



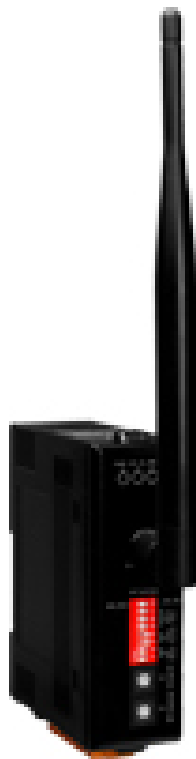
Making Data Acquisition Easy

CAGE/NCAGE Code: 3FNFO

Radio Frequency Wireless Modem

Radio frequency determines the oscillation rate of electrical signal or electromagnetic field. Ultra high frequency (UHF) is one of the radio frequency ranges for wireless communication. 300 megahertz (MHz) to 3 gigahertz (GHz) is considered UHF range. For example, television antenna, walkie talkies and wifi use UHF to communicate. Many major telecommunications providers have deployed voice and data cellular networks in UHF/VHF range. This allows mobile phones to be connected to telephone and internet network.

ICP DAS USA offers serial wireless modem with different frequencies, including 429MHz, 433MHz, and 2.4GHz. With support of RS-232 and RS-485, users can use RFU modules to communicate between PC, controller, and serial devices.



RFU-400 / RFU-433 / RFU-2400

https://www.icpdas-usa.com/rfu_2400



The RFU-400 and RFU-433 is an RS-232/RS-485 to 429/433 MHz radio modem that can be used to convert data from an RS-232/RS-485 device to an RF message that can then be transmitted in transparent mode via the 429/433 MHz ISM frequency band. The RFU-400 provides a maximum line of sight (LOS) transmission distance of 1000 meters (1 km) at an RF Baud Rate of 9600 bps. In order to overcome the interference that may be encountered in harsh environments, the RFU-400 allows the RF transmission Baud Rate to be configured to a minimum of 650 bps, enhancing the capability of the modem to resist noise and other interference. Additionally, the RF channels and Group IDs are adjustable, which is helpful when attempting to avoid interference encountered when two RFU-400 networks are adjacent. The 16 RF channels and 8 Group IDs can be configured in order to distinguish and control the different RFU-400 networks. The majority of these configuration parameters can be adjusted using a combination of the Rotary and DIP switches, thereby providing a simple method of maintaining the system if the RFU-400 modem needs to be replaced.



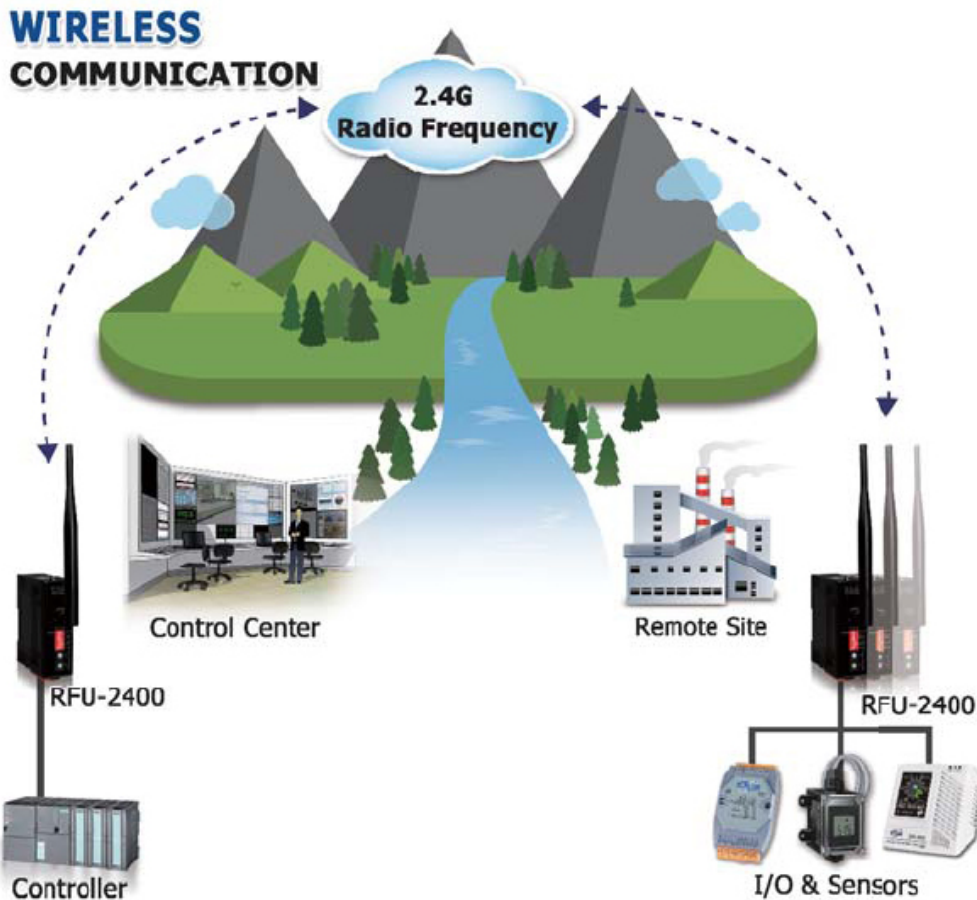


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The RFU-2400 is a 2.4 GHz radio frequency modem that provides RS-232 and RS-485 port interfaces. It is designed to act as a wireless bridge to convert signals between serial and wireless formats, and is great for applications when the physical wire deployment is inconvenient. The RFU-2400 makes it easy to build a low-cost data acquisition and control application 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 band which uses a transmission frequency range between 2405 and 2480 MHz. A total of 16 channels are available and each with a channel separation of 5 MHz. Two operating modes are also supported, including Peer-to-Peer (P2P) mode, which allows full-duplex communication, and Broadcast mode, which allows half-duplex functionality in multi-point communication.





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If you have other Radio Frequency requirements or have some questions, we can certainly help you to choose the best solution. Please call our technical support team at (310) 517-9888 X102