

SPECIFICATIONS

OPERATIONAL SPECIFICATIONS

Frequency Range:	30 Hz to 50 MHz (maximum usable bandwidth)
Low Frequency Roll Off:	The low frequency roll off is switch selectable to be 3dB down at 22 kHz, 1.9 kHz or 170 Hz
High Frequency Roll Off:	Antenna factor is 3 dB down at 30 MHz.
Antenna Factor:	See attached graphs. The calibration graphs were taken with the unit in the Low Gain setting. Unless otherwise noted, the low frequency roll off is set at the 170 Hz 3dB roll off point.
Saturation Level:	0.7 V/m narrowband w/o attenuation and at the low gain setting. 22 V/m with 30 dB of internal attenuation selected. 63 dBuV/m/MHz broadband saturation level.
Minimum Discernible Signal:	See attached graphs. For best sensitivity the unit should be in the Low Gain setting with all Internal Attenuation off.
Dynamic Range:	115 dB at mid-band (1 MHz). 145 dB with the use of the internal attenuators.
Saturation Indicator Impulse Response:	The saturation indicator will properly indicate saturation for pulsed signals which fall within the following boundaries: <ol style="list-style-type: none"> 1. The product of the pulse width to pulse repetition rate must be greater than .003. 2. The pulse repetition rate must be less than value listed for the applicable duty cycle. See table 1.

Duty Cycle	Maximum PRF
10	19.7 MHz
20	14.0 MHz
30	9.2 MHz
40	5.6 MHz
50	420.0 kHz
60	130.0 kHz
70	87.0 kHz
80	57.0 kHz
90	30.0 kHz

Table 1. Acceptable Pulse Repetition Rates

ELECTRICAL SPECIFICATIONS

Input Impedance:	The input impedance determines the low frequency roll of point. Depending on the low frequency roll of selected, the input impedance is >20 Megohms, 1 Megohm or 100 Kiloohm.
Output Impedance:	50 ohm (nominal)
Saturation Impedance:	A red LED on the front panel will be illuminated when the unit begins to saturate or clip. The saturation indicator will indicate accurately for any gain and attenuator setting.
Battery Low Indicator:	The power light on the front panel also serves as a Battery Low Indicator. If the green light does not come on when the power switch is engaged, then the battery requires recharging. It is recommended that the 3301B be connected to the battery charger at all times when it is not in use.
Batteries:	The unit is supplied with two 6 volt sealed lead-acid batteries. The batteries will operate for approximately 10 hours between charges.
Battery Charger:	115/230 VAC 50/60 Hz switch selectable, IEC input, two-stage battery charger with fast and trickle charge modes.
Fuses:	Type 3AG size .5 Amp, fast acting Or 5x20mm, .5 Amp, fast acting Internally mounted.

MECHANICAL SPECIFICATIONS

Size:	7.38" x 4.62" x 3.5"
Weight:	Approximately 7 lbs.
Tripod Mounting:	A ¼-20 hole is provided on the base for tripod mounting. NOTE: This is not intended as a grounding point.
Counterpoise Mounting:	Four 6-32 holes are provided in the two metal mounting bars on the top of the unit.
Antenna Element:	The antenna element may be set up to 41".