

LineTracker

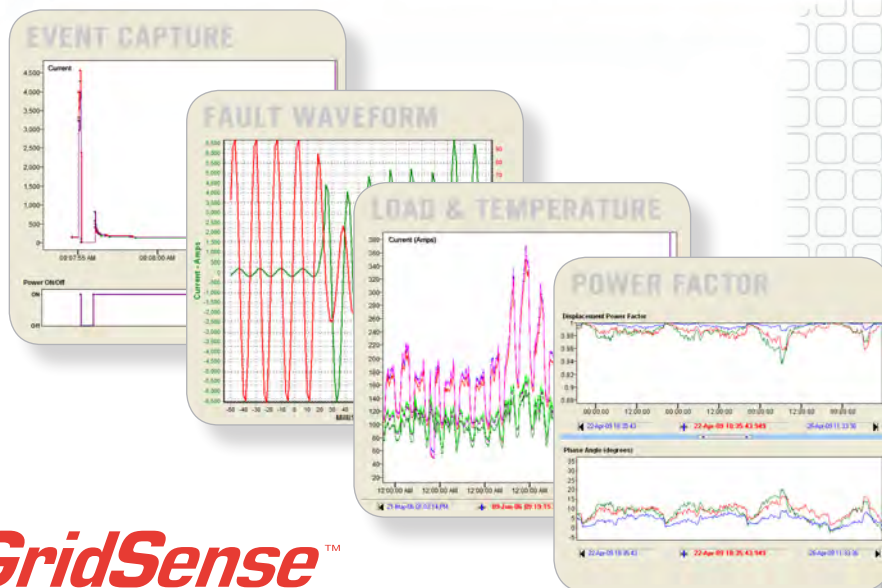
Intelligent Grid Monitoring

LT40/45/50

- Distribution Monitoring
- Line Capacity Ratings
- Transmission Monitoring
- Fault Finding
- Asset Optimization
- Power Factor Reading

The LineTracker System offers cost effective wireless monitoring of overhead circuits up to 69kV with the LT40 and up to 138kV with the LT45 or LT50.

Critical line condition and performance parameters, including Fault, Protection Operation, Outage, Restoration and Loading are captured to optimize asset utilization and to improve system reliability and quality of supply.



GridSense™

T&D Solutions Since 1974

LineTracker LT40/45/50

Intelligent Grid Monitoring

The LineTracker Series of overhead Load and Fault Analyzers are versatile, powerful and self-powered.

- Provide accurate information on the performance and condition of the lines allowing utilities to quickly respond to failing equipment, over-loading conditions and reliability issues.
- Quick installation on live lines at any point on the overhead distribution system to measure and record critical load, fault and operational parameters.
- Built-in wireless communication for onsite or remote data download without removal of recorders from the line or waiting for available line crews.
- Solar cell and battery power system provides long term monitoring without the risk of battery failure, high maintenance costs or lost data.

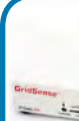
The LineTracker system is a proven, smart and versatile monitoring solution for Power Utilities and is used daily by system planners, distribution engineers, troubleshooters, and protection and substation engineers.



LineTracker

Sensing & Detection

- Current and Power Factor
- Ambient & Conduct Temperature
- Fault Waveform and Direction
- Protection Operation
- Time Stamped Events



LT-DataLink

Local Communications

- License Free Wireless Link-up
- Retrieve Data within 150 feet
- Serial Port Connection / USB adapter included
- Car Charger
- Download to Laptop



PAC

Remote Monitoring

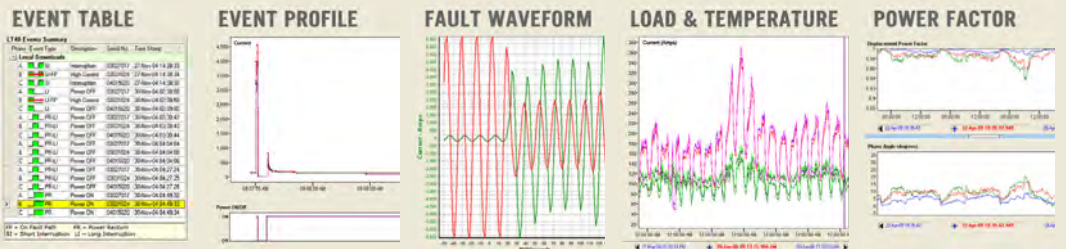
- Pole Attached Concentrator (PAC)
- Wireless link to retrieve LT data
- Remote Data Transfer through Cell, Satellite, TCP/IP, or Radio
- Intregates data to SCADA, Historians, and other 3rd party devices with DNP



LineView

Viewing & Analysis

The intuitive LineView software is used to analyze LineTracker data files and provides graphical and table displays of event captures, waveforms and load profiles. Individual or multiple files can be viewed on the same graph and can be exported to Excel.



Technical Specifications

Line Voltage	≤ 138kV (LT45/LT50) ≤ 69kV (LT 40) phase to phase
Frequency	45-65Hz
Circuits	Overhead radial lines
Conductor Range	LT40= 0.25" (6mm) to 1" (26mm) D and LT45/50= to 1.33" (32mm) D
Visual Indication	High Intensity Red and Amber LEDs
Fault Indication	Red LED every 10 seconds
Line Status	Amber LED every 30 seconds
Fault Indication Reset	Time based and/or line restoration reset
Communications	Wireless Local and Remote options
Local RF	low powered, License free range 150ft (46m)
Remote	Cell (GSM/CDMA), TCP-IP, Landline, Satellite
Systems Integration	SCADA & Historian integration tools available
Energy Storage	1x2v 8Ah rechargeable sealed lead acid battery
Power Source	0.5W solar cell
Operating Temperature	-14F (-25C) to +120F (+65C)
Survival Temperature	-58F (-50C) to +185F (+85C)
Housing Material	UV Stabilized Polycarbonate and Aluminium Diecast
Ingress Protection	IP65 Weatherproof
Dimensions	14 H x 5 L x 5 W in. (35 H x 13 L x 13 L cm)

Measured Parameters

Fault / Event Capture

Protection Operations

Power Outage
Power Restoration
Profiling

Sample Rate
Accuracy
Memory Storage Capacity
RMS Records (60sec)
Fault Waveforms
Load Profiling
Weight

Current and Power (On/Off)
60-Sec RMS profile (I & E-Field)
Pre-event Line Loading
Fault Current Magnitude up to 25KA
Fault Current Waveform (12-cycles)
E-Field Waveform % Change (12-cycles)
Post-event Line Loading
Time to Trip
Number of Trips
Inrush Current
Time of Power-Off
Time of Power-On and Outage Period
User defined average profile (1-60 mins) of Load
LT50 Conductor & Ambient Temp. up to +257F (+125C)
Current 1200Hz, E-Field 600Hz
Current +1% of reading +2 A, Temp +1 DegF
Rolling partitioned memory
100+ events
34
Up to 85 days
4.4lbs (2kg)