

Features

- M T 7915 + M T 7975 Chipset
- Support OpenWRT
- 2.4GHz max 23dBm & 5GHz max 20dBm output power
- IEEE 802.11ac / a x compliant & backward compatible with 802.11ax/ac/a/b/g/n
- 2x2 2.4GHz & 2x2 5GHz MIMO Technology, up to 1.8Gbps Mini PCI Express edge connector
- Support the Frequency 2412MHz~2482MHz
- Support the Frequency 5180MHz~5825MHz
- RoHS compliance ensure a high level protection of human health and the environment from risks that can be posed by chemicals
- Supports Spatial Multiplexing, Cyclic-Delay Diversity (CDD), Low-Density Parity Check (LDPC) Codes, Maximal Ratio Combining (MRC), Space Time Block Code (STBC)
- Supports IEEE 802.11d, e, h, i, k, r, v time stamp, and w standards
- Supports Dynamic Frequency Selection (DFS)
- Cards are individually calibrated for Quality Assurance



Applications

- Security Surveillance
- Commercial radio coverage
- Hotel Wireless application
- Country coverage
- Forest fire protection engineering
- Some special scene application

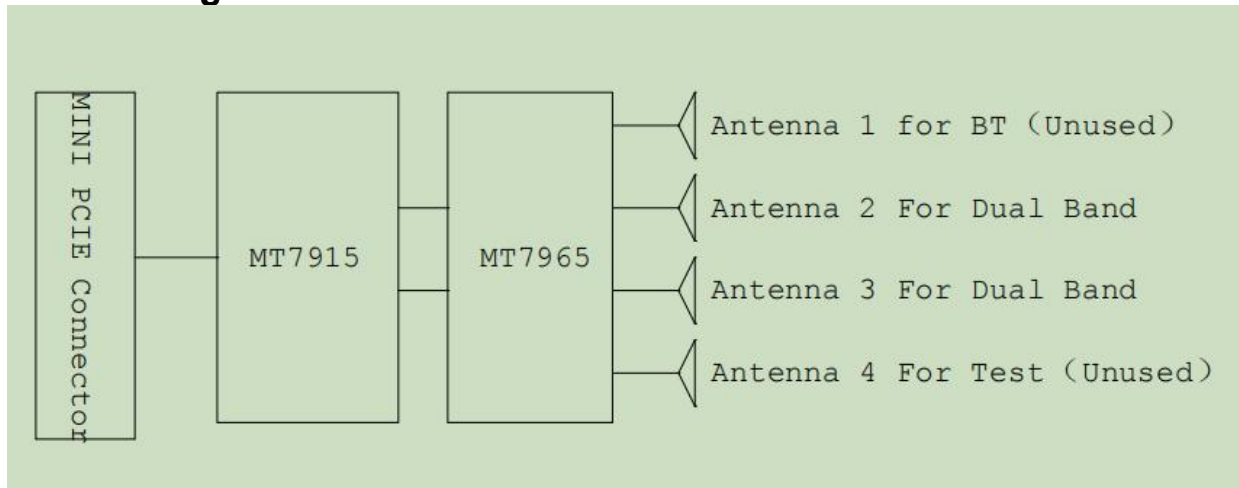
Product Description

DR7915 based on MT7915 + MT7975 Chipset is an enterprise wireless module integrated with 2x2 2.4G high power Radio module and 2x2 5G high power Radio module designed specifically to provide users with mobile access to high-bandwidth video streaming, voice, and data transmission for office and challenging RF environment in factories, warehouses establishment.

Specifications

Symbol	Parameter
Chipset	M T 7915 + M T 7975
Host Interface	Mini PCI Express 2. 1
Antenna Connector	2 x UFL
Frequency Range	2 .4GHz: 2 .412GHz to 2 .472GHz 5GHz: 5. 180GHz to 5.825GHz
Operating Voltage	3 .3VDC+/-5%
Power Consumption	Maxim is 9W, average is 4-8W
Modulation Techniques	OFDM: BPSK, QPSK, DBPSK, DQPSK, 16 - QAM, 64 - QAM, 256- QAM
Environmental Temperature	Operating: -20°C to 70°C, Storage: -40°C to 90°C
Environmental Humidity, non- condensing	Operating: 5% to 95% , Storage: Max. 90%
ROHS Compliance	YES
Dimensions (W×H×D)	51mm × 30mm × 5.8 mm

Block Diagram



RF Performance Table

Operating Mode	Data Rate	TX Power		Tolerance
		1 Chain	2 Chains	
2.4 GHz 802.11b	11 Mbps	23 dBm	26 dBm	± 1.5dBm
2.4 GHz 802.11g	54 Mbps	19dBm	22 dBm	± 1.5dBm
2.4 GHz 802.11n HT20	MCS7	20dBm	22 dBm	± 1.5dBm
2.4 GHz 802.11n HT40	MCS7	17dBm	20dBm	± 1.5dBm

Operating Mode	Data Rate	RX Sensitivity	Tolerance
2.4 GHz 802.11b	11Mbps	-96dBm	± 1.5dBm
2.4 GHz 802.11g	54 Mbps	-93dBm	± 1.5dBm
2.4 GHz 802.11n HT20	MCS7	-89dBm	± 1.5dBm
2.4 GHz 802.11n HT40	MCS7	-86 dBm	± 1.5dBm

Operating Mode	Data Rate	TX Power		Tolerance
		1 Chain	2 Chains	
5 GHz 802.11a	54 Mbps	19dBm	22dBm	± 1.5dBm
5 GHz 802.11n/ac HT20	MCS8	20dBm	23 dBm	± 1.5dBm
5 GHz 802.11n/ac HT40	MCS9	17dBm	20dBm	± 1.5dBm
5 GHz 802.11n/ac HT80	MCS9	14.5dBm	17.5dBm	± 1.5dBm
5 GHz 802.11ax HT20	MCS9	20dBm	23 dBm	± 1.5dBm
5 GHz 802.11ax HT40	MCS9	17dBm	20dBm	± 1.5dBm
5 GHz 802.11ax HT80	MCS11	14.5dBm	17.5dBm	± 1.5dBm
Operating Mode	Data Rate	RX Sensitivity		Tolerance
5 GHz 802.11a	54 Mbps	-80dBm		± 1.5dBm
5 GHz 802.11n/ac HT20	MCS8	-71 dBm		± 1.5dBm
5 GHz 802.11n/ac HT40	MCS9	-68 dBm		± 1.5dBm
5 GHz 802.11n/ac HT80	MCS9	-65 dBm		± 1.5dBm
5 GHz 802.11ax HT20	MCS9	-61 dBm		± 1.5dBm
5 GHz 802.11ax HT40	MCS9	-58 dBm		± 1.5dBm
5 GHz 802.11ax HT80	MCS11	-55 dBm		± 1.5dBm

MiniPCle Slot Pin Assignment

TOP Side		Bottom Side	
1	PCIE_WAKE_L	2	VCC_3V3
3	BT_PCM_DO	4	GND
5	BT_PCM_DI	6	BT_PCM_CLK
7	PCIE_CLKREQ_L	8	BT_PCM_SYNC
9	GND	10	PTA_TX
11	PCIE_REFCLK_N	12	BT_RTS
13	PCIE_REFCLK_P	14	BT_CTS
15	GND	16	PTA_RX
Mechanical key			
17	NC	18	GND
19	NC	20	WIFI_EN
21	GND	22	PCIE_RST_L
23	PCIE_TX_N	24	VCC_3V3
25	PCIE_TX_P	26	GND
27	GND	28	BT_RX
29	GND	30	PTA_WLAN_ACT
31	PCIE_RX_P	32	PTA_ZB_PRI
33	PCIE_RX_N	34	GND
35	GND	36	LED_WPS
37	GND	38	LED_BT
39	VCC_3V3 (RESERVED)	40	GND
41	VCC_3V3 (RESERVED)	42	PTA_ZB_ACT
43	GND	44	LED_WIFI_2.4G
45	LED_WIFI5	46	NC
47	NC	48	NC
49	NC	50	GND
51	BT_EN	52	VCC_3V3