

ZN23101H Current Monitoring Clamp - Data Sheet

Beijing Da Ze Technology Co., Ltd.

Product Overview

The ZN23101H Current Monitoring Clamp is designed to monitor conducted interference signals on cables with diameters below 26.5 mm over the frequency range of 4 kHz to 400 MHz. It is intended for EMC current monitoring applications, including GJB 151B CS114 and automotive BCI testing.

Technical Specifications

Environmental Conditions

Parameter	Operating Range	Storage Range
Temperature	0°C to 40°C	-40°C to 60°C
Humidity	40°C, 20%–90% RH	50°C, 90% RH
Atmospheric Pressure	860 to 1060 mbar	-
Mechanical Durability	Complies with GB6587.1-86, Group II	-

Electrical Characteristics

Parameter	Value
Frequency Range	4 kHz to 400 MHz
Transfer Admittance	See correction factor table and curve
Input Impedance	50 Ω
Input Connector	N-type
Average Power Handling	5 W during immunity testing

Mechanical Dimensions

Parameter	Value
Outer Dimensions	Φ94 × 100 mm
Inner Diameter	Φ26.5 mm
Weight	Approx. 2.4 kg

Usage Instructions

1. Application Scenarios

- Monitoring conducted disturbance current on cable assemblies and harnesses
- Current monitoring during GJB 151B CS114 and automotive BCI tests

2. Measurement Formulas

IP = V + Y IP = disturbance current in the cable (dBμA), V = voltage measured by the receiver/spectrum analyzer (dBμV), Y = transfer admittance (dBS)

VP = V + K VP = disturbance voltage, V = voltage measured by the receiver/spectrum analyzer (dBμV), K = attenuation factor (dB)

Warranty

Warranty period: 18 months from invoice date. The product will be repaired free of charge if faults arise due to manufacturing defects, provided transport, storage, and usage rules have been observed.

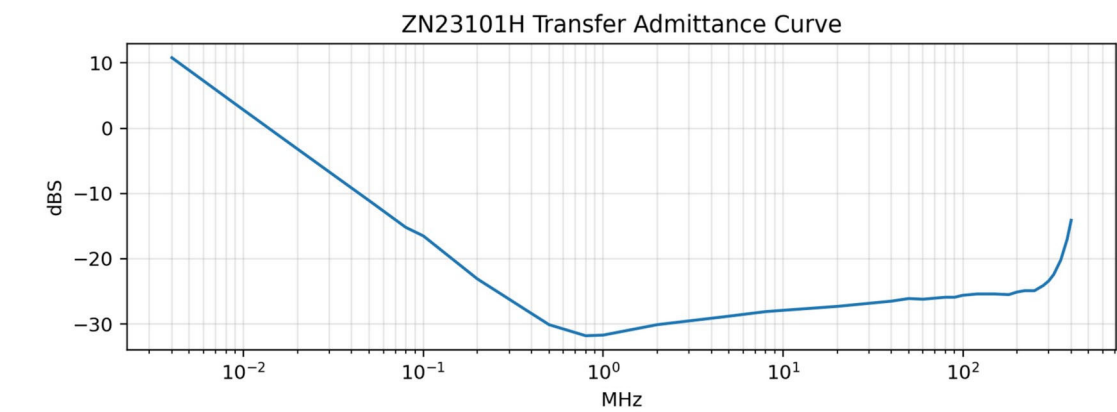
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Correction Factor Data

MHz	Y (dBS)	K (dB)	MHz	Y (dBS)	K (dB)
0.004	10.8	44.8	50	-26.1	7.9
0.01	2.8	36.8	60	-26.2	7.8
0.02	-3.2	30.8	80	-25.9	8.1
0.03	-6.7	27.3	90	-25.9	8.1
0.05	-11.1	22.9	100	-25.6	8.4
0.08	-15.2	18.8	120	-25.4	8.6
0.1	-16.5	17.5	150	-25.4	8.6
0.2	-23.1	10.9	180	-25.5	8.5
0.5	-30.1	3.9	200	-25.1	8.9
0.8	-31.8	2.2	220	-24.9	9.1
1	-31.7	2.3	250	-24.9	9.1
2	-30.1	3.9	280	-24.1	9.9
5	-28.8	5.2	300	-23.4	10.6
8	-28.1	5.9	320	-22.4	11.6
10	-27.9	6.1	350	-20.2	13.8
20	-27.3	6.7	380	-17	17
40	-26.5	7.5	400	-14.1	19.9

Transfer Admittance Curve



Note: Y is transfer admittance in dBS. K is attenuation factor in dB. Values are taken from the ZN23101H correction factor table.