

Present and Future Military operations are heavily dependent on wideband networked radios solutions. UTS offers several hardware platforms and waveform libraries to configure radios for different category of applications.

The wide band radio module is 3U VPX form factor solution to meet a large segment of military communication applications.



Ordering Information

Model No: UTS-3UVPX-WB-X
X- Number of channels 1/2/4.

Key features

- ❖ Zynq Z7030 FPGA with dual ARM-Cortex A9 Single chip FPGA.
- ❖ RF 2 × 2 transceiver with integrated 12-bit DACs and ADCs.
- ❖ User-programmable RF center-frequencies from 70 MHz to 6.0 GHz
- ❖ Tunable channel bandwidth : 200 kHz to 50 MHz
- ❖ RX gain control with Automatic and Manual options
- ❖ SPI access for all device registers
- ❖ Synchronization features among multiple cards to realize beam-forming applications.
- ❖ Optional Audio codec, Rs-232/Rs-422 expansion cards.
- ❖ HDK and example codes to access two Tx and two Rx channels with selectable bandwidth.
- ❖ SDK available in two options No-OS / Linux, with user-friendly APIs to configure frequency, bandwidth, power level and several other features.
- ❖ Optional UTS IP libraries for telemetry, wideband radio and COMINT applications.

Contact us

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Specifications

Parameter	Value
Frequency range	70 MHz - 6 GHz
Bandwidth	200 KHz to 50 MHz
Dynamic Range	100 dB
TX EVM	≤-40 dB
Maximum input level	0 dBm
RF I/Os	Two inputs, Two outputs, Ext clock
RF indicators	RSSI 100 dB range
PLL switching time	< 40 usec
AGC range	70 dB
Noise Figure	< 6 dB
Memory	1 GB DDR3, 256 Mb Quad flash
Digital interfaces	1 Gbps LAN, 16 GPIOs, USB- UART, PCI Express Interface(VPX).
Digital expansion connectors	LPC-FMC
Programming interfaces	JTAG for FPGA
Clocking	Internal or external
SDK type	No-OS (or) Linux
SDK APIs	Frequency , power, bandwidth, filter coeffs loading, Reg read write to FPGA-RTL space.
SDK supported interfaces	Ethernet (interrupt enabled), USB- UART
Supported UTS IPs (refer IP core data sheets)	SDR IP core (M-PSK, M-QAM, M-FSK) Telemetry receiver with bit sync and PCM decoder DSSS OFDM (Refer UTS website for more IP libraries)
Usage configuration	Stand alone card or in 3U VPX chassis.
Power	12V, 4 Amp DC
Mechanical	
Size	L :17 cm, W:11 cm, H: 4 cm
Weight	< 1 Kg

Applications

- Tactical radios
- Point to point wide band applications
- Telemetry
- Software defined radios
- Cognitive Radio
- Low cost ESM/ELINT/COMINT
- EW Test equipment & BITE
- Picocell / microcell base stations