



# ISN PLT IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWER LINE TELECOMMUNICATION (PLT)



The ISN PLT 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 CISPR/I/301/CD and covers Type 1 PLT and Type 2 PLT devices through a switchable LCL (longitudinal conversion loss). Included in the delivery is the Coupling Unit (CU) as given in figure C.6 of the standard draft.



- For use with Type 1 & 2 PLT devices
- Switchable LCL
- Conform with CISPR/I/301/CD
- Supplied with Coupling Unit



Coupling Unit

## 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
Mains sockets Coupling Unit:	Schuko
RF- sockets:	BNC, 50 Ω
Frequency range:	1.7 MHz to 30 MHz
Common mode impedance:	25 Ω ±3 Ω
Phase angle:	0° ±25°
Differential mode impedance:	100 Ω ±20 Ω
Phase angle:	0° ±45°
Voltage division factor:	0 dB ±1 dB
Isolation:	>15 dB
Insertion Loss – symmetric:	>15 dB
LCL, Type 1 *):	>55 dB
LCL, Type 2 *):	16 dB ±3 dB

\*) The ISN PLT is switchable for testing PLT ports of Type 1 and Type 2 PLT devices. All symmetrical parameters are only valid for a symmetrical impedance of 100 Ω.

## Mechanical specifications

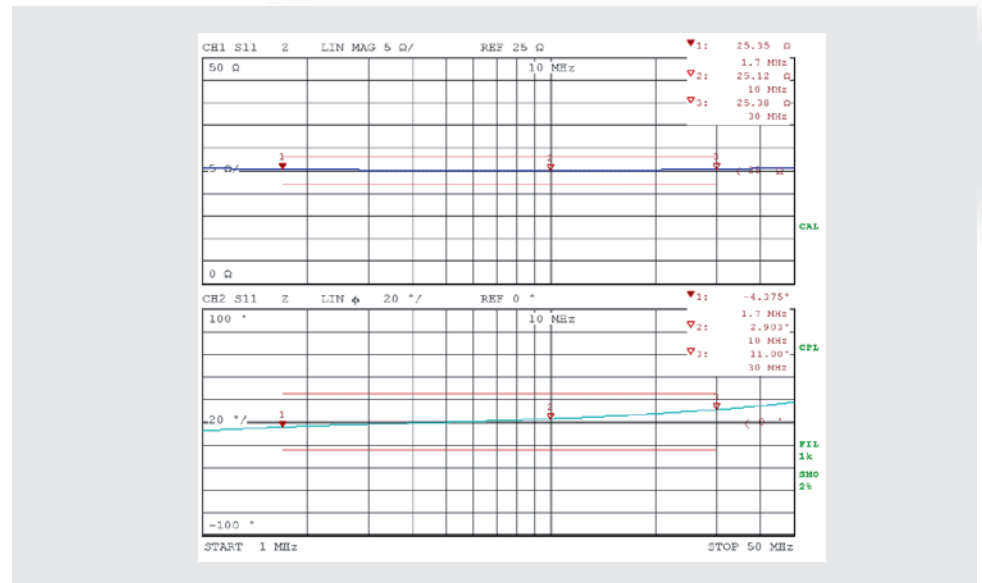
Size (W x H x D) in mm:	185 x 100 x 100
Size of the base plate in mm:	235 x 100
Weight:	approx. 1450 g
Size of the Coupling Unit (W x H x D) in mm:	95 x 63 x 85 (each box)
Cable length of the Coupling Unit:	approx. 0.8 m
Weight of the Coupling Unit:	approx. 260 g



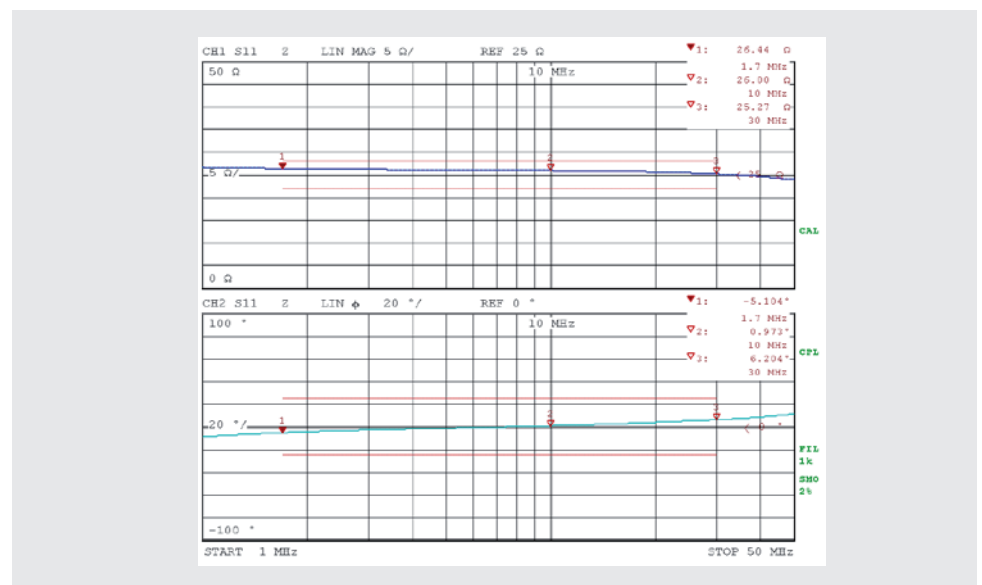
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# ISN PLT IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWER LINE TELECOMMUNICATION (PLT)

Typical common mode impedance and phase angle (EUT) (switch position 55 dB, Type 1 PLT device)



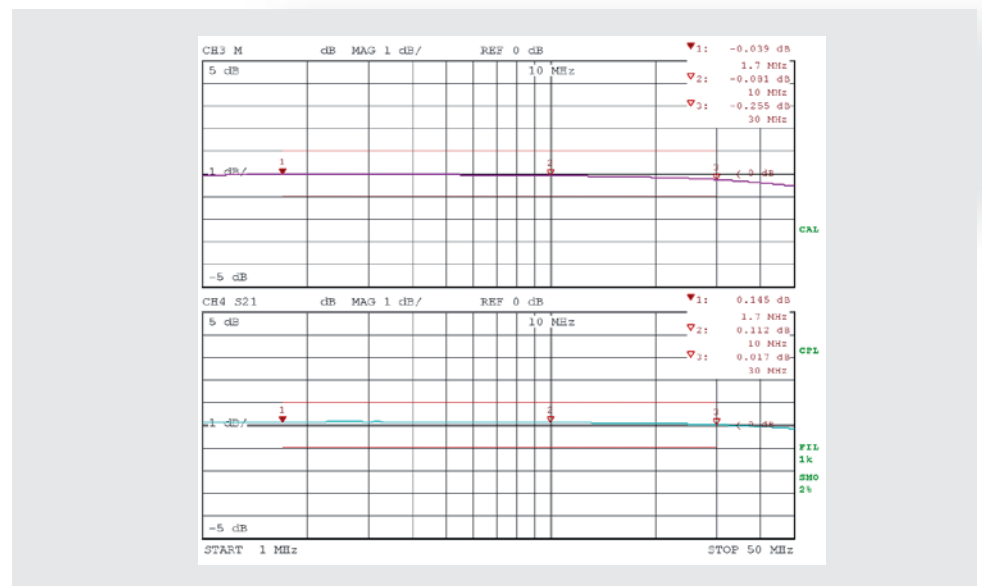
Typical common mode impedance and phase angle (EUT) (switch position 16 dB, Type 2 PLT device)



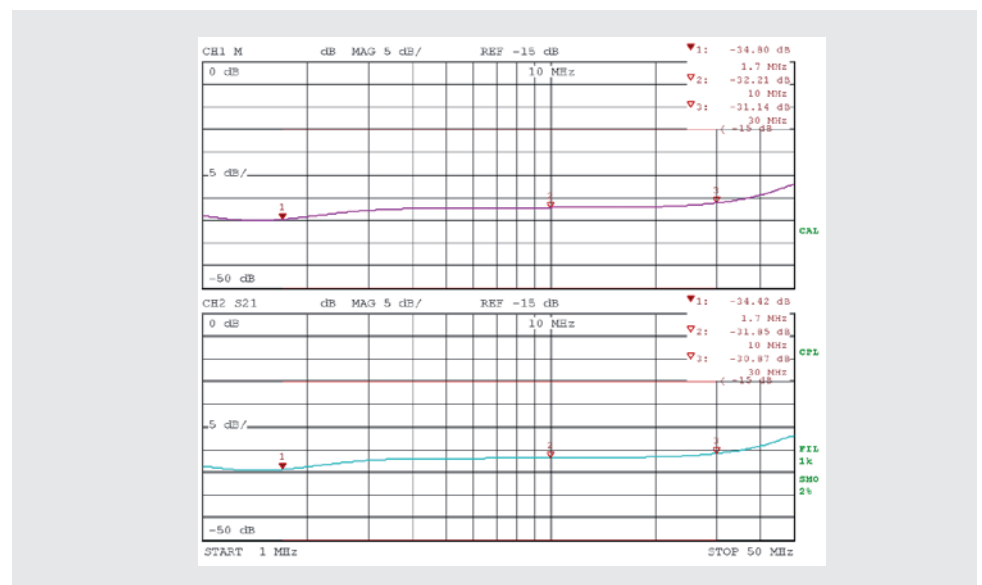


# ISN PLT IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWER LINE TELECOMMUNICATION (PLT)

Typical voltage division factor ( $EUT - V_{OUT}$ ) (ch 3: Type 1 PLT device, ch 4: Type 2 PLT device)



Typical isolation ( $AE - V_{OUT}$ ) (ch 1: Type 1 PLT device, ch 2: Type 2 PLT device)

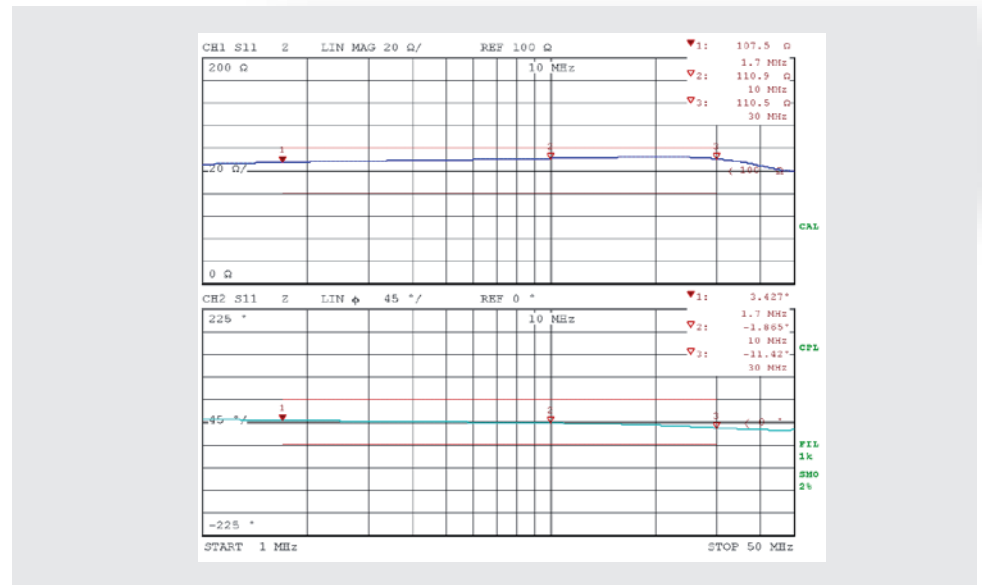




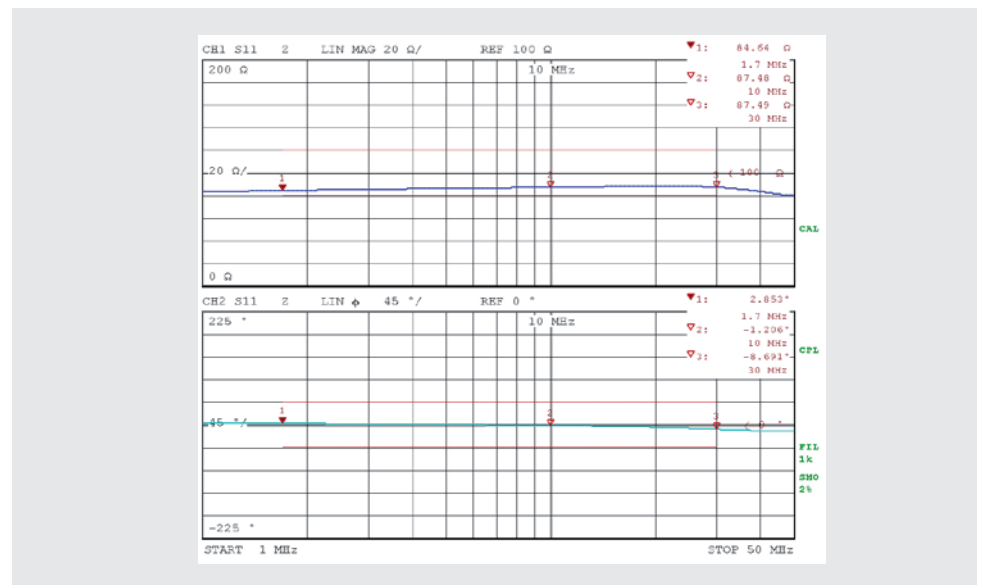


# ISN PLT IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWER LINE TELECOMMUNICATION (PLT)

Typical differential mode impedance and phase angle (EUT) (Type 1 PLT device)



Typical differential mode impedance and phase angle (EUT) (Type 2 PLT device)



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# ISN PLT IMPEDANCE STABILIZATION NETWORK (ISN) FOR POWER LINE TELECOMMUNICATION (PLT)



Coupling Unit, top view

## Delivery information

Part number	Description
243784	ISN PLT ISN for power line telecommunication, switchable LCL >55 dB/16 dB, with Coupling Unit in suitcase
97-243784	ISN PLT-TC Traceable calibration (ISO17025), order only with the device