ALION DYNAMIC NANO SPECTRUM SOLUTION (ADNSS)
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

Specifications:
• Cyber electronic attack
• Electronic protection
• Electronic support

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

Mission Capabilities:
• Passive RF collection
• Counter C2 and communications
• Deception
• Decoy
• Electronic attack

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