E/H Field Generator



The E/H field generator is specially designed for the immunity test to electromagnetic fields on medium-sized devices. It can also be used for specific tests according to the MIL-Standards. The main advantage of this line is that the equipment under test can easily be successively tested in both polarisations. The height of the structure can be adjusted to optimize the field intensity. The line is electrically symmetrical and the impedance is adapted through transformers on both sides. The parallel plate line can also be used for immunity tests on automotive devices according to the European directive 2004/104/EC or to ISO 11451-2 and on broadcast receivers and associated equipment according to EN 55020.

It consists of a structure to be placed in the chamber or in an open area test site. The 2 slopes of the structure and the line are made with wires. The structure can be dismounted easily in order to carry out other tests in the chamber. Some precaution must be taken if the field generator is installed close to metallic structures in order to avoid resonances.



SPECIFICATIONS

| SPECIFICATIONS | |
|--|-------------------------|
| Туре | GENE-H-30-3K |
| Height under the septum | Adjustable, 1.5 - 3.5 m |
| Rectangular area under the septum (L x W) | 6.0 x 3.5 m |
| Frequency range (± 1 dB) (in the lowest position) | 10 kHz - 30 MHz |
| Maximum input power | 3 kW long term |
| E-field for 1 kW | See Figures 1 and 2 |
| Line impedance (V / H) | 100 Ω / 200 Ω |
| Input impedance | 50 Ω |
| Wave impedance | 377 Ω |
| Connector type | 50 Ω, type 7-16 |
| Mech. dimensions (L x W x H) | 16.3 x 4.2 x 4.2 m |
| Weight | 280 kg |



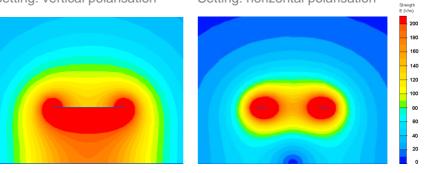
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Setting: vertical polarisation

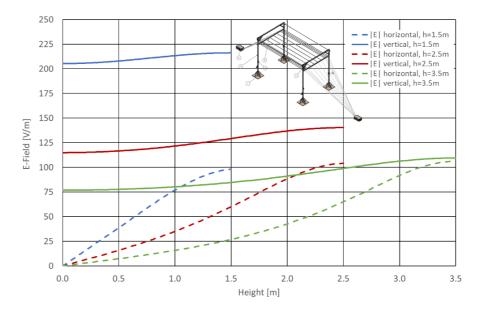
Setting: horizontal polarisation



Cross views of the vertical and horizontal electric field distribution around the septum (height: 1.5 m / 1 kW amplifier)

Typical performances

Theoretical electric field for an input power of 1 kW and different septum heights (1.5, 2.5 and 3.5 m) for both vertical and horizontal E-field orientations. The losses of the transformers and the effect of the chamber are neglected.



14.10.2019 Data sheet



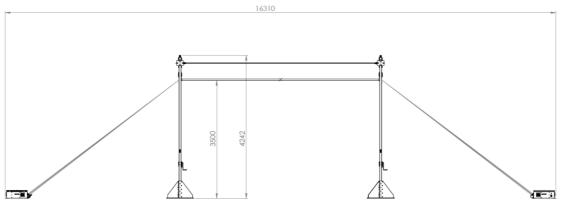
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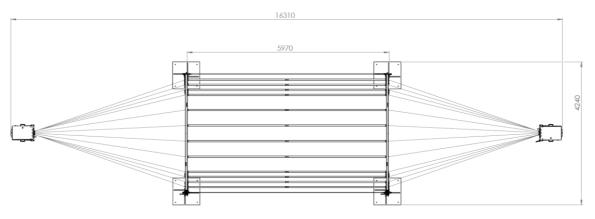
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Overall system dimensions

All dimensions in millimetres.





Ordering information

| TYPE | DESCRIPTION |
|--------------|---|
| GENE-H-30-3K | E/H field generator, frequency range 10 kHz - 30 MHz, height adjustable 1.5 - 3.5 m, power max 3 kW, connectors 7/16, with portable frame, lines and transformers |

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