SEIBERSDORF LABORATORIES

REFRAD 18

THE NEXT GENERATION REFERENCE RADIATOR

Frequency range:
1 - 18 GHz

THE ESSENTIAL TOOL FOR EMC TEST LAB QUALITY ASSURANCE

RefRad 18 is a battery-operated reference radiator for producing a well-defined signal to test the performance of EMC and EMF measurement systems in the frequency range from 1 GHz to 18 GHz with five unique features:

- NOVEL CONCEPT FOR HIGHER OUPUT POWER *
- FLAT FREQUENCY RESPONSE, HI/LO SETTINGS
- TEMPERATURE COMPENSATION
- INTEGRATED DIRECTIONAL ANTENNA AND COAXIAL OUTPUT
- OUTSTANDING FREQUENCY STABILITY FOR INCREASED DYNAMIC RANGE

Patent pending

APPLICATION EXAMPLES

- SYSTEM CHECK for radiated and conducted emission setup
- INTERLABORATORY COMPARISON and PROFICIENCY TESTING
- SHIELDING EFFECTIVENESS measurement
- RESEARCH & DEVELOPMENT

ADVANTAGES

- Guarantees fulfilment of ISO 17025 requirement for intermediate check of test equipment.
- High field strength setting for large test distances and Low field strength setting to avoid preamplifier overload.
- Tuneability of oven controlled local oscillator to match the EMI receiver reference frequency for high precision applications.
- Including accredited calibration

*The new concept of the RefRad 18 requires a different measurement method compared to a traditional comb generator. For EMI Receivers, proper setting of bandwidths and measurement time is essential to ensure accurate measurements. Spectrum analyzers must be operated at zero span. More details on this new measurement principle can be found in our application note on our homepage: www.seibersdorf-laboratories.at/refrad18

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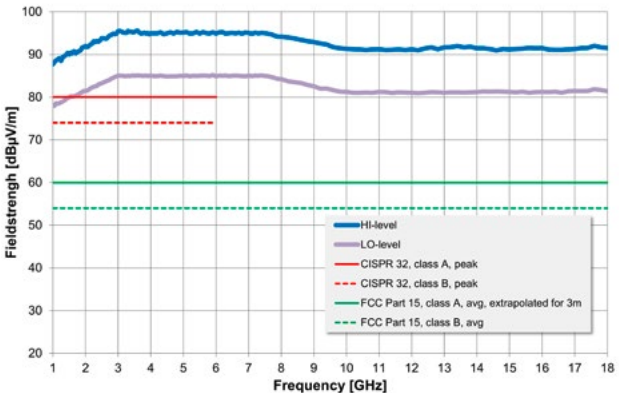
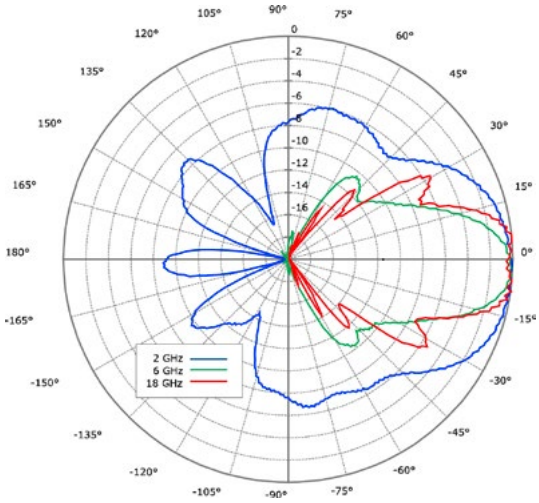
PRELIMINARY TECHNICAL DATA

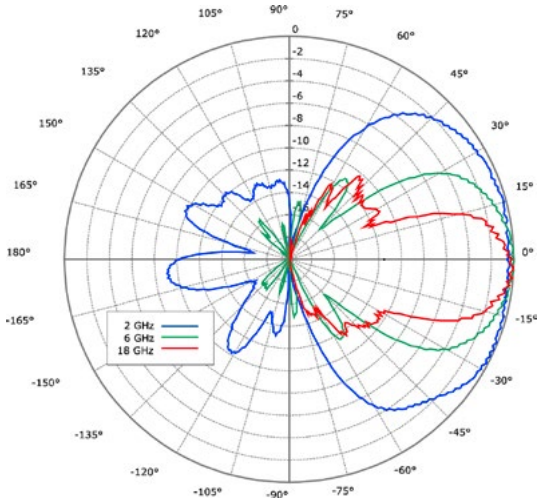
Frequency Range:	1 GHz – 18 GHz
Frequency Spacing:	50 MHz - 200 MHz
Coaxial Output (HI):	-10 dBm (1 – 18 GHz)
Coaxial Output (LO):	-25 dBm (1 – 18 GHz)
Frequency Stability:	± 20 ppb (equals 360 Hz @ 18 GHz)
Amplitude Stability:	± 0.1 dB (10-35°C)
Battery Operation Time:	8 hours typical
Charging:	USB-C
Dimensions:	134 x 134 x 244 mm (l x b x h)
Mounting:	22 mm diameter rod



Preliminary field strength values of the RefRad 18 at 3 m distance



Radiation pattern E-Plane



Radiation pattern H-Plane

Presented by:

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