



Ettus Research

USRP B205mini-i: 1x1 USB Software-Defined Radio Platform

SKU:
6002-410-021

Product Description

The USRP B205mini-i is a flexible and compact platform that is ideal for both hobbyist and OEM applications. It is designed by **Ettus Research**[™] and provides a wide frequency range (70 MHz to 6 GHz) and a user-programmable, industrial-grade Xilinx Spartan-6 XC6SLX150 FPGA.

The RF front end uses the Analog Devices AD9364 RFIC transceiver with 56 MHz of instantaneous bandwidth. The board is bus-powered by a high-speed USB 3.0 connection for streaming data to the host computer. The USRP B205mini-i also includes connectors for GPIO, JTAG, and synchronization with a 10 MHz clock reference or PPS time reference input signal.

The hardware is conveniently accessible through the [USRP Hardware Driver \(UHD\)](#). UHD provides both a C/C++ and Python API that supports all USRP products and enables users to efficiently develop applications then seamlessly transition designs between platforms as requirements expand. UHD also offers cross-platform support for multiple industry standard development environments and frameworks, including RFNoC, LabVIEW, and Matlab/Simulink. To ensure you have no restrictions on how you use UHD, it is available on Linux, Windows, and Mac OS. Do you prefer graphical programming? Try out [GNU Radio](#), a free and open-source software development framework offering a graphical design approach.

Features	
RF Specifications	<ul style="list-style-type: none"> • Channels: 1 TX, 1 RX • Frequency range: 70 MHz to 6 GHz • Instantaneous Bandwidth: Up to 56 MHz • IIP3 (at typical NF): -20 dBm • Power Output: >10 dBm • Receive Noise Figure: <8 dB
Conversion Performance and Clocks	<ul style="list-style-type: none"> • ADC Sample Rate (Max.): 61.44 MS/s • ADC Resolution: 12 bits • DAC Sample Rate (Max.): 61.44 MS/s • DAC Resolution: 12 bits • Host Sample Rate (16b): 61.44 MS/s • Frequency Accuracy: +/-2.0 ppm
Power	<ul style="list-style-type: none"> • USB Power: 5V
Physical	<ul style="list-style-type: none"> • Dimensions: 83.3 x 50.8 x 8.4 mm • Weight: 24.0 g
Environment	<ul style="list-style-type: none"> • Operating Temp. Range: 0 - 45 °C • USRP Hardware Driver 3.9.2 (or later) • GNU Radio
Synchronization	<ul style="list-style-type: none"> • 10 MHz clock reference • PPS time reference

