

FCC ID: 2AFDI-ITCOQ410S

IC: 9049A-ITCOQ410S

Model: Open-Q 410 SOM

Operational Description

Intrinsyc's Open-Q 410 System on Module (SOM) is a compact, production ready module based upon Qualcomm's Snapdragon 410 processor. The SOM's small form factor, advanced technology, and extensive range of supported peripherals provide the perfect platform for creating low cost, high performance embedded and mobile devices. The Qualcomm® Snapdragon™ 410 processor is a Quad-core ARM® Cortex™ A53 64-bit 1.2GHz clock speed per core processor designed for both 32-bit and 64-bit operations and its Qualcomm® Adreno™ 306 400MHz GPU supports image sensors up to 13 MP and provides 1080p HD video playback and capture. The SOM features an Atheros WCN3620 Wi-Fi + BT Combo chip that references a 19.2000 MHz crystal and provides wireless connectivity for WLAN 802.11b/g/n 2.4GHz and Bluetooth 4.1. A Qualcomm WGR7640 RF front end provides GPS functionality.

Transmitter Specifications:

Transmit Mode	Maximum Channel Power (dBm)
802.11b	19.62
802.11g	18.12
802.11n 20 MHz	17.23
802.11n 40 MHz	11.73
Bluetooth	11.25
Bluetooth 4.0 (BTLE)	2.24

Wi-Fi Frequencies 11b/g/n 20MHz: 2412 – 2462 MHz, 802.11n 40MHz: 2422 – 2452 MHz

BT/BTLE (2402 ~ 2480 MHz)

Number of Wi-Fi Channels: 11 for 802.11b/g/n 20MHz, 7 for 802.11n 40MHz)

Number of BT Channels: 79 BTFHSS (CH0-78), 40 CH BTLE

RF interfaces are provided by two U.FL connectors, one for WiFi/BT and the other for GPS. Two 100-pin Board to Board connectors provide power to the SOM from a carrier board and the interface for adding connections to external memory, sensors and a host of other peripherals.

This device supports Android 5.1, Windows 10 IoT, and Linux based operating systems

For further information, please refer to the following documents:

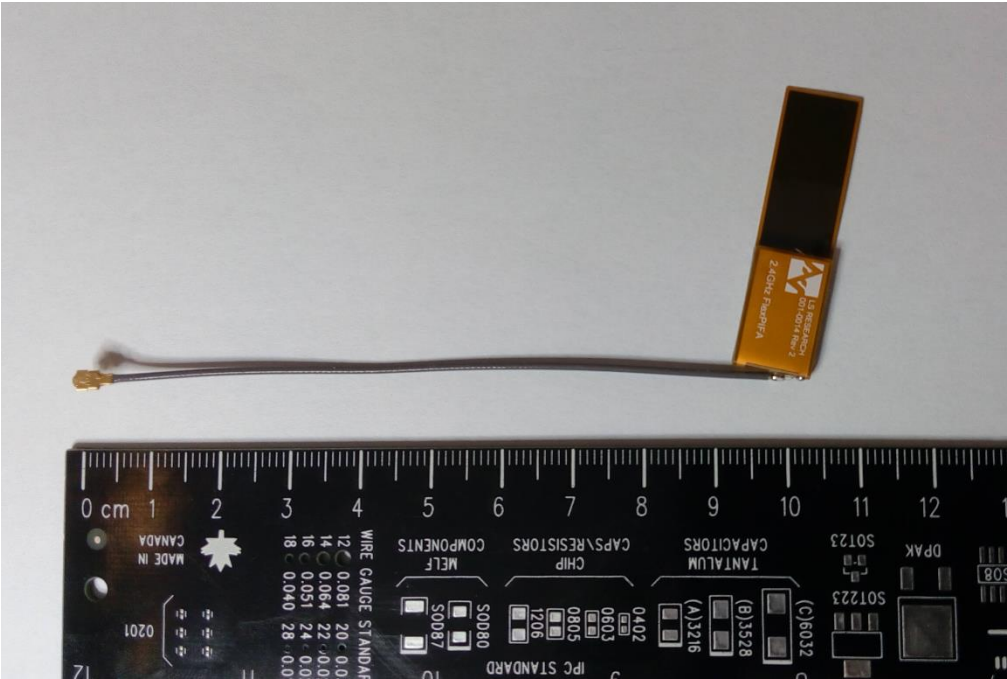
1. OpenQ-410-SOM-Datasheet
2. Open-Q_410_DevKit_UserGuide
3. Open-Q_410_DevKit_SOM_TechNote11

Regulatory Antenna Information

WLAN & BT:

Parameter	Specification
Manufacturer	LSR
Part Number	001-0014
Peak Gain	+2 dBi
Average Gain	>-1.5 dBi
Impedance	50 ohms
Type	Flexible Planar inverted F Antenna (FlexPIFA)
Polarization	Linear
VSWR	<2.0:1, 2400 - 2480
Frequency	2400 - 2480 MHz
Weight	1.13g
Size	40.1mm x 11mm x 2.5mm
Antenna Color	Clear Yellow
Adhesive	3M 100MP
Operating Temp	-40 to +85 C
Connector Height	U.FL: 2.5mm Max.

For full specification, please refer to the LSR 2.4 – 2.5 GHz FlexPIFA Antenna 2dBi Antenna data sheet: 330-0149.pdf.



GPS:

Parameter	Specification
Manufacturer	Taoglas
Part Number	AP.17F.07.0064A
Product Name	17mm Two Stage GPS active patch antenna module
Frequency	1575.42 +/- 1.023MHz
Gain	At 3V: 29.5 +/- 3 dBic @ 90°
Polarization	RHCP
VSWR	Max 2.0
LNA Input Voltage Range	1.8V to 5.5V
Connector Type	U.FL
Dimension	23.8 x 22.2 x 8mm

Note: This is an example of a suitable active antenna but any active antenna that can operate with a 1.8V input voltage, has the same frequency of operation and connector type can be used.

For full specification, please refer to the data sheet: [AP.17F.07.0064A.pdf](#)

