



RFU-2400

Features

- ISM 2.4 GHz Operating Frequency
- Direct Sequence Spread Spectrum (DSSS) RF technology
- Wireless Transmission Range up to 700 m (Default)
- RS-232/RS-485 Interface Supported
- Half-duplex communication up to 115200 bps
- Full-duplex communication up to 57600 bps
- Fully External Switch for the Hardware Configuration
- Surge and ESD Protection
- DIN-Rail Mountable



Introduction

The RFU-2400 is a 2.4 GHz radio frequency modem that also provides RS-232 and RS-485 port interfaces. It is designed to act as a wireless bridge that converts a signal between serial and wireless formats, and is useful for applications where it is inconvenient to install physical wiring. The RFU-2400 makes it easy to establish a low cost environment for data acquisition and control applications between a host and a range of remote sensors via wireless communication.

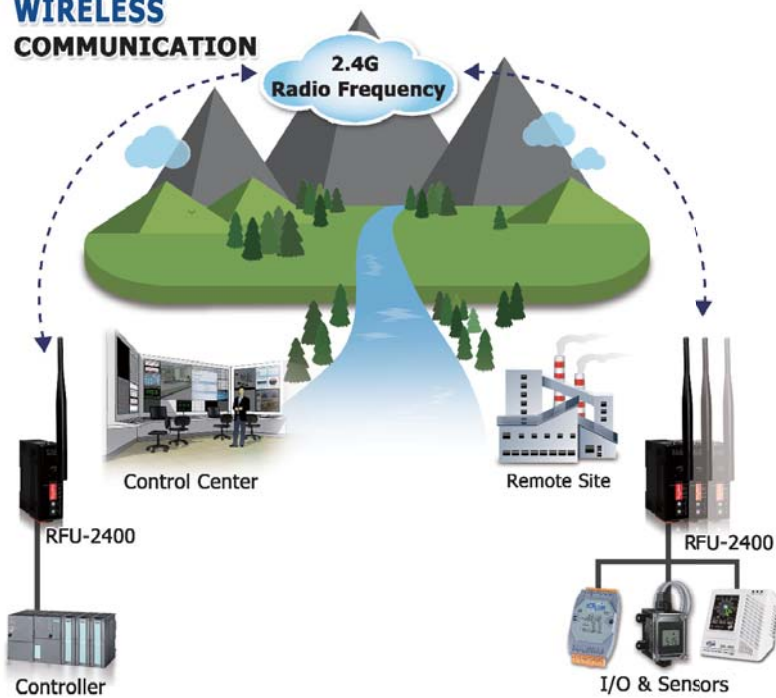
The RFU-2400 is a spread spectrum radio frequency (RF) modem based on the IEEE 802.15.4 standard. The IEEE 802.15.4 standard is operating on the ISM bands using a transmission frequency range of between 2405 and 2480 MHz that is separated into 5 MHz segments, thereby providing 16 channels. Two operating modes are also supported, including Peer-to-Peer (P2P) mode, where the distinguishing feature is that it allows full-duplex communication, and Broadcast mode, which allows half-duplex functionality in multi-point communication.

Specifications

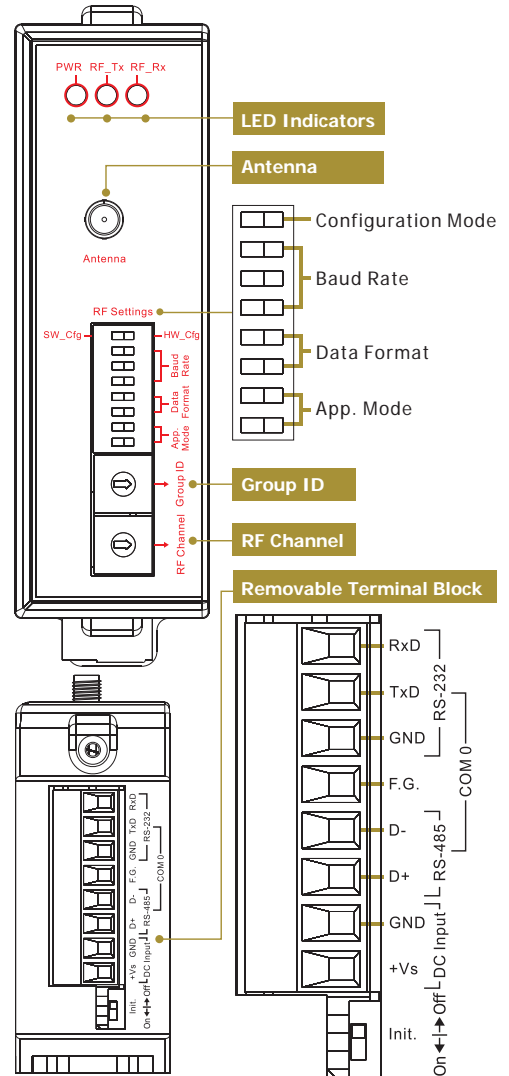
Wireless	Wireless	
	Modulation	OQPSK (Offset Quadrature Phase-shift Keying)
	Spread Spectrum	DSSS (Direct-Sequence Spread Spectrum)
	Channels	16
	Sensitivity	-96 dBm
	Transmission Power	11 dBm (Default): 19 dBm (Max.)
	Antenna	2.4G - 5 dBi Omnidirectional Antenna
	Transmission Range	700 m (Typical)
Hardware	COMO	
	COM 0	RS-232 TxD, RxD and GND
		RS-485 DATA+, DATA-; Internal ASIC Self-tuner; Non-isolated
	Baud Rate	Full-duplex 2400 to 57600 bps
		Half-duplex 2400 to 115200 bps
	Data Format	N81, O81, E81, N82
	Buffer	2560 Bytes
	LED Indicators	
	Green	RF TxD Status
	Yellow	RF RxD Status
	Red	Power Status
	Power	
	EMS Protection	ESD, Surge, EFT and Hi-Pot
	Required Supply Voltage	+10 VDC ~ +30 VDC
	Power Consumption	1 W (Max.)
	Connection	8-pin 5.08 mm Removable Terminal Block
	Mechanical	
	Casing	Plastic
	Flammability	UL 94V-0 materials
	Dimensions (L x W x H)	108 mm x 84 mm x 33 mm
	Installation	DIN-Rail
	Environment	
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-40 ~ +80°C	
Relative Humidity	0 ~ 90% RH, Non-condensing	

Applications

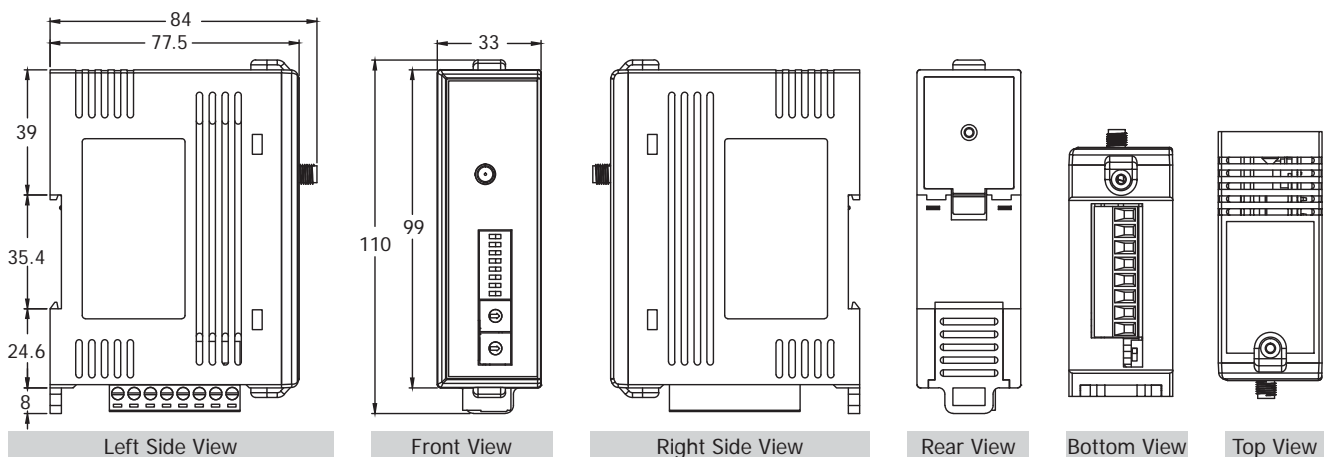
WIRELESS COMMUNICATION



Appearance



Dimensions (Units: mm)



Ordering Information

RFU-2400 CR	2.4 G RS-232/RS-485 Wireless Modem (RoHS)
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Accessories

External Antenna	2.4GHz External Antenna, RP SMA Male (Plug)
Extension Cable	3S00 × -1, RG58A/U × Meter Long RP-SMA male to RP-SMA Female