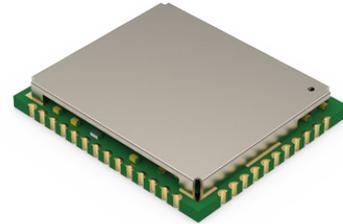


# Product Summary

# WE88

Wi-Fi Dual-band 2X2 11ac + Bluetooth 5.0 Combo Network Controller Module

- WiFi ac/a/b/g/n 2T2R 2.4 & 5 GHz Dual Band and Bluetooth 5.0 protocol
- 15 x 13 x 2 mm
- 20MHz/40MHz/80MHz bandwidth transmission
- Windows and Linux driver support



## Overview

WE88 is a high performance, highly integrated module that supports 2 stream 802.11ac solutions with Multi-user MIMO with integrated Bluetooth 5.0 controller, SDIO interface, and HS-UART mixed interface. It combines a WLAN MAC, a 2T2R capable WLAN baseband, and RF in a single system. It is targeted for applications where highly reliable wireless connection, High performance and ease of integration are the key requirements.

The module ships in RF pin version (WE88R) or with u.FL connectors (WE88U) as per client requirement.

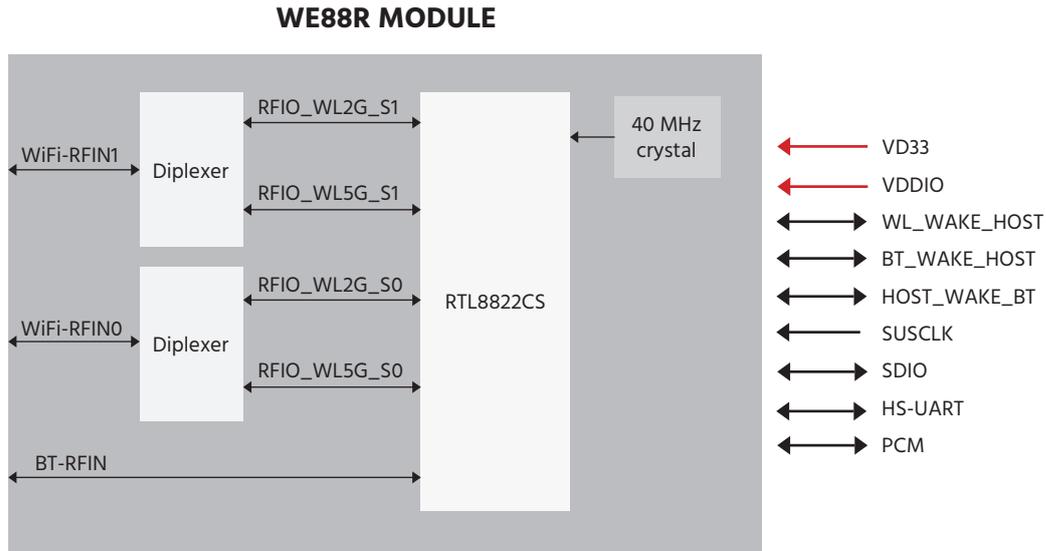
## Key features

Protocols	<ul style="list-style-type: none"><li>• Supports 802.11ac 2x2, wave 2 compliant with MU-MIMO and Bluetooth 5.0</li><li>• Complete 802.11n MIMO for 2.4G and 5G band</li></ul>	Max. Data rates	<ul style="list-style-type: none"><li>• 802.11g - 54 Mbps</li><li>• 802.11n - 300 Mbps</li><li>• 802.11ac - 866.7 Mbps</li></ul>
Bandwidth	20MHz/40MHz/80MHz bandwidth transmission	Form factor	15x13x2mm
Crystals	40 MHz	Footprint	Castellations 50
Antenna	RF Pin, u.FL Connector		



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# Block diagram



# Specifications

<b>INTERFACES</b>	SDIO 1.1/2.0/3.0 for WLAN, HS-UART for Bluetooth
<b>PROTOCOLS</b>	<p>WLAN</p> <ul style="list-style-type: none"> <li>IEEE 802.11b/g/n/a/ac, 2T2R, 2.4 and 5 GHz</li> </ul> <p>Bluetooth</p> <ul style="list-style-type: none"> <li>BTv2.1+EDR/BTv3.0/BTv3.0+HS/BT v4.2+BTv5.0</li> </ul>
<b>BANDWIDTH</b>	20/40/80 MHz
<b>PHY RATE (WLAN)</b>	<ul style="list-style-type: none"> <li>Maximum PHY data rate up to 173.3 Mbps using 20MHz bandwidth</li> <li>Maximum PHY data rate up to 400 Mbps using 40MHz bandwidth</li> <li>Maximum PHY data rate up to 866.7 Mbps using 80MHz bandwidth</li> </ul>
<b>PHY RATE (BT)</b>	<ul style="list-style-type: none"> <li>1 Mbps for Basic Rate</li> <li>2 &amp; 3 Mbps for Enhanced Data Rate.</li> </ul>

### Further information

For contact information, visit [www.celiumdevices.com](http://www.celiumdevices.com)

For more product details and ordering information, see the product data sheet.



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