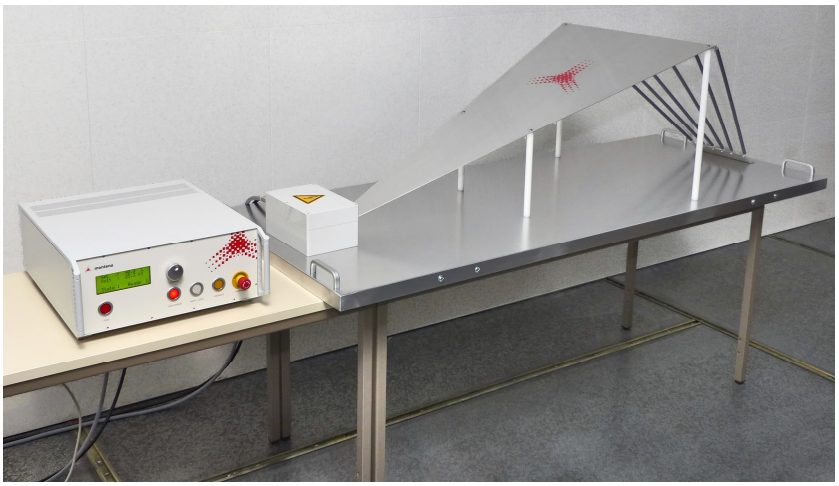
# NEMP radiated susceptibility test setup, H = 50 cm

The test system NEMP050 is designed to assess the immunity of small pieces of equipment such as printed boards, small subsystems, etc. to an electromagnetic pulse in accordance with the MIL-STD 461 RS105 test procedure (NEMP: nuclear electromagnetic pulse).

The system consists of a control unit and a line assembly including the high voltage unit directly connected to the radiating line. The high voltage unit and the antenna are fixed on a stable and solid frame which can be easily moved and placed on a table. The control unit is connected to the line structure through a high voltage cable and a control cable. The test system can be controlled by a computer through RS232 and USB interface. The minimum field under the line is 50 kV/m at full charging voltage. Even higher fields can be achieved for smaller objects placed close to the beginning of the line.



| SPECIFICATIONS | |
|---|---|
| **Type** | **NEMP050** |
| Standard | MIL-STD-461 E / F/ G, test procedure RS105 |
| Dimensions of the test volume | see drawing on next page |
| Charging voltage | 0.2 to 25 kV, positive only |
| Peak electric field | minimum 50 kV/m at full charging voltage |
| Rise time (10 – 90 %) | 2.3 ns ± 0.5 ns |
| Pulse length on 100 ohm (50 – 50 %) | 23 ns ± 5 ns |
| Line structure | bounded wave line / TEM mode |
| Maximum height of the EUT | 17 cm (according to MIL-STD461 / RS105) |
| Connecting cables | 2 (can be disconnected on the control unit side) |
| Power rating | 85 - 264 Vac / 50 - 60 Hz / 150 VA |
| Control unit dimensions | 56 x 19 x 45 cm (L x H x W) |
| Control unit weight | 12 kg |
| Line assembly dimensions | 200 x 55 x 80 cm (L x H x W) |
| Line assembly weight | 36 kg |

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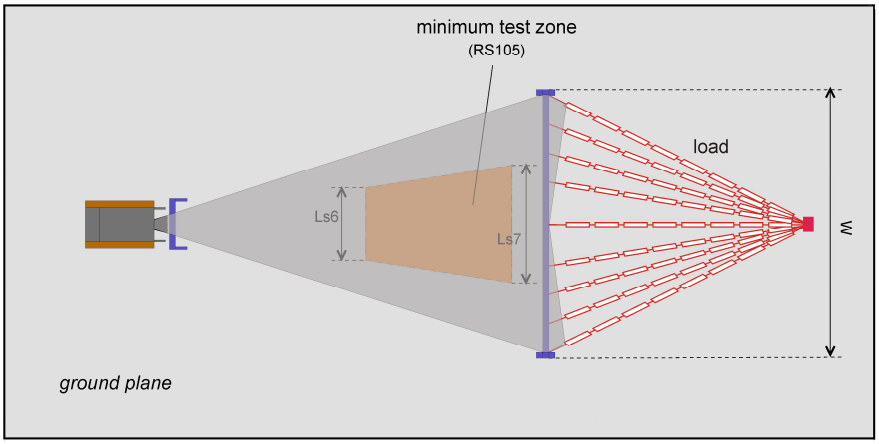
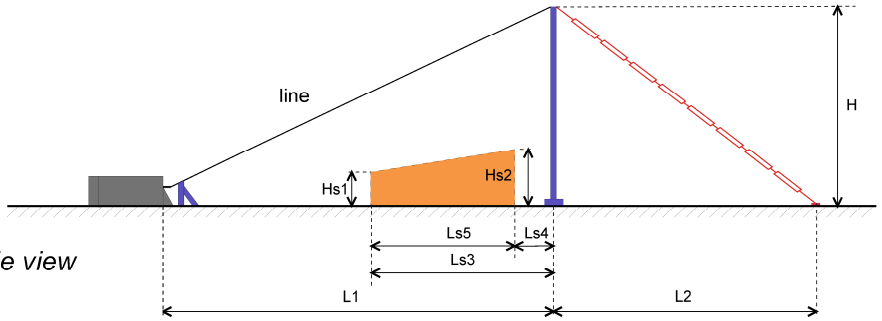
# Appendix 1: dimensions and test zone




*top view*

W = 69 cm
$L_{s6}$ = 17 cm
$L_{s7}$ = 34.5 cm




*side view*

H = 50 cm
$L_1$ = 116 cm
$L_2$ = 56 cm
$L_{s3}$ = 62 cm
$L_{s4}$ = 0 cm
$L_{s5}$ = 62 cm
$H_{s1}$ = 8.5 cm
$H_{s2}$ = 16.5 cm

## Ordering information

| TYPE | DESCRIPTION |
|---|---|
| **NEMP050** | Transportable NEMP test system according to MIL-STD 461 versions E, F and G / RS105, height of the radiation line 50 cm, for a test amplitude of up to 50 kV/m. |

### Related products / accessories

| TYPE | DESCRIPTION |
|---|---|
| **SGE3-5G** | D-dot sensor to measure the electric field pulse |
| **SB3G** | Shielded enclosure, for the protection of the oscilloscope |
| **PULSELab** | Pulse measurement and processing software application, lifetime license for installation on one PC. |