

# EVIA/EVIA M.2 PCIe

## Wi-Fi 802.11ac (1x1) Module

### Description

EVIA is a high performance WiFi certified module supporting dual-band 1-stream (1T1R) Wi-Fi 802.11 a/b/g/n and 11ac. This small form-factor module provides superior throughputs and long range by integrating high performance baseband, MAC, fine-tuned RF front end, power amplifiers, filters, switches, diplexer and crystals.

This module enables low-power designs by utilizing multiple advanced power-saving techniques including many host off-loading features.

EVIA is based on Qualcomm QCA9377 SoC and connects to host processor with PCIe (WiFi). It comes with drivers for different operating systems for complete design flexibility and ease of integration.

### Features

- ❖ Available in three variants
  - **EVIA PCIe** - Max throughput: **310Mbps**
  - **M.2** variant EVIA PCIe is also available
- ❖ WiFi technology - Low power dual-band (**2.4 and 5 GHz**), 1-stream **MU-MIMO 802.11ac**
- ❖ WLAN Security : WPA/WPA2 Personal, WPS 2.0 and Enterprise security (STA only)
- ❖ WLAN Encryption : WEP, TKIP, AES
- ❖ Operating modes :
  - **STA and SoftAP**,
  - P2P Group Owner, P2P Client,
  - STA + SoftAP, STA + P2P Group Owner, STA + P2P Client, Support for multiple BSSID (Two softAPs and a STA can operate concurrently)
- ❖ Module Power save : Deep sleep mode, protocol power save modes - Legacy, UAPSD and Tx power saving feature : GreenTx
- ❖ Host Power save : Firmware Offloading features such as ARP, GTK offloading to FW
- ❖ QoS/WMM and WMM-PS
- ❖ DFS Client and Master
- ❖ Roaming : 11r/FT, Legacy fast roaming
- ❖ 802.11ai : FILS-SK in STA mode

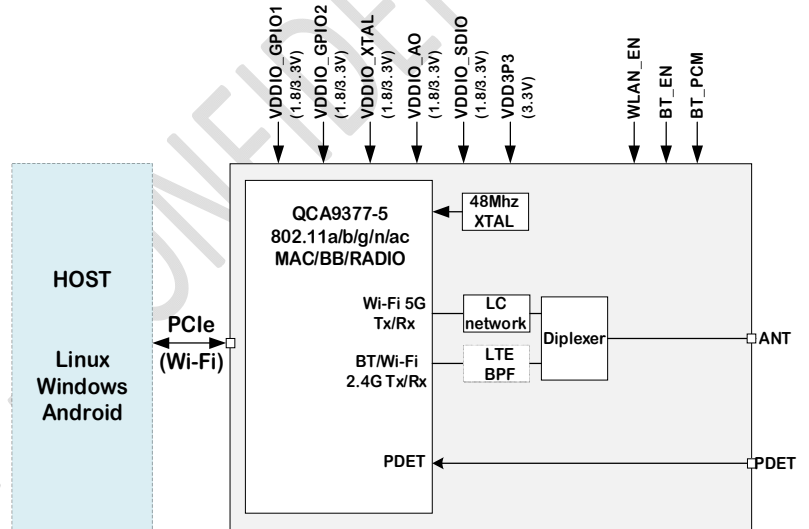


EVIA: 11.8mm x 12mm x 1.6mm

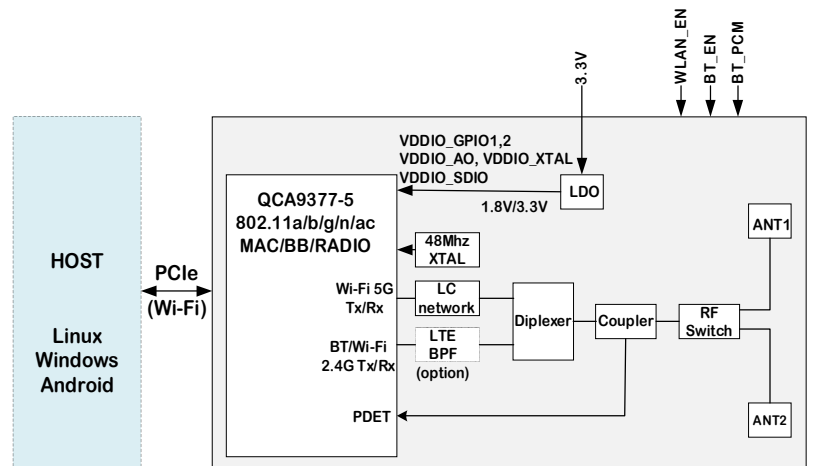


EVIA M.2: 12mm x 16mm x 1.9mm

### Block Diagram (EVIA)



### Block Diagram EVIA M.2



**Specifications**

WLAN Technology	802.11 abgn, 1-stream MU-MIMO 802.11ac
Frequency band	2.4GHz, 5GHz
On air data rates	<b>2.4GHz</b> 11b - 1,2,5.5,11Mbps 11g - 6,9,12,18,24,36,48,54Mbps 11n - MCS0 to MCS7 or Upto 150Mbps <b>5GHz</b> 11a - 6,9,12,18,24,36,48, 54Mbps 11n/ac - MCS0 to MCS9 or Upto 433Mbps
Security features	WPA/WPA2 -PSK TKIP/AES, WPS 2.0, Enterprise Security (EAP) STA only.
Modulation schemes	<b>2.4GHz</b> 11b - BPSK,QPSK, CCK 11g - BPSK, QPSK, 16QAM, 64 QAM 11n - PSK, QPSK, 16QAM, 64 QAM <b>5GHz</b> 11a/n/ac - BPSK,QPSK, 16QAM, 64 QAM
Antenna options	EVIA: Antenna pin EVIA M.2 : Antenna Diversity
Supported Host OS	Linux Windows 10 Android
PCIe host interface	Wi-Fi - PCIe 2.1
Max throughput	310Mbps
Maximum Transmit Power	20dBm
Receive Sensitivity	97.5dBm
WLAN bandwidths	20/40/80MHz
Power supply	3.3v to 5.5v
Operating Temperature	-40°C to 85°C
Humidity	5-90% non-condensing
Package	11.8mm x 12mm x 1.6mm LGA (EVIA) 12mm x 16mm x 1.9mm LGA (EVIA M.2)
Certifications and approvals	Module certifications - FCC, IC, CE

**EVIA PCIe module Part Ordering**

I951HC00-IOLT	EVIA PCIe module with Antenna Pin, Tray packing
I951HC00-IOLR	EVIA PCIe module with Antenna Pin, Tape and Reel packing

**EVIA PCIe EVK/DVK Part Ordering**

I951HC00-IOL-EVK	EVIA PCIe Industrial Temp, Antenna Pin EVK
I951HC00-IOL-DVK	EVIA PCIe Industrial Temp, Antenna Pin DVK Kit

**EVIA M.2 PCIe module Part Ordering**

I951HC00-I61T	EVIAM.2 PCIe module with Antenna Diversity, Tray packing
I951HC00-I61R	EVIAM.2 PCIe module with Antenna Diversity, Tape and Reel packing

**EVIA M.2 PCIe EVK/DVK Part Ordering**

I951HC00-I61-EVK	EVIAM.2 PCIe Industrial Temp, Antenna Diversity EVK
I951HC00-I61-DVK	EVIAM.2 PCIe Industrial Temp, Antenna Diversity DVK Kit

**Development Kit**

- ❖ Full Mini PCIe EVK
- ❖ Full Mini PCIe-M.2 EVK
- ❖ Rubber Duck antenna with SMA converter cable
- ❖ Toradex Ixora Board with power adaptor
- ❖ IDC-DB9 male adapter cable
- ❖ USB serial converter

**Additional Information**

For the latest collaterals, please visit <http://www.ivativ.com>