



# LAS 6100

## RADIATING LOOP ANTENNA & SENSOR SET

### 150 KHZ TO 30 MHZ



LAS 6100 Loop Antenna Set

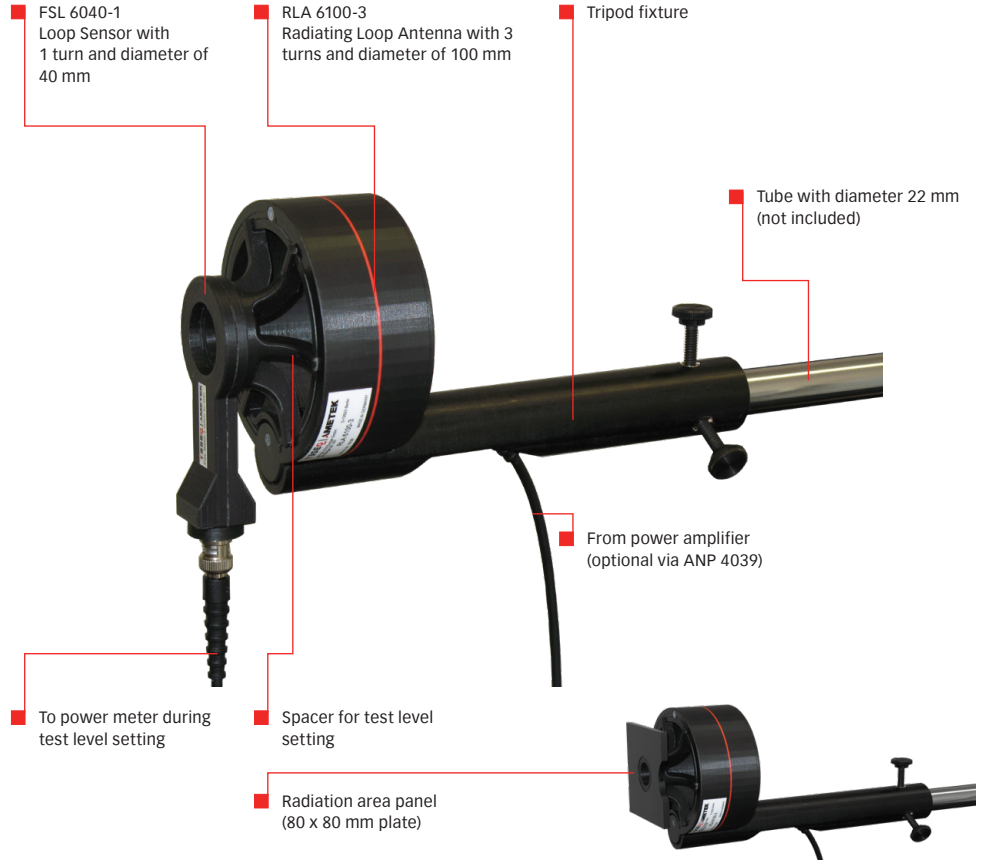
LAS 6100 is a loop antenna set designed to generate and verify magnetic fields in close proximity to test the immunity of electrical equipment exposed to RF fields as required by the IEC 61000-4-39 standard.

The LAS 6100 antenna set consists of a radiating loop antenna RLA 6100-3, field sensor loop FSL 6040-1 and guarantees the required distance of 50 mm needed to comply with the standard requirements.

FSL 6040-1 field loop sensor with a diameter of 40 mm, offers electrostatic shielding. The correction factor is also provided with the FSL 6040-1.

The LAS 6100 set includes the ANP 4039 adaptor to allow more field strength at 13.56 MHz, as required by IEC 60601-1-2.

- 150 kHz to 30 MHz range
- Generate and verify magnetic fields
- Loop set including radiating loop antenna RLA 6100-3, and field sensor loop FSL 6040-1
- Meets requirements of IEC 61000-4-39 and IEC 60601-1-2



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RLA 6100-3, view to the connector



FSL 6040-1 front and side view



ANP 4039 front view

#### Technical specifications

##### RLA 6100-3 Radiating Loop Antenna

|                         |                                   |
|-------------------------|-----------------------------------|
| Frequency range         | 150 kHz to 30 MHz                 |
| Test distance           | 50 mm                             |
| Required Power          | see graph for typical drive power |
| Loop diameter           | 100 mm                            |
| No. of turns            | 3                                 |
| Wire diameter           | approx. 1 mm                      |
| Connector type          | BNC, 50 Ω                         |
| Max. input power        | 100 W                             |
| Dimensions (W x H x D): | 110 mm x 120 mm x 78 mm           |
| Weight                  | approx. 171 g                     |

##### FSL 6040-1 Field Sensor Loop

|                         |                        |
|-------------------------|------------------------|
| Frequency range         | 150 kHz to 30 MHz      |
| Loop diameter           | 40 mm                  |
| No. of turns            | 1                      |
| Wire diameter           | approx. 0.5 mm         |
| Shielding               | electrostatic          |
| Connector type          | BNC, 50 Ω              |
| Correction factor       | see calibration data   |
| Dimensions (W x H x D): | 50 mm x 120 mm x 25 mm |
| Weight                  | approx. 45 g           |

##### ANP 4039 Matching Network 13.56 MHz

|                          |                                      |
|--------------------------|--------------------------------------|
| Applicable frequency     | 13.56 MHz                            |
| RF input connector type  | N, 50 Ω                              |
| RF output connector type | 22SHV-50-0-2 (cable LE 271 required) |
| Max. input power         | 20 W                                 |
| Dimensions (W x H x D):  | 90 mm x 63 mm x 110 mm               |
| Weight:                  | approx. 0.5 kg                       |

#### Environment specifications

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Classification                    | Indoor use only                       |
| Operation temperature             | 0 °C to +40 °C                        |
| Storage and transport temperature | -10 °C to +60 °C                      |
| Relative humidity                 | up to 90 % (no moisture condensation) |

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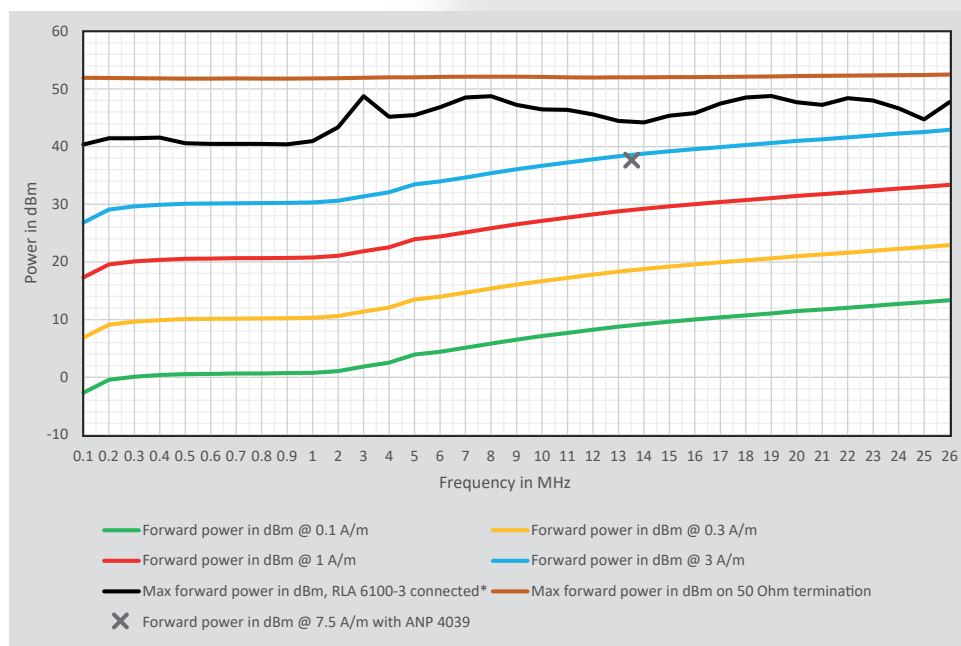
## RADIATING LOOP ANTENNA & SENSOR SET

### 150 kHz TO 30 MHz

#### Mechanical dimensions of the LAS 6100

|                         |                          |
|-------------------------|--------------------------|
| Dimensions (W x H x D): | 350 mm x 125 mm x 275 mm |
| Weight:                 | approx. 2.0 kg           |

#### Example for typical power requirements using NSG 4070C-LFCP

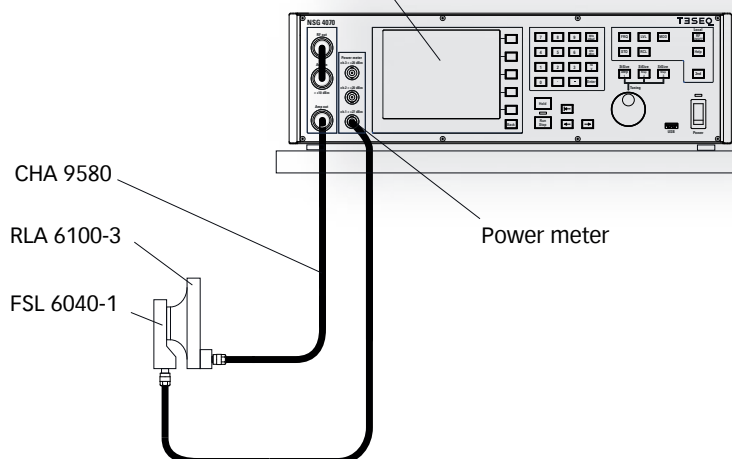


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## RADIATING LOOP ANTENNA & SENSOR SET 150 kHz TO 30 MHz

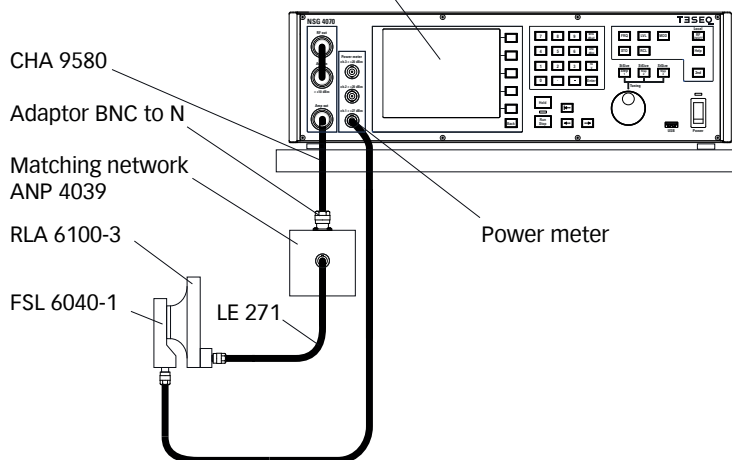
### Set up example for test level setting

Compact generator NSG 4070C1-LFCP



### Set up example for test level setting at 13.56 MHz for e.g. 7.5 A/m (IEC 60601-1-2)

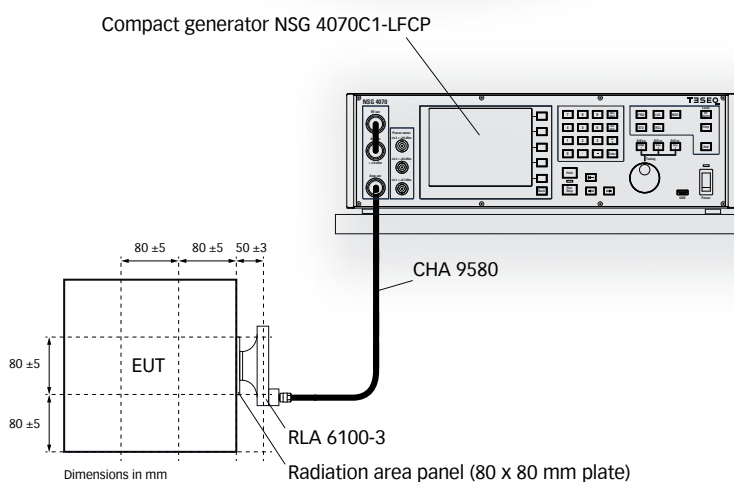
Compact generator NSG 4070C1-LFCP



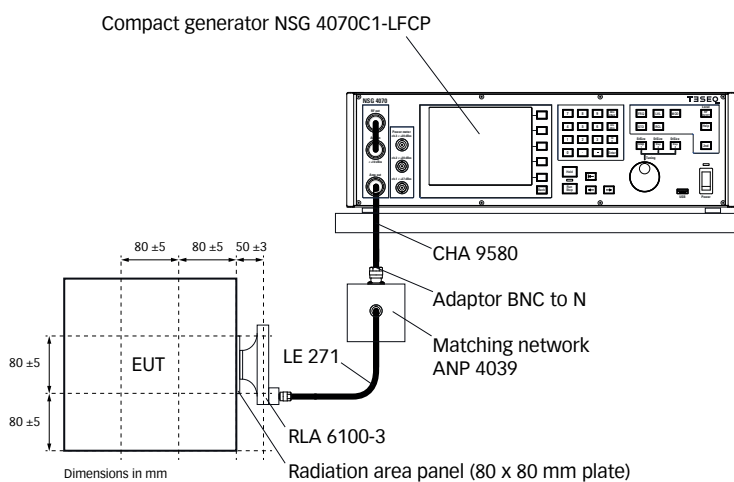
# LAS 6100

## RADIATING LOOP ANTENNA & SENSOR SET 150 kHz TO 30 MHz

### Set up example for testing



### Set up example for testing at 13.56 MHz for e.g. 7.5 A/m (IEC 60601-1-2)



RLA 6100-3 connected with  
LE 271 to ANP 4039

# LAS 6100

## RADIATING LOOP ANTENNA & SENSOR SET 150 kHz TO 30 MHz



**LAS 6100 Loop Antenna Set in transport case (partly shown)**

### Model No. and options

| Part number | Description  |
|-------------|--|
| 258281      | LAS 6100<br>Loop antenna set 150 kHz to 30 MHz, includes RLA 6100-3 (radiating loop antenna), spacer, radiation area panel (80 mm x 80 mm plate), TPF 6100 (tripod fixture), FSL 6040-1 (field sensing loop antenna), ANP 4039 (matching network for 13.56 MHz), CHA 9580 (N(m)-BNC(m), 2 m, RG223), RF cable (BNC(m)-BNC(m), 1 m, RG58) LE 271 (SHV(f)-BNC(m), 1 m, RG58), N-BNC adaptor, user manual and ISO 17025 traceable calibration certificate (scope of calibration FSL 6040-1) |
| 258265      | RLA 6100-3<br>Radiating loop antenna 150 kHz to 30 MHz   |
| 258308      | TPF 6100<br>Tripod fixture for RLA 6100-3  |
| 258275      | FSL 6040-1<br>Field sensing loop antenna 150 kHz to 30 MHz   |
| 97-258275   | FSL 6040-1-TC<br>Traceable calibration (ISO 17025), order only with the device   |
| 98-258275   | FSL 6040-1-ACC<br>Accredited calibration (ISO 17025)   |
| 259712      | ANP 4039<br>Matching network for RLA 6100-3 at 13.56 MHz, incl. LE 271   |

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82-258281 E05 August 2022