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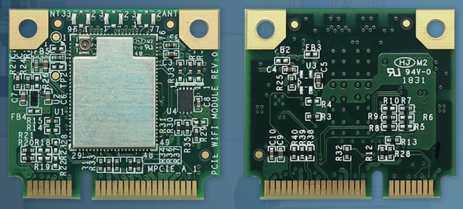
STIX-9377-MPCIE

- Delivers all IoT multi-mode wireless communication needs in one compact and secure mini-PCIe module.
- Qualcomm QCA-9377 802.11ac + Bluetooth Combo Module.
- Offers the latest and most stringent security and robust radio performance for noisy industrial environments.
- Pre-certified FCC/CE/IC/RCM/TELEC.



Specifications

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)

Power Specifications

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

System-in-Package

Chipset	Qualcomm QCA9377

Driver Support

Standard Support	Linux Yocto Ubuntu Android Windows 10

Antenna

Antenna Connector	1x MHF4

Signaling

Wi-Fi	PCIe
Bluetooth	USB

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
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

*BT(Class 1 Device)

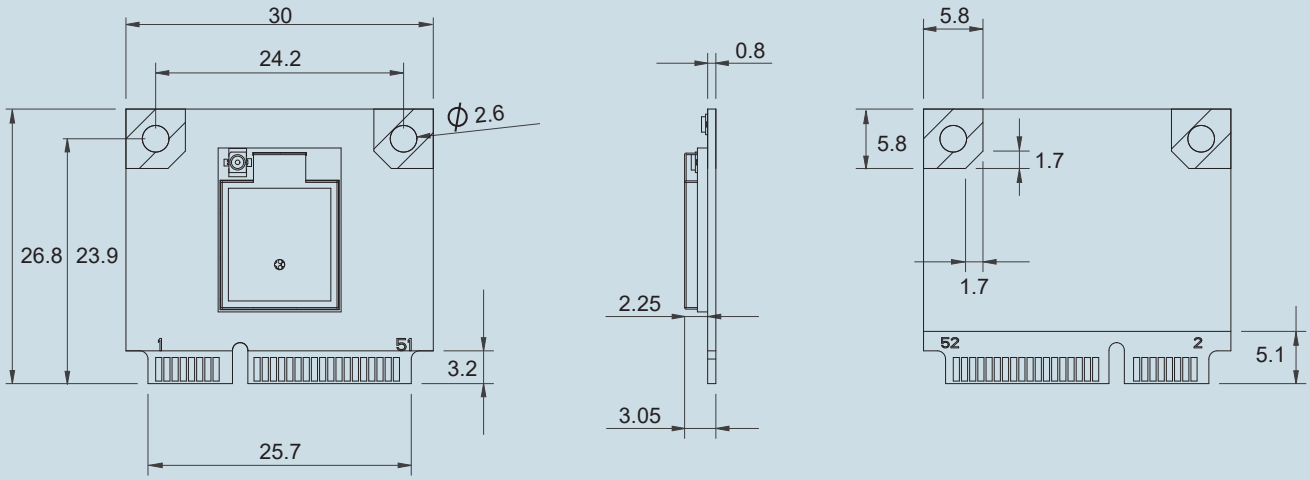
Environmental and Mechanical

Dimensions	30 (W) x 26.8 (H) x 3.05(D) mm
Form Factor	mini-PCIe Half Size
Relative Humidity	10 to 90 %
MTBF	50,000 Hours
Operation Temperature	Commercial: 0° to +60° C
Weight	≤ 3 grams

Certification and Compliance

USA	FCC ID: 2AKZA-QCA9377
Canada	IC: 22364-QCA9377
European Union	EN 300 328 v2.2.2 EN 301 893 v2.1.1 EN 55032 / EN 55024
Japan	TELEC: 201-180629
Australia/New Zealand	RCM Compliant
Bluetooth Logo	QDID 150839 (Bluetooth 4.2) QDID 193238 (Bluetooth 5)
Certification	Compliant with RoHS / REACH directives

Dimensions (units in mm)



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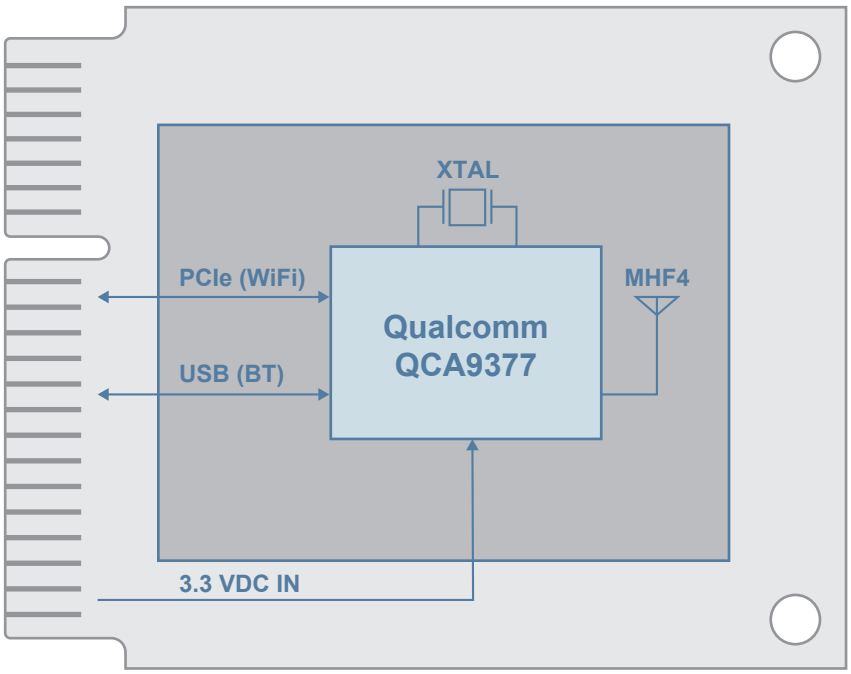
Block Diagram



Order Information

Code	Description	Signaling
PIXI-9377-S	Qualcomm QCA9377 System-in-Package (SiP) IoT module	SDIO (Wi-Fi) / UART (BT) / I²S
PIXI-9377-P	Qualcomm QCA9377 System-in-Package (SiP) IoT module	PCIe (Wi-Fi) / USB (BT)
STIX-9377-M2-AE	Qualcomm QCA9377 SiP M.2 KEY-A+E Type 2230 IoT module	PCIe (Wi-Fi) / USB (BT)
STIX-9377-M2-B	Qualcomm QCA9377 SiP M.2 KEY-B Type 2242 IoT module	PCIe (Wi-Fi) / USB (BT)
STIX-9377-MPCIE	Qualcomm QCA9377 SiP mini-PCIe half size IoT module	PCIe (Wi-Fi) / USB (BT)

Code	Description	Wireless SiP module
PIXI-9377-EVK	Development Kit for Qualcomm QCA9377 based on PIXI-9377-S	Antenna and cable set

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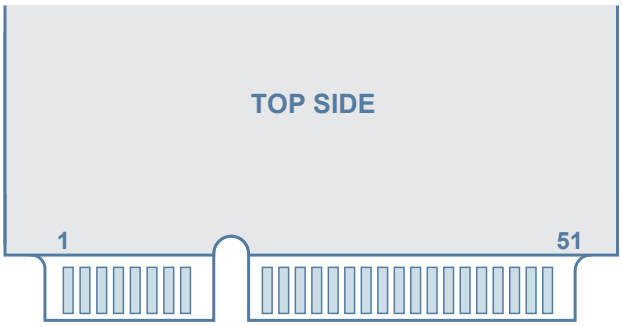
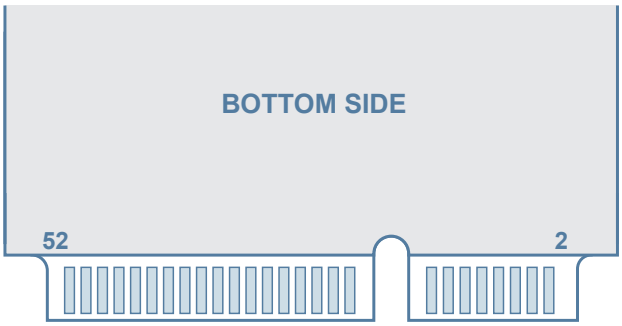
Signal Pinout





Pin	Signal	Type	Description
1	PCIE_WAKEn	I	PCIe Wake Up Signal
3	NC		Not Connected
5	NC		Not Connected
7	PCIE_CLKREQn	I	PCIe Clock Request Signal
9	GND	P	Ground
11	REFCLKn	I	PCIe Clock differential
13	REFCLKp	I	pair signal
15	GND	P	Ground
17	NC		Not Connected
19	NC		Not Connected
21	GND	P	Ground
23	PERn0	I	PCIe Receive differential
25	PERp0	I	pair signal
27	GND	P	Ground
29	GND	P	Ground
31	PETn0	O	PCIe Transmit differential
33	PETp0	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_PERSTn	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	USB differential 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