



**EXPLANATORY MEMORANDUM ISSUED BY THE
INFO-COMMUNICATIONS MEDIA DEVELOPMENT AUTHORITY**

**REVISION OF TECHNICAL SPECIFICATION FOR THE INTEGRATED RECEIVER
DECODER FOR USE WITH
THE SECOND GENERATION DIGITAL TERRESTRIAL
TELEVISION BROADCASTING SYSTEM**

22 December 2016

**TECHNICAL SPECIFICATION
FOR INTEGRATED RECEIVER DECODER
FOR USE WITH SECOND GENERATION DIGITAL TERRESTRIAL
TELEVISION BROADCASTING SYSTEM**

Background

1. On 11 November 2016, the Info-communications Media Development Authority (“IMDA”) issued a public consultation on the proposed revision of the Technical Specification for Integrated Receiver Decoder for use with the second generation Digital Terrestrial Television Broadcasting System (termed “TS DVB-T2 IRD” or “Specification”). The revision was prompted by industry feedback to provide flexibility for commercial and other applications of the DVB-T2 IRD.
2. By the close of the public consultation on 25 November 2016, comments were received from Sony EMCS (Malaysia) Sdn Bhd (referred to as the “Respondent”).
3. IMDA thanks the Respondent for the feedback. IMDA has reviewed the comments, and this document discusses the issues raised, and sets out IMDA’s decision relating to the final draft IMDA TS DVB-T2 IRD.

Summary of Comments Received

4. The Respondent requested for flexibility in the use of any valid version of the reference standards proposed in the Specification for ensuring electromagnetic compatibility (“EMC”) and safety of DVB-T2 equipment, and acceptance of assessment conducted to equivalent national or regional standards. Respondent further requested for a one-year transition period for the final IMDA TS DVB-T2 IRD to take effect after publication, before replacing the IDA-MDA TS DVB-T2 IRD, and that the final IMDA TS DVB-T2 IRD need not be retrospectively applied in equipment conformance.

IMDA’s Response

5. IMDA clarifies that precise versions of reference standards may not necessarily be indicated in an IMDA Technical Specification (“TS”). This is acceptable when implementation of standards, such as those required for EMC (CISPR 32 and CISPR 20), do not pose any backward nor forward compatibility issue. Nonetheless, IMDA aligns with international standardisation, and will always require the use of current and valid versions of relevant standards published by respective standardisation bodies, unless otherwise specified.
6. Equipment manufacturers and suppliers are advised to check with SPRING Singapore on whether certification to different versions of the International Electrotechnical Commission (“IEC”) 60065/62368-1 safety standard may be

acceptable for DVB-T2 Integrated Digital Televisions (“IDTVs”). IMDA notes that televisions are classified as controlled goods under the SPRING Singapore Consumer Protection (Safety Requirements) Registration Scheme, where Certificate of Conformity to the IEC 60065: 2001 standard for audio and video equipment is stated as the prerequisite.

7. IMDA has also indicated in paragraph 10 of the Explanatory Memorandum for Revision of the EMC and Safety Framework (19 September 2016), that measurement of electromagnetic interference according to national or regional implementation of the IEC CISPR standards may be accepted. Examples such as CENELEC EN 55032, AS/NZ CISPR 32 and BSI EN 55032 have been cited. Likewise, transposition of the IEC CISPR 20 standard may also be accepted as alternative for electromagnetic susceptibility (“EMS”) or immunity testing.
8. IMDA notes the request for a one-year transition period for the revised DVB-T2 Specification to take effect after its publication. IMDA also notes that generic IEC standards¹ for immunity testing have been adopted in commercial standards for ensuring EMS of products deployed in residential as well as commercial environment (summarised in Annex A of the Paper issued on 23 June 2016, and Annex B of the Explanatory Memorandum issued on 19 September for consultation on the revised EMC and safety framework). EMS standards, like the CISPR 20 for television broadcast receivers and the European EN 301489-1 for wireless equipment, do refer to generic IEC standards for verifying input immunity, immunity against conducted voltages, immunity against radio frequency electromagnetic field (“RF EMF”) and shielding effectiveness. As the IMDA DVB-T2 Specification requires mandatory compliance with the RF EMF immunity testing, manufacturers would be able to verify one out of the four basic aspects defined for EMS by IEC as part of their equipment verification routine.
9. IMDA believes that manufacturers would have built into their DVB-T2 receivers minimum level of immunity against interference in order for their DVB-T2 receivers to display visibly acceptable performance in the market. Hence, IMDA is of the view that a six-month grace period for the revised DVB-T2 Specification to take effect after publication would be sufficient for manufacturers to surface this assurance in their new DVB-T2 products targeted for the market after mid-2017.
10. IMDA will not require the revised DVB-T2 Specification to be retrospectively applied in equipment conformance. During the transition period, IMDA will accept new or renewed DVB-T2 IRD registrations based on assessment either to the former IDA-MDA TS DVB-T2 IRD (Issue 1 Rev 2) or to the final IMDA TS DVB-T2 IRD (Issue 1).

¹ IEC 61000-4-3 standard is a basic standard referred to in the CISPR 20 and other commercial EMS standards for test procedure for verifying product compliance with radiated, radio frequency, electromagnetic field (“RF EMF”) immunity.

Effective date of Equipment Conformance with the final IMDA TS DVB-T2 IRD

11. IMDA notes that the comments are relating to procedural requirements for managing equipment conformance, and do not call for any change to the proposed revision of technical requirements. The revised Specification has been issued as the final IMDA TS DVB-T2 IRD on the IMDA website together with this Explanatory Memorandum on 22 December 2016, and its in-force date shall be 1 July 2017. This means that with effect from 1 July 2017, all new and renewed DVB-T2 product registrations will need to comply with the revised Specification.