

# JWX6082

## 802.11 abgn 3T3R Mini-PCI-Express Module

### Technical Specifications

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### System Information

Wireless: IEEE 802.11a/b/g/n (3T3R) / Chipset: Atheros AR9390-AL1B

### Data Rate

802.11b : 11Mbps  
802.11a/g : 54Mbps  
802.11n : 450Mbps

### Operating Frequency

IEEE 802.11 a/b/g/n ISM Band, 2.412GHz ~ 2.472GHz, 5150MHz ~ 5850MHz

### Interface

Mini PCI-e, Antenna Ports : U.FL \* 3 for 3T3R

## Modulation

802.11n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

## Recommended Operating Conditions

Operating Voltage: DC 3.3V  $\pm$  0.1V

Temperature Range: -40°C to 85°C

Humidity (non-condensing): 20% ~ 80%

Current consumption: Tx : 970mA max. @ 11a/n mode; 740mA max. @ 11g/n mode

Rx : 300mA max. @ 11a mode; 300mA max. @ 11g/n mode

Dimension (in mm): 50.91 x 30.06 x 3.78mm

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Noted: The best RF performance specified in the data sheet, that's guaranteed only between -20° and 70° without reducing performance.

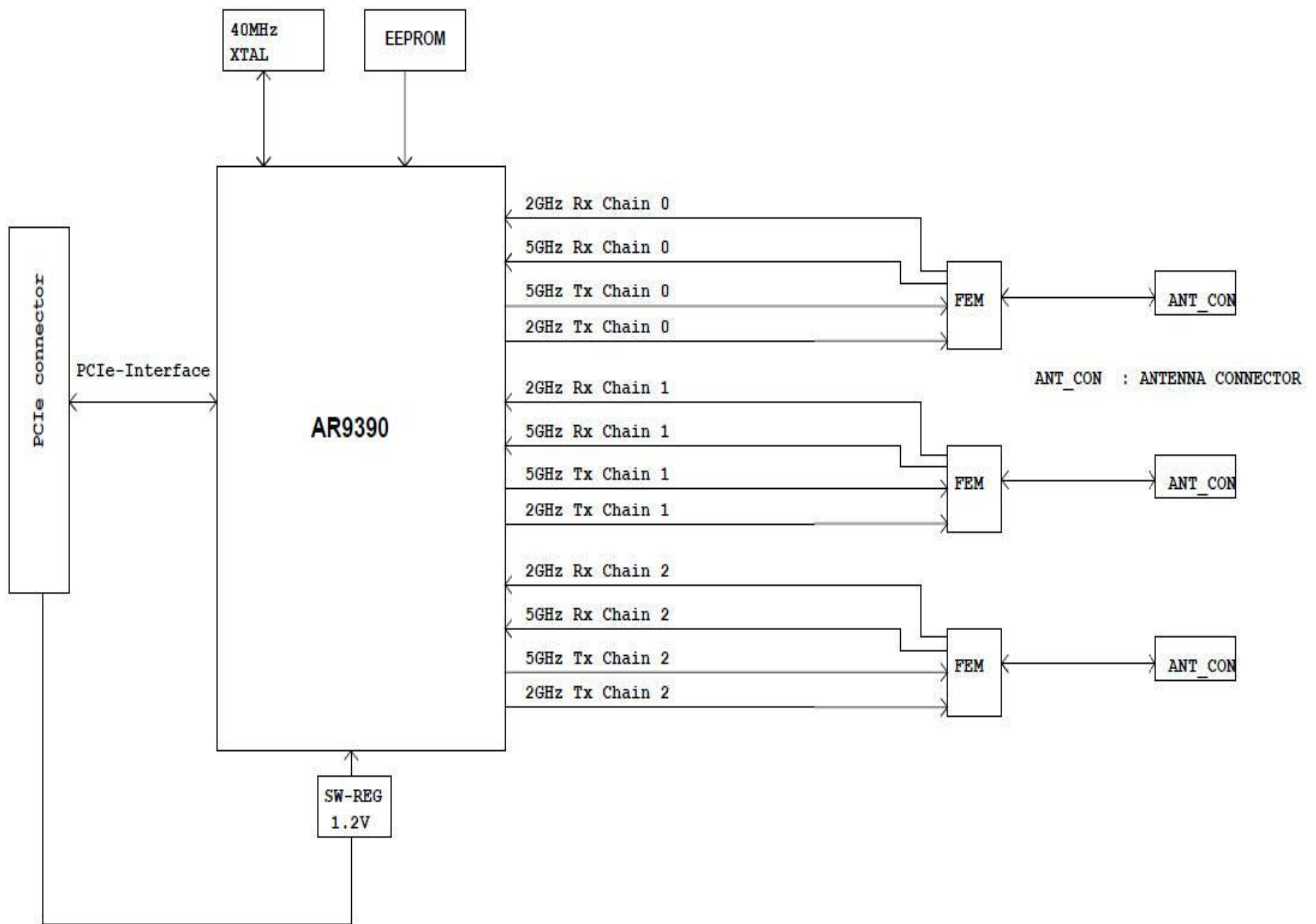
## Driver Support

QSDK/ ATH9K

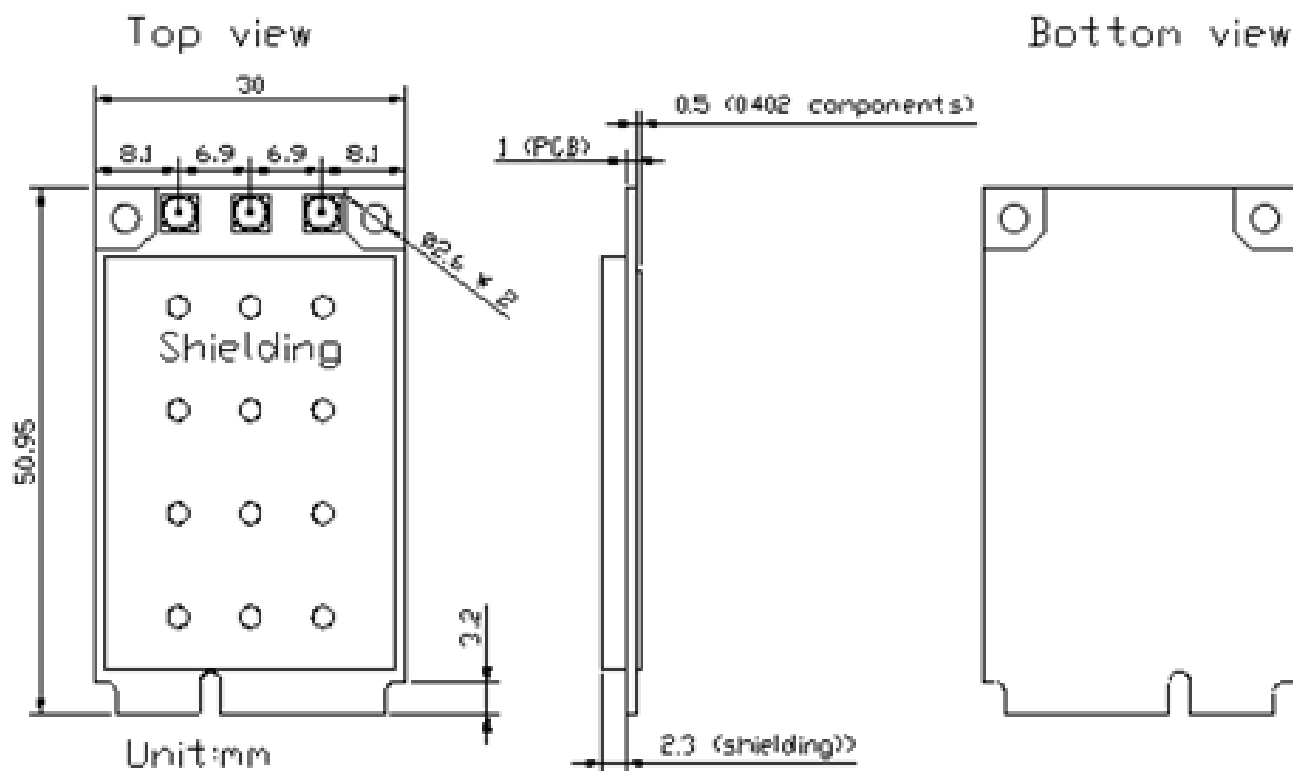
## Certification

FCC / CE

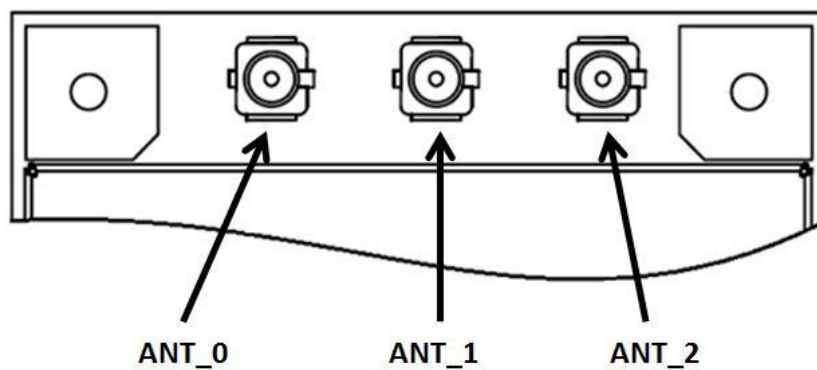
## Block Diagram



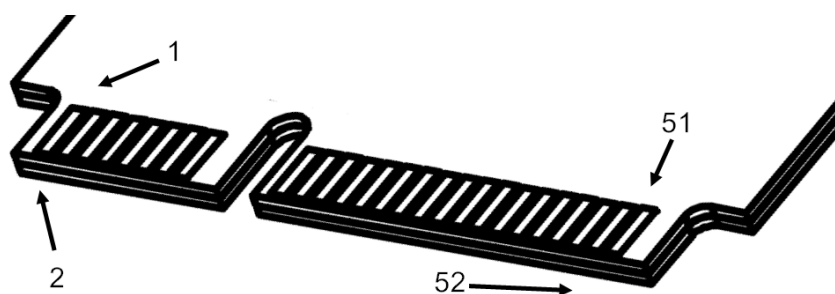
Dimension



## Pin Assignment



Pin Name	Description
ANT_0, ANT_1, ANT_2	RF Antenna for WiFi 2.4GHz/5GHz



PIN#	Pin Name	Design Status	PIN#	Pin Name	Design Status
1	WAKE_L	Yes	2	+3.3Vaux	YES
3	Reserved	YES(GPIO12)	4	GND	YES
5	Reserved	NC	6	+1.5V	NC
7	CLKREQ_L	YES	8	UIM_PWR	NC
9	GND	YES	10	UIM_DATA	NC
11	REFCLK-	YES	12	UIM_CLK	NC
13	REFCLK+	YES	14	UIM_RESET	NC
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
23	PERu0	YES	24	+3.3V	NC
25	PERp0	YES	26	GND	YES
27	GND	YES	28	+1.5V	NC
29	GND	YES	30	SMB_CLK	YES
31	PETn0	YES	32	SMB_DATA	YES
33	PETp0	YES	34	GND	YES
35	GND	YES	36	USB_D-	NC
37	RESERVED	NC	38	USB_D+	NC
39	RESERVED	YES(+3.3V)	40	GND	NC
41	RESERVED	YES(+3.3V)	42	LED_WWAN_L	NC
43	RESERVED	YES(GND)	44	LED_WLAN_L	YES
45	RESERVED	NC	46	LED_WPAN_L	NC
47	RESERVED	YES(GPIO13)	48	+1.5V	NC
49	RESERVED	YES(GPIO14)	50	GND	YES
51	RESERVED	YES(GPIO15)	52	+3.3V	YES

## Output Power & Sensitivity

### 802.11bg

Data Rate	Tx +/- 2dB	Rx Sensitivity +/- 2dB
1~11Mbps	19dBm	-95dBm
6Mbps	19dBm	-95dBm
9Mbps	19dBm	-95dBm
12Mbps	19dBm	-95dBm
18Mbps	19dBm	-91dBm
24Mbps	19dBm	-87dBm
36Mbps	18dBm	-84dBm
48Mbps	17dBm	-81dBm
54Mbps	16dBm	-79dBm

### 802.11gn

	Data Rate	Tx +/- 2dB (1TX)	Tx +/- 2dB (3TX)	Rx Sensitivity +/- 2dB
<b>HT20</b>	MCS 0	18dBm	23dBm	-94dBm
	MCS 1	18dBm	23dBm	-92dBm
	MCS 2	18dBm	23dBm	-90dBm
	MCS 3	18dBm	23dBm	-86dBm
	MCS 4	16dBm	21dBm	-83dBm
	MCS 5	16dBm	21dBm	-78dBm
	MCS 6	15dBm	20dBm	-76dBm
	MCS 7	14dBm	19dBm	-73dBm
<b>HT40</b>	MCS 0	18dBm	23dBm	-92dBm
	MCS 1	18dBm	23dBm	-90dBm
	MCS 2	18dBm	23dBm	-88dBm
	MCS 3	18dBm	23dBm	-85dBm
	MCS 4	16dBm	20dBm	-83dBm
	MCS 5	16dBm	20dBm	-77dBm
	MCS 6	14dBm	19dBm	-73dBm
	MCS 7	13dBm	18dBm	-71dBm

**802.11a**

Data Rate	Tx +/- 2dB	Rx Sensitivity +/- 2dB
6Mbps	15dBm	-94dBm
9Mbps	15dBm	-94dBm
12Mbps	15dBm	-94dBm
18Mbps	15dBm	-92dBm
24Mbps	15dBm	-88dBm
36Mbps	14dBm	-85dBm
48Mbps	13dBm	-80dBm
54Mbps	12dBm	-78dBm

**802.11an**

	Data Rate	Tx +/- 2dB (1TX)	Tx +/- 2dB (3TX)	Rx Sensitivity +/- 2dB
<b>HT 20</b>	MCS 0	15dBm	20dBm	-93dBm
	MCS 1	15dBm	20dBm	-91dBm
	MCS 2	15dBm	20dBm	-90dBm
	MCS 3	15dBm	20dBm	-86dBm
	MCS 4	11dBm	16dBm	-83dBm
	MCS 5	11dBm	16dBm	-79dBm
	MCS 6	10dBm	15dBm	-76dBm
	MCS 7	10dBm	15dBm	-73dBm
<b>HT 40</b>	MCS 0	15dBm	20dBm	-92dBm
	MCS 1	15dBm	20dBm	-88dBm
	MCS 2	15dBm	20dBm	-84dBm
	MCS 3	15dBm	20dBm	-80dBm
	MCS 4	11dBm	16dBm	-79dBm
	MCS 5	11dBm	16dBm	-76dBm
	MCS 6	10dBm	15dBm	-72dBm
	MCS 7	10dBm	15dBm	-70dBm