GEOSCANNERS
advanced survey systems



VHT501

The VHT501 high power plug in transmitter is the most affordable and highest quality available device for deep penetration geophysical surveys using ground penetrating radar. It was designed to fit in antennas compatible with GSSI SIR® ground penetrating radar systems.

The VHT501 offers an excellent performance in terms of clean and sharp pulses delivered to the antenna terminals. An added bonus is that little energy is wasted and almost all the available power is delivered to the antenna without losses. That fact alone makes possible its use together with the SIR3000 without the need for supporting units up to 12 kHz.

Electrical Specifications

Average Power Consumption at 12 kHz PRF	0.831 W
Average Power Consumption at 50 kHz PRF	2.925 W
TX Impulse Peak Voltage	+/- 600 V
TX Impulse Rise Time	2.25 ns
TX Impulse Fall Time	1.78 ns
TX Impulse FWHM	4.28 ns
Phase balance	2.45°

All values except average power consumption are measured at 50 kHz PRF with a 300 Ohms load and no averaging.

Mechanical Specifications

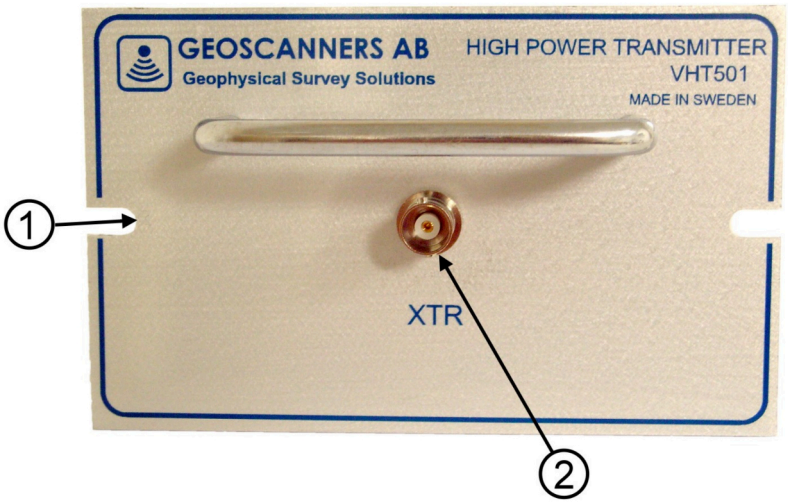
Dimensions (LxWxH) mm/inch	230x133x82 (mm)/ 9.0x5.2x3.2 (inch)
Weight Kg/Lbs	0.3 kg/ 0.66 Lbs
Ingress Protection Rating	IP51

GEOSCANNERS AB
VÄSTRA STORGATAN 2, S-29338 OLOFSTRÖM, SWEDEN
http://www.geoscanners.com

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Environmental Specifications

Maximum Temperature °C / °F	+40 °C / +104 °F
Minimum Temperature °C / °F	-10 °C/ +14 °F
Maximum Humidity (non-condensing)	96% RH
RoHS Compliant	Yes



Operating Instructions

1. Insert the plug in electronics VHT501 into the antenna slot. Pay attention that the letters on the antenna and on the VHT501 must be facing the same direction.

2. Secure with two bolts the plug in electronics inserting them through the slots (1) and fastening them to the threads in the antenna case.

3. Attach the coaxial cable coming from the output “EXT” from the plug in electronics TR501 to the BNC input “XTR” (2) on the VHT501.

4. Make sure that the high power transmitter and the unit driving it are firmly attached to the antennas before starting the units operation or powering them from the radar unit.

5. If PRF exceeding 12 kHz are desired in order to speed up the survey, then one must use the supporting unit PRFPLUS-600 available from Geoscanners AB.

Turn on the radar and proceed with the survey.

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