RINCON RESEARCH
EMPLOYEE OWNED

MBRA2-16T-01
MOUNTAINBRIK™ RAID AND SIGNAL ACQUISITION

- Save the entire 105 MHz input bandwidth to disk for more than 21 hours
- Record at rates of up to 210 MByte/sec in a single shot or in looped mode for indefinite recording duration
- Quickly and easily swap the six removable, 16 TB, solid-state disk pack for additional data storage
- Ascertain system health at a glance using the intuitive, web-based control interface
- Transport the system in a rugged, lightweight, Pelican case

THE MOUNTAINBRIK™ RAID AND ACQUISITION, 2ND GENERATION (MBRA2) SYSTEM, is a portable, high-speed RAID storage solution with integrated signal acquisition.

RECORDINGS CAN BE DONE IN SINGLE SHOT OR LOOPED MODE. In looped mode, new data overwrites older data for indefinite recording duration. The removable 16 TB, solid-state disk pack facilitates easy drive swaps in the field for additional storage.

MBRA2 SYSTEMS HAVE TWO INDEPENDENT INPUTS THAT CAN BE USED SIMULTANEOUSLY. They also include two independent sub-band tuners that can be deployed on either of the input channels. The sub-band tuners support output bandwidths from 21 kHz to 42 MHz. An intuitive Java-based command and control interface supports operation using Windows, OS X, and Linux platforms.

WITH THE RECORDED DATA PLAYBACK FEATURE, you can reproduce an analog output of recorded data streams. Recorded data is time-tagged when the system is connected to external time/frequency sources.

MBRA2-16T-01
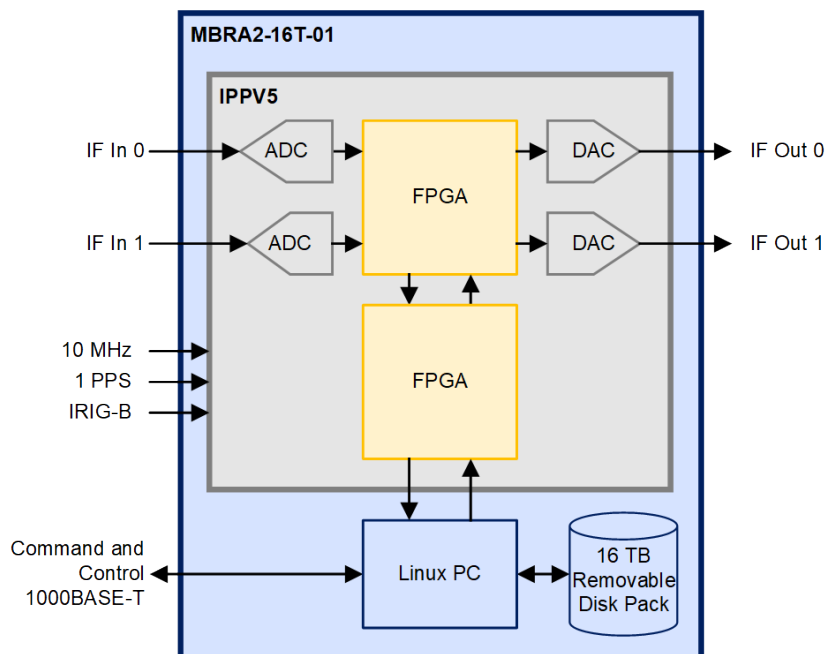
MOUNTAINBRIK™ GUI

Simple, powerful controls for setting the tuners to either of the system ADC inputs and adjusting the bandwidth and frequency.

Start and stop recordings with ease.

Clear system health and status indicators.

Real-time spectral plots and waterfalls enable the user to quickly analyze a dynamic signal environment.

SPECIFICATIONS

GENERAL

- Processor: Core i7-2600
- RAM: 32 GB
- Disk Space: Up to 16 TB with support for RAID 0, 5, or 6
- Control Panel: 4-line LCD
- Max Record Rate: 210 MByte/sec
- Data Acquisition: IPPV5 FPGA platform, developed by RRC

INPUT/OUTPUT

- Network: 10GBASE-T command and control port
- Peripherals: USB 3.0 (with security door), eSATA, VGA
- Analog Inputs: Dual, common clock, 210 MSPS, 14-bit ADC, 1 MHz to 950 MHz bandwidth, 1.5 Vpp, +7.5 dBm, full-scale (max)
- Input/Output Filters: 1 filtered with 105 MHz or 210 MHz LPF (user selectable); 1 unfiltered
- Analog Outputs: Dual, common clock, 420 MSPS, 16-bit DAC, 210 MHz bandwidth (max), 0.5 Vpp, -2 dBm, full-scale (max)
- External Ref.: 0.3 Vpp to 2 Vpp, -6 dBm to +10 dBm, AC-coupled, 10 MHz or ADC clock
- 1 PPS: CMOS compatible, 50 Ω/Hi-Z
- Time:
  - NMEA-0813: RS-232, LEMO
  - IRIG-B: AM-modulated

PHYSICAL

- Dimensions: 16.4" x 8.8" x 13.3" Pelican case
- Input Power: 100/220 V, 50/60 Hz
- Power Consumption: 250 W, approximate
- Analog/RF Connectors: SMB, 50 Ω
- Multi-Unit Synchronization: With external clock connections
- Ambient Operating Temperature: 0° C to 45° C
- Time-Tag Accuracy: Within 10 ns using 1 PPS and external 10 MHz reference