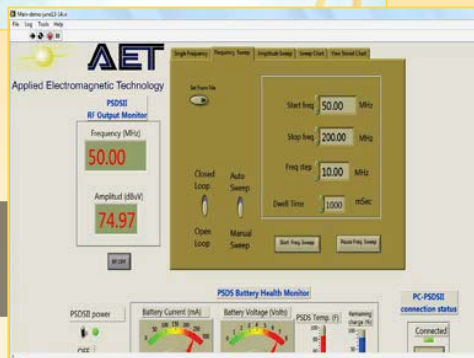


# Precision Spherical Dipole Source (PSDS)

A unique **electromagnetically-isolated** RF Electric field source, originally developed by NIST as a *real-world industry standard*, is the most versatile, accurate, and reliable electric field source commercially available!



Ideal For:

- Precise and NIST-traceable<sup>1</sup> RF emissions
- Highly accurate antenna measurements
- Ultra-repeatable shielding measurements
- Complex site calibration

Features:

- Radiating spherical dipole frequency range extended:
  - **50 MHz to 4 GHz**, 10 kHz increments possible
- PC controlled frequency and amplitude sweeps
- Control and monitoring using PC GUI via USB port
- RF level monitoring at dipole output (Gap voltage)
- Optically isolated dipole antenna
- Rechargeable Li-Ion batteries for long test operations

*Advanced technology for accurate electromagnetic measurements*

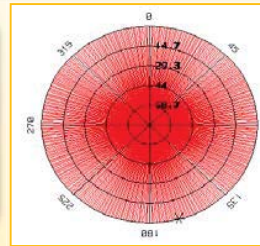


# Precision Spherical Dipole Source (PSDS)



## Precision Source

- Broad RF output frequency range up to 4 GHz
- Optical Fiber and battery power for total isolation
- Output above 35 dBuV/m at 1 m.
- Uniform radiation pattern

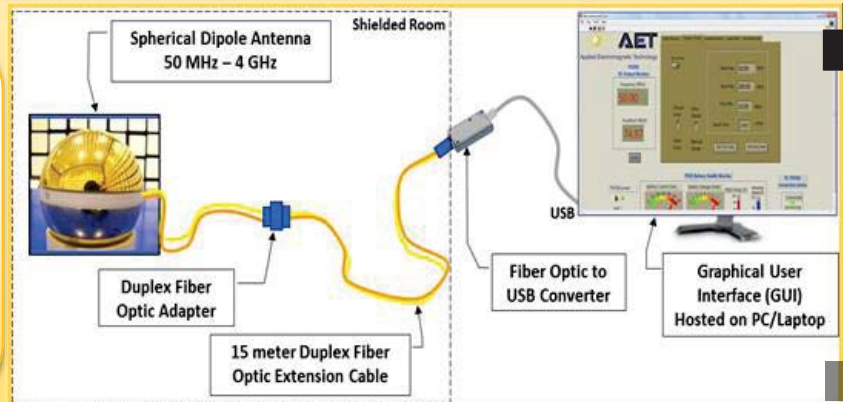


## Smart Power

- Smart power control and monitoring and Sleep mode
- Two Li-Ion rechargeable battery cells inside the antenna
- External DC jack easily accesses internal charging circuit
- AC/DC supply is certified by international safety agencies
- Blades provided for international AC outlet configurations

## Spherical Dipole Antenna

- Spherical dipole pattern
- Small, 10 cm, spherical shape
- Highly stable RF output
- Easy to use, highly predictable
- RF Isolation with batteries
- 12+ Hours of operation
- Tripod mountable



## **The Precision Spherical Dipole Source (PSDS) provides real-world RF laboratory and field measurement teams a versatile broad-band electric field source!**

The PSDS is a unique radiated E-field source using a spherical dipole antenna to address many requirements in both the research and test community. The RF signal is internally synthesized and radiated from the spherical dipole antenna. The radiated electric field is monitored using the dipole's gap voltage so the field level can be adjusted to create an accurate and highly repeatable (0.2 - 0.5 dB) E-field source. The PSDS is controlled and monitored with a PC/laptop GUI application connected to the sphere via optical fiber cables. Fiber optic cables and battery isolation allow a repeatable test set-up, removing unwanted effects from coaxial cables, power cables, ground loops, and other test environment artifacts.

## Electric Field Radiation Standard

Ideal as a calibrated reference source for daily equipment checks, and as an inter-laboratory and/or a multiple site transfer standard. Applicable to OATS, GTEMs, semi-anechoic or shielded rooms, and any standard RF test site or complex test environment.

## Shielding Effectiveness Testing

The small radiating element (10cm. in diameter) makes the PSDS source ideal to place within nearly any size enclosure for shielding effectiveness measurements. The gap voltage monitoring ensures the same radiating E-field as in an open enclosure characterization in spite of the near field effects of the enclosure.

## Antenna Calibration

An extremely stable and repeatable E-field source, and also electrically small, providing an accurate/repeatable "point source" for antenna calibration.

<sup>1</sup> NIST traceability is an extra cost 'option'

<sup>2</sup> Specifications subject to change without prior notice