



RF Conducted Immunity Test System

CST 10500D

■ ISO 7637-4

— Features

- > Integrated design, built-in signal generator and power meter;
- > Remote control through PC software;
- > Compliant with ISO 7637-4 standard.

— Introduction

The conducted interference sensitivity testing system CST 10500D (50M) is designed according to ISO 7637-4 and is used for RF induced conducted immunity testing with frequencies ranging from 100 kHz to 50 MHz. The testing equipment consists of a signal generator, a broadband power amplifier (Class A), and a power meter with high dynamic range integrated into one device. All testing equipment is controlled by PC software and has functions such as saving test results.

— Application Areas



Technical Parameters

RF Signal Generator	
Frequency Range	1 μ Hz~ 50 MHz
Frequency Resolution	1 μ Hz
Frequency Temperature Stability	± 1 ppm+10 pHz
Harmonic	<-55 dBc
Non Harmonic	<-60 dBc
Output Power Range	≤ 10 MHz: 1.0 mVpp~10 Vpp ≤ 30 MHz: 1.0 mVpp~5.0 Vpp ≤ 50 MHz: 1.0 mVpp~2.5 Vpp
Power Accuracy	± 1.0 dB
Resolving Power	0.1 dB
Internal Modulation Source (LF)	Sine wave 2 mHz~1 MHz; Square wave 2 mHz~1 MHz; Triple wave/saw wave 2 mHz~1 MHz
Amplitude Modulation (AM)	Modulation depth 0%~120%; Modulation rate 2 mHz~1 MHz
Frequency Modulation (FM)	Maximum frequency offset: 5 MHz Modulation rate: 2 mHz~1 MHz
Phase Modulation (\emptyset M)	Modulation phase 0 $^{\circ}$ ~360 $^{\circ}$; 2 mHz ~1 MHz
Pulse Cycle	1 μ s to 500 s
Pulse Width	0 ns~100 s
Output Interface	N (Mother)
VSWR	<1.5:1
Power Amplifier	
Frequency Range	100 kHz ~ 50 MHz
Gain	58.5 dB \pm 1 dB (500 W)
1 dB Gain	57 dB \pm 1 dB (500 W)
VSWR	<1.5:1
Output Impedance	50 Ω
Output Interface	N (Mother)
Power Meter	
Frequency Range	9 kHz ~ 6 GHz
Test Voltage Level	-50 dBm ~ +20 dBm
Accuracy	± 0.2 dB
Input Interface	N (Mother)
VSWR	<1.1:1

General parameters

Scope of Working Power Supply	AC 110 V/220 V $\pm 10\%$, 50 Hz /60 Hz $\pm 5\%$ (Default AC 220 V 50 Hz in mainland China)
Maximum Power Consumption	500 W
Size	22U cabinet L * W * H: 1250 * 800 * 600 mm
Weight	About 60 kg
Ambient Temperature	15 °C~35 °C
Relative Humidity	45%~75%
Atmospheric Pressure	86 kPa~106 kPa

Standard Accessories

Attenuator, Power Cord, USB Cable, Flat Grounding Wire, Factory Report, RF Cable, Fuse, Instruction Manual.

ISO 7637-4A Wave Test Item Equipment Accessories

Attenuator	40 dB/200 W frequency range DC~1 GHz
Balanced/Unbalanced Transformer	TBT-500: 500 V; 100 kHz ~ 50 MHz; ≤ 1 dB (according to the law of conservation of energy, Balun single ended output has a background of -3dB); 50 Ω ;
High Voltage Artificial Network	TANHV 200: 100 kHz ~ 150 MHz; 200 A; AC 700 V, DC 1 kV; 5 μ H 50 Ω ;
50 Ω Load	50 Ω /80W frequency range DC~1 GHz
High Voltage Shielding Cover	HVSE 400
High Voltage Battery Load	7637-4R500/120 3000 W
Testing Software	EMC-S 7637-4

ISO 7637-4A Wave Test Item Equipment Accessories

Conducted indoors without shielding	Test table: 2,400 mm *1,000 mm *900 mm
	Grounding reference board: 2,400 mm *1,000 mm *1,200 mm

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