

ISN S501A, S502A, S751 AND S752 IMPEDANCE STABILIZATION NETWORKS FOR COAXIAL LINES



- For use with coaxial lines
- BNC and N connectors
- Versions with double screened cable
- Meets the requirements of CISPR 22, CISPR 32, CISPR 16-1-2
- Design given in figure D.9 of CISPR 22 and G.9 of CISPR 32
- Can be used as CDN for IEC 61000-4-6 immunity tests

Impedance stabilization networks (ISN, or with CISPR 16-1-2 called AAN: asymmetric artificial network or AN: artificial networks for coaxial and other screened cables) are defined for measuring of conducted common mode disturbances at information technology equipment (ITE) as required in CISPR 22.

The ISN is placed between the equipment under test (EUT) and auxiliary equipment (AE) or load which are necessary for the operation of the EUT. The ISN establishes the common-mode termination impedance for the EUT's telecommunications port during measurement.

ISN S501A, ISN S502A, ISN S751 and ISN S752 are designed for measurements on coaxial telecommunication lines. The used internal cable has a impedance of 50 Ω for ISN S501A and ISN S502A or 75 Ω for ISN S751 and ISN S752. The cable screen is connected on the AE side to the ground. ISN S502A and ISN S752 are supplied with double screened coaxial cables and N connector. A design example is given in figure D.9 CISPR 22 (EN 55022) and figure G.9 CISPR 32 (EN 55032).

Technical specifications

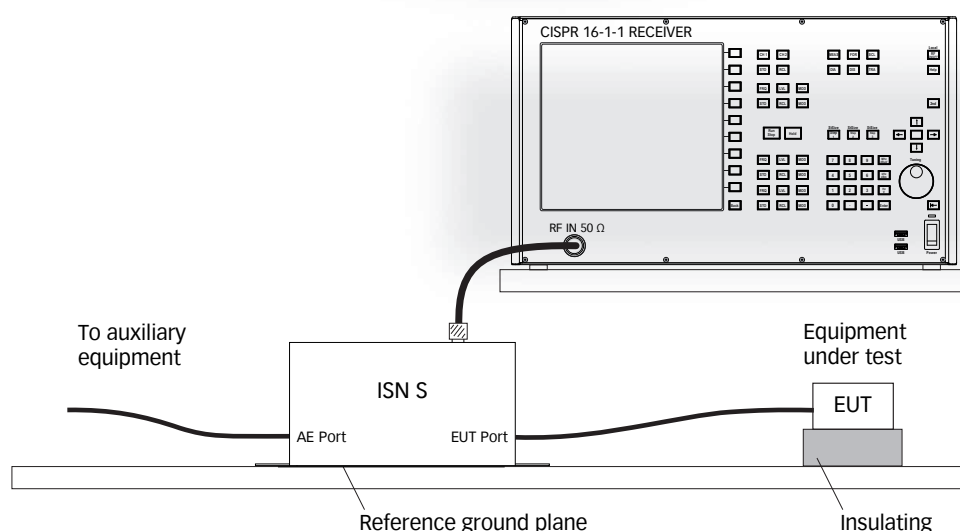
Frequency range:	150 kHz to 230 MHz
Power rating (EUT- and AE port)	
AC max. voltage (line to ground):	250 V
DC max. voltage (line to ground):	400 V
Current max :	250 mA
Test voltage:	750 V DC, 2 sec
Common mode impedance (EUT port)	
150 kHz to 30 MHz:	150 Ω \pm 20 Ω
30 MHz to 230 MHz:	150 Ω +60 Ω / -45 Ω
Phase angle (EUT Port) 150 kHz to 30 MHz:	0° \pm 20°
Coupling path (In / Out port / EUT)	
Connection:	BNC 50 Ω
RF voltage:	< 20 V
Voltage division factor (RF input to EUT port)	
150 kHz to 30 MHz:	10 dB \pm 1 dB
30 MHz to 230 MHz:	10 dB +3 dB / -2 dB
Transmission bandwidth (wanted signal) EUT / AE B3 dB:	> 2 GHz sin.
Decoupling of CM disturbance (RF port / AE)	
150 kHz to 1.5 MHz:	>60 dB
30 MHz:	>55 dB
230 MHz:	>40 dB

Mechanical specifications

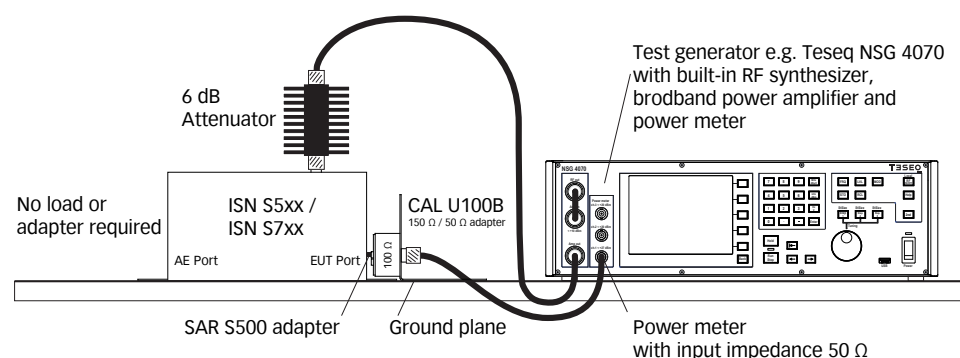
Size (W x H x D):	100 mm x 100 mm x 240 mm (ISN S502A and ISN S752: 288 mm)
Weight:	approx. 1.5 kg

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Test setup example for disturbance voltage measurements on coaxial lines



Example of the level setting setup (system calibration for immunity testing according IEC / EN 61000-4-6)



ISN S501A, ISN S502A, ISN S751 and ISN S752 are appropriate for immunity tests of IEC/EN 61000-4-6. Optional available are the parts for the level setting setup CAL U100B (150 Ω / 50 Ω adapter) and SAR S500 (common mode adapter for N/BNC).

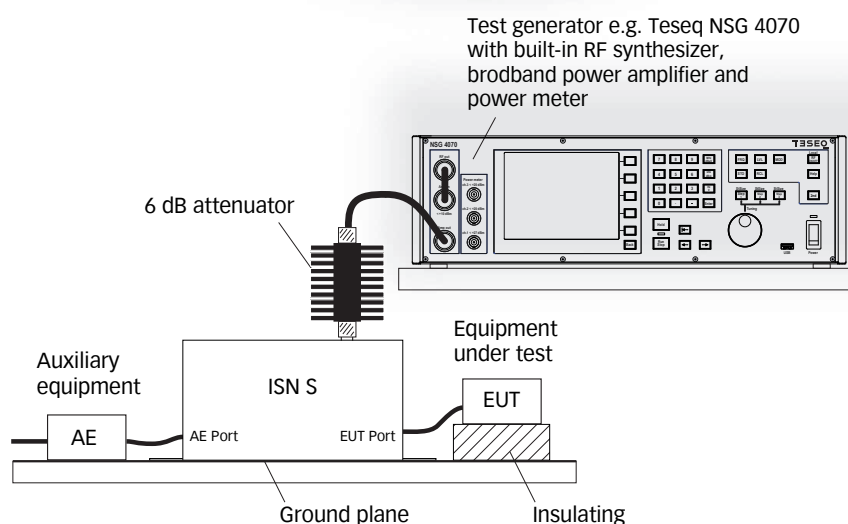
T E S E Q

Advanced Test Solutions for EMC

ISN S501A, S502A, S751 AND S752

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Example of the EUT setup for immunity testing according IEC / EN 61000-4-6



Model No. and options

Part number	Description
248665	ISN S501A ISN for coax line with BNC 50 Ω connector
248663	ISN S502A ISN for coax line with N 50 Ω connector, double screened
248669	ISN S751 ISN for coax line with BNC 75 Ω connector
248667	ISN S752 ISN for coax line with N 75 Ω connector, double screened
97-248650	ISN Sxxx-TC Traceable calibration (ISO17025), order only with ISN S, related to CISPR 22/32 and IEC/EN 61000-4-6
247825	CAL U100B Universal calibration unit (150 Ω / 50 Ω adapter)
242440	SAR S500 Calibration adapter part for BNC and N)

Teseq GmbH
Landsberger Str. 255 · 12623 Berlin · Germany
T +49 30 56 59 88 35 F +49 30 56 59 88 34
desales@teseq.com www.teseq.com

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