The CC3200MODR1 is the second-generation series of modules in the SimpleLink family and consists of an applications microcontroller unit (MCU), Wi-Fi network processor, and a power management subsystem. The module comes integrated with all required components including on-board flash, clocks, and RF filter for easy hardware integration and quick time-to-market.

The applications MCU subsystem contains an industry-standard ARM Cortex-M4 core running at 80 MHz. The CC3200MOD module supports a wide variety of rich peripherals, including fast parallel camera interface, I2S, SD and MMC, UART, SPI, I2C, and 4-channel ADC. The series of devices include a variety of embedded RAM memory options, with peripheral drivers in ROM memory. The series also includes a secure device with on-chip 128-bit secret key supporting secure boot as well as applications and user data encryption.

The CC3200MOD module also features a Wi-Fi network processor subsystem which contains a dedicated ARM Cortex-M3 MCU to completely offload the applications MCU. This subsystem includes 802.11 b/g/n radio, baseband, and medium access control with a powerful crypto engine for fast secured WLAN and Internet connections with 256-bit encryption. The CC3200MOD module supports station, access point, and Wi-Fi Direct modes. The CC3200MOD module also supports WPA2 personal and enterprise security and WPS 2.0. The Wi-Fi network processor includes an embedded IPv4 TCP/IP stack.

The power-management subsystem includes an integrated DC-DC converter with support for a wide range of supply voltages. This subsystem enables low-power consumption modes such as the hibernate with RTC mode which requires less than 18 μA of current.

The antenna is external to the module and it is a Taiyo Yuden 2.4GHz Multilayer RadiEdge antenna (MN: AH 316M245001) with a peak gain of 1.9dBi.