BitSDR

Made in Sweden

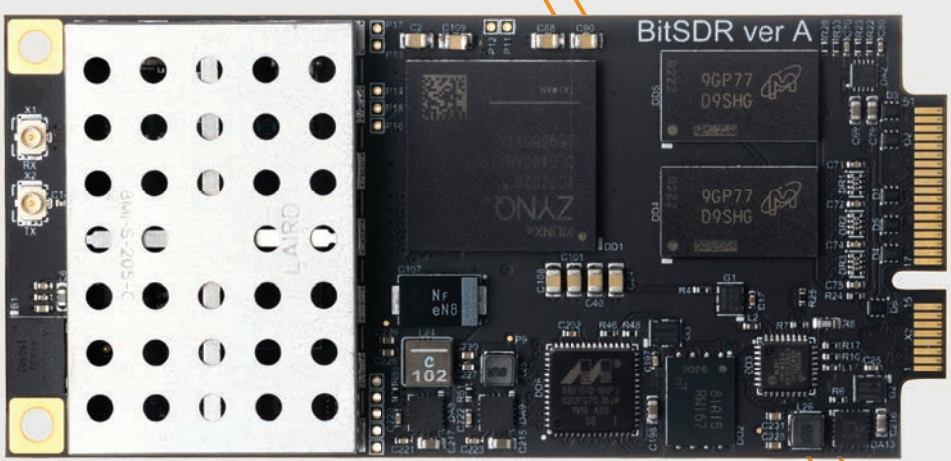
Embedded Software Defined Radio System-on-Module

BitSDR™

BitSDR ™ is a high performance, embeddable system-on-module (SoM) designed in a tiny mini PCIe form factor for a wide variety of applications, including tactical communications, SATCOM, networking devices, and unmanned platforms.

Based on Xilinx' Zynq-7020 and Analog Devices' AD9364, it offers extremely broad frequency range 70–6000 MHz with up to 56 MHz of instantaneous bandwidth combined with powerful computational resources operating in industrial temperatures from −40°C to +85°C.

SoM is optimized for small size, weight, and power consumption (SWaP), allowing integration into small to large, power constraint systems and platforms. BitSDR™ supports embedded Linux and can be shipped with either preinstalled firmware (Linux as PS), firmware, and waveform (PS and PL) or factory blank.



BitSDR SoM, Rev.A

Evaluation kit

BitSDR™ with BitSDR_MB carrier board is a complete evaluation kit for designers interested in rapid prototyping and proof-of-concept development. Evaluation kit contains Ethernet 100Base-T, USB 2.0 (OTG), SD card, UART, GPIO, and JTAG interfaces to enable fast evaluation and simplify development.

Accessing mini PCIe interface integrators can embed BitSDR™ SoM into a custom platform. Using SoM's datasheet and reference design, developers can easily design their carrier board, plug-in BitSDR™, and launch their application development with a proven SDR sub-system with the small SWaP footprint.

Defence& Aerospace

BitSDR is a fully integrated, Linux-based SoM designed to address the most challenging applications.

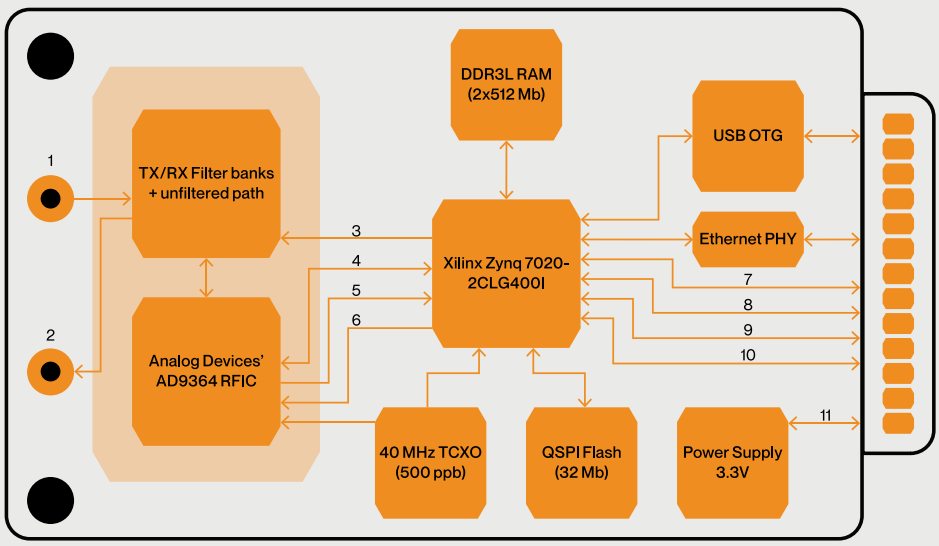
Unmanned platforms

BitSDR embedded SoM delivers excellent trade-off between computational resources, programmability, SWaP and bandwidth requirements.

Research& Development

BitSDR embedded SoM enables rapid prototyping significantly speeding up R&D cycle and time to market.

Wireless P2P Technologies AB sales@wp2p.org www.wp2p.org



1. RX Antenna (U.FL)
2. TX Antenna (U.FL)
3. Bank ctrl
4. SPI ctrl
5. RX I/Q
6. TX I/Q
7. SDIO
8. JTAG
9. 2xGPIO
10. UART
11. 3.3V

Target applications

- Tactical communications
- SATCOM
- Unmanned platforms
- Networking devices
- Internet of Things
- SIGINT
- Radar
- Electronic Warfare

Wideband RF Transceiver

Features	Value
Analog Devices AD9364	70–6000 MHz (1Rx + 1Tx)
Four band Rx pre-select filter bank	70–225 MHz; 225–512 MHz; 70–512 MHz; unfiltered
Instantaneous Bandwidth	Up to 56 MHz
TCXO	40 MHz TCXO ref clock, 500 PPB stability

Physical Specs

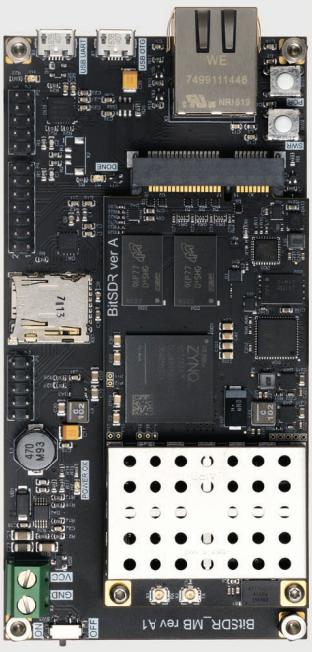
Features	Value
Size	85×40×7mm (shielded)
Weight	15 grams
Temperature rating	−40 to +85°C
Typical power consumption	3.5W

FPGA and Linux OS

Features	Value
FPGA	Xilinx Zynq XC7Z020-2CLG400I
CPU	Dual-core ARM Cortex A9
DDR3L RAM	2×512 MB
QSPI flash memory	32 MB

I/O Specs

1×Ethernet 100Base-T	1×SDIO
1×USB 2.0 OTG	JTAG
1×UART	FPGA done led
2×GPIO	



BitSDR Evaluation kit, Rev. A

Visit www.wp2p.org for more information and ordering