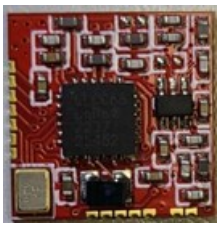
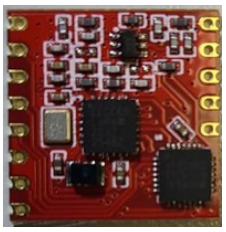
GW-LLCC68 PHY & SoC TRANSCEIVER MODULE

1. Description

GW-LLCC68 PHY & SoC transceiver module is developmented by Semtech LLCC68 & Sonix MCU solution, for the detail IC specification please visit Semtech website as below to download data sheet www.semtech.com



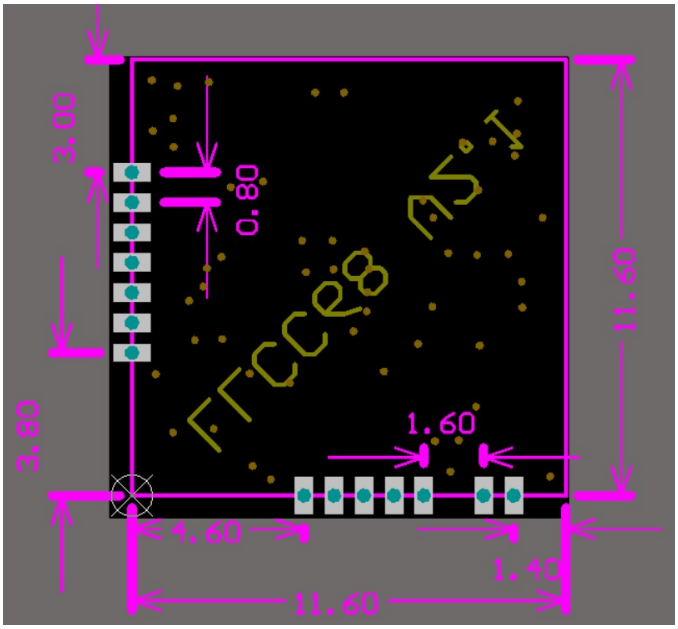
Picture 1: RF module



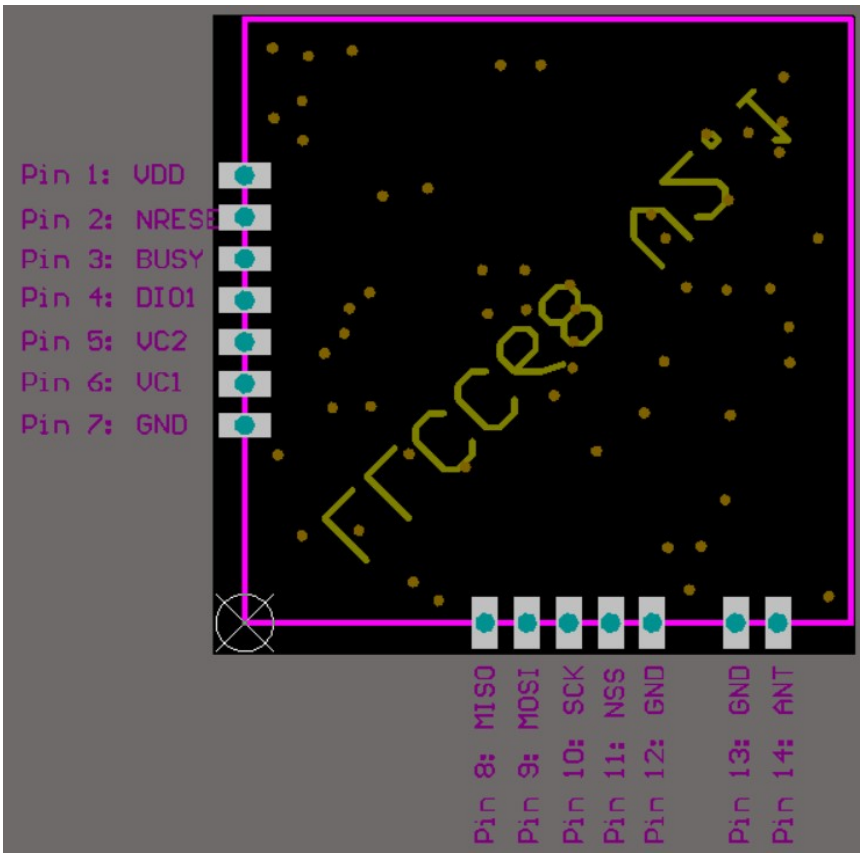
Picture 2: SoC RF module

2. PHY RF Module

2.1 GW-LLCC68 Dimension (mm)



2.2 GW-LLCC68 pin information

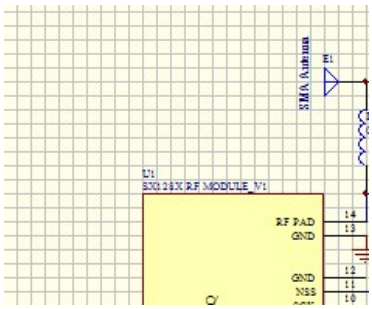


Pin No.	Pin Name/Type (I=input,O=output)	Description
Pin 1	VDD	Input voltage
Pin 2	NRESET/I	Reset signal, active low
Pin 3	BUSY/O	Busy indicator
Pin 4	DIO1 I/O	Multi-purpose digital IO
Pin 5	VC1	RF switch logic control. Note 1
Pin 6	VC2	RF switch logic control. Note 1
Pin 7	GND	Ground
Pin 8	MISO/O	SPI slave output
Pin 9	MOSI/I	SPI slave input
Pin 10	SCK/I	SPI clock
Pin 11	NSS/I	SPI slave select
Pin 12	GND	Ground
Pin 13	GND	Ground
Pin 14	RF pad	External antenna connected pad. Note 2

Note 1: TX mode & RX module setting

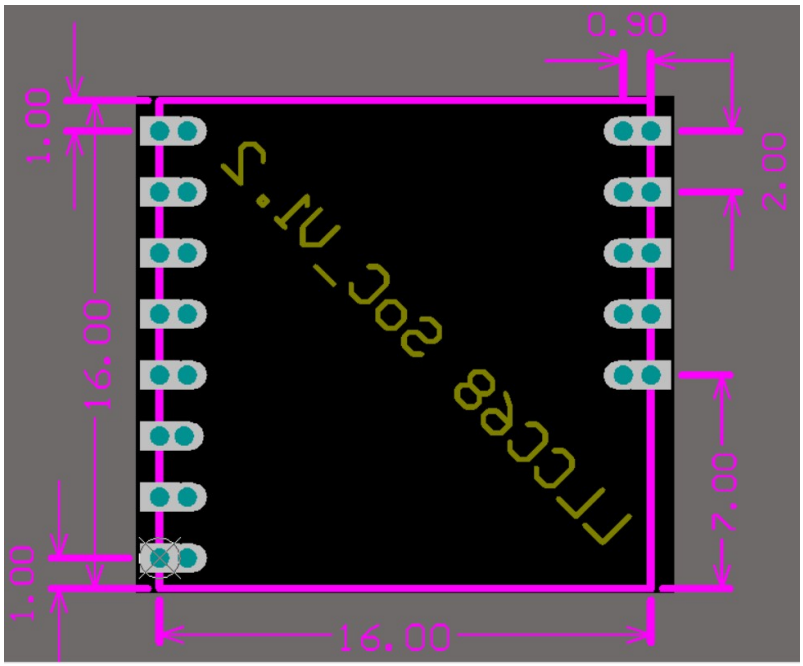
VC1	VC2	Mode
High	Low	TX
Low	High	RX

Note 2: For GW-LLCC68 RF module ➔ please refer to below reference circuit, C1, C2 & L1 are for the matching of external antenna.

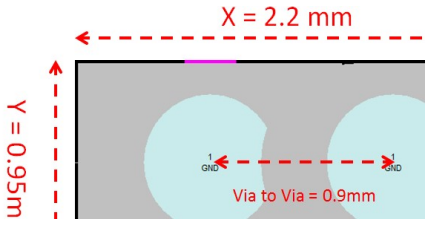


3. SoC RF Module Dimension

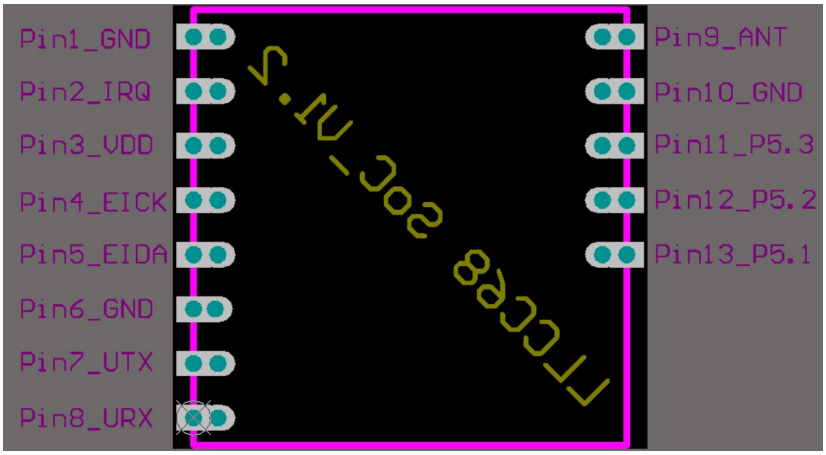
3.1 SoC dimension



3.2 Pad dimension



3.3 Pin information



Pin No.	Pin Name/Type (I=input,O=output)	Description
Pin 1	GND	Ground
Pin 2	IRQ	For RX mode Data ready → high level No data → low level Note 3
Pin 3	VDD	Input voltage
Pin 4	EICK	Note 4
Pin 5	EIDA	Note 4
Pin 6	GND	Ground
Pin 7	UTX	UART transmit output pin
Pin 8	URX	UART receive input pin
Pin 9	RF Pad	External antenna connected pad. Note 2
Pin 10	GND	Ground
Pin 11	P5.3	MCU GPIO Note 5
Pin 12	P5.2	MCU GPIO Note 5
Pin 13	P5.1	MCU GPIO Note 5

Note 3: Host_IRQ is always high level when RX data ready & it will change to low after Host read data.

Note 4: For F/W ISP (In System Program) & please reserve test pad.

Note 5: Please reserve test pad.

4. Gwell UART Command

TBC

5. Electrical Specifications

5.1 Operating Conditions:

Symbol	Parameter	Min.	Typ.	Max.	Units
VDD	Supply Voltage	2.5V	3	3.3	V

5.2 General RF Conditions:

Symbol	Parameter	Min.	Typ.	Max.	Units
FOP	Operating Frequency	8xx		960	MHz
FXTAL	Crystal frequency		32		MHz
TX power			20		dBm
RX sensitivity			TBC		

6. Tray package dimension

TBC

7. Order information

Part No.: GW-LLCC68-P01 (PHY module)

GW-LLCC68-S01 (SoC module)

MPQ: pcs /Tray (TBC)

Remark:

珺崴科技股份有限公司

241 新北市三重區重新路五段 609 巷 14 號 2F-4

2F-4, No.14, Lane 609, Sec 5,Chung Hsin Rd.,

San Chung Dist, New Taipei City, Taiwan, R.O.C.

Tel: 886-2-2999-9152 Fax: 886-2-2999-9153

統編：28896730