

DYNAMIC NANO SPECTRUM DEVELOPMENT PLATFORM (DNSP)

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:

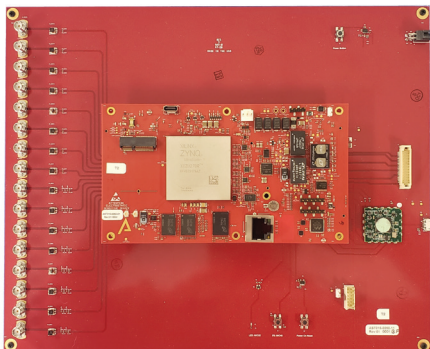
Input Power: 12V

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

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