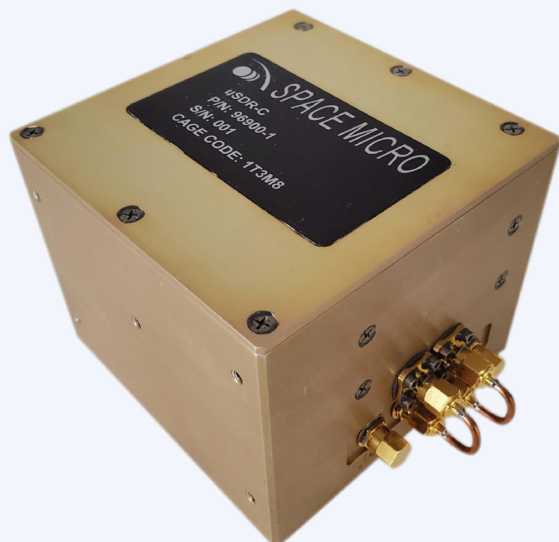


μSDR-C™ SOFTWARE DEFINED RADIO



The μSDR-C™ Software Defined Radio functions as a crosslink/downlink or up/downlink radio for UHF, S-Band, L-Band and low C-Band applications. This low SWaP-C radio in 1U form factor is also configurable as a TDMA- networked transceiver. The unit features Xilinx's Zync 7020 System on a Chip (SoC), which contains dual 766 MHz ARM cores and approximately 80,000 user-programmable FPGA gates.

APPLICATIONS

- Telemetry, Tracking & Command Transceiver
- Mission Data Transmitter
- Crosslink Transceiver
- RF Receiver with onboard signal processing
- Signal Intelligence Receiver
- Satellite Orbits: LEO, MEO, GEO
- Suitable for Satellite Constellations

KEY FEATURES

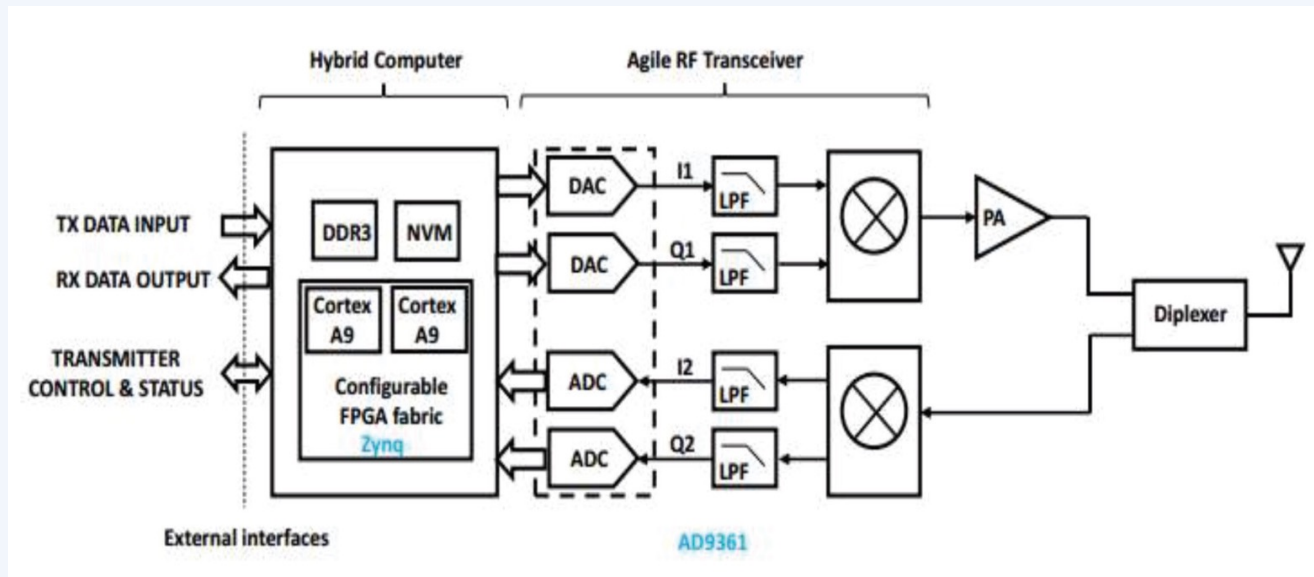
- FPGA User-Programmable Resources
- Up/Down Converter Board with Low Noise Amplifier Option
- Power Amplifier Available
- User-Programmable Modem
- Radiation Tolerant; 100 krads option

SPECIFICATIONS: TRANSMITTER

FREQUENCY	70 MHz to 3 GHz
RF OUTPUT POWER	6.5 dBm to 8 dBm Optional Power Amplifier 1 W to 10 W
MODULATION FORMATS	BPSK, OQPSK
CHANNEL BANDWIDTH	200 kHz to 56 MHz
DATA RATE	1 kbps to 42 Mbps
FEC	Reed-Solomon (255, 223) Convo (1/2, K=7)
FREQUENCY ACCURACY	±10.0 ppm

μSDR-C™ SOFTWARE DEFINED RADIO

BLOCK DIAGRAM



SPECIFICATIONS: RECEIVER

FREQUENCY	70 MHz to 3 GHz
DATA RATE	1 kbps to 42 Mbps
DYNAMIC RANGE	Threshold to -21 dBm
NOISE FIGURE	2.5 dB UHF 3 dB S-Band
SENSITIVITY	-125 dBm (Minimum)

SPECIFICATIONS: OTHER

INTERFACE	UART RS-422 Ethernet
ENCRYPTION	Inquire for Encryption Options
ENVIRONMENT Temperature Range Vibration Suitability	-20°C to +60°C GSFC-STD-7000 (NASA GEVS) Acceptance Levels LEO, MEO and GEO
SWAP Dimensions Mass Power Consumption Input Voltage	10 cm x 10 cm x 8 cm 0.8 kg 9 W (Maximum) 5 V DC