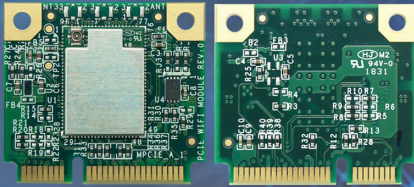


STIX-9377-MPCIE



- STIX-9377-MPCIE delivers all your IoT multi-mode wireless communication needs in one compact and secure mini-PCIe module.
- Based on Qualcomm Atheros QCA9377 System-in-Package (SiP) supporting 802.11 a/b/g/n/ac Dual-Band 1x1 and Bluetooth 5 (BR+EDR+BLE).
- The module offers the latest and most stringent security and robust radio performance for noisy industrial environments.
- Pre-certified STIX-9377-MPCIE with approval from regulatory agencies, including European Union (CE/ETSI/RED), United States (FCC), Canada (IC), Australia/New Zealand (RCM) and Japan (TELEC).

Specifications

System-in-Package

Chipset Qualcomm QCA9377

Connectivity

Wi-Fi Standards 802.11 a/b/g/n/ac
Wi-Fi Generation Wi-Fi 5
Wi-Fi Operating Frequency 2412MHz ~ 2462MHz
5180MHz ~ 5825MHz
BT Operating Frequency 2402MHz ~ 2480MHz
TX/RX Streams Dual-Band 1x1
Bluetooth BT (BR+EDR+BLE)

Antenna

Antenna Connector 1x MHF4

Signaling

Wi-Fi PCIe
Bluetooth USB

Power Specifications

Operating Voltage 3.3V DC +/-10%
Power Consumption TX Mode: max. 510mA
RX Mode: max. 160mA

Driver Support

Standard Support Linux
Yocto
Ubuntu
Android
Windows 10

Radio

Transmitted Power 802.11b: 19dBm +/- 2dB @11M
802.11g: 17dBm +/- 2dB @54M
802.11gn: 16dBm +/- 2dB @HT20 MCS7
802.11gn: 16dBm +/- 2dB @HT40 MCS7
802.11a: 12dBm +/- 2dB @54M
802.11an: 11dBm +/- 2dB @HT20 MCS7
802.11an: 11dBm +/- 2dB @HT40 MCS7
802.11ac: 9dBm +/- 2dB @VHT20 MCS8
802.11ac: 9dBm +/- 2dB @VHT40 MCS9
802.11ac: 9dBm +/- 2dB @VHT80 MCS9
BT*: 0 ≤ Output Power ≤ 10 dBm
*BT(Class 1 Device)

Receive Sensitivity

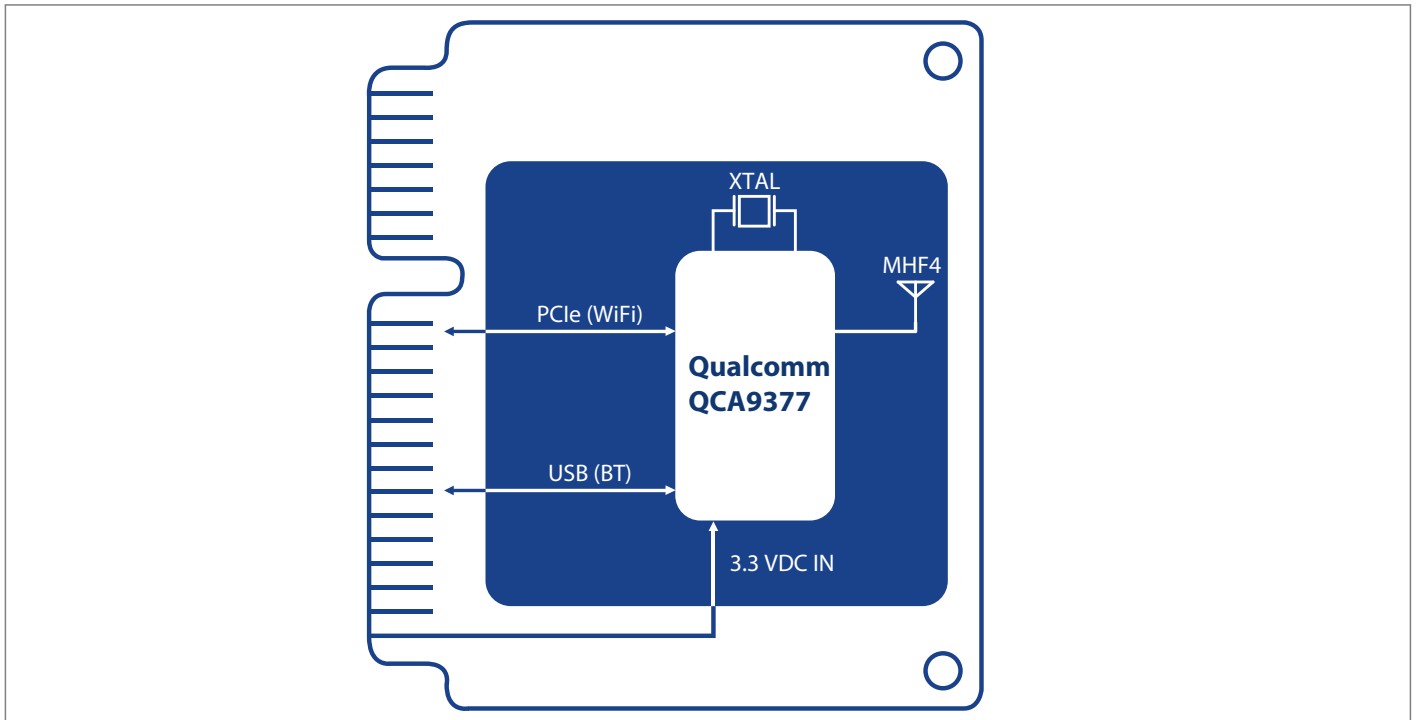
802.11a: ≤ -70dBm@54Mbps
802.11b: ≤ -88dBm@11Mbps
802.11g: ≤ -72dBm@54Mbps
802.11gn HT20: ≤ -65dBm@MCS7
802.11gn HT40: ≤ -65dBm@MCS7
802.11an HT20: ≤ -65dBm@MCS7
802.11an HT40: ≤ -65dBm@MCS7
802.11ac VHT80: ≤ -51Bm@MCS9
BT: < 0.1% BER at -70dBm



yocto
PROJECT



Block Diagram



Environmental and Mechanical

Dimensions	30x 26.8 mm
Form Factor	mini-PCIe Half Size
Weight	≤ 3 grams
Temperature	Commercial: 0° to +60° C
Relative Humidity	10 to 90 %
MTBF	50000 Hours
Shock	50G/25ms
Vibration	20G/0-600Hz

Certification and Compliance

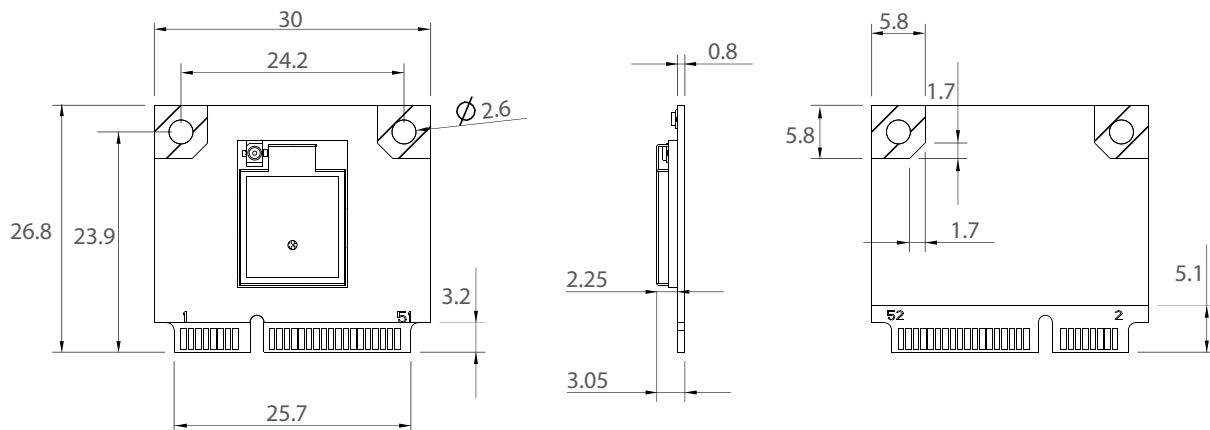
USA	FCC ID: 2AKZA-QCA9377
Canada	IC: 22364-QCA9377
Japan	TELEC: 201-180629
European Union	EN 55032 / EN 55024 EN 300 328 v2.2.2 EN 301 893 v2.1.1
Australia/New Zealand	RCM
Bluetooth Logo Certification	QDID150839 (Bluetooth 4.2) Compliant with RoHS / REACH directives

Order Information :

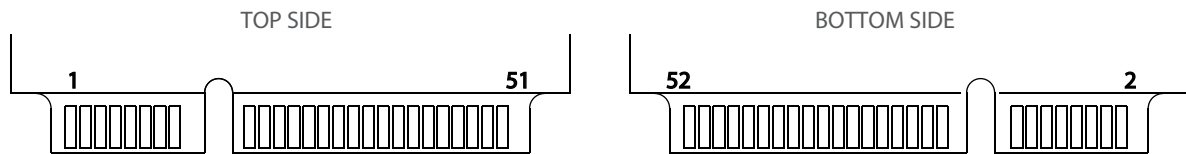
Code	Module	Signaling
STIX-9377-M2-MPCIE	Qualcomm QCA9377 SiP mini-PCIe Half Size IoT module.	PCIe (Wi-Fi) / USB (BT)

Mechanical Dimension

(units in mm)



Signal Pinout



Pin	Signal	Type	Description
1	PCIE_WAKE _n	I	PCIe Wake Up Signal
3	NC		Not Connected
5	NC		Not Connected
7	PCIE_CLKREQ _n	I	PCIe Clock Request Signal
9	GND	P	Ground
11	REFCLK _n	I	PCIe Clock differential pair signal
13	REFCLK _p	I	pair signal
15	GND	P	Ground
17	NC		Not Connected
19	NC		Not Connected
21	GND	P	Ground
23	PER _n 0	I	PCIe Receive differential pair signal
25	PER _p 0	I	pair signal
27	GND	P	Ground
29	GND	P	Ground
31	PET _n 0	O	PCIe Transmit differential pair signal
33	PET _p 0	O	pair signal
35	GND	P	Ground
37	GND	P	Ground
39	PCIE_3V3	P	3.3V
41	PCIE_3V3	P	3.3V
43	GND	P	Ground
45	NC		Not Connected
47	NC		Not Connected
49	NC		Not Connected
51	NC		Not Connected

Pin	Signal	Type	Description
2	PCIE_3V3	P	3.3V
4	GND	P	Ground
6	NC		Not Connected
8	NC		Not Connected
10	NC		Not Connected
12	NC		Not Connected
14	NC		Not Connected
16	NC		Not Connected
18	GND	P	Ground
20	WL_REG_ON	I	WLAN Enable (Active High)
22	PCIE_PERST _n	I	PCIe Reset Signal
24	PCIE_3V3	P	3.3V
26	GND	P	Ground
28	NC		Not Connected
30	NC		Not Connected
32	NC		Not Connected
34	GND	P	Ground
36	USB_D-	I/O	USB differential pair signal
38	USB_D+	I/O	pair signal
40	GND	P	Ground
42	WL_LED_n	OD	Wi-Fi LED Signal
44	NC		Not Connected
46	NC		Not Connected
48	NC		Not Connected
50	GND	P	Ground
52	PCIE_3V3	P	3.3V