

EVIA/EVIA M.2 SDIO

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 wake on wireless energy and many host off-loading features.

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

Features

- ❖ Available in three variants
 - **EVIA SDIO** - Max throughput: **330Mbps**
 - **M.2** variant of SDIO 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 : WoW, 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

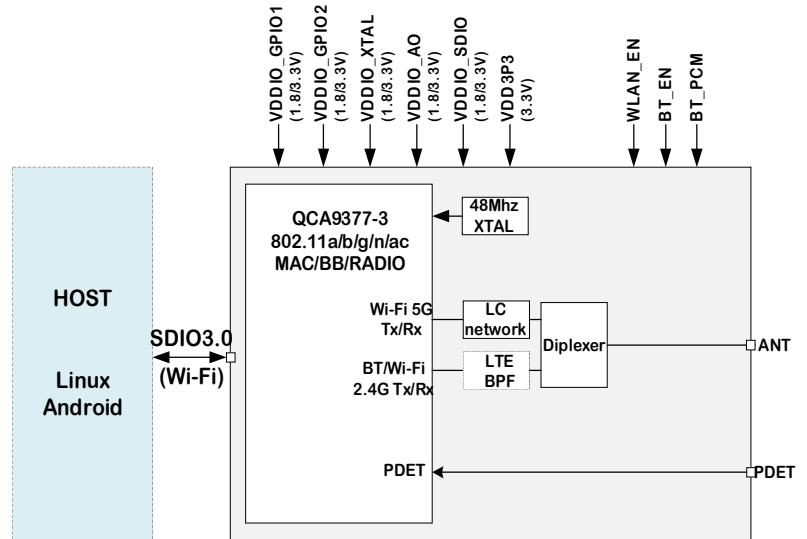


EVIA: 11.8mm x 12mm x 1.6mm

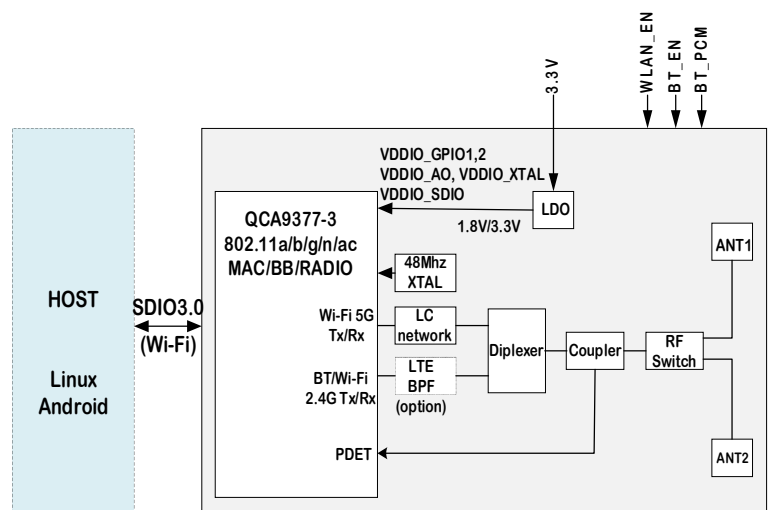


EVIA M.2: 12mm x 16mm x 1.9mm

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	2.4GHz 11b - 1,2,5.5,11Mbps 11g - 6,9,12,18,24,36,48,54Mbps 11n - MCS0 to MCS7 or up-to 150Mbps 5GHz 11a - 6,9,12,18,24,36,48, 54Mbps 11n/ac - MCS0 to MCS9 or up-to 433Mbps
Security features	WPA/WPA2 -PSK TKIP/AES, WPS 2.0, Enterprise Security (EAP) STA only.
Modulation schemes	2.4GHz 11b - BPSK,QPSK, CCK 11g - BPSK, QPSK, 16QAM, 64 QAM 11n - PSK, QPSK, 16QAM, 64 QAM 5GHz 11a/n/ac-BPSK,QPSK, 16QAM, 64 QAM
Antenna options	EVIAI: Antenna pin EVIA M.2 : Antenna Diversity
Supported Host OS	Linux, Android
Host interface	WiFi - SDIO 3.0
Max throughput	330Mbps
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	Module certifications - FCC, IC, CE

Additional Information

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

EVIA SDIO Module Part Ordering

I950HC00-I0LT	EVIA SDIO module with Antenna Pin, Tray packing
I950HC00-I0LR	EVIA SDIO module with Antenna Pin, Tape and Reel packing

EVIA SDIO EVK/DVK Part Ordering

I950HC00-I0L-EVK	EVIA SDIO Industrial Temp, Antenna Pin EVK
I950HC00-I0L-uSD-EVK	EVIA SDIO Industrial Temp, Antenna Pin, uSD connector EVK
I950HC00-I0L-DVK	EVIA SDIO Industrial Temp, Antenna Pin DVK Kit

EVIA M.2 SDIO Module Part Ordering

I950HC00-I61T	EVIA M.2 SDIO module with Antenna Diversity, Tray packing
I950HC00-I61R	EVIA M.2 SDIO module with Antenna Diversity, Tape and Reel packing

EVIA M.2 SDIO EVK/DVK Part Ordering

I950HC00-I61-EVK	EVIA M.2 SDIO Industrial Temp, Antenna Diversity EVK
I950HC00-I61-uSD-EVK	EVIA M.2 SDIO Industrial Temp, Antenna Pin, uSD connector EVK
I950HC00-I61-DVK	EVIA M.2 SDIO Industrial Temp, Antenna Diversity DVK Kit

Development Kit

- ❖ SDIO EVK along with USB-UART FTDI converter
- ❖ SDIO-M.2 along with USB-UART FTDI converter
- ❖ SDIO Micro SD EVK along with USB-UART FTDI converter for Bluetooth HCI UART
- ❖ SDIO-M.2 Micro SD along with USB-UART FTDI converter for Bluetooth HCI UART
- ❖ 1 x Micro USB cable
- ❖ 2 x Legs for SDIO EVK
- ❖ 1 x Rubber Duck antenna with SMA converter
- ❖ Toradex Ixora Board with power adaptor
- ❖ IDC-DB9 male adapter cable
- ❖ USB-serial converter