

BULK CURRENT INJECTION PROBE – BCI PROBE

acc. to ISO 11452-4, MIL-STD 461 CS 114



(Optional matching transformer)



Bulk current injection probe

The Bulk Current Injection Probe is used to inject RF-current into cables of electrical equipment to test the susceptibility against radiated electromagnetic energy.

It was designed to meet the specifications of ISO 11452-4:2005 and IEC 61000-4-6 standards for automotive BCI testing with secondary currents of 300 mA and more.

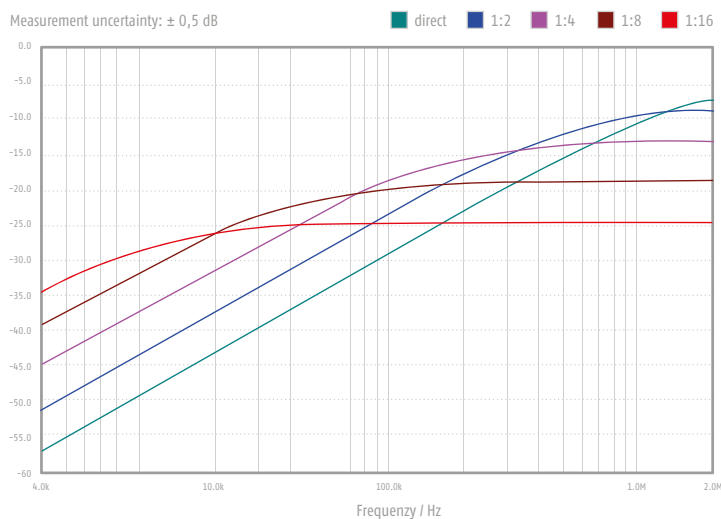
The probe can be easily clamped around test conductors and supports cable harness diameters up to 40 mm diameter.

Technical Specifications

Frequency range	4 kHz – 400 MHz
Input Connector	Type N Female
Inner diameter	120 mm
Outer Diameter	40 mm
Width	40 mm
Max. core temperature	90 °C
Turns Ratio	1:1
Primary inductance	5.1 µH @ 100 kHz
Ambient temperature	0 to 40 °C
Fastening	1 Clip
Input Power rating until core temperature is 90 °C*	90 min @ 70 W (48.45 dBm) 45 min @ 100 W (50 dBm)

* higher input power possible for shorter duration. Control via integrated temperature sensor

Measurement uncertainty: ± 0,5 dB



Insertion loss when using the matching transformer MT-1. The selection of the ratio in dependence of the frequency can be optimized by automatic software control via LAN or UB-interface.

Features

- Meets specifications of ISO 11452-4:2005 and IEC 61000-4-6
- Frequency range from 4 kHz up to 400 MHz
- Designed for automotive BCI testing
- Low insertion loss with optional matching transformer

BULK CURRENT MONITORING PROBE – MP50

acc. to ISO 11452-4, MIL-STD 461 CS 114

Current monitoring probe – MP50

The Current Monitoring probes may be used whenever RF current measurements are required. Current measurements are made by placing a current carrying conductor within the "sensing" window of the probe and measuring the probe's output voltage with an RF detector. Calibration of the probe permits the conversion of the voltages measured to current. Current measurements can be made over the frequency range shown in the transfer impedance curve furnished with each probe. There is virtually no loading of the

circuit and the technique permits normal operation of the device under test during measurements.

The MP-50 can be used for the procedure for clamp injection when the common-mode impedance requirements cannot be met given in chapter 7.4 of IEC/EN 61000-4-6 „Immunity to conducted disturbances, induced by radio frequency fields“. The MP-50 can also be used as current monitor for BCI testing as per ISO11452-4, RTCA/DO-160 section 20, MIL-STD-461 and various automotive standards.

Technical Specifications

Frequency range	10 kHz – 400 MHz
Insertion impedance	< 2,5 Ohm
Cable diameter	< 46 mm
Signal output	BNC socket
Max signal current (10 kHz–400 MHz)	1A
Dimensions	Outer diameter 115 mm
	Thickness 30mm
	Overall length 136mm
Weight	0,55 kg

Features

- As required in IEC/EN 61000-4-6
- Suitable for BCI testing per ISO11452-4, RTCA/DO-160 section 20, MIL-STD 461 CS 114, and various automotive standards
- Individual calibration data with each probe

