

Laboratory	EMC Test Centre, Quality Assurance Division, Bharat Electronics Limited, Jalahalli, Bangalore, Karnataka		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electronics Testing	Issue Date	08.03.2014
Certificate Number	T-0195	Valid Until	07.03.2016
Last Amended on	05.04.2014	Page	1 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection	
I.	EMI/EMC TEST FACILITY				
1	Electrical/ Electronic equipment	Conducted Emissions, power leads	CE01	MIL-STD-461C/462	30Hz-15kHz -19 dB μ A - 150 dB μ A
CE101			MIL-STD-461D/462D MIL-STD-461E MIL-STD-461F	30Hz - 10kHz -19 dB μ A to 150 dB μ A	
Conducted Emissions, power leads		CE03	MIL-STD-461C/462	15kHz-50MHz -14 dB μ A - 137 dB μ A	
		CE102	MIL-STD-461D/462D MIL-STD-461E MIL-STD-461F	10kHz-10MHz 30 dB μ V - 137 dB μ V	
Conducted Emissions Antenna terminals		CE06	MIL-STD-461C/ 462	10kHz -40GHz -5.0 dB μ V - 137 dB μ V	
		CE106	MIL-STD-461D / 462D	10kHz -40GHz -5.0 dB μ V - 137 dB μ V	
		CE106	MIL-STD-461E	10kHz -40GHz -5.0 dB μ V - 137 dB μ V	
		CE106	MIL-STD-461F	10kHz -40GHz -5.0 dB μ V - 137dB μ V	

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		Conducted Emissions ,Power leads, spikes, Time domain	(CE07) MIL-STD-461C/462	Upto 1kV
		Conducted Susceptibility, Power leads	CS01 MIL-STD-461C/462	30Hz -50kHz 120 dB μ V- 136 dB μ V
			CS101 MIL-STD-461D / 462D	30Hz – 50kHz 120 dB μ V - 136 dB μ V
			CS101 MIL-STD-461E MIL-STD-461F	30Hz – 150kHz 120 dB μ V - 136 dB μ V
		Conducted Susceptibility, power & interconnecting control leads.	CS02 MIL-STD-461C/462	50kHz-400MHz 1Vrms or 1W Forward power
		Conducted Susceptibility, Antenna ports	CS03, CS04, CS05. MIL-STD-461C/462	30Hz to 20GHz -135 dBm to +16 dBm
			CS103, CS104, CS105. MIL-STD-461D/462D MIL-STD-461E MIL-STD-461F	30Hz - 20GHz -135 dBm to +16 dBm
		Conducted Susceptibility, Spikes, Power lead	CS06 MIL-STD-461C/462	Upto 400V at 10 μ S/5 μ S/0.15 μ S
			CS106 MIL-STD-461F	Upto 400V at 5 μ S

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		Conducted Susceptibility, Structure (CM) current	CS09 MIL-STD-461C/462	60Hz -100kHz 60 dB μ A - 120 dB μ A
			CS109 MIL-STD-461D / 462D MIL-STD-461E MiL-STD-461F	60Hz – 100kHz 60 dB μ A - 120 dB μ A
		Conducted Susceptibility, Bulk cable injection	CS114 MIL-STD-461D / 462D	10kHz - 400MHz 37 dB μ A -109 dB μ A
			CS114 MIL-STD-461E MIL-STD-461F	10kHz - 200MHz 4kHz – 200MHz 37 dB μ A - 109 dB μ A
		Conducted Susceptibility, Bulk Cable injection.	CS115 MIL-STD-461D / 462D MIL-STD-461E MIL-STD-461F	Impulse I _{max.} = 5A
		Conducted Susceptibility, Damped sinusoidal transients, Cable and Power leads	CS116 MIL-STD-461D/462D MIL-STD-461E MIL-STD-461F	10kHz-100MHz I _{max} = 10A
		Radiated Emissions, Magnetic field	RE01 MIL-STD-461C/462	30Hz – 50kHz 20 dBpT - 220 dBpT
			RE101 MIL-STD-461D / 462D MIL-STD-461E MIL-STD-461F	30Hz – 100kHz 20 dBpT- 220 dBpT

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		Radiated Emissions, Electric field	RE02	MIL-STD-461C/462 14kHz-18GHz 5.0 dB μ V - 137 dB μ V
			RE102	MIL-STD-461D / 462D MIL-STD-461E MIL-STD-461F 10kHz – 18GHz 5.0 dB μ V - 137 dB μ V
		Radiated Susceptibility, Magnetic field	RS01	MIL-STD-461C/462 30Hz-50kHz 20 dBpT - 200 dBpT
			RS101	MIL-STD-461D / 462D MIL-STD-461E MIL-STD-461F 30Hz – 100kHz 20 dBpT - 200 dBpT
		Radiated Susceptibility, Magnetic & electric fields, spikes & power frequencies (RS02)	MIL-STD-461C/462	Upto 400V at 10uS/5uS/ 0.15uS And 50Hz/400Hz 20A current.
		Radiated Susceptibility, Electric field	RS03	MIL-STD-461C/462 14kHz-40GHz, 200V/m
			RS103	MIL-STD-461D / 462D MIL-STD-461E MIL-STD-461F 10kHz-40GHz, 200V/m.
		Conducted Emissions, power leads (CE)		CISPR 11 / 2010 CISPR 22 / 2008 150kHz-30MHz 30 dB μ V - 137 dB μ V

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		Radiated Susceptibility, Electric field – RS	IEC 61000-4-3 / 2010	80MHz – 6GHz 10V/M
		EFT/Burst for Signal and Power lines	IEC-61000-4-4 / 2012	±5kV 5nS/50µS, into 50Ω & 1000Ω load Burst duration: 15mS at 5kHz 0.75mS at 100kHz Burst period = 300mS
		Surge for Power lines	IEC 61000-4-5 / 2005	± 6kV 1.2µS/50µS, Voltage 8µS/20µS , Current
		Pulsed magnetic field	IEC 61000-4-9 / 2001	100, 300 & 1000A/m 6.4µS/16µS
		Voltage Dips, Short Interruptions and Voltage variations on AC supplies	IEC 61000-4-11/ 2004	250V/16A, 50Hz
		Ring Wave - Power lines	IEC 61000-4-12 / 2006	± 6kV Frequency - 100kHz Rise time: 0.5 µS (open-circuit) ≤ 1 µS (short-circuit)
		Voltage Dips, Short Interruptions and Voltage variations on DC supplies	IEC 61000-4-29 / 2000	250V / 10A max.
		ESD	IEC 61000-4-2 /2008	±30kV 150pF/330Ω

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		Power quality test	MIL-STD-704D	DC 28V AC -115V, 400Hz (1Ph)
			MIL-STD-704E	DC 28V & 270V AC -115V, 400Hz (1Ph)
			MIL-STD-704F	DC 28V & 270V AC -115V, 400Hz & 60Hz (1Ph)
2.	Shielded Enclosures /containers for housing electronic equipment /subsystems	Shielding Effectiveness test.	IEEE 299 / 2006 MIL-STD-285 /1956	10kHz- 40GHz Dynamic range: Magnetic field ≤ 70dBc Electric field ≤ 120dBc

-X-X-X-X-X-X-X-X-X-X-X-X-X-X-