



ALION DYNAMIC NANO SPECTRUM DEVELOPMENT PLATFORM (ADNSP)

RFSoc based lab development platform with direct transition path to a tactical hardware solution

Features:

- Complete laboratory prototyping kit for RF conversion and processing
- RFSoc module transition-able from lab environment to Nano Cricket MOD Payload 4.0 tactical form factor
- Applications
 - ▶ Enable effective deployment of 5G wireless networks
 - ▶ Resolve propagation issues in highly contested environments
 - ▶ Software Defined Radio transceiver
 - ▶ Electronic Warfare and spectrum monitoring
 - ▶ Analog data recording and playback
 - ▶ Multimode data acquisition

Specifications:

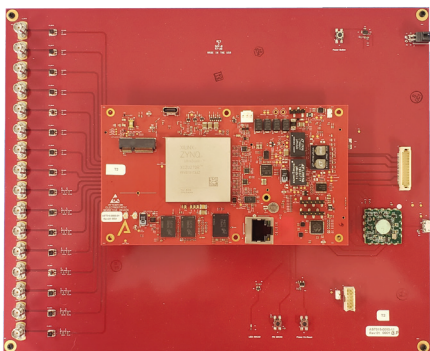
Input Power: 12V

Breakout Card Size: 10.6" x 8.6"

RFSoc Card Size: 6" x 3.4"

Interfaces:

- USB 3.0 Type-C
- Gigabit Ethernet
- PCIe Gen 3 x4
- PCIe Gen 3 x1
- JTAG/UART



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

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.