

Type of standard	Standard/Specification	Requirement	Frequency Range							Pearson Model
			30-300 Hz	0.3–3 kHz	3-30 kHz	30-300 kHz	0.3-3 MHz	3-30 MHz	30-300 MHz	
DoD Tri-Service EMI performance standard, obsolete	MIL-STD-461A/B/C	CE01/CE02			15/20 kHz					4688, 5101, 3525
		CE03/CE04			15/20 kHz			50 MHz		8585C, 8590C, 8705C
DoD Tri-Service EMI performance standard	MIL-STD-461D/E/F	CE101			10 kHz					4688, 5101, 3525
		CS114/CS115/CS116			10 kHz			200 MHz		8585C, 8590C, 8700i, 8705C
Commercial aerospace, ISO standard, has European equivalent	RTCA/DO-160D/E/F	Section 21, rf CE				150 kHz				8585C, 8590C, 8705C
Space EMI Requirements	AIAA S-121 Industry Spec	Audio frequency CE				150 kHz				4688, 5101, 3525
		Audio frequency CS				150 kHz				4688, 5101, 3525
		Radio frequency CS				150 kHz		200 MHz		8585C, 8590C, 8700i, 8705C
	NASA GSFC EMI Spec	CE01			15/20 kHz					4688, 5101, 3525
		CE03			15/20 kHz			50 MHz		8585C, 8590C, 8705C
		CE common mode*						50 MHz		8585C, 8590C, 8705C
	NASA Space Station	CE01			15 kHz					4688, 5101, 3525
		CE03			15 kHz			50 MHz		8585C, 8590C, 8705C
	NASA Space Shuttle	CS114/CS116			10 kHz			200 MHz		8585C, 8590C, 8700i, 8705C
		Bulk current emission				150 kHz		200 MHz		8585C, 8590C, 8705C
Automotive	GM 3100	Magnetic Immunity**	16–180 Hz							4688, 5101, 3525
	Ford	Magnetic Immunity	50 Hz		10 kHz					4688, 5101, 3525
	Chrysler	Radio frequency CE				150 kHz		200 MHz		8585C, 8590C, 8705C
		Magnetic Immunity**	15 Hz							4688, 5101, 3525

	BMW	Radio frequency CE					0.5 MHz			8585C, 8590C, 8705C
	Volvo	Magnetic Immunity**	5/16.7 Hz	1200 Hz						4688, 5101, 3525
	John Deere	Radio frequency CE					0.53-2 MHz			4688, 5101, 3525, 8705C
European CE Mark	EN61000-4-6	Radio frequency CI***				150 kHz			80 MHz	8585C, 8590C, 8705C
Nuclear Power Industry	TR-102323, rev. 3	Radio frequency CS			10 kHz				200 MHz	8585C, 8590C, 8700i, 8705C
		Magnetic Immunity				100 kHz				4688, 5101, 3525
		Audio frequency CE			10 kHz					4688, 5101, 3525
		Radio frequency CE			10 kHz			10 MHz		4688, 5101, 3525, 8705C

Key: Yellow is frequency range, 8700i is an Injection Probe, all other Pearson Models are Current Probes

CE= conducted emission  
CS=conducted susceptibility  
RE=radiated emission  
RS=radiated susceptibility  
CI = conducted immunity

Note: Susceptibility and immunity are flip sides of the same coin; the military/aerospace world specifies that equipment shall not be *susceptible* below a certain level, while the European commercial types specify equipment *immunity* to be at or above some level.

\* Very low limit of 50 dBuA from 30 Hz to 20 kHz means a sensitive probe such as 1 V/A or 0.1 V/A is very advantageous here.

\*\* The magnetic immunity requirements that are below 30 Hz are good match for Pearson probes. Review the maximum current requirements and the probes maximum current rating prior to selection.

\*\*\* This is an alternate, not the preferred technique. Also, the injection technique described is not a Pearson type injection clamp, it looks more like the CISPR 22 absorbing clamp