Memory	
	2TB NVMe Solid State Drive
	64GB eMMC
	2Gb QSPI

Features

- 1U small form factor design; <2 pounds; mod payload compliant.

- Flexible and scalable for many different missions.

- Operates seamlessly in any domain— anytime, anywhere.

- 24/7 passive monitoring with ability to transmit.

- Conforms to open standard allowing users to override code.

- Interfaces with third-party tools.

- Versatile integration with unmanned/ manned platforms, including high-altitude balloons, manpack and static ground nodes.

- Passive RF detection, direction-finding and geolocation across 10 MHz–18 GHz frequency range.

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