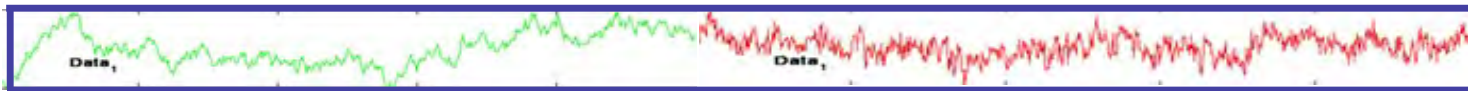


Grounded/Loop dipole EM transmitter



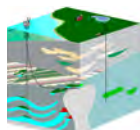
KMS-5100
Options – 100, 150 or 200 KVA

KMS-5100 (100, 150, 200 kVA)



KMS-5100 land EM transmitter in portable field box; inside view; Timing and system response controller; and optional shock mounted, dustproof case (transport & field case).

The KMS-5100 electromagnetic (EM) land transmitter has been developed to provide a controlled current source for geophysical exploration techniques including Time Domain EM (LOTEM & TEM), Frequency domain and Time Domain Induced Polarization (IP) (including Time Frequency EM (TFEM)). This multi-function transmitter is ruggedized, portable, compact yet providing reliable maximum output power of 100, 150, or 200 KVA.



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Product features

- Maximum power output: 100, 150 or 200 kVA, controlled with linear ramp (10 to 20 μ s).
- GPS synchronized timing control for transmitter signal measurement.
- Long-range wireless for remote control and monitoring.
- Linear ramp better than 5 μ s turn off characteristic.
- Bi-polar reversing ramp time < 20 μ s or any other waveform.
- Suitable for Time domain EM (TDEM or LOTEM), Frequency Domain, Induced polarization (IP) (time domain) etc. with target depth of 600 m and deeper.
- Ideal for deep EM geophysical applications (several kilometers).
- Grounded dipole source or loop source.
- Integrated in KMS array system via KMS-820 transmitter controller.
- Controller has 6 analog & (unlimited) digital channels.
- Ruggedized design for field operations.
- Data is saved to SD card (16-32 Gbyte).
- Transmitter operation procedures/schedules are downloaded through wireless/USB interface or pre-saved to the SD card.

Product specifications



100 KVA

Test controller
transmitter
Current sensor



Leads source & sink



PICTURES: Initial prototype test; 100 KVA tested at 242 A; loop source (> 200 A); 100 KVA production model in Colorado; 80 KVA in Texas, 3 phase 230 V version, 5100 in transport case

Current waveform	Reversing polarity square (100% duty cycle) or bipolar with off-time (firmware selectable from 0.001 Hz to 1000 Hz). Other waveform can be generated by controller
Transmitter type	Dipole source or loop source
Maximum output current	Limited to 125 A unipolar, 250 A bi-polar (100 KVA version) Limited to 175 A unipolar, 350 A bi-polar (150 KVA version) Limited at 240 A unipolar, 480 A bipolar (200 KVA version)
Maximum output voltage	1000 V
Input voltage	480 - 600 VAC at 50/60 Hz
Frequency range	0.001 - 1 kHz
Current recording sampling rate	< 100 kHz, same as receiver acquisition sampling-rate
Maximum power output	100/150/200 kVA at 25° C
Output measurement	24 bit KMS-820 with KMS-831 up to 32-bit
Dimensions	KMS-5100: 0.7 m x 0.9 m x 1.01 m (W x H x D) (14U)
Operating environment	-20° C to 50° C -35° C to 50° C (storage)
Weight	KMS-5100: 30 kg (switchbox only), for 150 KVA = 37 kg and 200 KVA = 46 kg.
Duty cycle	100%, 50 %, 33%, 25%, variable
User interface	Long range wireless, 802.11, USB, cable or USB
Standard packaging	Unit in field container shipped in ruggedized large transport container