eRIC-SX1262-HCI

LoRa[®] SX-1262 sub-GHz radio transceiver for industrial wireless applications.



version pictured eRIC-SX1262-HCI-CP

The LPRS eRIC-SX1262-HCI sub-GHz half-duplex radio transceiver is ideal for long range wireless applications in a compact 20mm by 15mm size. The eRIC-SX1262 can transmit up to +22 dBm with highly efficient integrated power amplifier. It is also designed for long battery life with just 4.2 mA of active receive current consumption.

The transceiver module uses Chirped Spread Spectrum (CSS) modulation together with DSP (Digital Signal Processing) to achieve greater range than traditional devices using OOK, FSK or GFSK modulation.

In addition, sensitivity and blocking performance are improved giving high interference immunity whilst still offering low power consumption.

The devices are highly configurable to meet different application requirements utilizing the global LoRaWAN[®] standard or proprietary protocols.

Key Features.

- Small footprint.
- Up to 22+dBm output power with highly efficient integrated power amplifiers.
- long battery life with just 4.2 mA on receive.
- Operates from 1.8 V to 3.9 V
- supports LoRa® and FHSS modulation for LPWAN applications and FSK for legacy use cases.
- Line of Sight (LoS) range 10km+.
- Supports worldwide sub-GHz ISM bands.
- Regulatory compliant for Europe, USA, China, Japan.

Applications.

Rail, Security Systems, Asset tracking, Industrial Control, Sensors, Remote Monitoring, Agricultural, Data Logging, Smart Home, Internet of Things, Industrial Sensing, Street Lighting, Energy Monitoring, HVAC Control and Monitoring, Facilities Management.



Performance Data.

Parameters		Min	Typical	Max	Notes
DC	Supply Voltage (Volts)	1.8	3.3	3.9	
	TX supply current mA		90 mA		@ +14dBm
			118 mA		@ +22 dBm
	RX supply current mA		4.6		Active receive current
RF	Antenna Impedance		50 Ohms		U.FL
	Frequency Range	850	-	950	MHz
	Transmit Gain		22+ dBm		
	Operating Temperature		-40° C to +85° C		
	Pad Pitch		2.54 mm		Standard 0.1 Inch
	Dimensions		15.24 x 20.32		
	Weight		<1 gram		

Pinouts and Pad Identification.

Pin	Name	Description	Notes
1	ANT RF	50W RF input/output	Reserved for later use and customisation.
2	SCK	SPI clock	
3	MOSI	SPI slave input	Tied to VCC (Active high)
4	MISO	SPI slave output	Active high
5	NSS	SPI Slave Select	
6	VCC	Supply Voltage	Internal 3.3V
7	GND	Power Ground	0V Ground
8-12	NC	Not connected	
13	DI01	Multi-purpose digital IO	
14	DI02	Multi-purpose digital I/O / RF	
		Switch control	
15	TX_EN		
16	RX_EN		
17	BUSY	Busy indicator	
18	RESET	Reset signal, active low	
19	GND	0V Ground	
20-24		Not connected	





Product Code

Name	Description	Order Code
eRIC-SX1262	LoRa sub-GHz RF transceiver –	eRIC-SX1262-HCI
	solder pads	
eRIC-SX1262	LoRa sub-Ghz RF transceiver – castellated pads	eRIC-SX1262-HCI-CP



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