

# REFRAD X

## COMB GENERATOR AND FIELD SOURCE

# THE ESSENTIAL TOOL FOR EMC TEST LAB QUALITY ASSURANCE

RefRad X is a battery operated comb generator and Field Source for producing a well defined signal to test the performance of EMC and EMF measurement systems in the frequency range of 10 kHz to more than 3 GHz with three unique features:

- BROADBAND ANTENNA DESIGN OF GENERATOR
- INCREASED DYNAMIC RANGE VIA FIBRELINK X
- LISN CHECK FROM 10 KHZ

#### **APPLICATION EXAMPLES**

- SYSTEM CHECK for radiated emission set-ups using the Field Source or the Antenna Coupler method
- SYSTEM CHECK for conducted emission set-ups with LISN Coupler
- NSA MEASUREMENT according to CISPR 16-1-4 in fully anechoic rooms in Field Source Mode
- NSA MEASUREMENT in semi anechoic environment in 3 m and 10 m distance with FibreLink X for increased dynamic range

#### **ADVANTAGES**

- Guarantees fulfilment of ISO 17025 requirement for the regular check of test equipment
- Avoids costly retesting by detecting defective measurement instruments prior to testing



RefRad X Field Source with FibreLink X for frequency synchronization to increase the dynamic range by up to 30 dB (patent pending)



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#### **TECHNICAL DATA**

Frequency Range: 10 kHz - more than 3 GHz
Frequency Spacing: 10 kHz, 1 MHz, 5 MHz
Frequency Stability: 25 ppm (crystal)

Amplitude Stability: ± 0.2 dB (battery voltage circle)

± 0.5 dB (0-40°C)

Battery Operation Time: 6 Hours typical @ 5 MHz

Dimensions Field Source: 13.5 cm diameter, 25.5 cm height

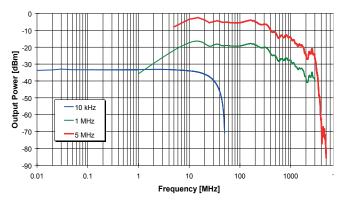
#### LISN-COUPLER

Frequency Range: 10 kHz - 30 MHz Available Types: 230V, European plug

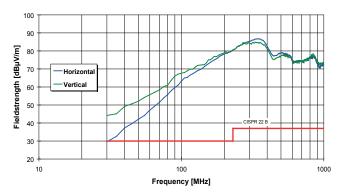
400V (16A/32A), Multiphase plug

DC, BNC plug





Typical coaxial output signals of the RefRad X Comb Generator



Typical fieldstrength of the RefRad X Field Source (5 MHz spectrum) in 10 m distance, 1 m height above groundplane