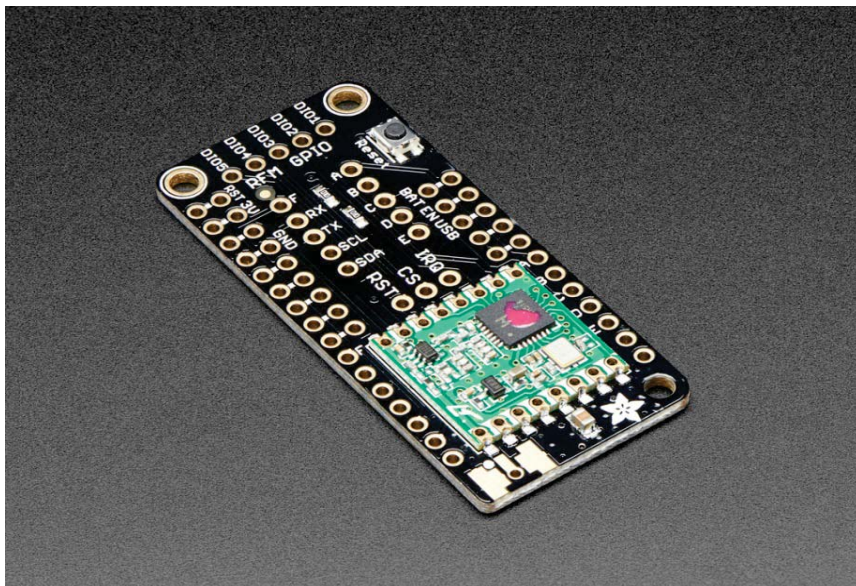




## Radio FeatherWing – RFM69HCW 433MHz

PRODUCT ID: 3230



### Description

Add short-hop wireless to your Feather with these Radio Featherwings. These add-ons for any Feather board will let you integrate packetized radio (with the RFM69 radio) or LoRa radio (with the RFM9x's). These radios are good options for kilometer-range radio, and paired with one of our WiFi, cellular or Bluetooth Feathers, will let you bridge from 433/900 MHz to the Internet or your mobile device.

These radio modules come in four variants (two modulation types and two frequencies) The RFM69's are easiest to work with, and are well known and understood. The LoRa radios are exciting, longer-range and more powerful but also more expensive.

**RFM69 @ 433 MHz** - basic packetized FSK/GFSK/MSK/GMSK/OOK radio at 433 MHz for use in Europe ITU

**RFM69 @ 900 MHz** - basic packetized FSK/GFSK/MSK/GMSK/OOK radio at 868 or 915 MHz for use in Americas ITU 2 license-free ISM, or for amateur use with restrictions (check your amateur regulations!)

**RFM98 @ 433 MHz** - LoRa capable radio at 433 MHz for use in Europe ITU 1 license-free ISM, or for amateur use with restrictions (check your local amateur regulations!)

**RFM95 @ 900 MHz** - LoRa capable radio at 868 or 915 MHz for use in Americas ITU 2 license-free ISM, or for amateur use with restrictions (check your local amateur regulations!)

**This is the RFM69 @ 433 MHz version** These are +20dBm FSK packet radios that have a lot of nice extras in them such as encryption and auto-retransmit. They can go at least 500 meters line of sight using simple wire antennas, probably up to 5Km with directional antennas and settings tweakings

SX1231 based module with SPI interface

Packet radio with ready-to-go Arduino libraries

Uses the license-free ISM bands

+13 to +20 dBm up to 100 mW Power Output Capability (power output selectable in software)

50mA (+13 dBm) to 150mA (+20dBm) current draw for transmissions

Range of approx. 350 meters, depending on obstructions, frequency, antenna and power output

Create multipoint networks with individual node addresses

Encrypted packet engine with AES-128

Currently tested to work with the **Feather ESP8266**, **Teensy 3 Feather**, **WICED Feather**, **Feather 32u4** and **Feather M0** series, some wiring is required to configure the FeatherWing for the chipset you plan to use.

All radios are sold individually and can only talk to radios of the same part number. E.g. RFM69 900 MHz can only talk to RFM69 900 MHz, LoRa 433 MHz can only talk to LoRa 433, etc.

Each radio 'Wing comes with some header. Some soldering is required to attach the header. You will need to cut and solder on a small piece of wire (any solid or stranded core is fine) in order to create your antenna. Optionally you can pick up a uFL or SMA edge-mount connector and attach an external duck.

## Technical Details

Product Dimensions: 51.0mm x 22.8mm x 3.7mm / 2.0" x 0.9" x 0.1"

Product Weight: 4.6g / 0.2oz



Engineered in NYC Adafruit®