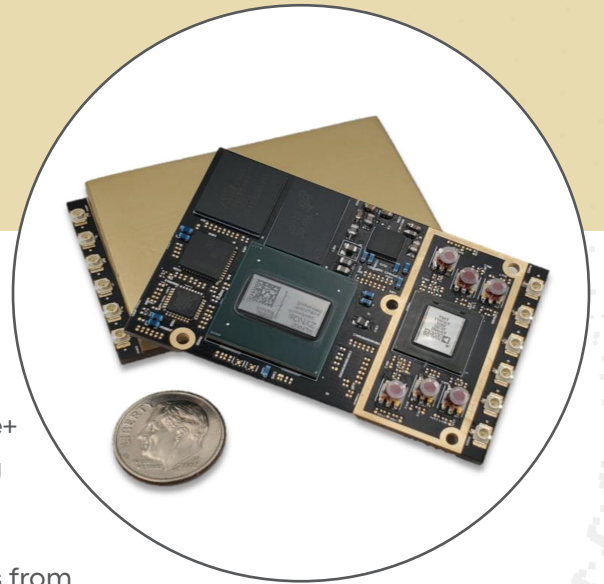


# BytePipe x9002 System on Module (SOM)



The BytePipe x9002 SOM is a Software Defined Radio (SDR) System on Module (SOM) based on Analog Devices Inc.'s ADRV9002 Agile Transceiver™ with the Xilinx ZYNQ®- UltraScale+ SoC. The SOM can be used as an evaluation tool, prototyping platform or integrated into a full-scale product.

A 2x2 MIMO transceiver with integrated DPD engine operates from 30MHz to 6000MHz and supports both narrowband and wideband channel bandwidths from 12.5KHz to 40MHz. The narrow band support makes it suitable for applications including, Land Mobile Radio, APCO P25-P11 while supporting higher bandwidth applications like satellite communications, IoT, cellular, LTE or Wi-Fi.

NextGen RF—through our design services lab—can also support customized versions optimized for application specific requirements.

## HIGHLIGHTS

### FEATURES

- Two independently controlled Tx
- Operates from 30MHz to 6,000MHz
- 12.5KHz to 40MHz radio signal bandwidth
- 150 dBc/Hz dynamic range
- FDD and TDD capable—supports narrowband or wideband up to 40MHz channel bandwidth
- Each transceiver subsystem includes DC offset correction, quadrature error correction and programmable 128 taps Rx/Tx programmable FIR filters
- Board support package (BSP) for Linux, RTOS and Bare Metal OS
- Support for third party tools including MATLAB, Simulink, Gnu Radio
- Integrated digital pre-distortion (NB/WB)
- Fast frequency hopping

### APPLICATIONS

- Mission critical RF communications
- Rapid prototyping platform
- Industrial IOT
- Product integration
- ADRV9002 evaluation tool
- Land mobile radio - APCO P25-P11
- Video streaming
- MIMO
- Drone communications

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## HARDWARE BLOCK DIAGRAM

