

ZN1690C Shielding Effectiveness Tester - Product Datasheet

Manufacturer: Beijing Daze Technology Co., Ltd.



1. Product Overview

Model: ZN1690C
Type: Shielding Effectiveness Tester
Frequency Points: 14kHz, 434MHz, 915MHz, 10GHz

The ZN1690C Shielding Effectiveness Tester is designed to evaluate the shielding effectiveness of various shielding materials, including shielding enclosures. The device selects 14kHz, 434MHz, 915MHz, and 10GHz as test frequency points, covering key frequencies for military and confidential information protection. It offers a portable, lightweight design and meets the standards for shielding effectiveness outlined in:

- **GJB 5792A-2021:** Military Confidential Information System Electromagnetic Shielding Grading and Measurement Methods
- **BMB3-1999:** Technical Requirements and Measurement Methods for Electromagnetic Shielding of Classified Information Processing Rooms
- **GJB 6785-2009:** Shielding Effectiveness Testing Methods for Military Electronic Equipment Shelters

The device provides both quantitative and localized testing capabilities, suitable for use in classified military systems and field protection units.

2. Technical Specifications

Parameter	Specifications
Test Frequency Points	14kHz, 434MHz, 915MHz, 10GHz
Shielding Effectiveness	20dBuV ~ 100dBuV
Measurement Error	≤±3dB
Low Noise Amplifier Gain	30dB ±2dB
Max Input Signal (LNA)	≤-40dBm (≤67dBuV)
Shielding Effectiveness (Without ZN3381A LNA)	
- 14kHz, 20cm distance	>45dB (75dB with ZN3381A LNA)
- 434MHz, 20cm distance	>75dB (100dB with ZN3381A LNA)

Parameter	Specifications
- 915MHz, 20cm distance	>75dB (100dB with ZN3381A LNA)
- 10GHz, 1m distance	>80dB
Interface Type	SMA, 50Ω
MTBF	≥1000 hours
Measurement Resolution	1dB
Operating Temperature	0°C ~ 40°C
Operating Humidity	≤80% RH
Storage Temperature	-20°C ~ 60°C
Storage Humidity	≤90% RH
Power Supply	220V ±10%
Power Consumption	<2W

3. Key Features

- Compliance with Military Standards:** Designed for shielding effectiveness testing based on GJB 5792A-2021 and other national military standards.
- High Accuracy:** Measurement error $\leq \pm 3\text{dB}$, with a dynamic range of up to 100dBuV.
- Low Noise Amplifier:** Offers a low noise amplifier (ZN3381A) for improved measurement range at certain frequencies.
- Portable and Lightweight:** Compact design, easy to carry for field testing and onsite evaluations.

4. Included Accessories

Item	Quantity
ZN1690C Shielding Effectiveness Tester	1 set (4 units: transmitter and receiver for low and high frequencies)
Antenna System	1 set (selected based on frequency points)
Charger	1 set (shared between ZN1690C and ZN3381A LNA)

Item	Quantity
Antenna Elements	4 units
ZN3381A Low Noise Amplifier	1 unit (optional)
Test Cables	5 units (two 1.5m cables, two 2m low-loss cables)
Adapter	2 units (N-SMA)
User Manual	1 copy
Carrying Case	1 unit
10GHz Antenna	2 units

5. Warranty

- **Duration:** 18 months from the date of shipment.
- **Conditions:** Covers manufacturing defects and failures under compliant transportation and usage conditions.

6. Product Photo



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