

**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**<sup>™</sup> and provides a wide frequency range (70 MHz to 6 GHz) and a user-programmable, industrial-grade Xilinx Spartan-6 XC6SLX150 FPGA.

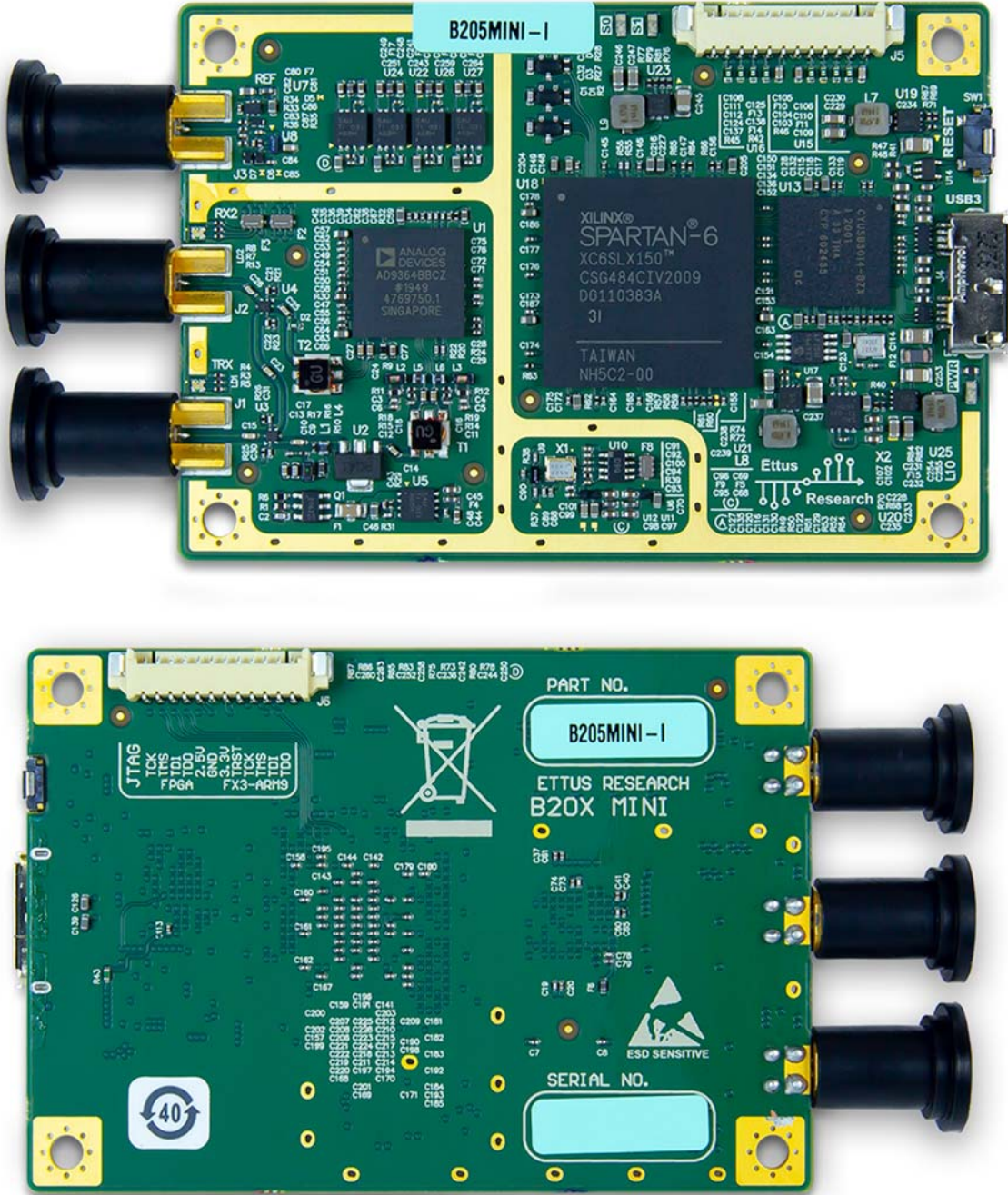
The RF front end uses the Analog Devices AD9364 RFIC transceiver with 56 MHz of instantaneous bandwidth. The board is bus-powered by a high-speed USB 3.0 connection for streaming data to the host computer. The USRP B205mini-i also includes connectors for GPIO, JTAG, and synchronization with a 10 MHz 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	
<b>RF Specifications</b>	<ul style="list-style-type: none"> <li>• Channels: 1 TX, 1 RX</li> <li>• Frequency range: 70 MHz to 6 GHz</li> <li>• Instantaneous Bandwidth: Up to 56 MHz</li> <li>• IIP3 (at typical NF): -20 dBm</li> <li>• Power Output: &gt;10 dBm</li> <li>• Receive Noise Figure: &lt;8 dB</li> </ul>
<b>Conversion Performance and Clocks</b>	<ul style="list-style-type: none"> <li>• ADC Sample Rate (Max.): 61.44 MS/s</li> <li>• ADC Resolution: 12 bits</li> <li>• DAC Sample Rate (Max.): 61.44 MS/s</li> <li>• DAC Resolution: 12 bits</li> <li>• Host Sample Rate (16b): 61.44 MS/s</li> <li>• Frequency Accuracy: +/-2.0 ppm</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>• USB Power: 5V</li> </ul>
<b>Physical</b>	<ul style="list-style-type: none"> <li>• Dimensions: 83.3 x 50.8 x 8.4 mm</li> <li>• Weight: 24.0 g</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>• Operating Temp. Range: 0 - 45 °C</li> <li>• USRP Hardware Driver 3.9.2 (or later)</li> <li>• GNU Radio</li> </ul>
<b>Synchronization</b>	<ul style="list-style-type: none"> <li>• 10 MHz clock reference</li> <li>• PPS time reference</li> </ul>

What's Included:

- USRP B205mini-i (Board Only)
- USB 3.0 cable



<https://store.digilentinc.com/usrp-b205mini-i-1x1-usb-software-defined-radio-platform/10-7-20>