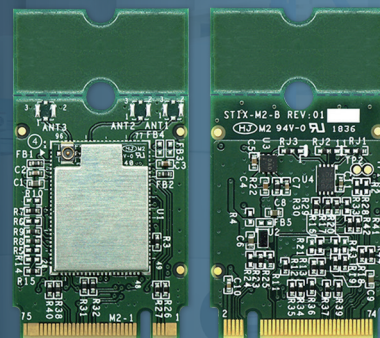


STIX-9377-M2-B

- Delivers all IoT multi-mode wireless communication needs in one compact and secure M.2 KEY-B 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
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Driver Support

Standard Support	Linux Yocto Ubuntu Android Windows 10
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Antenna

Antenna Connector	1x MHF4
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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)

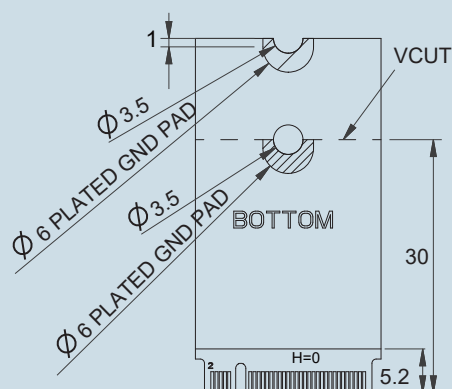
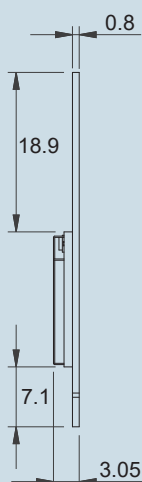
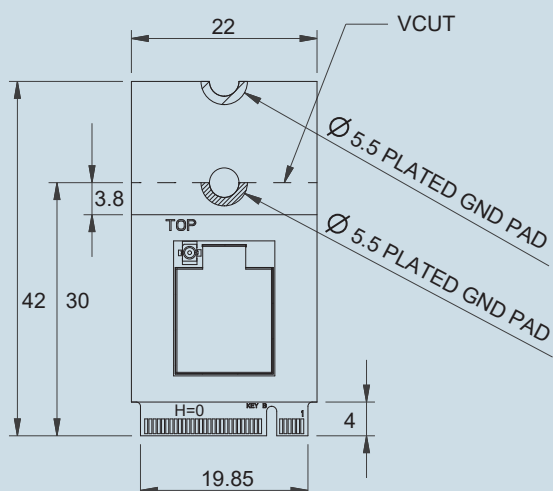
Environmental and Mechanical

Dimensions	22 (W) x 42 (H) x 3.05(D) mm
Form Factor	M.2 KEY-B
Relative Humidity	10 to 90 %
MTBF	50,000 Hours
Operation Temperature	Commercial: 0° to +60° C
Weight	≤ 3 grams

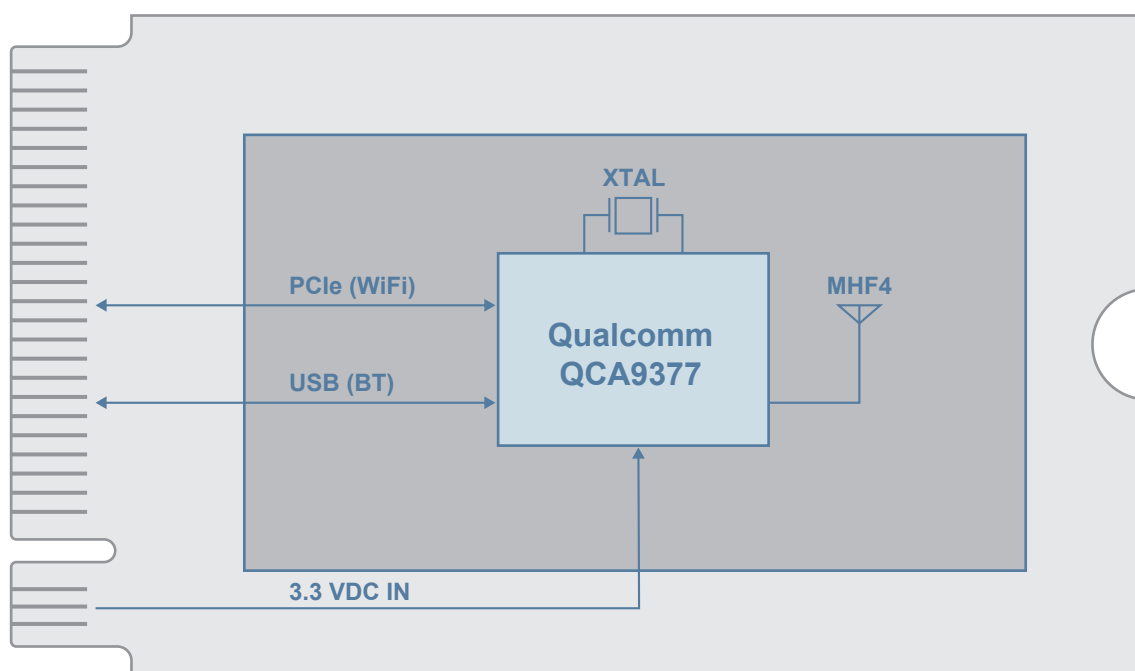
Certification and Compliance

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)



Block Diagram

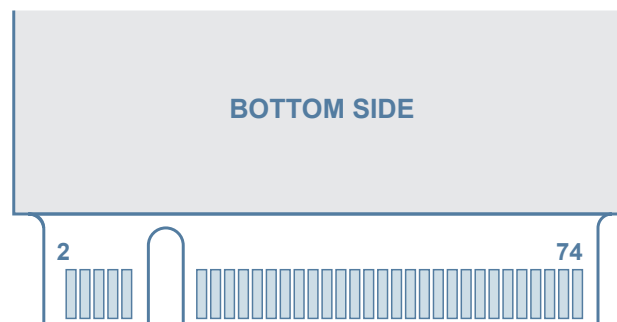
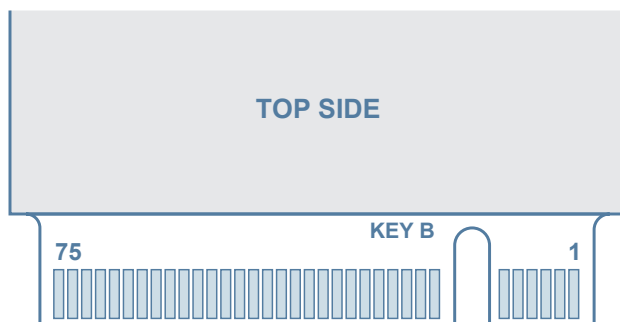


Order Information

Code	Description	Signaling
PIXI-9377-S	Qualcomm QCA9377 System-in-Package (SiP) IoT module	SDIO (Wi-Fi) / UART (BT) / I ² S
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

Signal Pinout



Pin	Signal	Type	Description
1	GND	P	Ground
3	GND	P	Ground
5	GND	P	Ground
7	USB_D+	I/O	USB differential pair signal
9	USB_D-	I/O	USB differential pair signal
11	GND	P	Ground

Connector Key

21	GND	P	Ground
23	NC		Not Connected
25	NC		Not Connected
27	GND	P	Ground
29	NC		Not Connected
31	NC		Not Connected
33	GND	P	Ground
35	NC		Not Connected
37	NC		Not Connected
39	GND	P	Ground
41	PETn0	O	PCIe Transmit
43	PETp0	O	differential pair signal
45	GND	P	Ground
47	PERn0	I	PCIe Receive
49	PERp0	I	differential pair signal
51	GND	P	Ground
53	REFCLKn	I	PCIe Clock
55	REFCLKp	I	differential pair signal
57	GND	P	Ground
59	NC		Not Connected
61	NC		Not Connected
63	NC		Not Connected
65	NC		Not Connected
67	NC		Not Connected
69	GND	P	Ground
71	GND	P	Ground
73	GND	P	Ground
75	NC		Not Connected

Pin	Signal	Type	Description
2	PCIE_3V3	P	3.3V
4	PCIE_3V3	P	3.3V
6	NC	I	Not Connected
8	WL_REG_ON	OD	WLAN Enable. (Active High)
10	WL_LED_n		Wi-Fi LED Signa

Connector Key

20	NC		Not Connected
22	NC		Not Connected
24	NC		Not Connected
26	NC		Not Connected
28	NC		Not Connected
30	NC		Not Connected
32	NC		Not Connected
34	NC		Not Connected
36	NC		Not Connected
38	NC		Not Connected
40	NC		Not Connected
42	NC		Not Connected
44	NC		Not Connected
46	NC		Not Connected
48	NC		Not Connected
50	PCIE_PERSTn	I	PCIe Reset Signal
52	PCIE_CLKREQn	I	PCIe Clock Request Signal
54	PCIE_WAKEn	I	PCIe Wake Up Signal
56	NC		Not Connected
58	NC		Not Connected
60	NC		Not Connected
62	NC		Not Connected
64	NC		Not Connected
66	NC		Not Connected
68	NC		Not Connected
70	PCIE_3V3	P	3.3V
72	PCIE_3V3	P	3.3V
74	PCIE_3V3	P	3.3V