

# Transition zone transmitter



## KMS-500 transition zone transmitter

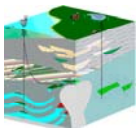


## Transmitter for CSEM application

The KMS-500 CSEM transmitter is used for Controlled Source ElectroMagnetic (CSEM) geophysical applications. In addition, it is optimized for TCSEM™ (Transient Controlled Source ElectroMagnetic) applications in shallow water and transition zone. It is normally used in shallow water and conductive environment land applications where standard land transmitters fail. This transmitter is an essential component when coastal effects need to be understood and reference sites to be established.

**Figure 1:** KMS-500 transition zone transmitter.

The CSEM transmitter consists of four major blocks: acquisition and transmitter controller (KMS-820), IGBT-switch driver, IGBT-switch pack, and 2.5 kW DC power supply. Data is saved on SD card and it communicates with central unit using long range wireless (up to 5 miles) for remote operation or USB for local computer. The unit is GPS synchronized and provides the driving sequence and timing to the IGBT driver board. This allows synchronization with multiple receivers (offshore and onshore) and multiple transmitters. It provides the status information, such as current, voltage and heat sink temperature back, either as summary value or time series. Current control is according to the programmed timing and polarity sequence.



## Product features

- Maximum power output: 2000 W
- GPS synchronized timing control for transmitter signal measurement.
- Data is saved to 16 GB SD card.
- Transmitter operation procedures are downloaded through wireless/USB interface or pre-saved to the SD card.
- 6-channel 24-bits acquisition unit,
- Ruggedized design for field application.
- Low cost

## Product applications

### CSEM applications:

- Time and frequency domain land reference transmitter (shallow water surveys)
- Transition zone and shallow water transmitter
- Transmitter applications where source signature monitoring is required
- Reservoir monitoring
- Source controller & environmental monitor

## Product specifications

<b>Maximum output current</b>	50 A (up to several hundred amperes optional)
<b>Maximum output voltage</b>	40 V
<b>Current turn on time</b>	2 mS
<b>Current turn off time</b>	200 uS
<b>Timing control</b>	GPS synchronized
<b>Current recording A/D</b>	24-bit
<b>Current recording sampling rate</b>	Up to 100 kHz
<b>On-board temperature measurement</b>	Yes
<b>Heat sink temperature monitoring</b>	Yes
<b>Wireless network</b>	<ul style="list-style-type: none"> <li>• up to 8 km (5 miles) depending on terrain</li> <li>• unlimited with relaying mode</li> </ul>
<b>Data saving &amp; retrieving</b>	Data on SD card; transfer via USB without removing the SD card
<b>Data monitoring</b>	Data can be read back through USB port or wireless network for real-time waveform display and quality check
<b>Equipment size</b>	21" (W) X 25" (H) X 24" (D)
<b>Equipment weight</b>	68 kg
<b>Power supply</b>	220 VAC
<b>Temperature rating</b>	-30°C to 70°C