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| **Radiocommunication Study Groups** | A blue logo with a black background  Description automatically generated |
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| Received: Date 2024Subject: Working Document Towards a Preliminary Draft Revision of Recommendation ITU-R SM.329-12 | **Document 1A/xx-E** |
| **Date 2024** |
| **English only** |
| United States of America |
| Working Document Towards a Preliminary Draft Revision of Recommendation ITU-R SM.329-12 |
| Proposal for Updates and Elevation |

Background

In the June 2023 WP1A meetings, the CISPR Rapporteur provided updates in [1A/266](https://www.itu.int/md/R19-WP1A-C-0266/en) regarding the referenced CISPR documents. Most of these updates were included in [Annex 12 of the Chairman’s Report](https://www.itu.int/dms_ties/itu-r/md/19/wp1a/c/R19-WP1A-C-0277%21N12%21MSW-E.docx).

Discussion

The United States of America (USA) has reviewed the working document towards a preliminary draft revision of Recommendation ITU-R SM.329-12 in Annex 12 of the 2023 Chairman’s Report. Upon review of the working document and the input 1A/266 from the CISPR Rapporteur, it appears that some of the inputs from the CISPR Rapporteur that answer comments left in the Annex to the Chairman’s Report were not incorporated (due to missing yellow highlighting).

Proposal

The USA proposes to incorporate the additional amendments from 1A/266 that answer the remaining comments left in Annex 12 of the Chairman’s Report and elevate the document to draft revision of Recommendation ITU-R SM.329-12 for consideration by Study Group 1.

**Attachment(s):** USA proposed updates to the working document towards a preliminary draft revision of Recommendation ITU-R SM.329-12.

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| Attachment:USA Note: USA proposed updates are primarily based on edits in 1A/266 and are highlighted in green. Only portions of document with proposed edits are shown.DRAFT REVISION OF RECOMMENDATION ITU-R SM.329-12\* |
| Unwanted emissions in the spurious domain[[1]](#footnote-1)\*\* |

 (1951-1953-1956-1959-1963-1966-1970-1978-1982-1986-1990-1997-2000-2001-2003-2011-2012)

Editor’s note: The contents of the current version of this revision only contains the parts with revisions and prior to approval, the recommendation should be put in the appropriate format

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**Annex 2

Methods of measurement of spurious domain emissions**

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[USA Note: All edits highlighted in green below come directly from changes made in 1A/266 not incorporated into the Chairman’s report. One grammatical correction has been made by the USA from 1A/266.]

**3.3.1 Measurement sites for radiated measurements**

In the frequency range 30 to 1 000 MHz, test sites shall be validated by making site attenuation measurements for both horizontal and vertical polarization fields. A measurement site shall be considered acceptable if the horizontal and vertical site attenuation measurements are within ±4 dB of the theoretical site attenuation.

The test site shall characteristically be flat, free of overhead wires and nearby reflecting structures, sufficiently large to permit antenna placement at the specified distance and provide adequate separation between antenna, EUT and reflecting structures. Reflecting structures are defined as those whose construction material is primarily conductive. The test site shall be provided with a horizontal metal ground-plane. The test site shall satisfy the site attenuation requirements of IEC/CISPR Publication No. 16‑1-4 for OATS.

Tests may also be conducted in a semi-anechoic room (SAR). In that case, the walls and the ceiling of a shielded room are covered with absorber materials that ensure low wave reflection. Validation measurements of such anechoic chambers are very important to ensure that the site attenuation measurements can be performed within the ±4 dB criteria (see also IEC/CISPR Publications Nos. 16-1-4).

For both OATS and SAR a conducting ground-plane shall extend at least 1 m beyond the periphery of the EUT and the largest measuring antenna, and cover the entire area between the EUT and the antenna. It should be of metal with no holes or gaps, having dimensions larger than one tenth of the wavelength at the highest frequency of measurement. A larger size conducting ground‑plane may be required if the site attenuation requirements of the test site are not satisfied. These requirements are also applicable in the case of semi-anechoic chambers.

Additional equipment is becoming available as the site for spurious domain emission measurements. These are various chambers, such as fully anechoic rooms (FAR), stirred mode chambers (SMC), and transverse electromagnetic (TEM) or Gigahertz TEM (GTEM) systems. The SMC is described in IEC/CISPR Publication No. 16-1-4. These relatively new measurement systems are not universally accepted as yet by all standardization bodies. Since IEC 61000-4-20 (TEM) and IEC 61000-4-21 (SMC) have already been published, the techniques used with these systems should be re‑examined when this Recommendation is updated in the future, with a view towards incorporating details of their use.

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[USA Note: No further updates proposed.]

1. \*\* The limits in this Recommendation apply to any out-of-band or spurious emissions in the spurious domain. Spurious emissions are generally predominant in the spurious domain. [↑](#footnote-ref-1)