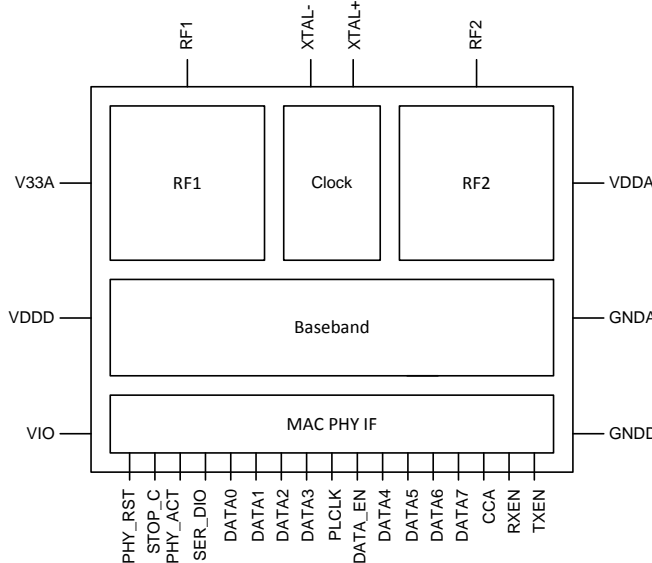


## RTU7010-GR WiMedia Compliant UWB CMOS PHY

<b>GENERAL DESCRIPTION</b>	RTU7010 is a highly integrated, high performance, WiMedia-compliant Ultra Wide Band (UWB) physical layer (PHY) solution.		
<b>BLOCK DIAGRAM</b>	 <p>The block diagram shows the internal architecture of the RTU7010-GR. It consists of three main horizontal blocks: RF1, Clock, and RF2 at the top; Baseband in the middle; and MAC PHY IF at the bottom. Power supplies V33A, VDDD, and VIO are connected to the left side, while VDDA, GNDA, and GNDD are connected to the right side. External pins include RF1, XTAL-, XTAL+, and RF2 at the top, and a series of control and data pins at the bottom: PHY_RST, STOP_C, PHY_ACT, SER_DIO, DATA0, DATA1, DATA2, DATA3, PCLK, DATA_EN, DATA4, DATA5, DATA6, DATA7, CCA, RXEN, and TXEN.</p>		
<b>CERTIFICATION, LOGO AND BAND GROUP SUPPORT</b>	<b>Completed Certifications</b> WiMedia Wireless USB FCC TELEC CE	<b>RTU7010-GR</b> ✓ NA ✓ ✓ ✓	<b>Supported Band Groups</b> RTU7010-GR BG1 BG3 BG6 BG4 ✓ x x x
<b>FEATURES</b>	<ul style="list-style-type: none"> <li>- Compliant to WiMedia PHY Technical Specification Release 1.1</li> <li>- Multiple RF chains for transmit and receive diversity</li> <li>- Supports transmission and reception of burst mode and burst preamble in all permitted modes, enabling improved data throughput</li> <li>- Supports Transmit Power Control and Link Quality Indicator</li> <li>- Data rates of 53.3, 80, 106.7, 160, 200, 320, 400, 480Mbps supported</li> <li>- Efficient correction algorithms for residual DC offset, phase noise, frequency offset and timing offset due to RF impairments</li> <li>- Selectable digital transmit and receiver FIR filters provided to meet the requirement of transmit spectrum mask and to reject the adjacent channel interference</li> <li>- Fast receiver automatic gain control (AGC) and antenna diversity functions</li> <li>- MAC-aided transmit power control</li> <li>- On-chip calibration for center carrier leakage, Tx power control, Rx DC offset and BB LPF corner frequency</li> </ul>		

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