Integration Instructions for Host Product Manufacturers

General Specifications

Host Model Number	407002
Host Form Factor	Mobile device w/ touchscreen, wireless module, aluminum enclosure. 4.287” x 2.510” x 0.55”
Wireless Module	PIXI-9377, WiFi+Bluetooth 5.0(HS) System on Module
Wireless Module Form Factor	PIXI 16mm x 12mmx1.0mm Wireless SIP Module
Wireless Module MCU	Qualcomm QCA9377-3
WLAN	IEEE 802.11a/b/g/n/ac
Bluetooth	Bluetooth 5.0 (BLE)
Frequency Range	Bluetooth 5.0: 2402MHz ~ 2480MHz 802.11a: 5180MHz ~ 5240MHz / 5745MHz ~ 5825MHz 802.11n HT20 MHz: 5180MHz ~ 5240MHz / 5745 ~ 5825MHz 802.11n HT40 MHz: 5190MHz ~ 5230MHz / 5755 ~ 5795MHz 802.11ac VHT80 MHz: 5210MHz / 5775MHz
Antenna	1x MHF4 connector, FPC Antenna: Pulse, W3334BD0127
Host Interface	WLAN: SDIO 3.0 BT: UART/ I2S
Voltage Input supply for host	I/O: 3.3V
Environment Support	Operating Temperature -40~85℃ Storage Temperature -40~135℃

Tested Radio Power Levels

Radio	Band	Transmit Frequency (MHz)	Power Setting	Conducted Output Power	Operational Duty Cycle
802.11 a HT20 (6Mbps)	U-NII-1	5180 MHz	11	8.5 dBm	0.6%
		5220 MHz	13	10.8 dBm	
		5240 MHz	14	11.4 dBm	
802.11 a HT20 (36Mbps)	U-NII-1	5180 MHz	11	8.8 dBm	0.6%
		5220 MHz	13	10.7 dBm	
		5240 MHz	14	12.2 dBm	
802.11 a HT20 (54Mbps)	U-NII-1	5180 MHz	11	9.1 dBm	0.6%
		5220 MHz	13	10.7 dBm	
		5240 MHz	14	12.1 dBm	
802.11 n HT20 (MCS0)	U-NII-1	5180 MHz	10	7.6 dBm	0.6%
		5220 MHz	13	10.9 dBm	
		5240 MHz	14	11.3 dBm	
802.11 n HT20 (MCS7)	U-NII-1	5180 MHz	10	9.1 dBm	0.6%
		5220 MHz	13	10.7 dBm	
		5240 MHz	14	12.8 dBm	

802.11 n HT40 (MCS0)	U-NII-1	5190 MHz	11	8.8 dBm	0.5%
		5230 MHz	18	15.3 dBm	
802.11 n HT40 (MCS7)	U-NII-1	5190 MHz	11	8.8 dBm	0.5%
		5230 MHz	18	15 dBm	
802.11 ac VHT80 (MCS0)	U-NII-1	5210 MHz	8	5.9 dBm	0.3%
802.11 ac VHT80 (MCS9)	U-NII-1	5210 MHz	8	7.1 dBm	0.3%
802.11 a HT20 (6Mbps)	U-NII-3	5745 MHz	9	8.1 dBm	0.6%
		5785 MHz	11	7.7 dBm	
		5825 MHz	10	7.2 dBm	
802.11 a HT20 (36Mbps)	U-NII-3	5745 MHz	9	7.7 dBm	0.6%
		5785 MHz	11	9.1 dBm	
		5825 MHz	10	7.4 dBm	
802.11 a HT20 (54Mbps)	U-NII-3	5745 MHz	9	8.1 dBm	0.6%
		5785 MHz	11	9.5 dBm	
		5825 MHz	10	8.1 dBm	
802.11 n HT20 (MCS0)	U-NII-3	5745 MHz	9	8 dBm	0.6%
		5785 MHz	11	8.4 dBm	
		5825 MHz	11	9.5 dBm	
802.11 n HT20 (MCS7)	U-NII-3	5745 MHz	9	7.5 dBm	0.6%
		5785 MHz	11	9.4 dBm	
		5825 MHz	11	8.8 dBm	
802.11 n HT40 (MCS0)	U-NII-3	5755 MHz	10	8.3 dBm	0.5%
		5795 MHz	11	8.1 dBm	
802.11 n HT40 (MCS7)	U-NII-3	5755 MHz	10	8.2 dBm	0.5%
		5795 MHz	11	7.6 dBm	
802.11 ac VHT80 (MCS0)	U-NII-3	5775 MHz	7	5.1 dBm	0.3%
802.11 ac VHT80 (MCS9)	U-NII-3	5775 MHz	7	5.8 dBm	0.3%
BLE GFSK 1Mbps	BLE	2402 MHz	7	5.728 dBm	2.6%
BLE GFSK 1Mbps	BLE	2442 MHz	7	5.923 dBm	2.6%
BLE GFSK 1Mbps	BLE	2480 MHz	7	6.03 dBm	2.6%

Applicable FCC Rules
FCC Rule ID's 15.247, 15.407 are applicable to this modular transmitter.

Operational Use Conditions
This device is intended only for OEM integrators under the following conditions:

1) The transmitter module may not be co-located with any other transmitter or antenna.

As long as the one condition is met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.). Any changes or modifications not expressly approved by the manufacturer could void the user's authority

IMPORTANT NOTE: In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization for this module in combination with the host equipment is no longer considered valid and the FCC ID of the module cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

Limited Module Procedures
Not applicable for this device

Trace Antenna Designs
Trace antenna designs are not applicable to this module

RF Exposure Considerations
The product complies with the US portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Host product manufacturers shall provide the following text in the end-product manual:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The equipment should be installed and operated with a minimum distance of 5 mm between the radiator and your body.

Antennas

This module is only FCC authorized for the following specific antenna. See limited module procedures information for antenna installation instructions.

Number of Antennas: 1
Antenna Part Number: W3334BD0127
Antenna Manufacturer: Pulse
Antenna Gain: 4dBi (2.4Ghz) / 5.5dBi (5GHz)
Max Antenna Gain: 5dBi (2.4Ghz) / 6.5dBi (5GHz)
Antenna Description: FPC, linear polarized

End Product Labeling

The final end product must be labelled in a visible area with the following:
Contains FCC ID: “2AVMS-405061”

Information on test modes and additional testing requirements

Qualcomm QCA-9377 chipset test firmware shall be used to configure the module for test modes. Please see QCA9377_FCC_Certification_User_Guide.pdf for further information.

Additional Testing, Part 15 Subpart B Disclaimer

This module is only FCC authorized for these specific rule parts. The host product manufacturer is responsible for compliance with any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. Final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.