



# ULTRA-WIDEBAND MT (UMT) SYSTEM

Versatile family of UMT receivers  
built on a common platform

MTU-8A  
RXU-8A



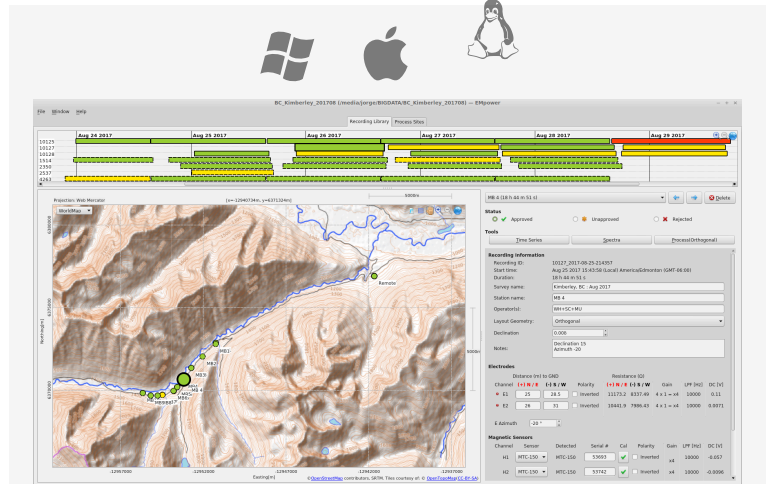
## MTU-5C

## MAIN ADVANTAGES

One system does it all:

- MT-AMT-CSAMT-BMT-LP (long period)
- Only one set of sensors for simultaneous recording of high and low bands
- While recording data:
  - Direct access to live records
  - Real time visualization of processed amplitude/phase
- Better resolution in MT and AMT deadbands
- One recording, one Time Series processing
- 10,000 Hz to >50,000 seconds
- GNSS

## EMPOWER Advanced system suite

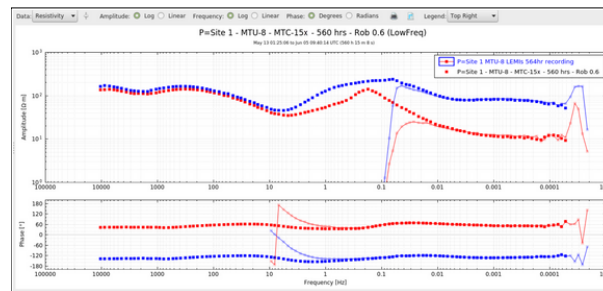


- Powerful database manager: keep track of your survey progress
- Diagnose, QC operations and data
- Multi-core MT parameter calculation, immediate results
- Advanced editing and processing features
- Open development path supported by professional 10-person software team
- Continuous improvements in processing techniques and frequent updates available for download

# World leader in MT with thousands of systems sold worldwide since 1980

The Phoenix UMT system supersedes separate AMT, MT, BMT and Long Period MT systems. Differentiating AMT, MT, BMT and LP-MT is not required, and with no need for expensive, separate deployments of different systems to capture the necessary spectrum. This simplifies and saves money on procurement, training, operation and maintenance thus providing lowest total cost of ownership (TCO).

An essential complement for long period (LMT) data, high-frequency data provides superior inversions of both shallow and deep sections as well as reliably identifying MT static shift, which cannot be identified in widely separated, LP-MT only stations. Without mitigation of static shift or high-frequency data, LP-MT inversions are always somewhat uncertain.



In addition to the features already known for the MTU-5C family, the new MTU-5C systems offers live access to all Time Series on the internal SD card - No internet required. Direct Field QC and data retrieval can be done without interrupting acquisition, directly from the ethernet port.

EMpower, our new advanced database management and processing software, is multiplatform, intuitive and extremely simplifies operations. EMpower users can easily deploy the MTU-5C to acquire the entire spectrum and automatically cover more than 8 decades by using a single set of UMT magnetic sensors model MTC-100 series. Sensors are detected automatically by the system for easy acquisition and processing. The MTU-5C also works with other receivers of the family including the MTU-8A and the RXU-8A.

## SPECIFICATIONS

### Acquisition Mode

One mode: Ultra Wide MT (UMT: both MT and AMT simultaneous)

### Sample Rates

24 KHz continuous acquisition, or decimation with sparse 24 KHz and continuous 150 Hz acquisition. Additional sampling schemes to be soon delivered. A/D conversion: Ultra low noise, true 24 bits

### Number of Channels

5 channels (2E+3H); each with independent gains, filters and sensors

### Sensor Connectors

3 Magnetic sensor connectors, military grade, 10-pin, 20 kOhm input resistance, compatible with broadband MTC-100 series, AMTC-30, MTC-50H, MTC-80H and most common fluxgate sensors. 2 pairs of rugged electric channel binding posts. 10Mohm input resistance

### Connectivity

Ethernet, WiFi, Cellular or Satellite

### Synchronization between Instruments

GPS disciplined, better than 500 nanoseconds

### Environmental

Operating temperature range: -25 to +55 Celsius  
IP67 compliant, water and dust proof

### Enclosure

Ruggedized, monobloc, aluminium case for maximum strength and reduced weight. Impact resistant, shock mounted architecture, one meter drop test. Tested waterproof immersion. Ballistic nylon carrying bag for easy transport

### Weight and Dimensions

4 Kg, L21.5 x H23 x W14 cm

### Software Updates

Easy firmware updates direct from SD card

### Ultra Low Power consumption

6 Watts

### Dynamic Range

Better than 130dB

### Storage

Environmentally rugged SD card, up to 512 GB (hundreds of measurements)

### Display

Colour, graphical, low power, 160x128 pixels

### Integrated Realtime Quality Control

Self diagnostics at power up, at recording start and real-time recording statistics. Displayed on the colour screen: live display of levels, instrument status and recording status (GPS, operating mode, diagnostics, sensors detected, etc.). Parallel noise test: automatic acquisition and processing (EMpower)

### Calibration

Simple automatic in-field calibration of instrument and sensors for greater accuracy of processed data and advanced system quality control. Includes generic calibration



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