

# LIBERATOR SERIES

# ANTENNA SITE ANALYZER WITH TRACKING GENERATOR

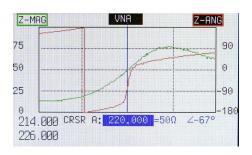
## The all NEW 100KHz-1.5GHz LIBERATOR RF-Analyzer

VNA Site Analyzer with full Vector Network Analyzer measurement suite S11 and S21 ports, Spectrum Analyzer, Tracking Generator, FDR (Frequency Domain Reflectometer), SWR and Return loss measurements. Featuring full color back-lit display with excellent daylight readability. 50 memory slots for saving plots to recall on the Site Analyzer or upload to a PC using Site Analyzer PC Vision™ software. Includes field replaceable "AA" NiMH batteries. Easy to navigate menus, user selectable color settings and measurement plot displays. The VNA Site Analyzer has a user selectable limit lines for at-a-glance tuning and One-button Auto-tune in SWR/Return loss locates the antenna's best SWR or Return loss. Ease of operation makes the Liberator Analyzer flexible for both the novice and engineer level person to use with minimal training. PC communications is via USB-2 (cable included). Technical support includes:

User Training PPT, and toll free technical support for the life of the instrument.



# Six Instruments in One Hand-held Rugged Package



SWR SWR Mode

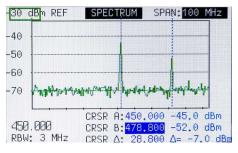
4
3
2
2.00:10
1840.000 CRSR A:874.582 SWR=1.20
910.000

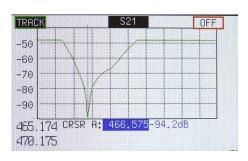


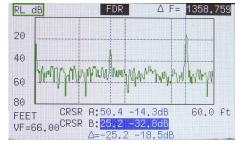
VNA

**SWR** 

**Return Loss** 







**Spectrum Analyzer** 

**Tracking Generator** 

**FDR** 



# VNA, SWR, RL, Tracking Gen., Spectrum Analyzer & FDR

## Key Specifications (for a complete list download the Operating Manual from our website)

VNA Site Analyzer	VNA, SWR, Return Loss, FDR, Spectrum Analyzer, Tracking Generator, Z mag, Z angle, Gamma Magnitude and Gamma Angle
Frequency Range:	100KHz — 1500MHz
Tuning/Display Resolution:	1KHz
Refresh Rate:	2.5 times/second
Frequency Display:	250 points
Measurement Speed:	5ms / data point
FDR Measurements:	DTF, end of cable and Antenna RL
FDR Range:	0 to >5000ft (0 to >1524m)
Min Resolution:	0.5% of Scale
FDR Accuracy:	0.5% of Scale
Output Power:	~ 0 dBm @ 50 0hms
Input Power Range:	-100 dBm to +30 dBm
Impedance Range:	10 to 1000 Ohms, default 50
Impedance Plot Scales:	8 scales from 10 to 2K Ohms
Impedance Formats (S11):	Resistance, Reactance, Total Z
Impedance Accuracy:	+/- 1 Ohm
Phase Angle Plotting Scales:	+/- 5 to +/- 180 degrees
Gain Formats (S21):	Log, Linear, phase
Gain Accuracies:	+/- 1 dB
Spectrum Analyzer Ranges:	100KHz -1.5GHz
Spectrum Analyzer Resolution:	30KHz - 3MHz
RF Connectors:	"N" Type
Power requirements:	13.8-20VDC @ 800 mA min. 8 AA NiMH, or Alkaline
Size:	8.5" x 4.3" x 2.25" (216 x 109 x 57 mm)
Weight:	2.2 lbs (1 Kilogram) with belt case and batteries
Warranty	2 years

Specifications subject to change without notice

## **Ordering Information:**

#### 6050-5100 VNA Site Analyzer

#### **Included Items:**

VNA Site Analyzer, Terminators (short & 50 Ohm), 8AA NiMH cells (installed) Belt Case with removable shoulder strap, USB Cable, AC adapter, Quick Start Guide, Basic Guide, and CD with Operating Manual, Training PPT and Site Analyzer PC Vision software.

#### 6050-5150 VNA Site Analyzer Kit

#### **Included Items:**

VNA Site Analyzer, 8AA NiMH cells (installed) Belt Case with removable shoulder strap, USB Cable, AC adapter, Quick Start Guide, Basic Guide, Soft carrying case, DC Vehicle Recharger adapter, 3 way Terminator Set, (open, short and 50  $\Omega$  load), "N" to BNC Adapter and CD with Operating Manual, Training PPT and Site Analyzer PC Vision software







ISO 9001 Registered Company

#### **Features:**

- User selectable limit lines for at-a-glance tuning in SWR/Return loss mode
- One-button Auto-tune locates antenna's best SWR or Return loss
- Spectrum Analyzer with Tracking Generator
- Dual Scale Display in Tracking Generator mode
- Frequency Domain Reflectometer (FDR)
- Return Loss measurement and distance to fault in one test to assess cable and Antenna performance as a complete system.
- Impedance formats Resistance and Reactance
- Site Analyzer PC Vision™ software and USB-2 Cable included
- Full instrument operation via PC Vision software.
- Internal Memory can hold up to 50 plots and setups
- Quarter VGA back-lit color display (user selectable color scheme)
- Large numeric display in CW mode

#### **Benefits:**

- Economical Multi Function antenna system testing
- Tune Duplexer and Notch filters with Ease
- Very fast response time in graphical display mode
- Save, recall and upload test results to a PC
- Quickly shift between VNA, SWR and Return Loss
- Colors can be customized for best viewing
- "Belt Friendly" design makes it easy to carry on site
- Has "Cable Null" option to eliminate test lead or feed line
- Fully rechargeable NIMH batteries are COTS replaceable

## **Optional Accessories:**

N to SMA Adapters and Terminators Set

N to BNC Adapter

BNC Terminators, Short and 50  $\Omega$  Load

N to TNC Adapters

N to SO239 (UHF) Adapters

N female terminators short and open kit

3 way Terminator Set, open, short and 50  $\Omega$  load

Vehicle adapter/charger

Soft Carrying Case

Hard Carrying Case



