WVLT SDR

xMASS.SDR

A modular, high-performance, 8x8 MIMO transceiver for 4G/5G applications and more

xMASS SDR is a modular, high-performance MIMO transceiver. Featuring 8 RX and 8 TX channels that can be synchronized, its modular design allows for easy maintenance and the construction of high-order MIMO systems using the same building blocks.

FPGA
4x AMD XC7A35T

CLOCK SYNC
LMK05318

MODULE
4x M.2 2230 key A+E **xSDR**

BIFURCATION MODES
Full 8x8 MIMO
2 independent 4x4 MIMO
4 independent 2x2 MIMO

HOST INTERFACE
PCIe 3.0 x2 connection

FORM FACTOR
PCIe x4 (2 PCIe lanes used)

POWER CONSUMPTION
1.9W Typical
3W Max

EXTENDED POWER SUPPLY RANGE
2.85 - 5.5 V

RF SPECIFICATION
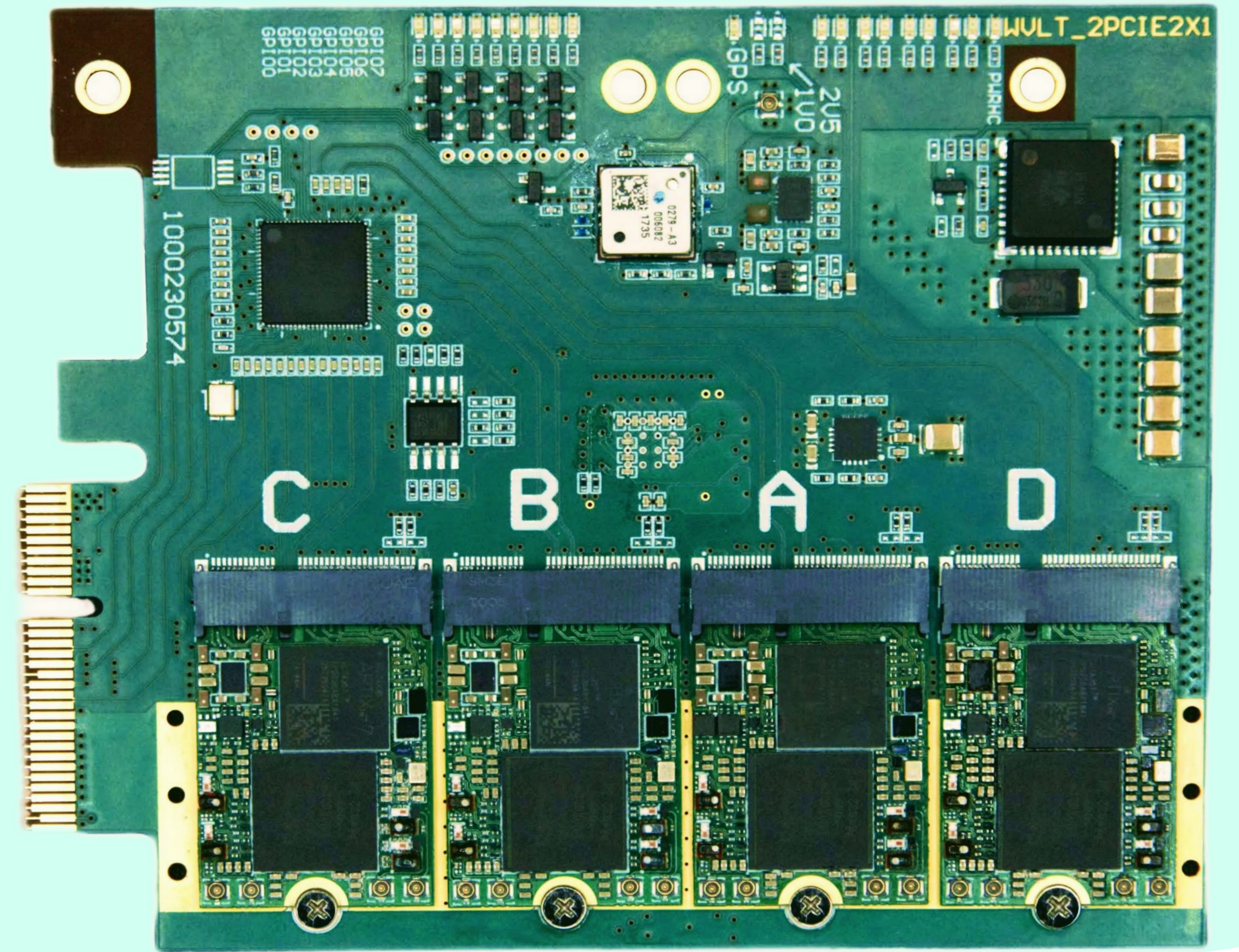
RFIC
4x LMS7002

SAMPLE RATE
0.1MSps - 100 MSps

FREQUENCY RANGE
30 MHz to 3.8 GHz

CHANNEL BANDWITH
0.5Mhz - 90 MHz

TARGET APPLICATIONS

SPECTRUM MONITOR
Develop comprehensive and high-performance frequency analysis and monitoring system

CELLULAR COMMUNICATION
Enables next-generation 4G/5G wireless networks with high-order massive MIMO, fully compatible with Amarisoft and srsRAN

DIRECTIONAL FINDING
Determines the direction of arrival (DoA) of incoming radio signals, enabling precise localization of transmitters

BEAMFORMING
Focus signal transmission and reception in specific directions, enhancing range, improving signal quality, and reducing interference in multi-user environments

LEGACY SOFTWARE
GNU Radio, srsRAN, and many more through SoapySDR