

Present and Future Military operations are heavily dependent on wideband FPGA based Digital Signal Processing (DSP) solutions. UTS offers several hardware platforms and waveform libraries for communication and RADAR category of applications.



Ordering Information

Model No: UTS-FPGA-MC1

Key features

- ❖ Xilinx Zynq-Z7030 SOC XC7Z030-1FBG676I FPGA with dual ARM-Cortex A9 Single chip FPGA.
- ❖ 1 GByte 32-Bit wide DDR3, 32 MByte SPI Flash memory for configuration
- ❖ A large number of configurable I/O's is provided via rugged FPGA Mezzanine Connectors(LPC) with high-speed stacking strips
- ❖ PL-configurable I/O's is provided via rugged high-speed stacking strips, and PS-I/O's used for Rs-232/Rs-422 expansion cards.
- ❖ SPI access for all device registers
- ❖ Synchronization features among multiple cards to realize beam-forming applications.
- ❖ Ethernet, USB-2.0, USB-UART and Audio are used for interfaces.
- ❖ 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
FPGA	XC7Z030-1FBG676I
Processor	Dual ARM Cortex-A9 MPCore
Memory	1GB DDR3 SDRAM (2 x 512MB, 32-bit) 32MB QSPI Flash SPI Flash Memory SD-Card Storage. Extra 512MB Memory For PL(AXI BUS)
Digital interfaces	1Gbit Ethernet PHY ; USB-2.0 OTG ; USB-UART ; 4 x GTX(PCI Interface) ; 1X SATA ; AUDIO
Digital expansion connectors	VITA 57.1 FPGA Mezzanine Connectors - 2(LPC) ; PL-EXT-High dense Connector(34-Pins) PS-EXT-Header (8-Pins)
Clocking	Internal:200MHZ(LVDS) External:Upto 300MHZ through SMA
Programming interfaces	JTAG configuration port accessible via I/O connectors 33.33 MHz oscillator
SDK type	No-OS (or) Linux
SDK APIs	Frequency , power, bandwidth, filter coefficient's loading, Registers read write to FPGA-RTL space.
SDK supported interfaces	Ethernet (interrupt enabled), USB-2.0 OTG USB- UART AUDIO
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 RADAR waveform, DRFM, Target models (Refer UTS website for more IP libraries)
Power	12V, 4 Amp DC
Mechanical Size	L: 23cm ; W: 16cm ; H:4cm
Weight	< 500gms

Applications

- Wide band Radios
- Radar
- Telemetry
- Software defined radios
- ESM/ELINT/COMINT
- EW Test equipment & BITE
- DRFM category Target simulator and Jamming

For enquiries / Support
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