

EMISSIONS EN61000-6-4 : 2001				
	Port	Frequency Range	Limits	Basic Standard
Radiated E Field Emissions	Enclosure + Cables	30 MHz— 230 MHz 230 MHz— 1 GHz	40 dBuV/m ( 10m Measurement distance ) 47 dBuV/m	CISPR 11
Radiated E Field Emissions	Enclosure + Cables	30 MHz - 1000 MHz	EN 50121-3-1 (Limits for slow moving trains)	See standard for applicability
Radiated H Field Emissions	Enclosure + Cables	9 kHz - 30 MHz	EN 50121-3-1 (Limits for slow moving trains)	
Conducted Emissions	AC Mains, DC, signal and Battery referenced ports	9 kHz - 150 kHz 0.15 MHz— 0.5 MHz 0.5 MHz— 30 MHz	No limit 99 dBuV QP 93 dBuV QP	
Mains Harmonics	AC Mains Power Ports	0 - 2 kHz	EN61000-3-2	
Flicker			EN61000-3-3	
Inrush Current			EN61000-3-3	

IMMUNITY EN50121-4 : 2000						
Item	Port	Phenomenon	Basic Standard	Test Value	Notes	
1	Enclosure	Electrostatic discharge (ESD) EM Radiated Field (AM) EM Radiated Field (PM)	EN61000-4-2 EN61000-4-3 EN61000-4-3	6 kV / 8 kV contact / air 80 MHz - 1000 MHz 80% AM 1 KHz AM 20V/m 800 MHz - 1000MHz 20 V/m 80% AM 1 KHz , 1.4 GHz - 2.1 GHz 10 V/m 80% AM 1 KHz 2.1 GHz - 2.5 GHz 5 V/m 80% AM 1 KHz	See standard for applicability	B A A A
2	AC Power	Burst Surge Conducted RF	EN61000-4-4 EN61000-4-5 EN61000-4-6	2.0 kV ( ports > 3m / ports within 3m boundary) 2.0 kV Line to Earth / 1.0 kV Line to Line 10 V rms 1 kHz 80% AM modulation		A B A
3	DC Power	Burst Surge Conducted RF	EN61000-4-4 EN61000-4-5 EN61000-4-6	2.0 kV 2.0 kV Line to Earth / 1.0 kV Line to Line 10 V rms 1 kHz 80% AM modulation		A B A
4	I/O Signal / Control	Burst Conducted RF	EN61000-4-4 EN61000-4-6	2.0 kV 10 V rms 1 kHz 80% AM modulation		A A