3UVPX-SDR-HW-2521-P0| 3U VPX Multiband SDR

PRODUCT DESCRIPTION

The **3UVPX-SDR-HW-2521** hardware is Multiband SDR ready cutting-edge solution in the field of Software-Defined Radios (SDRs), designed to meet the demanding requirements of modern defense and communication systems. With its robust architecture, this 3U VPX SDR offers unparalleled flexibility, performance, and reliability. It is optimized for applications such as radar, electronic warfare, signals intelligence, wireless communications, and spectrum monitoring. The 3UVPX based Multiband SDR HW combines state-of-the-art hardware and software capabilities to deliver exceptional functionality in extreme environments.

KEY FEATURES

Parameter	Specifications
No. of RF Channels	4
Frequency Range	2 MHz to 8 GHz
Bandwidth	125 MHz per channel or better
Tuning Resolution	1 MHz, 1 Hz by internal DDC
DDC per RF Channel	8 or better
Tuning	Independent and phase coherent
LO Switching Speed	100 microseconds or better
IIP3	≥ +5dBm
Noise Figure	15 dB
Internal Spurious	-100 dBm
RF Input	Impedance: 50 Ohms Connector Type: VITA 67.3 Max. input without damage: +20 dBm
Input Level for full scale	-15 dBm nominal
Manual Gain Control Range	40 dB in 1 dB steps
External Reference	Frequency: 10MHz Input Level (50 Ohms): 0 dBm ± 3dB
Control Interface	1 Gbps Ethernet
Digital IF Interface	2X10 Gbps Ethernet
Digital IF Data Format	16 bit complex IQ
Digital IF Filter Bandwidth	32 user selectable bandwidths from 12.8 KHz to 125 MHz

PHYSICAL PARAMETERS

Size	3U VPX
Weight	≤1.2 Kg

POWER

Supply Voltage   +12 VDC (60 Watts, approx)

ENVIRONMENTAL

Operating Temperature   -40^0 C to +70^0 C

SOFTWARE

Driver   Driver Software for windows 10 IoT in CD/DVD

Sample Code   Example code in C/C++/python programming language to implement/configure full functionality of the SDR.

MANAGEMENT

Ethernet / SSH   Console

UART / TELNET   Console

On-Board IPMI Controller   Through BMC

REGULATORY COMPLIANCE   RoHS/WEEE

ACCESSORIES (Optional)   Management Cable
                                        Breakout Board - LAB
                                        Enclosure – IP67
                                        Enclosure – LAB

ORDERING INFORMATION   3UVPX-SDR-HW-2521-P0-Industrial
                                        3UVPX-SDR-HW-2521-P0-MILITARY
                                        3UVPX-SDR-HW-2521-P0-BSP [Software Only]

APPLICATIONS

- Tactical / Military Software Defined Radios
- Electronic Warfare – Communication Monitoring
- Secure, high-reliability networks for harsh environments.
- Non-Tactical Operations