

## E-Field Generators for EMC Test

Edition 202306

Lorentz EM Technology Co., Ltd.

[www.lorentzcomms.com](http://www.lorentzcomms.com)

Lorentz Communication Technology Co., Ltd.



**LRET-10K100M-1**  
10 kHz ~ 100 MHz



**LRET-10K30M-1**  
10 kHz ~ 30 MHz

## Electromagnetic Compatibility Test

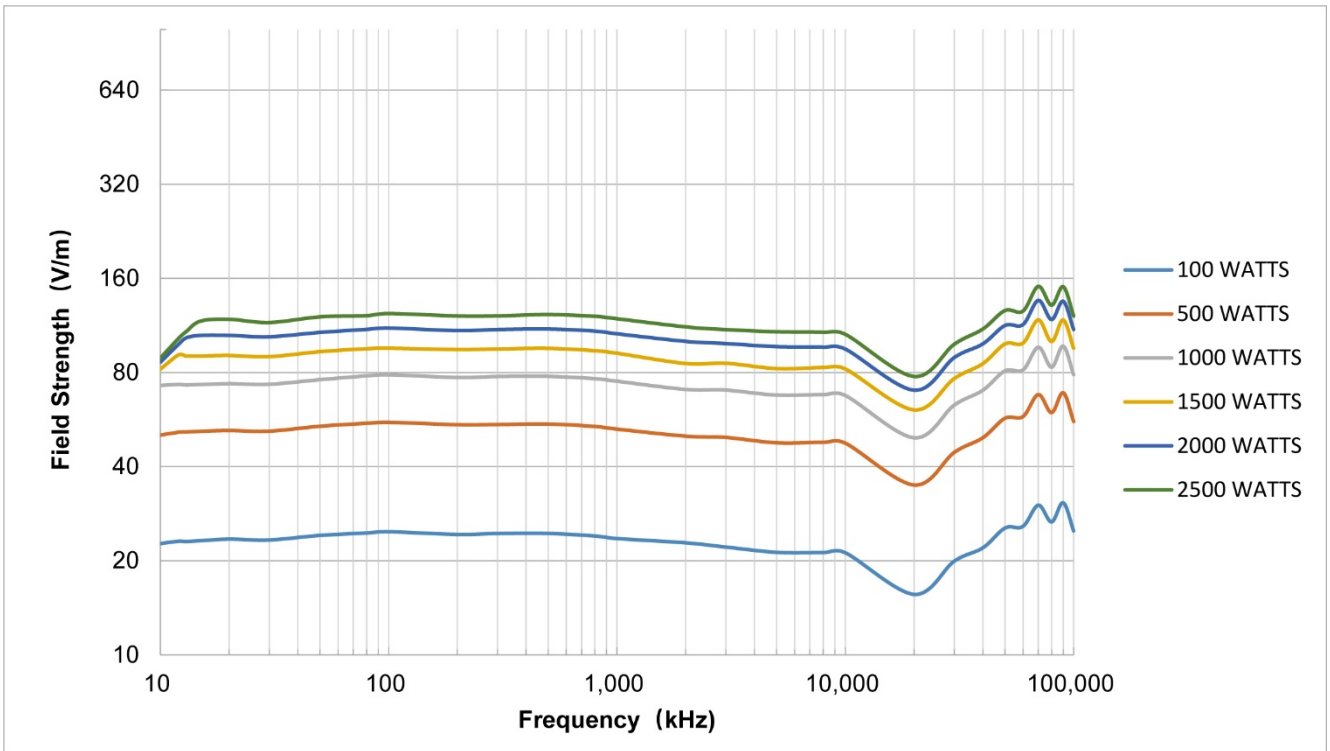
Electromagnetic compatibility test can evaluate whether devices can operate safely in complex electromagnetic environments, and it can also evaluate whether any device affects the safe operation of other devices. Electromagnetic compatibility test is essential for any device for either military or civil use.

E-Field generator is the typical and core equipment which tests the radiation sensitivity of electric field in the electromagnetic compatibility test as transmitting antenna. Our E-Field generator products can meet the test requirements under MIL-STD-461 / GJB 151B standards.

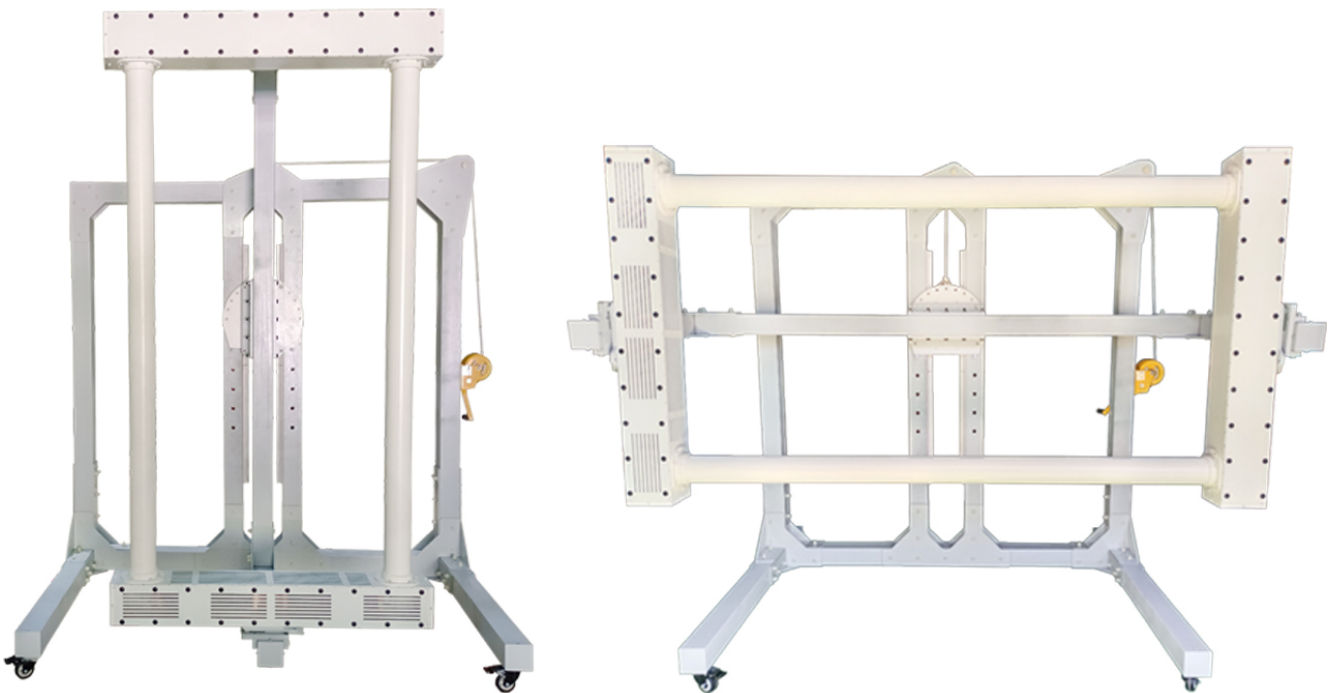
### 10 kHz ~ 100 MHz Typical Product Specifications

Model	LRET-10K100M-1	LRET-10K30M-1
Frequency range	10 kHz ~ 100 MHz	10 kHz ~ 30 MHz
Impedance	50 Ω	50 Ω
VSWR	≤ 2.5	≤ 3.0
Max. power input	3000 W	2000 W
Field strength <sup>1</sup>	See picture 1	50 V/m
Polarization rotation	Yes (polarization rotation bracket is needed)	Yes
RF interface	7/16 female	7/16 female (N female optional)
Size	(2682×1235×1942) <sup>2</sup> mm	(1684×712×66) mm

1. Testing distance 1m.
2. LRET-10K100M-1 with basic bracket.



Picture 1 LRET-10K100M-1 Field strength Curve (Testing distance: 1m)



Picture 2 LRET-10K100M-1 with polarization rotation bracket

### 1 ~ 40 GHz Typical Product Specifications

Model	LRET-1G6G-1	LRET-6G18G-1	LRET-18G26G-1	LRET-26G40G-1
Frequency range	1 ~ 6 GHz	6 ~ 18 GHz	18 ~ 26.5 GHz	26.5 ~ 40 GHz
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
VSWR	≤ 2.5	≤ 2.5	≤ 1.25	≤ 1.25
Gain	≥ 10 dBi	≥ 19 dBi	≥ 20 dBi	≥ 19 dBi
3 dB Beamwidth (E-Plane)	9 ~ 58 °	7 ~ 19 °	12 ~ 18 °	12 ~ 19 °
3 dB Beamwidth (H-Plane)	9 ~ 56 °	10 ~ 20 °	12 ~ 17 °	12 ~ 18 °
Power input (200 V/m) <sup>3</sup>	≤ 300 W	≤ 200 W	≤ 200 W	≤ 200 W
Polarization rotation	Yes	Yes	Yes	Yes
Mounting bracket	Option	Option	Option	Option
RF interface	N female	N female	FBP220	FBP320

3. Testing distance 1m.



Picture 3 LRET-1G6G-1 with bracket

## Main Partners



### The Fifth Electronics Research Institute of the Ministry of Industry and Information Technology (China Ceprei Laboratory)

Also known as China Electronic Product Reliability and Environmental Testing Research Institute, is the first authority engaged in reliability research in China. Their institute has various certifications and testing qualifications, and has also established themselves as internationally recognized institute, which enables them to offer certification and testing services globally as well as participating in global technological forums and formulating industry standards and regulations.



### BeiHang University

Research Institute for Frontier Science of Electromagnetic Safety of BeiHang University is positioned to research on electromagnetic compatibility and electromagnetic environment effect and their engineering applications, and is dedicated to research and development of the frontier basic theory of electromagnetic compatibility, key technologies or models.



### Suzhou Sushi Testing Group Co., Ltd.

Su Shi Testing Group (stock code: 300416) is a leading domestic and internationally renowned provider of environmental and reliability testing equipment and testing services and solutions. It is one of the leaders in the field of environmental and reliability testing in China.



### Changying Hengrong Electromagnetic Technology Co., Ltd.

Based on the mature technical foundation and R&D team of Research Institute for Frontier Science of Electromagnetic Safety of BeiHang University, Changying Hengrong Electromagnetic Technology has inherited the scientific research achievements and engineering development experience of Beihang in the field of electromagnetic safety for nearly 30 years. It is a leading scientific and technological enterprise in the field of electromagnetic safety and protection in China.



### National Institute of Metrology, China

The National Institute of Metrology, China (NIM) was established in 1955 and is affiliated to the State Administration for Market Regulation (SAMR). It is the nation's highest research facility of measurement science, a national statutory authority in the field of metrology, and a non-profit R&D institution.



### China Aerospace Science and Industry Corporation Limited (CASIC)

CASIC is a strategic, high-tech, innovative, state-owned enterprise with strong technical foundation and innovation capability. As one of the world's top 500 companies and among the top 100 global defense companies, CASIC is the backbone of space industry of China, and a leader in the development of China's industrial informatization.



## Main Partners

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### **China Aerospace Science and Technology Corporation (CASC)**

CASC, one of the Fortune Global 500 firms, is a large state-owned enterprise group with its own independent intellectual properties and famous brands, outstanding innovative capabilities, and strong core competitiveness.

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