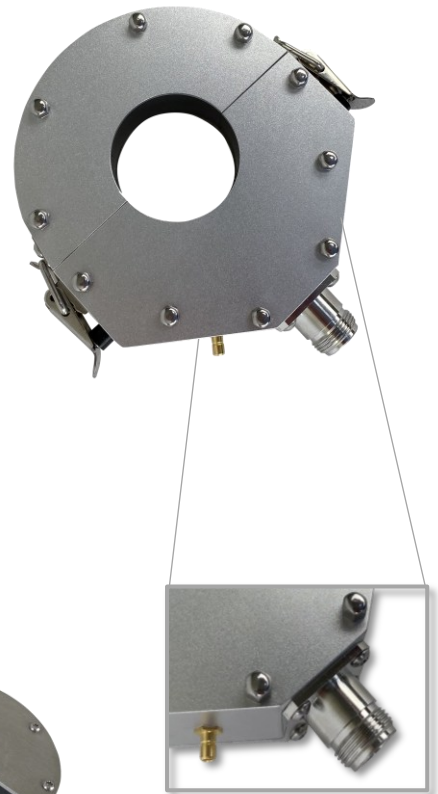



## CDN BCI-P1 / CDN BCI-P1\_MT-1

### Bulk current injection probe

#### IEC / EN 61000-4-6, ISO 11452-4

- For test according to ISO 11452-4 and IEC 61000-4-6
- Frequency range from **1 MHz - 400 MHz for BCI-P1**, 4 kHz - 400 MHz if connected to MT-1
- For the current edition of ISO 11452-4, **100 kHz - 400 MHz** the **MT-1** is required as accessory
- Designed for Automotive BCI testing



Delivery with calibration jig 



#### Overview

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 IEC 61000-4-6 and ISO 11452-4 standards for automotive BCI testing and more.

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

#### Key facts

- Delivery with calibration jig
- Integrated temperature sensor
- Low insertion loss



# CDN BCI-P1 / CDN BCI-P1\_MT-1

## Bulk current injection probe

### Technical data I

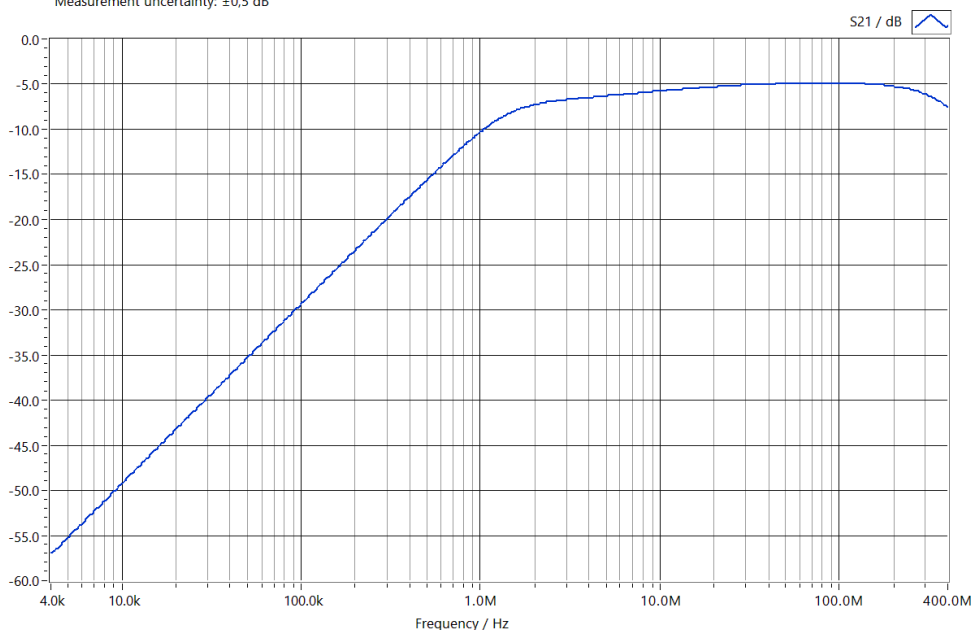
#### Bulk current injection probe

Frequency range	1 MHz (4 kHz) - 400 MHz
Input connector	Typ N female
Inner diameter	40 mm
Outer diameter	120 mm
Width	40 mm
Max. core temperature	90 °C
Turns ratio	1:1

Input power rating until core temperature is 90 °C	90 min @ 70 W (48.45 dBm) 45 min @ 100 W (50 dBm)
Primary inductance	5.1 μH @ 100 kHz
Ambient temperature	0 - 40 °C
Fastening	1 Clip

### Technical data II: Insertion loss (4 k – 400 MHz)

Network Analyser HP8751A (S.-No.: 3315J01756), Test Set 87512A (S.-No. MY43100614)  
Insertion loss BCI-P1  
Measurement uncertainty: ±0,5 dB

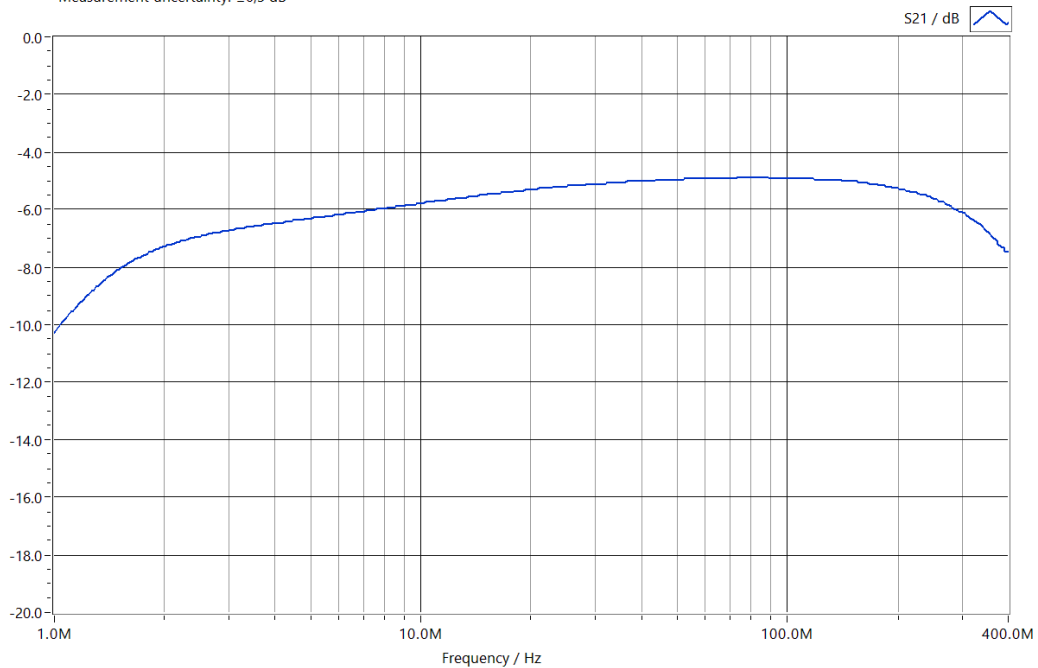


# CDN BCI-P1 / CDN BCI-P1\_MT-1

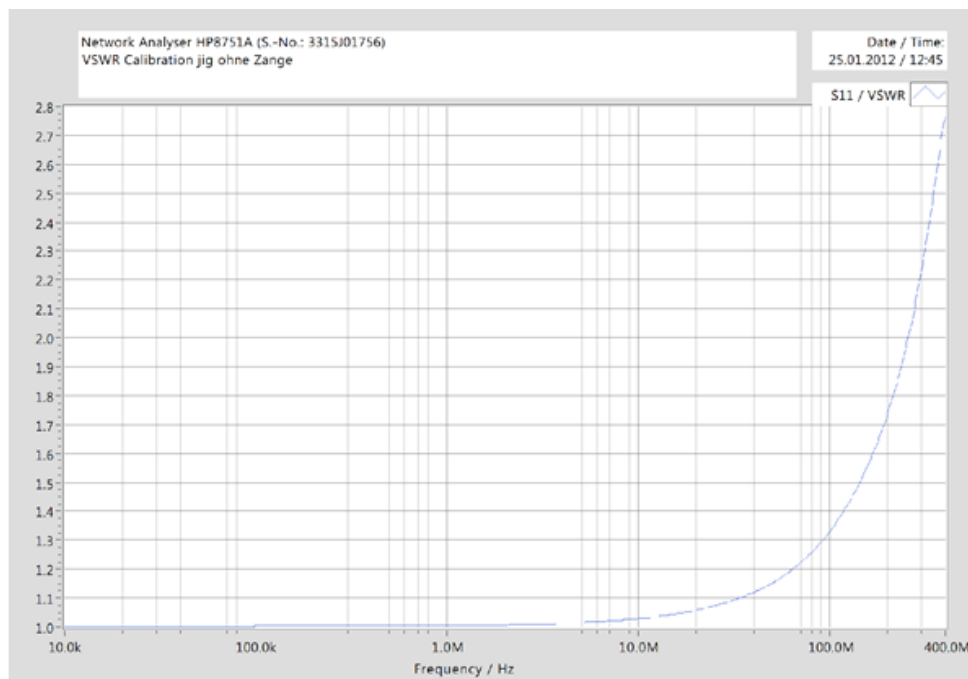
## Bulk current injection probe

### Technical data III: Insertion loss (1 - 400 MHz)

Network Analyser HP8751A (S.-No.: 3315J01756), Test Set 87512A (S.-No. MY43100614)  
Insertion loss BCI-P1  
Measurement uncertainty:  $\pm 0,5$  dB



### Technical data IV: Voltage standing wave ratio



# CDN BCI-P1 / CDN BCI-P1\_MT-1

## Bulk current injection probe

### Technical data: JIG

#### Calibration jig (included)

Connector (Input) Typ N female

*The calibration jig is used for insertion loss measurement of the bulk current injection probes and meets ISO 11452-4 and IEC 61000-4-6 standards.*



#### Scope of delivery: CDN BCI-P1

- 1 x CDN BCI-P1
- 1 x calibration set
- 1 x calibration certificate
- 1 x SMB cable (temperature sensor cable)
- User manual

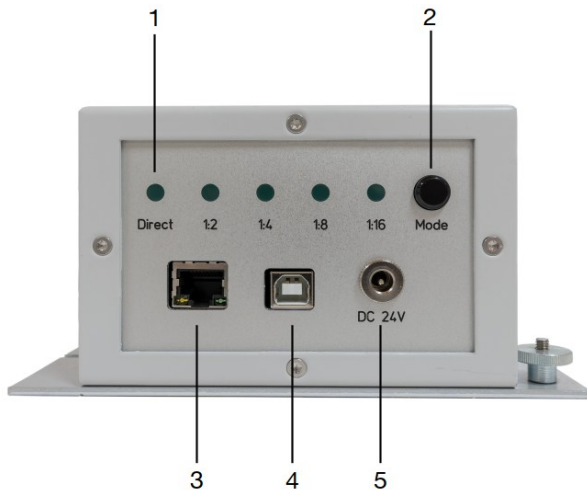


# CDN BCI-P1 / CDN BCI-P1\_MT-1

Bulk current injection probe

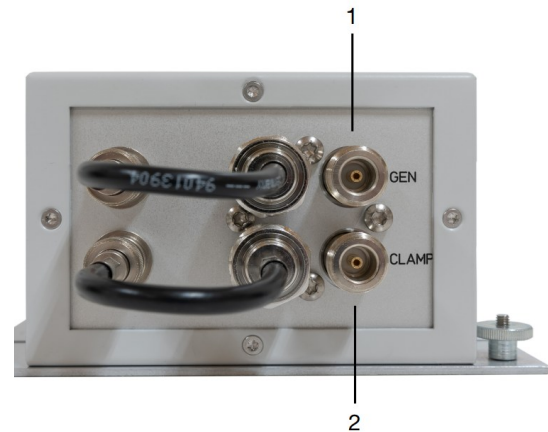
## CDN BCI-P1\_MT-1 (Transformer for BCI-P1)

Transformer for CDN BCI-P1 to meet MIL STD-461 (CS114) and ISO 11452-4



### Front side

1. Indicator
2. Mode switch
1. Lan interface
2. USB interface
3. Power supply



### Back side

1. Generator
2. Clamp

### Remote Control

The main controller accepts ASCII commands via LAN and USB interface.

CDN BCI-P1_MT-1	
Frequency	Winding Ratio
4 ... 20,7 kHz	1:16
20,7 ... 82,1 kHz	1:8
82,1 ... 340 kHz	1:4
340 kHz ... 1,17 MHz	1:2
1,17 ... 400 MHz	direct

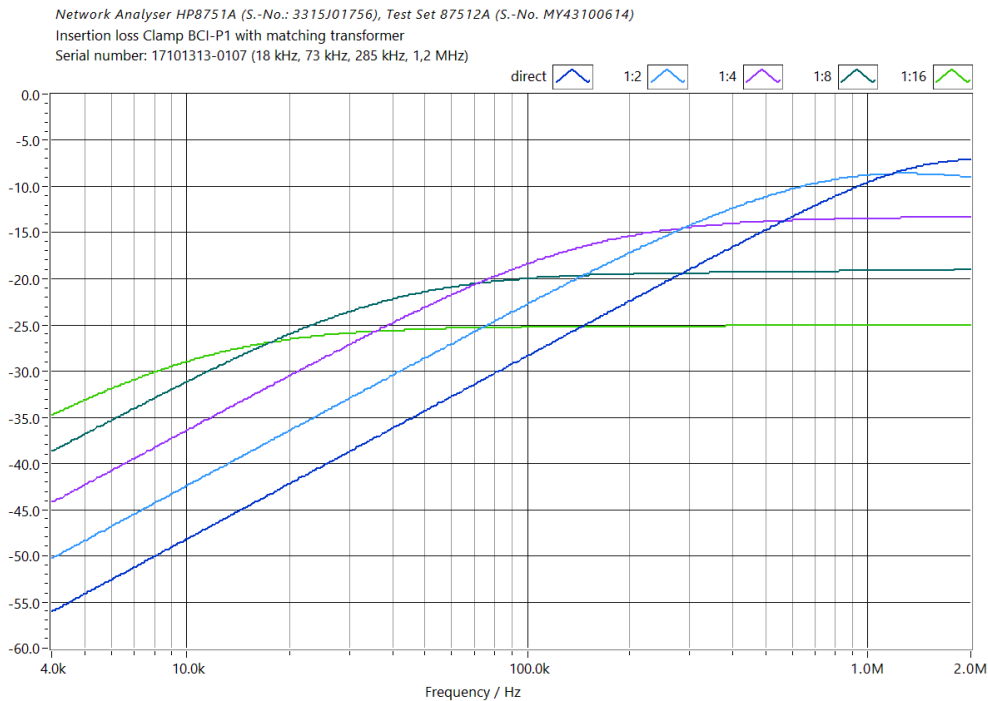
CDN BCI-P1_MT-1	
Connectors	
Generator	N-connector, 50 Ohm (max. input power: 100 W / 500 W direct mode)
Clamp	N-connector, 50 Ohm
USB	emulated COM port with 9600 Baud, 8 data bits, 1 stop bit, no parity
LAN	RJ45 jack
Power	2.1 mm x 5.5 mm socket (+ inside), 24 V DC / 0.5 A



# CDN BCI-P1 / CDN BCI-P1\_MT-1

## Bulk current injection probe

### Technical data V: Frequency chart with matching transformer



### Scope of delivery: CDN BCI-P1\_MT-1

- 1 x CDN BCI-P1
- 1 x CDN BCI-P1\_MT-1
- 1 x calibration jig
- 1 x calibration certificate
- 1 x SMB cable (temperature sensor cable)
- Power supply unit (P4018) with mains cable
- 1 x USB cable (USB A to USB B)
- 1 x cable RG 223, 50 cm, N-f – N-f
- User manual

All information regarding appearance and technical data correspond to the current state of development at the time of release of this data sheet. We reserve the right to make technical changes. 032412

