**ALION DYNAMIC SPECTRUM SOLUTION (ADSS)**

3U VPX spectrum dominance solution enabling dismount, airborne and ground-based operations

### Features:
- 3U VPX Open Hardware Form Factor
- 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
  - Unmanned system, dismount, vehicle and airborne platforms
  - Software Defined Radio transceiver
  - 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:** 12V – 50V
- **Size:** 12.1” x 6” x 4.25”
- **Weight:** 8.3 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 2400 MHz DDR4
- Programmable Logic: 4GB 2400 MHz DDR4

### Non-Volatile Memory:
- 64GB SD Card
- 2Gb QSPI

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**About Alion Science and Technology**

Solving our nation’s complex national security challenges, Alion works with our defense and intelligence communities to deliver advanced engineering solutions. With global expertise in Live, Virtual, and Constructive Training; Big Data Analytics and Cyber Security; Artificial Intelligence; Electronic Warfare and C5ISR, Alion ensures mission success. To learn more, visit alionscience.com.

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