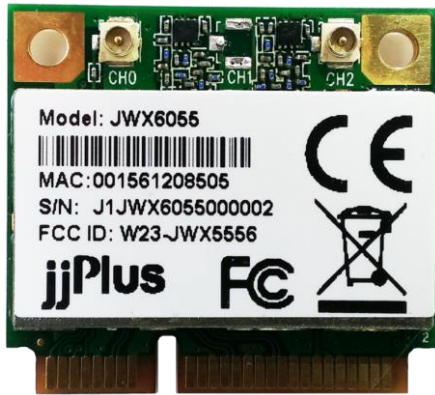


JWX6055



Dual Band 2.4/5GHz 2x2 MIMO 802.11ac

Half Mini PCIe Module

JWX6055 is a 2x2 802.11ac Dual-Band Wi-Fi module in standard PCIe mini card form factor designed to deliver up to 867Mbps wireless data rates and 256-QAM modulation and 80MHz channels. 802.11ac opens up new possibilities and speeds never possible before.

Features

- IEEE 802.11ac compliant & backward compatible with 802.11a/b/g/n
- 2x2 MIMO Technology, up to 867Mbps
- Supports IEEE 802.11d, e, h, i, k, r, v time stamp, and w standards
- Supports 20/40/80MHz and 256-QAM to maximize bandwidth efficiency.

System Information

Wireless: IEEE 802.11ac/abgn (2T2R)

Chipset: Qualcomm Atheros QCA9882

Data Rate

802.11b: 11Mbps

802.11a/g: 54Mbps

802.11n: 300Mbps

802.11ac: 867Mbps

Operating Frequency

IEEE802.11bgn: 2.412GHz~2.484GHz

IEEE802.11ac: 5.180GHz~5.850GHz

Application

Enterprise network access equipment, Gateway, Medical equipment, Gaming machines, handheld devices, security systems, etc.

Specification

Standards	IEEE 802.11ac/a/b/g/n (2T2R)
Chipset	Qualcomm Atheros QCA9882
Interface	PCIe for WiFi
Form Factor	Mini PCIe
Antenna	2x IPEX MHF1 connectors
Modulation	Wi-Fi: 802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11a: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11ac: OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)
Power Consumption	2.5W (Max)
Operating Voltage	DC 3.3V \pm 5%
Operating Temperature Range	-20°C~70°C
Storage Temperature Range	-40°C~80°C
Operating Humidity (Non-Condensing)	10%~90%
Storage Humidity (Non-Condensing)	5%~90%
Dimension L x W x H (in mm)	29.8mm x 26.8mm
Driver Support	Linux
Security	64/128-bits WEP, WPA, WPA2, 802.1x
Certification	FCC/CE

Output Power & Sensitivity

802.11b/g		
Data Rate	TX +/- 2dB	RX Sensitivity +/- 2dB
1~11Mbps	20 dBm	-90 dBm
6Mbps	21 dBm	-90 dBm
24Mbps	21 dBm	-84 dBm
54Mbps	18 dBm	-75 dBm

802.11n / 2.4GHz				
Data Rate		TX +/- 2dB (1TX)	TX +/- 2dB (2TX)	RX Sensitivity +/- 2dB
VHT 20	MCS0	21 dBm	24 dBm	-92 dBm
	MCS4	20 dBm	23 dBm	-83 dBm
	MCS7	16 dBm	19 dBm	-75dBm
VHT 40	MCS0	20 dBm	23 dBm	-89 dBm
	MCS4	19 dBm	22 dBm	-79 dBm
	MCS7	16 dBm	19 dBm	-73 dBm

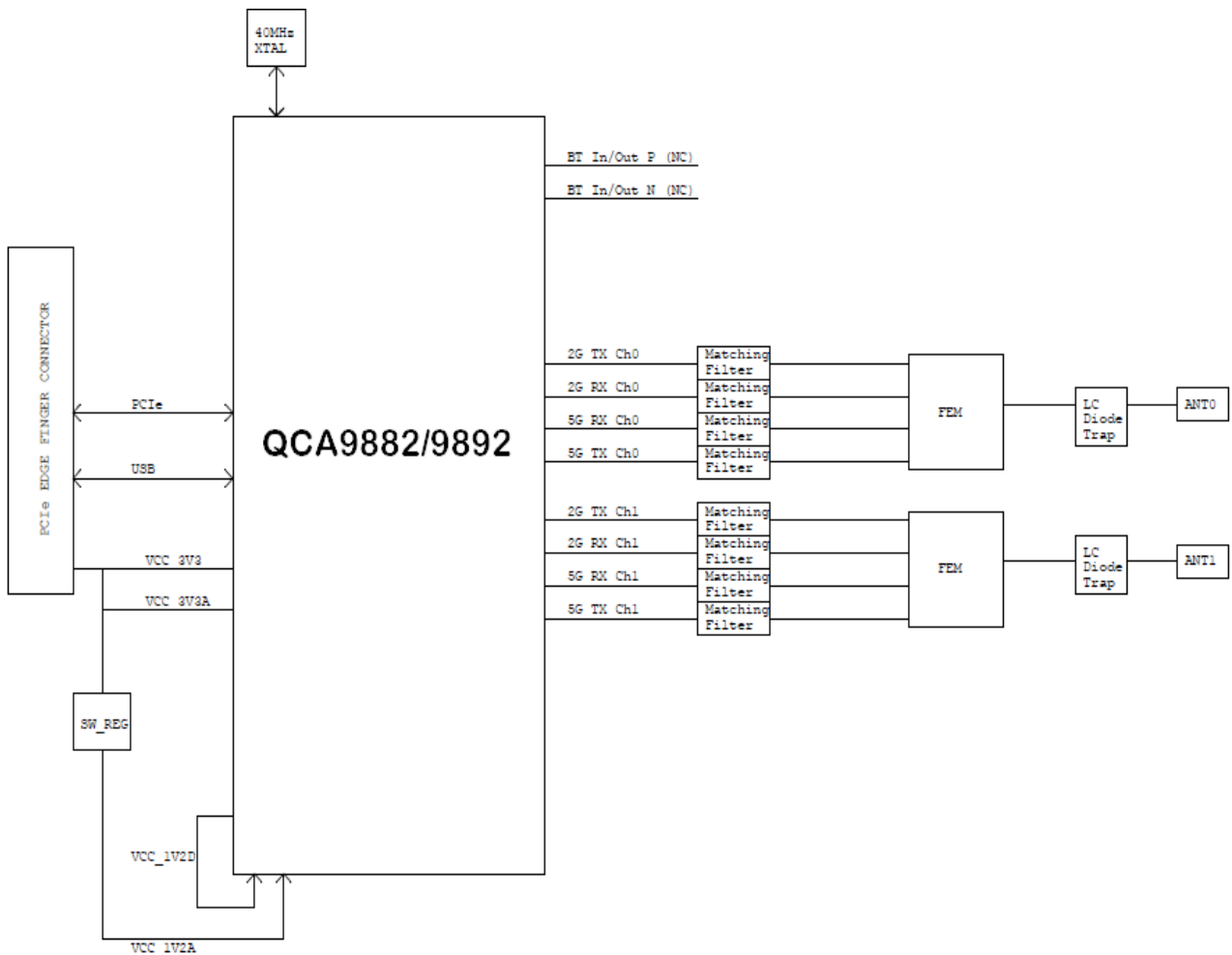
802.11a		
Data Rate	TX +/- 2dB	RX Sensitivity +/- 2dB
6Mbps	20 dBm	-93 dBm
24Mbps	20 dBm	-83 dBm
54Mbps	15 dBm	-75 dBm

802.11n / 5GHz				
Data Rate		TX +/- 2dB (1TX)	TX +/- 2dB (2TX)	RX Sensitivity +/- 2dB
VHT 20	MCS0	19 dBm	22 dBm	-94 dBm
	MCS4	18 dBm	21dBm	-77 dBm
	MCS7	14 dBm	17 dBm	-74 dBm
VHT 40	MCS0	18 dBm	21 dBm	-90 dBm
	MCS4	17 dBm	20 dBm	-79 dBm
	MCS7	14 dBm	17 dBm	-72 dBm

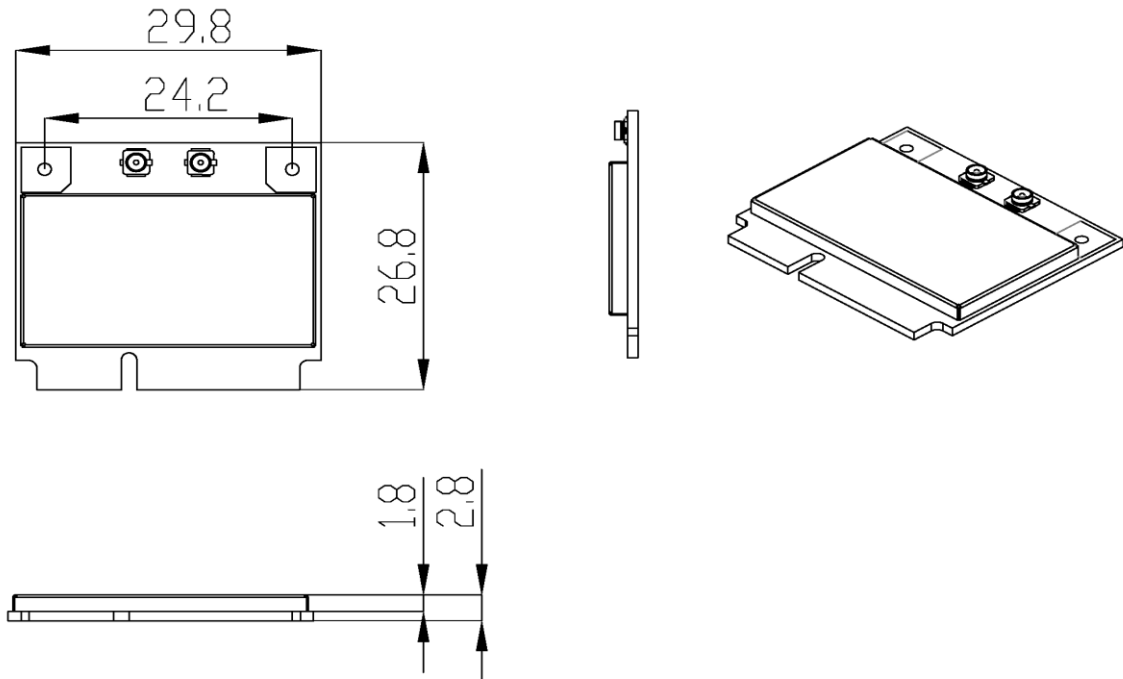
802.11ac

Data Rate		TX +/- 2dB (1TX)	TX +/- 2dB (2TX)	RX Sensitivity +/- 2dB
VHT 20	MCS0	19 dBm	22 dBm	-94dBm
	MCS4	18 dBm	21dBm	-82 dBm
	MCS8	13 dBm	16 dBm	-70 dBm
VHT 40	MCS0	18 dBm	21dBm	-90 dBm
	MCS4	17 dBm	20 dBm	-79 dBm
	MCS9	13 dBm	16 dBm	-66 dBm
VHT 80	MCS0	18 dBm	21dBm	-88dBm
	MCS4	17 dBm	20 dBm	-76 dBm
	MCS9	13dBm	16 dBm	-62 dBm

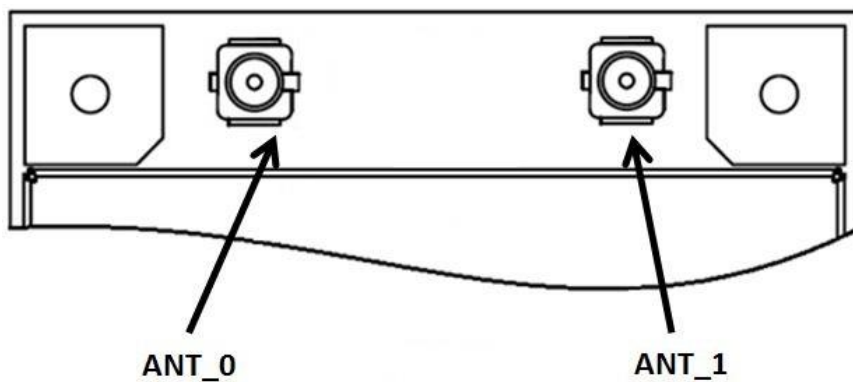
Block Diagram



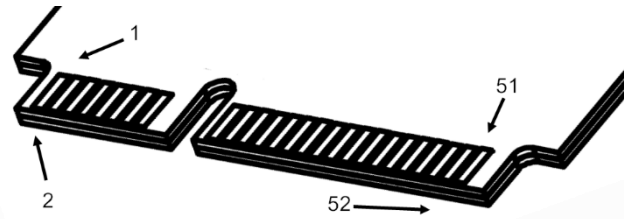
Dimension



Pin Assignment



Pin Name	Description
Ant_0	RF Antenna for WiFi 2.4GHz / 5GHz
Ant_1	RF Antenna for WiFi 2.4GHz / 5GHz



Pin Assignment

PIN#	Pin Name	Design Status	PIN#	Pin Name	Design Status
1	WAKE_L	Yes (PCIE_WAKE_L)	2	+3.3Vaux	Yes
3	COEX1	NC	4	GND	Yes
5	COEX2	NC	6	+1.5V	NC
7	CLKREQ_L	Yes (PCIE_CLKREQ_L)	8	UIM_PWR	Yes (Reserved)
9	GND	Yes	10	UIM_DATA	Yes (Reserved)
11	REFCLK-	Yes (PCIE_REFCLK_N)	12	UIM_CLK	Yes (Reserved)
13	REFCLK+	Yes (PCIE_REFCLK_P)	14	UIM_RESET	Yes (Reserved)
15	GND	Yes	16	UIM_VPP	NC
17	UIM_C8	NC	18	GND	Yes
19	UIM_C4	NC	20	W_DISABLE_L	Yes
21	GND	Yes	22	PERST_L	YES (PCIE_RST_L)
23	PERn0	Yes (PCIE_TX_N)	24	+3.3Vaux	Yes
25	PERp0	Yes (PCIE_TX_P)	26	GND	Yes
27	GND	Yes	28	+1.5V	NC
29	GND	Yes	30	SMB_CLK	NC
31	PETn0	YES (PCIE_RX_P)	32	SMB_DATA	NC
33	PETn0	YES (PCIE_RX_N)	34	GND	Yes
35	GND	Yes	36	USB_D-	NC
37	GND	Yes	38	USB_D+	NC
39	+3.3Vaux	Yes	40	GND	Yes
41	+3.3Vaux	Yes	42	LED_WWAN_L	NC
43	GND	Yes	44	LED_WLAN_L	Yes
45	RESERVED	NC	46	LED_WPAN_L	Yes (GPIO1_WLAN_LED)
47	RESERVED	NC	48	+1.5V	NC (GPIO17_BT_LED)
49	RESERVED	Yes (VCC_FEM_4V)	50	GND	Yes
51	RESERVED	NC	52	+3.3Vaux	Yes

Order Information

Product Name	Description
JWX6055	802.11ac/a/b/g/n 2x2 Half Mini PCIe Module