MT06002 MultiStar™

- Multi-Tone RF Radiated & Conducted Immunity System
- M1
- 10kHz–6GHz

Features

Complete Testing Solutions to the following standards:

Radiated Immunity

- EN/IEC 61000-4-3
- ISO11452-2 Auto (ALSE)
- ISO11452-3 Auto (TEM cells)
- ISO11451-5 Auto (Strip Line)
- ISO11451-2 Full Vehicle
- DO-160 Section 20.5 (Substitution Method)
- EN/IEC 60601-1, -2
- EN 50130-4
- EN 61000-6-1/2
- EN 55024

Conducted Immunity

- EN/IEC 61000-4-6
- ISO11452-4 Auto (BCI Method)
- DO-160 Section 20.4 (Substitution Method)
- MIL STD 461 CS114
- EN/IEC 60601-1, -2

The Model MT06002 (Multistar™ Multi-tone tester) is a state-of-the-art system designed to test RF Radiated and Conducted immunity faster than ever before possible. By testing multiple frequencies (tones) at once, test times can be reduced by a factor equivalent to the number of tones selected. The number of tones is only limited by the signal generator bandwidth (1000MHz) and the size of the amplifier used with the system.

The MT06002 contains all the instruments needed to perform radiated and conducted immunity testing for various immunity standards except the required amplifiers, antennas and directional couplers. Amplifiers can be sized and selected based on your required field levels and testing needs. Up to 4 RF amplifiers and directional couplers can be controlled and monitored and power can be delivered to up to 4 antennas to generate the desired fields. The system contains a vector signal transceiver, an RF field probe and monitor, an RF switch matrix, and automated radiated immunity test software. Everything is contained in a single housing, which eliminates setup issues. The software includes automated routines to calibrate the field and maximize the speed of the test, by generating the most tones possible, while still meeting the Linearity and Harmonics requirements of the specification. In the event of a EUT failure, margin investigation (thresholding) and traditional single tone testing can be performed causing a slowing of the test only in the areas of concern. This system has the versatility needed for every test laboratory and equipment manufacturer while adding the benefit of reduced test times and greater throughput.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

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Specifications

Vector Signal Transceiver (Generator) Specifications	
Frequency range	10 kHz to 6.0 GHz
Power Out (Ave)	+10 dBm
Reverse Power (Max)	+24 dBm (CW,RMS)
Modulation	AM, FM, Pulse, Phase
Instantaneous Bandwidth	Up to 1 GHz
Hardware Platform	PXIe

Vector Signal Transceiver (Analyzer) Specifications	
Frequency Range	10 kHz to 6.0 GHz
Input Power (Max)	+24 dBm
Instantaneous Bandwidth	200 MHz
Hardware Platform	PXIe

Field Monitor/Probe Specifications	
Channels	4
Probe	1
Type	Isotropic, Laser powered
Frequency	100kHz-6GHz
Range	0.5–800 V/m

Connections	
RF signal input	4- Type N Male (rear) For optional signal generators
RF Signal Out	4- Type N Male (rear) to RF amplifiers
High power RF in	4- Type N Male (rear) from RF amplifiers
High power RF out	4- Type N male (rear) to antennas/loads
Fwd Power In	4- Type N Male (rear) For forward power
Rev Power In	4- Type N Male (rear) For reverse power
Monitor Power In	1- Type N Male (rear) For monitoring test level
Serial Port	2– USB ports
Ethernet Port	1– RJ45 (rear)
GPIB (IEEE-488) Port	1– 24-pin female (rear)

Embedded Controller	
Computer	Intel Core i5 4400E processor
Operating system	Windows 7
I/O	6 USB Ports, Ethernet
RAM	8GB DDR3L
Hard Drive	250 GB
Hardware Platform	PXIe

General	
Power	115/230 VAC 50/60 Hz, single phase 16A
Breaker	2 pole, 20A
Cooling	active cooling, air ventilation
Environmental conditions	10°C - 40°C
Dimensions,	50.3 x 47.2 x 61 cm 19.8 x 18.6 x 24 in
Weight	22.7 kg (50.0 lb)
Export Classification	EAR99

Options	
1	3 FL7006/Kit Electric Field Probes (*See NOTE*)
2	1 FL7030 Electric Field Probe for testing below 100kHz

NOTE: Option 1 used with standard ISO11451-2 auto full vehicle

Model Configurations	
Model	**Description**
MT06002M1	Includes Option 1

Accessories	
Low Pass Filter, 80MHz-1GHz	Absorptive filter used to remove harmonics
Low Pass Filter, 80MHz-4.2GHz	Absorptive filter used to remove harmonics
Low Pass Filter, 80MHz-6GHz	Absorptive filter used to remove harmonics