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National Committee	Clause/ Subclause	Paragraph Figure/ Table	Type of comment (General/ Technical/Editorial)	COMMENTS	Proposed change	OBSERVATIONS OF THE SECRETARIAT on each comment submitted
	4.3, 4.8, Annex B	4.8 Figures 1 and 2, Annex B Tables B.1 and B.3	Technical	<p>The 50 uH LISN model of Figure 2, and the associated impedance graph of Figure 1 has been referenced by prior versions of C63.4. The limited resolution of Figure 1 made it possible to reach the conclusion that a LISN could simultaneously meet the impedance requirements of both ANSI C63.4 and CISPR 16-1-2 over the entire specified frequency range.</p> <p>The increased resolution, to 3 decimal places, given by the tabular values now published in C63.4-2009 Annex B are such that it is readily apparent that the nominal values of CISPR do not lie within the tolerance limits of ANSI, and the nominal values of ANSI do not lie within the tolerance limits of CISPR, over the entire specified frequency range. A LISN must be on the high side of nominal impedance (relative to ANSI) and the low side of nominal impedance (relative to CISPR) in order to simultaneously meet the requirements of both standards.</p> <p>The ANSI model is overly complex, in that it represents a particular LISN design rather than a simple LISN model. The essential model of the LISN impedance below 150 kHz is (50 uH plus 5 ohms) in parallel with 50 ohms.</p> <p>The remaining components are needed for purposes such as limiting the AC Mains current flow through the 5 ohm resistor, and providing additional Ambient Emissions Filtering for installations other than a screen room equipped with 100 dB filters on incoming power, rather than forming a fundamental definition of the required LISN impedance.</p>	<p>Adopt the 50 uH LISN model given in CISPR 16-1-2 Edition 1.2, Clause 4.4 Figure 1a. Apply this model to the entire frequency range of 9 kHz to 30 MHz instead of changing to a different model at 150 kHz.</p> <p>The difference between including or not including the 5 ohm resistor in the model are insignificant from a practical perspective from 150 kHz to about 1 MHz, and above about 1 MHz are insignificant even from a mathematical perspective.</p> <p>Commercial LISN designs ought to be able to meet the tolerance limits of the above model, and the tolerance limits of CISPR 16-1-2, over the entire 9 kHz to 30 MHz frequency range.</p>	<p>As agreed by the questioner, the LISN models used in the calculations of impedance were based on the LISNs that have been shown in ANSI C63.4 for many years, since before 1990.</p> <p>The calculations of impedance for C63.4-2009 showed that the previously used curves for impedance were incorrect, even though commonly used. These curves are now correct.</p> <p>If the impedances are calculated for the LISN models shown in CISPR 16-1-2, those calculations will show that the curves shown in that document and in previous issues were also not correct.</p> <p>Therefore, there is no need to update the information in ANSI C63.4-2009.</p>