

Adaptive Radio Technologies, LLC

P.O. Box 727

Los Alamos, NM 87544

Phone 505.412.9980

info@AdaptiveRadioTech.com

Applications

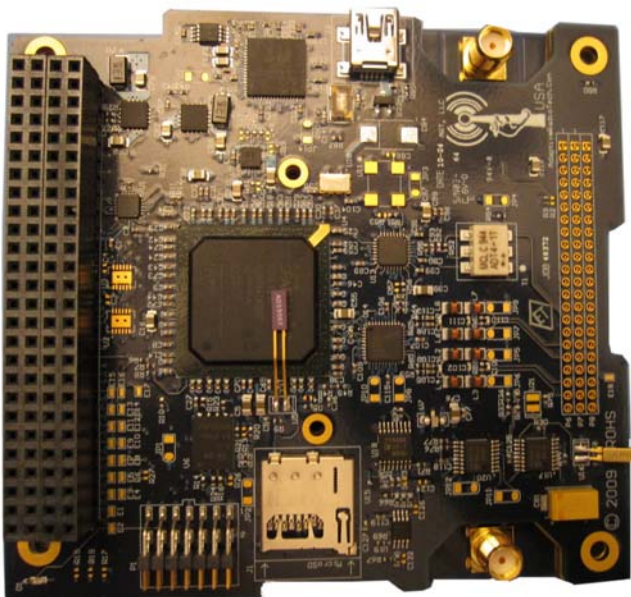
- CubeSats and small satellites
- UAVs and rovers
- Imaging, Surveillance, Reconnaissance
- Remote Sensing

Data Rates

- Adaptive high-speed downlink:
 - 10 Mbps peak
 - 1 Mbps average for 2.5m dish
- 9.6 kbps uplink
- Virtual low rate priority downlink
 - State of health data

Features

- 6 – 10 dB Channel Adaptive Downlink Gain
- 4 dB Forward Error Correction Gain
- < 6W peak power full duplex
- 2 GB flash buffer
- ½ W RF output power
- 91 x 96 x 17 mm
- <160 g mass
- 10x the energy efficiency
- 10x more data
- Greater reliability
- Instant rate changes auto negotiated
- Glitch free changes
- Easy to use



THE Firehose Communication System

Interfaces

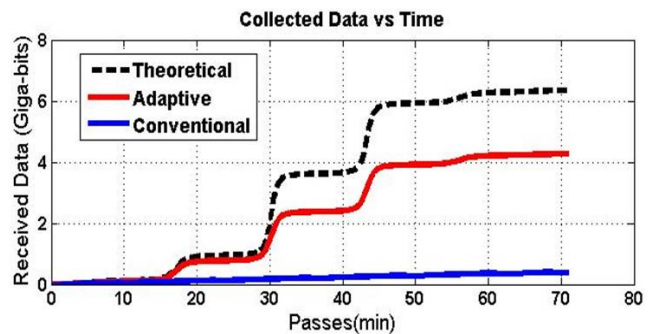
- Two 50 Ohm antenna SMA interfaces
- I2C for telemetry, uplink commands
- I2C for low rate priority downlink
- SPI for adaptable high-speed downlink
- 3.3V data Interface
- Custom interfaces available (RS422/LVDS)

Frequencies

- 2.4GHz downlink
- .9 GHz uplink
- Receiver Sensitivity -126 dBm @ 9600 bps, BER=10⁻⁶
- Custom frequencies available

Additional Info

- To find out how Firehose can perform for your application, use the calculator available at: <http://AdaptiveRadioTech.com/calculator>
- Discounted academic versions available
- More details available – call or email



Above: Cumulative single-day data projections, in Gigabits, using the Firehose system.

At left: Fully assembled Firehose Satellite radio.