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DIGITAL SCOUT

Frequency Recorder



Antenna sold separately

Digital Scout \$499

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The Digital Scout RF frequency recorder / field strength meter is the only instrument capable of counting pulsed RF (digital signals), as well as conventional CW (analog signals) from 10MHz - 2.6GHz. Until now, the only signals that a frequency counter could lock onto were analog signals. In addition to locking onto digital and analog signals, the Digital Scout has a calibrated signal strength measurement from -45dBm to -5dBm. The Digital Scout also incorporates the Optoelectronics patented, Reaction Tune. The built-in RS232 port allows for the direct connection to a PC for real time datalogging and download of frequencies in memory.

The Optoelectronics Digital Scout is covered under US Patnt No. 5,471,402.

Decisions, Decisions

Having trouble deciding which product is best for you? Check out the [Product Comparison Chart](#) to help guide you to the right decision.

Digital Modulations

The Digital Scout has both conventional CW as well as pulsed RF frequency measurement capability. RF pulses or bursts as short as 300uS in duration can be measured using a new pulse slicing technique which accumulates data from successive pulses. RF pulses can be either uniform and repetitive or may vary widely in duty cycle and duration. Different types of modulation can be accommodated as long as zero crossings are produced by the RF carrier. Signals such as TDMA, GSM, Frequency Hopping Spread Spectrum (FHSS), APCO 25, ON/OFF Keying, TETRA, RF remotes, RC controllers and other pulsed RF are capable of being detected by the Digital Scout.

The Digital Scout is not capable of counting Direct Sequence Spread Spectrum (DSSS), CDMA and PCS.

Reaction Tune

When connected to a receiver for Reaction Tune, the Digital Scout can capture a frequency and then tune the receiver to that frequency simultaneously. No more manual tuning of a receiver, no more wondering what you missed, let the Digital Scout do it for you. The Digital Scout can Reaction Tune the ICOM PCR100, R7000, R7100, R8500, R9000, R10, R20, AOR AR8000, AR8200 Optoelectronics R11, Optoelectronics OptoCom, Radio Shack Pro 2005/6 with the OptoScan456Lite installed, and the Radio Shack Pro 2035/42 with the OptoScan535 installed.

The Digital Scout is shown to the left with the IC PCR1000, AR8200 and ICR10 respectively.

When Reaction Tuning the PCR1000, the Digital Scout will also control the volume and the squelch of the receiver.





Signal Strength

Another breakthrough feature of the Digital Scout is the calibrated field strength measurement provided on the two line LCD display. The Digital Scout displays field strength in dBm with a signal strength bargraph serving as a reference. The Digital Scout reads and displays signal levels from -45dBm to -5dBm with an accuracy of +/- 5dBm. This feature is great for checking nearfield RF levels at remote sites, locating hidden transmitters, determining power levels from two-way radios and more.

Technical Specifications

Frequency Range	10MHz to 2.6GHz
Resolution	1KHz and 100Hz
Frequency Accuracy	1ppm
Signal Strength	-45dBm to -5dBm
Signal Accuracy	+/- 5dBm
Power	9VDC, 150mA using model AC90 wall plug adapter.
Size	3.75" H x 3" W x 1.5" D Weight 12oz
Display	2x16 alphanumeric LCD with EL backlight

Features

- 10MHz - 2.6GHz frequency range
- 4 hour battery operation
- 2x16 alphanumeric LCD with EL backlight
- Signal Strength reading displayed in dBm and bargraph -45dBm to -5dBm
- +/- 5dBm signal strength accuracy
- Memory download and real time datalogging using built-in RS232 interface (CBDS interface cable and OptoSuite Pro software sold separately)
- Reaction Tune analog signals with ICOM IC PCR1000, R10, R20, R7000, R7100, R8500 and R9000. AOR AR8000 and AR8200. Optoelectronics Optocom, OS456/Lite, OS535 and R11.
- 1000 memories with 65,000 hits per memory
- Captures both Digital (Minimum 300uS RF pulse required) and Analog signals
- Beeper and Vibrator alert
- Super Sensitive, down to 700uV in some bands

PC Download

The Digital Scout has a built-in RS232 port that allows the unit to be directly interfaced to a PC.

Using the new [OptoSuite Pro](#) software you may download all frequencies in memory as well as perform real time datalogging with a time and date stamp.

The optional CBDS cable is required to interface the Digital Scout to the PC with the [OptoSuite Pro](#) software.

The serial interface specification is available for those who would like to write their own software. Email us for the specification.

ACCESSORIES