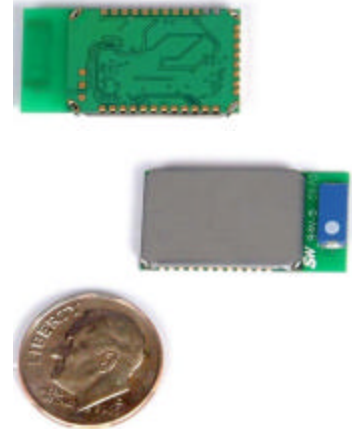


## Bluetooth® Module

# RN-41 Class 1, 2.0 EDR

### OVERVIEW

- Fully Qualified Bluetooth 2.0/1.2/1.1 module, using CSR BC04 External
- Class 1 high power amplifier, on Board ceramic RF chip antenna.
  - Conforms to FCC, CE and the EMI standard of each country.
  - Modular Approval: FCC ID: T9J-RN41, ICS: 6514A-RN41, CE: 0681
- Scatternet support, 802.11 coexistence, RoHS compliance.
- UART, USB, PCM interfaces available to various applications.
- 8MB on board flash, HCI, or SPP software stacks available.
- Embedded Bluetooth stack profiles included (*requires no host MCU stack*): BCSP, SPP, DUN, LAN, GAP SDP, RFCOMM, and L2CAP protocols.



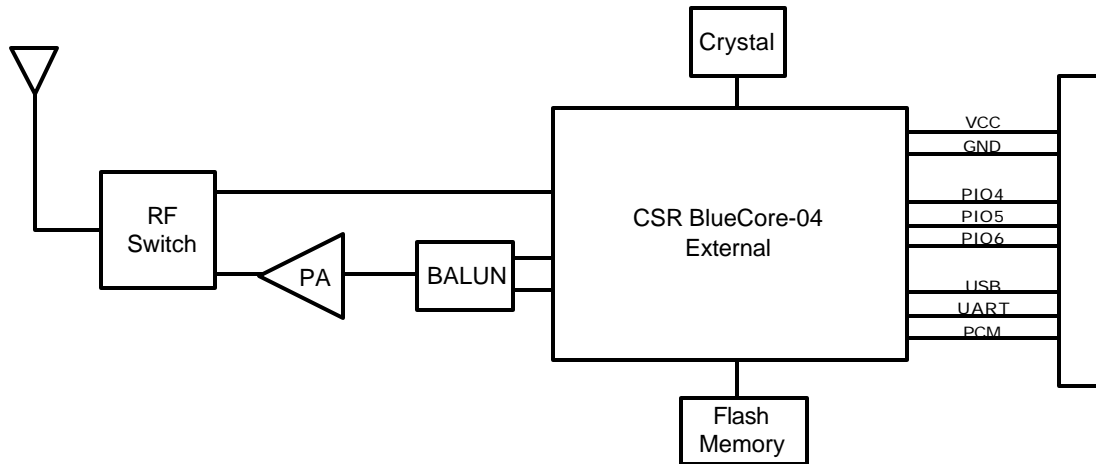
### FEATURES

- Baud rate speeds: 1200bps up to 921.6Kbps
- Class 1 radio, 330' (100m) distance, 15db output transmitter
  - Low power consumption (50mA TX, 40mA RX (connected), 15ma (sniff mode), 2ma (idle )
- UART local and over-the-air RF configuration
- Small-form factor SMT radio modem 13mm x 25mm.
- Auto-discovery/pairing requires no software configuration (instant cable replacement).
- Auto-connect master, and character based trigger modes.
- Operating temperature range: -40~+85°C.
- Secure and robust communication link
  - ✓ FHSS (Frequency Hopping Spread Spectrum)
  - ✓ 128 bit encryption
  - ✓ Error correction schemes for guaranteed packet delivery

### SPECIFICATIONS

Item		Specifications
Frequency		2402 ~ 2480MHz
Modulation		FHSS/GFSK
Channel intervals		1MHz
Number of channels		79CH
Transmission rate (over the air)		721kbps-2.0Mbps
Receive sensitivity		-80dBm typ.
Output level (Class1)		15dBm max.
Dimensions		
	With antenna	13.2(W)X25.8(L)X2.05(H)mm

## Block Diagram



## Electrical Characteristics

	Min	Typ.	Max.	Unit
Supply Voltage (DC)	3.0	3.3	3.6	V
RX Supply Current	-	35	60	mA
TX Supply Current	-	65	100	mA
<b>Average power consumption</b>				
Standby/Idle (default settings)	-	25	-	mA
Standby/Idle (lowest power)	2.5	4	-	mA
Connected(normal mode)		40		mA
Connected( low power Sniff)		15		mA

## Operating and Environmental Conditions

Operating Temperature Range	-40 °C ~ 85 °C
Storage Temperature Range	-40 °C ~ 85 °C
Relative Humidity (Operating)	≤90%
Relative Humidity (Storage)	≤90%

## DIMENSIONS (mm)

