



# ISN PLT-A IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWERLINE TELECOMMUNICATION (PLT)



- For asymmetric disturbance measurements on PLT devices
- Frequency range 1.6 to 30 MHz
- LCL >55 dB
- Conform with EN 50561-1
- Supplied with Coupling Unit



Coupling Unit

The ISN PLT-A is made for measurements on PLT devices which use one port for mains power supply and telecommunications (PLT port). It is conform with the requirements of EN 50561-1. Included in the delivery is the Coupling Unit (CU) as given in figure 3 of the standard.

## Technical specifications

Max. operating voltage:	250 VAC, 50 Hz, Mains L/N/PE
Max. operating current:	10 A
Test voltage:	1.5 kV AC, 2 s
Mains sockets EUT/AE:	4 mm, safety
RF sockets:	BNC, 50 Ω
Frequency range:	1.6 MHz to 30 MHz
Common mode impedance:	25 Ω ±3 Ω
Phase angle:	0° ±25°
Differential mode impedance:	100 Ω ±10 Ω
Phase angle:	0° ±25°
Voltage division factor:	0 dB ±1 dB
Isolation (common mode):	>55 dB
Insertion Loss – symmetric:	<3 dB
LCL:	>55 dB
Coupling Unit	
Max. operating voltage:	250 VAC, 50 Hz, Mains L/N/PE
Max. operating current:	10 A
Mains sockets Coupling Unit:	Schuko
Common mode decoupling attenuation *):	>40 dB
Insertion Loss (differential mode *):	>40 dB

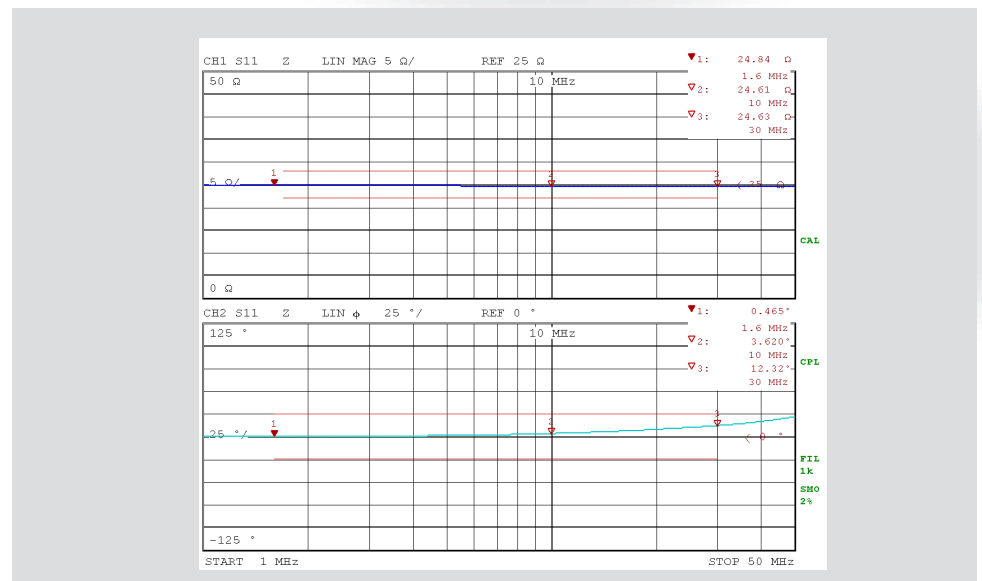
\*) Parameters are only valid for a test setup with two identical AMNs like NNB 51 or NNB 52  
All symmetrical parameters are only valid for a symmetrical impedance of 100 Ω

## Mechanical specifications

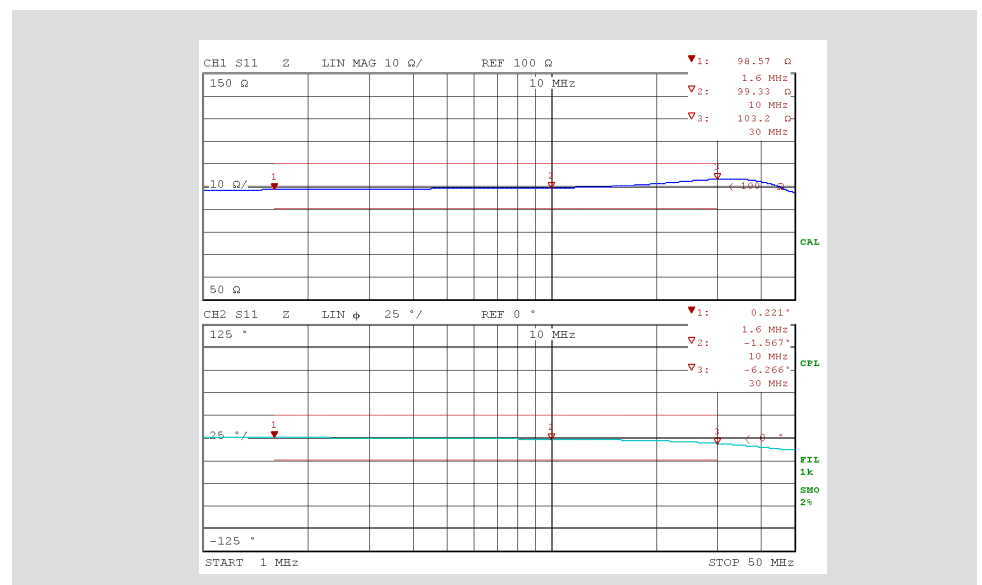
Size (W x H x D) in mm:	185 x 100 x 100
Size of the base plate in mm:	235 x 100
Weight:	approx. 1450 g
Size of the Coupling Unit (W x H x D) in mm:	95 x 63 x 85 (each box)
Cable length of the Coupling Unit:	approx. 0.8 m
Weight of the Coupling Unit:	approx. 260 g

# ISN PLT-A IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWERLINE TELECOMMUNICATION (PLT)

Typical common mode impedance and phase angle (EUT)

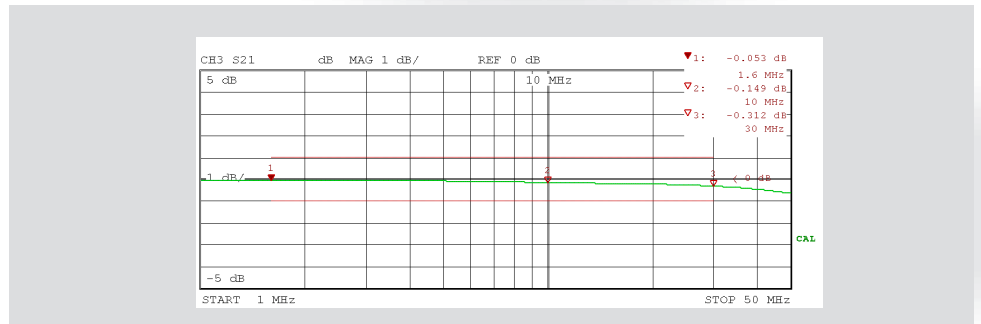


Typical differential mode impedance and phase angle (EUT)

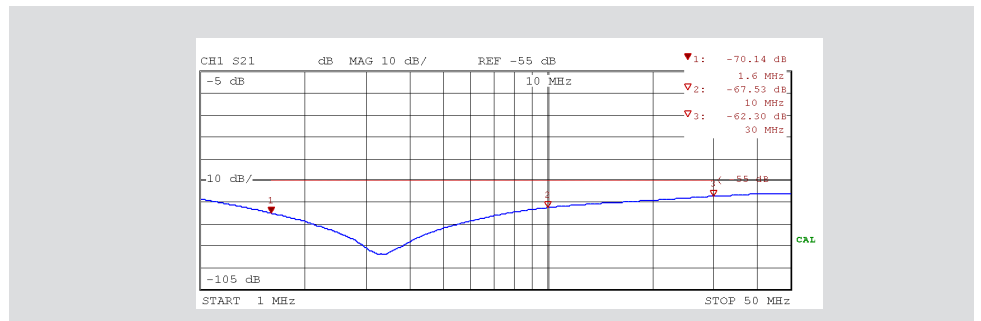


# ISN PLT-A IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWERLINE TELECOMMUNICATION (PLT)

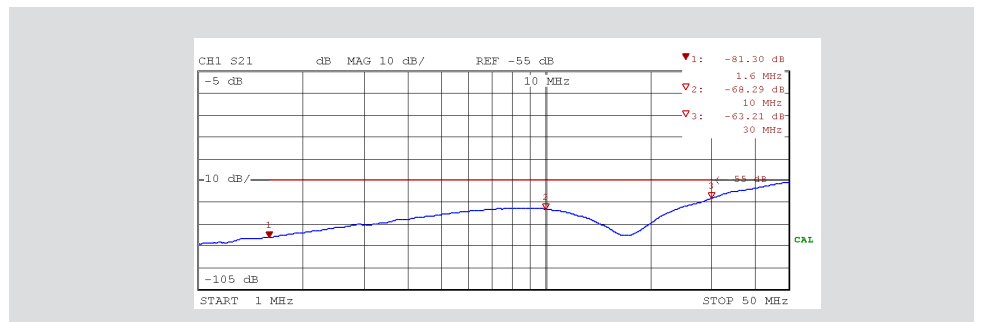
Typical voltage division factor (EUT -  $V_{OUT}$ )



Typical isolation (AE -  $V_{OUT}$ )

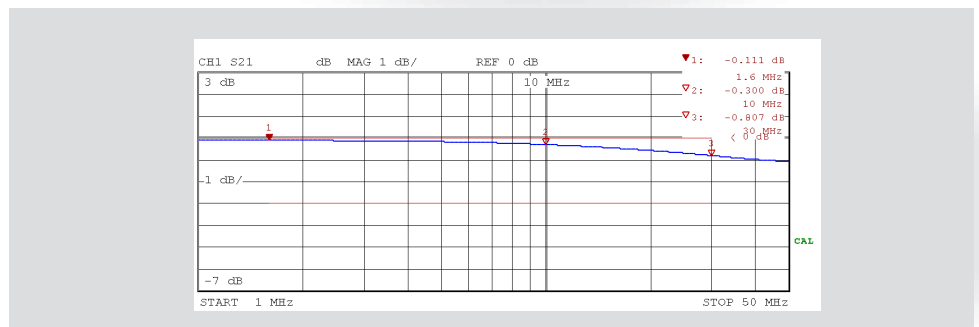


Typical LCL (EUT)

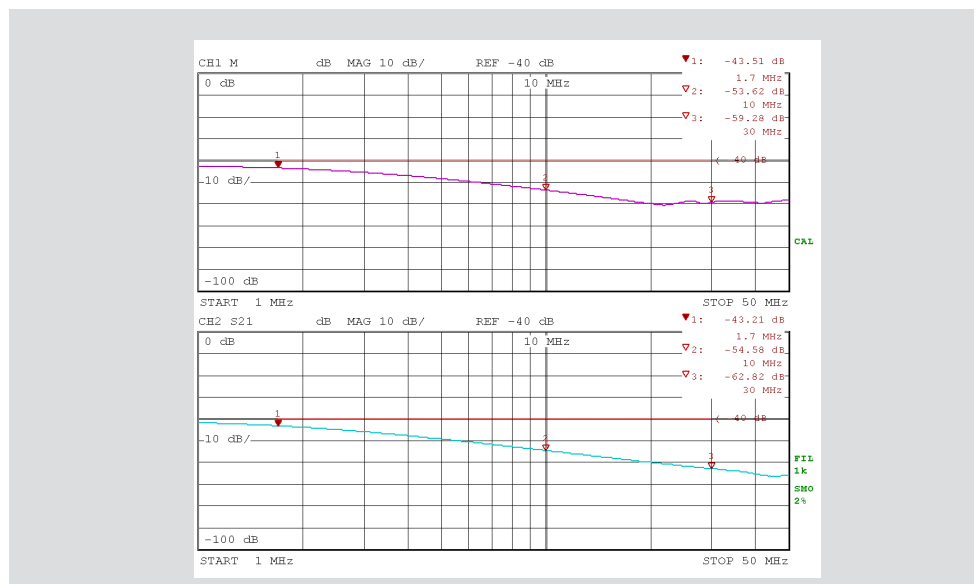


# ISN PLT-A IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWERLINE TELECOMMUNICATION (PLT)

Typical insertion loss, symmetric (EUT – AE)



Coupling Unit: Typical common mode decoupling attenuation (isolation), typical insertion loss (differential mode)



# ISN PLT-A IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWERLINE TELECOMMUNICATION (PLT)



Coupling Unit, top view

## Delivery information

Part number	Description
243783	ISN PLT-A ISN for power line telecommunication for EN 50561-1, LCL $\geq 55$ dB, with Coupling Unit in storage case
97-243784	ISN PLT-TC Traceable calibration (ISO17025), order only with the device

## 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](http://www.teseq.com)

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