

WUBM-273ACN

802.11ac/a/b/g/n Dual-Band

2T2R USB Module



Wireless USB Module for Embedded Solution

The WUBM-273ACN is powered by MediaTek radio chip and features 2x2 11ac technology for higher throughput performance, reliability and range. It is designed to meet the demanding performance requirements of critical embedded applications.

Embedded Application

Applications include medical devices, security systems, industrial, PoS, digital signs, Gaming machine, Medical equipment, industrial tablet PC's, handheld devices, thin client devices, and many more.

Key Feature

- MediaTek MT7612U
- Antenna: 2 x IPEX MHF1 connector, 2T2R
- Data Rates: allows link speeds up to 867Mbps
- Support WinXP/7/8.1/10, Linux

Specification

Standards	IEEE 802.11ac/a/b/g/n(2T2R)
Chipset	MediaTek MT7612U
Data Rate	802.11b: 11Mbps 802.11a/g: 54Mbps 802.11n: 300Mbps 802.11ac: 867Mbps
Operating Frequency	IEEE 802.11ac/a/b/g/n ISM Band: 2.400GHz~2.4835GHz, 5.150GHz~5.825GHz *Subject to local regulations
Interface	WLAN: USB
Form Factor	USB Type A or 12-pin wafer connector
Antenna	2 x IPEX MHF1 connectors or Printed Antenna
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	TX mode: 460mA RX mode: 390mA
Operating Voltage	DC 5V
Operating Temperature Range	0°C~50°C
Storage Temperature Range	-20°C~70°C
Humidity (Non-Condensing)	10%~85% (Operating) 5%~90% (Storing)
Dimension L x W x H (in mm)	[M12W]/[P12W]:55.0mm(±0.3mm) x 25.0mm(±0.3mm) x 4.75mm(±0.3mm) [MU]/[P]:70.05mm(±0.3mm) x 25.0mm(±0.3mm) x 4.8mm(±0.3mm)
Weight (g)	[M12W]/[P12W]: 6g [MU]/[P]: 7.6g
Driver Support	Windows XP/7/8.1/10, Linux
Security	64/128-bits WEP, WPA, WPA2, 802.1x

OUTPUT POWER & SENSITIVITY		
802.11b		
Data Rate	Tx \pm 2dBm	Rx Sensitivity
11Mbps	15dBm	\leq -76dBm

802.11g		
Data Rate	Tx \pm 2dBm	Rx Sensitivity
54Mbps	13dBm	\leq -65dBm

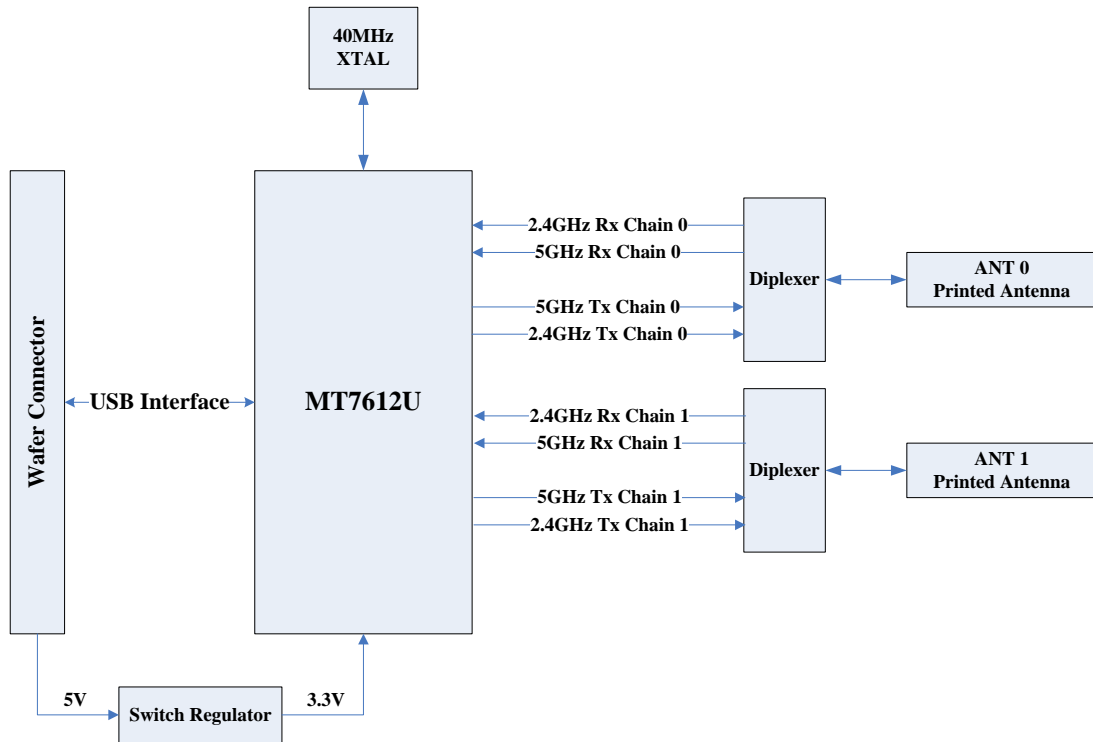
802.11n / 2.4GHz				
	Data Rate	Tx \pm 2dBm (1TX)	Tx \pm 2dBm (2TX)	Rx Sensitivity
HT20	MCS7	12dBm	15dBm	\leq -64dBm
HT40	MCS7	12dBm	15dBm	\leq -61dBm

802.11a		
Data Rate	Tx \pm 2dBm	Rx Sensitivity
54Mbps	12dBm	\leq -65dBm

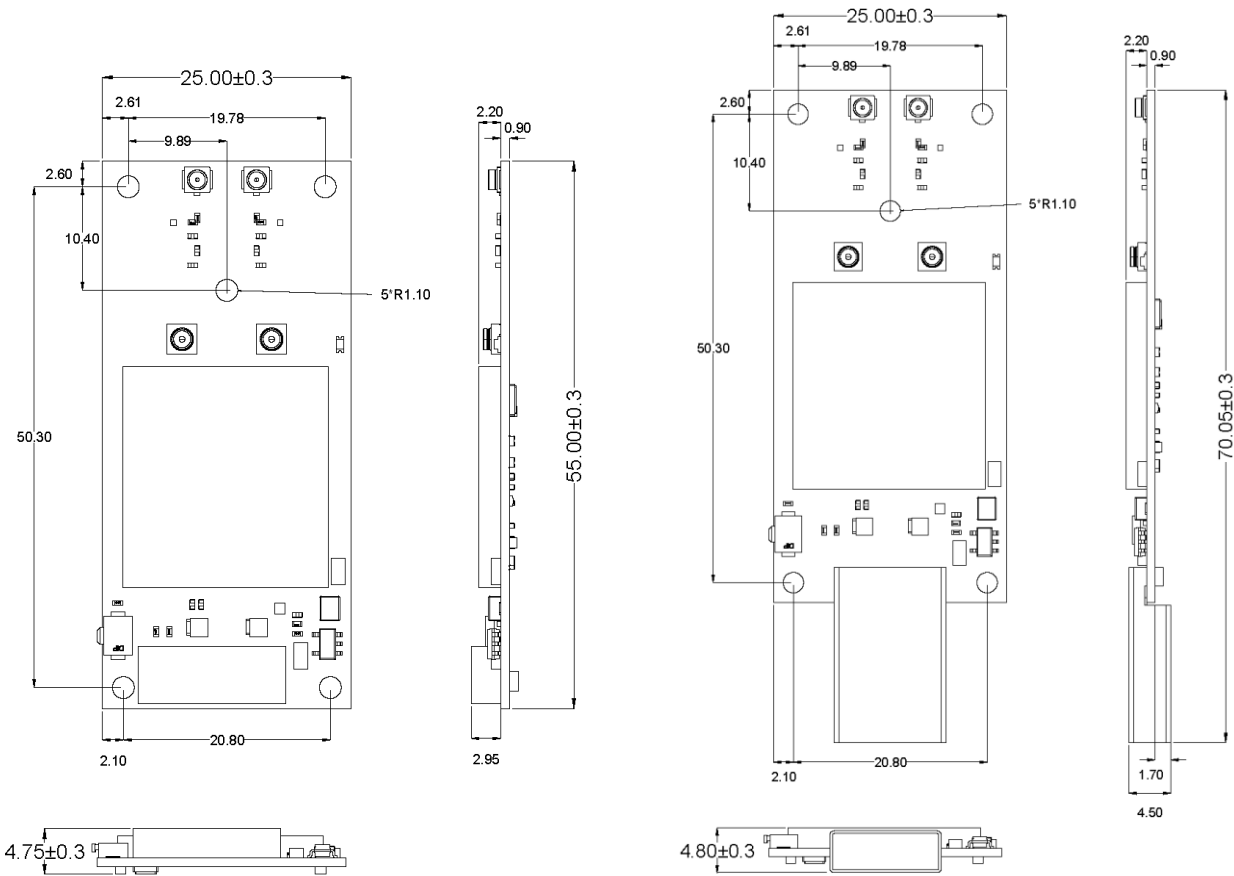
802.11n / 5GHz				
	Data Rate	Tx \pm 2dBm (1TX)	Tx \pm 2dBm (2TX)	Rx Sensitivity
HT20	MCS7	11dBm	14dBm	\leq -64dBm
HT40	MCS7	11dBm	14dBm	\leq -61dBm

802.11ac				
	Data Rate	Tx \pm 2dBm (1TX)	Tx \pm 2dBm (2TX)	Rx Sensitivity
VHT80	MCS9	10dBm	13dBm	\leq -51dBm

Block Diagram



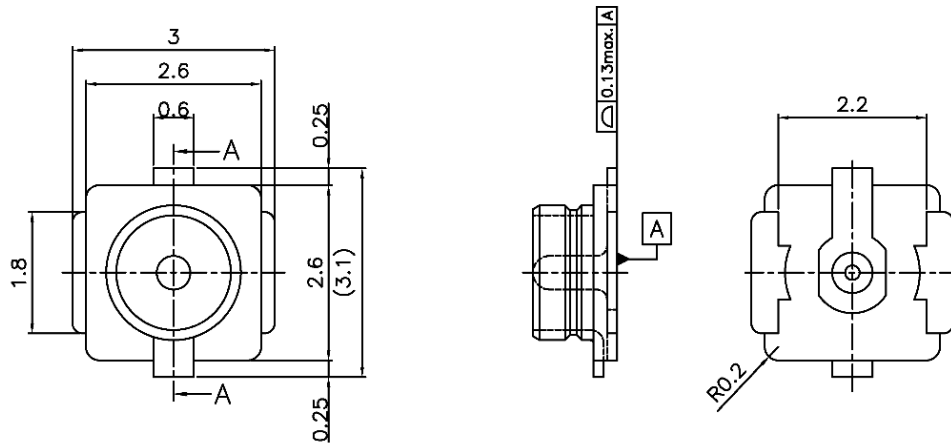
Mechanical Dimension (mm)



P12W/M12W

P/MU

MHF1 connector spec.



Unit: mm

Pin Assignment

Pin#	Pin Name	Description	Pin#	Pin Name	Description
1	RF_Option (OPT)	Input and active low signal. This signal is used by the system to disable radio operation on add-in cards that implement radio frequency applications. When implemented, this signal requires a pull-up resistor on the card	2	WL_LED indicator	Output and open drain active low signal. This signal is used to allow the USB module add-in card to provide status indicators via LED devices that will be provided by the system
3	Reserve	-	4	Reserve	-
5	Reserve	-	6	Reserve	-
7	USB_D+	USB serial data	8	GND	GND
9	USB_D-	USB serial data	10	Reserve	-
11	+5V	+5V	12	Reserve	-

*NA→No active

*OPT →Optional

Certification

Dipole Ant.

 FCC

 IC

 NCC

 CE (RED EN 300 328 V2.2.2 / EN 301 893 V2.1.1)

 MIC

 ASNZS

Ordering Information

Part Number	Product Name	Description
WUBM-273ACN [M12W/W]	R9701890003	802.11ac/b/g/n USB Module(2T2R) ; 12pins wafer connector+IPEX Ant.
WUBM-273ACN [MU/W]	R9701890004	802.11ac/b/g/n USB Module(2T2R); USB Type A connector+IPEX Ant.
WUBM-273ACN [P/W]	R9701890005	802.11ac/b/g/n USB Module(2T2R); USB Type A connector+Printed Ant.
WUBM-273ACN [P12W/W]	R9701890006	802.11ac/b/g/n USB Module(2T2R); 12pinswafer connector+Printed Ant.

Optional Accessory

Product Name	Part Number	Description
Ant. 2dBi (WSS002)	R3410210021	Dipole Antenna, 2dBi 2.4GHz/5GHz, RP-SMA(M) connector(Black)
CBIRF-ME150	R3470300023	RF Cable, I-PEX/MHF1 to RP-SMA(F); L:150mm; Coaxial 1.37 Black
CBIRF-ME250	R3470300024	RF Cable, I-PEX/MHF1 to RP-SMA(F); L:250mm; Coaxial 1.37 Black