

## DYNAMIC NANO SPECTRUM SOLUTION (DNSS)

Small form factor spectrum dominance solution enabling operations on unmanned systems

### Features:

- MOD Payload 4.0 compliant chassis optimized for unmanned applications
- Xilinx RFSoc based transceiver
- Swappable RF conditioning modules for customized applications
- Up to 20 GHz instantaneous receive and transmit capability
- Software upgradable in the field
- Field programmable
- Applications
  - ▶ Enable effective deployment of 5G wireless networks
  - ▶ Resolve propagation issues in highly contested environments
  - ▶ Group 1 Unmanned Aerial System (UAS), Unmanned Surface Vessel (USV), unattended, and dismount operation
  - ▶ Software Defined Radio receiver and transmitter
  - ▶ Electronic Warfare and spectrum monitoring
  - ▶ Analog data recording and playback
  - ▶ Multimode data acquisition

### Mission Capabilities:

- Passive RF collection
- Counter C2 and communications
- Deception
- Decoy
- Electronic attack

- Cyber electronic attack
- Electronic protection
- Electronic support

### Specifications:

Input Power: 9V – 36V

Size: 6.3" x 4.3" x 1.5"

Weight: 1.9 lbs

### Interfaces:

- USB 3.0
- Gigabit Ethernet

### Environmental

- Operating temperature: -40 C – 60 C
- Cooling: conduction
- Designed to meet MIL-STD-810G

### Field Programmable Gate Array

- Standard: Xilinx Zynq UltraScale+ RFSoc XCZU27DR
  - ▶ Analog Inputs
    - Quantity: 8
    - Sampling rate: 4 GHz
    - Resolution: 12-bits
  - ▶ Analog Outputs
    - Quantity: 8
    - Sampling rate: 6.4 GHz
    - Resolution: 14-bits

- Option -03: Xilinx Zynq UltraScale+ RFSoc XCZU47DR

#### ▶ Analog Inputs

- Quantity: 8
- Sampling rate: 5 GHz
- Resolution: 14-bits

#### ▶ Analog Outputs

- Quantity: 8
- Sampling rate: 10 GHz
- Resolution: 14-bits

### 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



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