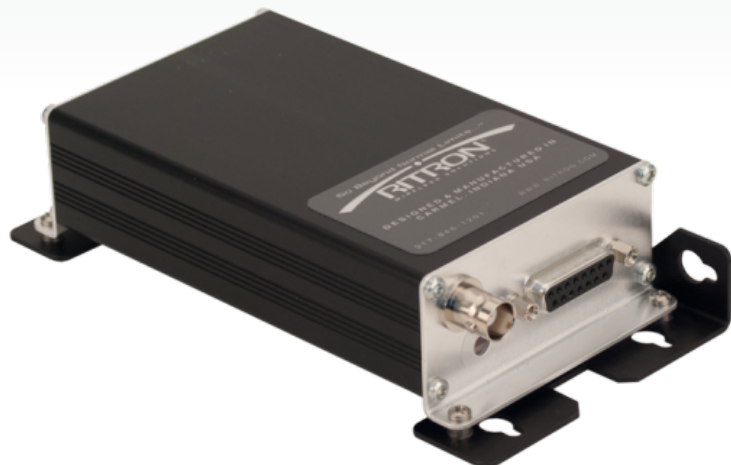




# RF321

UHF Radio Transceiver Covering 400.5 to 416.5 MHz Range



## Rugged, Long Range

Long-distance option for communication

### Overview

The RF321 is a 400.5 to 416.5 MHz radio. Campbell Scientific's RF320-series narrowband UHF/VHF radio transceivers provide a long-distance telemetry option for communicating with remote measurement stations. Each radio includes a

configured Ritron DTX-L radio, a mounting bracket, and a cable for connecting the radio to a radio modem. The different models vary by the frequency ranges they support.

### Detailed Description

The RF321 is programmed by Campbell Scientific to the frequency that was assigned by the Federal Communications Commission (FCC). This frequency must be specified at time of order so that it can be programmed into the radio.

A user-supplied antenna is required for each radio; contact Campbell Scientific for more information about selecting the antenna and cable. Each radio must also be connected to an RF500M or RF310M radio modem.

### Specifications

Ritron Module	DTX-445
FCC ID	AIERIT17-445
Industry Canada ID	1084A-RIT17445
FCC Rule Parts	90
Industry Canada Rule Parts	RSS-119
Frequency Range	400.5 to 416.5 MHz
RF Channels	8 independent Tx/Rx frequencies
Synthesizer Step	6.25 kHz
Channel Spacing	12.5 kHz
Frequency Stability	±1.5 PPM (-30° to +60°C)

Input Voltage	9 to 17 Vdc
Antenna Connector	BNC female
Dimensions	14.5 x 7.6 x 3.5 cm (5.7 x 3 x 1.375 in.)
Weight	0.2 kg (7.3 oz)

Current Drain @ 12.5 Vdc	
Receive Standby	25 mA
Transmitter	> < 1.2 A (5 W output) > < 0.9 A (2 W output)

## Receiver

Receiver Type	12.5 kHz narrowband
Sensitivity	0.25 $\mu$ V (12 dB SINAD)
Adjacent Channel	-60 dB
Receiver Attack Time	< 10 ms (Tx to Rx)
Noise Squelch Sensitivity	PC adjustable (factory set for -121 dBm)

## Transmitter

RF Power Output	2 W or 5 W (@ 12.5 Vdc)
Duty Cycle	50% (< 13.5 V, 5 W output, 25°C)
Voice Emissions Designator	10K0F3E
Data Emissions Designator	9K8F1D, 11K0F2D, 11K0F3D
Transmitter Attack Time	< 10 ms

For comprehensive details, visit: [www.campbellsci.com/rf321](http://www.campbellsci.com/rf321) 



Campbell Scientific, Inc. | 815 W 1800 N | Logan, UT 84321-1784 | (435) 227-9120 | [www.campbellsci.com](http://www.campbellsci.com)  
AUSTRALIA | BRAZIL | CANADA | CHINA | COSTA RICA | FRANCE | GERMANY | THAILAND | SOUTH AFRICA | SPAIN | UK | [USA](#)

© 2019 Campbell Scientific, Inc. | 08/28/2019