PENETRADAR CORPORATION

IRIS Version L

Dual Channel GPR System

IRIS-L CONTROL UNIT

Description:

The Integrated Radar Inspection System - IRIS Version L was designed to be a low cost version of the IRIS GPR. It is a self-contained, low cost dual antenna ground penetrating radar system designed for applications requiring both field portability and vehicle inspection systems. The IRIS-L includes a digital GPR control unit and real-time data acquistion/processing system with external 19 inch display (or optional high intensity 8 Inch internal display with touch screen control) and internal hard disk storage. This system was designed to operate with all of Penetradar antennas and IRIS software. Standard features of the IRIS-L include DMI input for distance tagging, three USB data ports for data download and connection of peripherials, GPS port and standard version IRIS Data Acquisition Software.

Features:

- Complete Integrated Radar Inspection System - Includes GPR, Data Acquisition/Processing Computer and Software
- 19 inch External LCD Display (standard) or built-in high intensity (sunlight readable) 8 inch LCD Display with touch screen control (optional) and internal hard disk data storage
- Low Cost and Easy to Use
- Rugged Design for Portable Use in the Field or Vehicular Installations
- Digital GPR Control Unit with Interchangeable Antenna and Transceiver Units
- 5MHz Transmit Rate - Highest in Industry

Applications:

- Geotechnical investigations, manual site inspections, concrete evaluation, layer thickness and rebar depth measurement.
- Detection of subsurface utilities and UST's
- Low cost pavement and bridge deck inspection.

IRIS-L ANTENNAS

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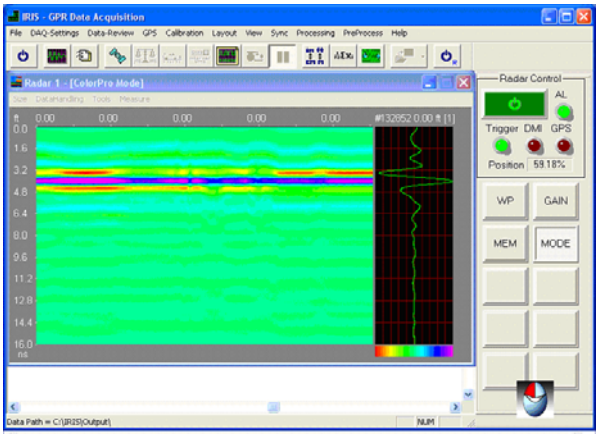
Operation

IRIS-L GPR data are acquired by the onboard data acquisition subsystem and stored on the internal hard drive. Acquired data are displayed on the SVGA TFT LCD screen and can be analyzed immediately on the IRIS-L console or transferred via USB for analysis or archival storage on an office PC.



IRIS-L Virtual Control Panel

The IRIS-L virtual control panel facilitates user setup and operation of radar system, acquisition parameters and signal display, with standard USB keyboard and mouse or convenient (optional) touch screen operation. Several other optional components are available, including external power sources, transport cart, Vehicle Installation Systems and submeter accuracy GPS receiver.

IRIS-L System Specifications

System Configuration:
Two antennas, either contacting or non-contacting, Model 30AGC, 60AGC, 301B, 401B, 501B, 1001B, 2001B
Power Requirements:
Input Power: 12VDC @5A Single Channel, 6A Dual Channel
Radar Video Fully coherent, bipolar, +/- 10 volts max, 3 kHz bandwidth.
Video Output Gain Selection: 1,2,3,4,5,10,20,40,100,200 over direct receiver output.
Dimensions/Weight (Radar DRC):
18.5in/47cm (w) x 12.5in/32cm (d) x 7.75in/19.7cm (h), 23lb (10.5kg)
Input/Output:
Radar Signal Out, Radar Sync Trigger Out, GPS Port, Power Input, DMI Input, (3) USB Ports, VGA Out
CPU: Processor - 1.6GHz Atom CPU 1GB Ram, 250GB Internal HD
Data Acquisition Subsystem: 12/16bit, 80kHz
Display & Input Interface
19 inch external TFT display, USB keyboard touchpad - standard.
7inch internal sunlight readable Color TFT 800x600 resolution, 500nit with resistive touchscreen, Option 001

Ordering Information

A standard IRIS-L configuration includes:

- Digital Radar Control (DRC) Unit,
- Antenna
- Antenna Boom (or Handle)
- 25ft (7.7m) antenna cable
- IRIS Software

Model IRIS-L/X - YYYY - ZZ, YYYY - ZZ

(X) 1 or 2 channel
(YYYY) corresponds to antenna model
(ZZ) corresponds to transmit pulse width, i.e. 1.0ns, 2.0ns, 3.0ns