V8 Networked Multifunction Receiver for Geophysical Techniques

- Flexible, adaptable configurations
- Lightweight, highly portable
- Operates –20°C to +50°C
- No cable links required between network units or transmitter
- Cable or wireless link to local network of auxiliary units
- GPS-synchronized to transmitter and local network

MT, AMT	Magnetotellurics with remote reference
CSAMT	Controlled Source Audio MT
IP	Induced Polarization: Frequency and Time Domain, Phase and Spectral IP
TDEM, FDEM	All common Time and Frequency Domain Electromagnetics functions
Resistivity	All common Resistivity functions (Dipole, Schlumberger, or Wenner soundings)
Other	Record or monitor time series data from any suitable sensor, including geophones

Wireless networking with RXU-3 Receivers

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V8 Multifunction Receiver

The V8 is the eighth generation of receiver technology developed by Phoenix since 1975.

The V8 builds upon many of the most attractive features of the highly successful Phoenix *V5*, *V6A*, and *System 2000*, including permanent GPS synchronization and light weight. The full-size ASCII keyboard and full-size, full-colour, sunlight -readable display give the operator hands-on control of the entire data acquisition process for all the most common geophysical techniques—both controlled source techniques and natural source techniques (AMT, MT).

The V8 has 3 magnetic channels and 7 electric channels. The magnetic channels can be assigned either to standard magnetic sensors or to TDEM sensors. The V8 can operate in stand-alone mode (usually for AMT and MT). In addition, it can serve as the hub of a local network of auxiliary 3-channel (3E) data acquisition units, which communicate with the V8 by wireless or optional cable.

All recording units are permanently synchronized to GPS time and are optimized to operate with transmitters similarly synchronized to GPS time.

No cable links are required between the networked recording units, or between receivers and transmitter.

Applications

Exploration—surface to 50 km or more...

- Oil and gas
- Metals and minerals
- Groundwater
- Kimberlites (diamonds)
- Geothermal reservoirs
- Monitoring
- Earthquake research
- Engineering and environmental

Summary Specifications

Channels	3 TDEM 3 Magnetic 7 Electric (maximum 8 simultaneous)
Frequency Range	10 000 Hz to 0.00005 Hz (20 000 s)
Data Storage	On-board removable flash memory, 512 MB (upgradeable)
ADC	One per channel 24 bits, 96 000 samples/s (main channels) 18 bits, up to 800 kHz (TDEM channels)
Weight	7 kg
Keyboard	Full ASCII
Display	640 x 480 full-colour sunlight-readable LCD
Connectors	Multi-pin, military-style connectors for magnetic/additional electric sensor input and high-speed I/O; GPS, battery and ground connectors Four panel-mounted binding posts for electric field inputs (AMT, MT)
Input power	12 V DC
Power consumption	15 watts approx.
Processor	586 and auxiliary processors
Environmental	Operating: –20°C to +50°C

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