

# Unique RF Sources; Radiated Electric Fields and Direct Connection

Allows Testing of EMC/RF Equipment and Gives  
You the Freedom to Make Accurate Measurements!



## PRECISION SPHERICAL DIPOLE SOURCE (PSDS)

Extremely repeatable Electric fields from a 10 cm (4 inch) spherical dipole antenna the over broad frequency range of 50 MHz – 4 GHz. The PSDS is controlled over optical fiber for isolation from any computer using Graphical User Interface (GUI) software, and features battery operation with smart power features for extended operating time and optical isolation. An optional version of the GUI software provides control of Rohde & Schwarz Spectrum Analyzers or Receivers. Also available in direct connect package (like DRFS) with direct RF output from standard SMA connector.



## UNIVERSAL SPHERICAL DIPOLE SOURCE (USDS)

Highly stable comb generator with frequency range from 10 MHz to 16 GHz contained inside a 10 cm (4 inch) spherical dipole antenna. Four selectable fundamental clock frequencies: 10 MHz, 64 MHz, 100 MHz, & 133 MHz adjust the harmonic frequency content. A unique selectable pulsed RF feature allows the comb signals to be used to test Quasi-peak detectors and Peak detectors!

## DIRECT RF SOURCE (DRFS)

Exact same features as the USDS except without the spherical dipole antenna. Electronics and batteries are packaged for direct RF connection to any RF equipment using a standard SMA connector.

## USB SOURCE (USB-S)

A pocket-sized highly stable RF comb generator powered by a standard USB port (or 5-20 VDC). Available with one factory set fundamental clock frequency (1.8, 8, 10, 64, 100, 133, 200 MHz, or other optional clocks). A unique selectable pulsed RF feature for Quasi-peak testing is optionally available. A high speed, high frequency pulsed RF version is also available.

*Advanced technology for accurate electromagnetic measurements*



### **These unique Radiated Electric Fields and Direct Connection RF sources provide real-world RF laboratory and field measurement teams a versatile broad-band electric field source!**

Our products address many RF requirements in both the RF research and test communities, with applications to OATS, GTEMs, semi-anechoic or shielded rooms, and any standard or complex RF or wireless test environments. Each product provides RF signals that are stable and highly repeatable. The products with battery and optical fiber isolation allow a repeatable test set-up, removing unwanted effects from coaxial cables, power cables, ground loops, and other test environment artifacts. The Li-Ion battery modules and smart power circuitry extend operating time beyond 12 hours with under voltage protection and alarm. The external battery charging port on the ring and internationally rated power supply with interchangeable blades provide for simple, safe and fast battery charging in any country.

### **Equipment Verification**

Antennas/Baluns/Cables/Receivers can all develop problems that may go unnoticed, requiring expensive and time consuming re-testing. Our products are ideal and easy to use RF sources for daily emission measurement equipment checks. Many of these products offer unique capability to quickly verify receiver Quasi-Peak detectors and Peak detectors performance separately.

### **Shielding Effectiveness Testing**

The spherical dipole antenna is a small radiating element (10cm. in diameter) which makes an ideal source for use inside nearly any size enclosure for shielding effectiveness measurements. The USDS and PSDS are battery operated so the spherical dipole antenna is isolated, thus eliminating issues from cables fed through the enclosure. Additionally, the PSDS provides optically isolated feedback so the output RF level can be adjusted to create an accurate and highly repeatable E-field source (0.2 - 0.5 dB). This ensures the same radiating E-field as in an open site characterization in spite of the near field effects of the enclosure.

### **Calibration Standard**

The PSDS is also ideal as a ultra-repeatable reference source for daily equipment checks, and as an inter-laboratory and/or a multiple site transfer standard.

### **Antenna Calibration**

The PSDS is an extremely stable and repeatable E-field source, and also electrically small, providing an accurate "point source" for antenna characterization.