

(UNOFFICIAL TRANSLATION)

**Notification of the National Broadcasting and Telecommunications Commission**

**Re: Technical Standard for Digital Terrestrial Television Receiver**

**(No. 2) B.E. 2556 (2013)**

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It deems expedient to adjust the Notification of the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver in order to be appropriate, effective and maximum benefit to the public and to promote the business on the digital terrestrial television.

By virtue of Section 27 Paragraph One (10) and (24), Section 37 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) consisting of some provisions with limitation of exercise of rights and freedom of individual, whereas Section 29 supplementing with Section 35, Section 36, Section 41, Section 43, Section 45, Section 46 Section 47, Section 61 and Section 64 of Constitution of the Kingdom of Thailand allow to do such manners under the enactment of legislation. The National Broadcasting and Telecommunications Commission hereby deems expedient to prescribe the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 additionally as follows:

Section 1: This Notification shall come into force after its date of publication in the Government Gazette.

Section 2: Paragraph 2.1 of the Section 2 related to General Requirements in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be revoked and substituted by the following paragraph:

#### **“2.1 General Requirement on the Nature of Electric and Safety**

The digital terrestrial television receiver shall be qualified in relation to the nature of electric and safety according to the Thai Industrial Standard (Mor.Or.Gor.) 1195 [1] or a current version.”

Section 3: Paragraph 2.2 of the Section 2 related to General Requirements in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be revoked and substituted by the following paragraph:

#### **“2.2 General Requirement on the Electromagnetic Compability**

The general requirement on the electromagnetic compability for the digital terrestrial television receiver shall be in accordance with either standard as follows;

- (1) CISPR 13 [2] or the current version
- (2) Thai Industrial Standard (Mor.Or.Gor.) 2185 [3] or a current version
- (3) EN 55013 [3.1] or a current version.”

Section 4: Paragraph 2.4 of the Section 2 related to General Requirements in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be revoked and substituted by the following paragraph:

#### **“2.4 Remote Control**

The digital terrestrial television receiver shall come together with a remote control. It shall have tactile marking over the button No. 5 and the button for audio description. The audio description button may be made in general like the “Audio” button or specifically like the “AD” button.

Section 5: Paragraph 2.5 of the Section 2 related to General Requirements in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be added as follow:

#### **“2.5 General Requirement on Electric Capacity**

The digital terrestrial television receiver both the Set-Top-Box and the Integrated Digital Television (iDTV) shall have electric capacity not exceeding 1 watt in the following modes:

(1) OFF Mode means the mode that electric device is connecting with the main power supply and not ready to change in any other modes such as Standby Mode, Network Mode or Active Mode including Normal Mode.

(2) Standby Mode means the mode that electric device is connecting with the main power supply and functioning:

(2.1) to change to other modes by way of using the internal or time setting; or

(2.2) constantly in:

(2.2.1) displaying the mode and time on the screen

(2.2.2) activating the sensor

To check the electric capacity, it shall be pursuant to IEC 62301 [17].

In addition, Network Mode means the mode that the electric device is connecting with the main power supply as well as the Internet but it has yet communicated or transferred the information through the Internet.

Active Mode means the mode that the electric device is connecting with the main power supply and activating at least one function (please note that the “on”, “in-use” or “normal operation” have similar meaning with this mode).

Section 6: The Table 1 of Section 3 related to the General Requirements on Connectors and Interfaces in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be revoked and substituted by the following table:

**Table 1:** The Requirements on Connectors and Interfaces

Type of connector	Requirement
RF Input Connector	<p>Female connector shall be in line with the IEC 60169-2 [4] while the input impedance is equal to 75 ohm.</p> <p>In addition, the Set-Top-Box shall supply the direct current in the amount of 5 volt to the active antenna. The user shall be able to turn on/off the current by himself while the starting mode shall be OFF.</p>
RF Loop-through	<p>The Set-Top-Box shall have the male connector according to the IEC 60169-2.</p>
Vision and audio connector and interface	<p>The Set-Top-Box shall have output interfaces as follows;</p> <ol style="list-style-type: none"> <li>1. The RCA-phono socket for the stereo audio that comes with cable or other connectors and the cable that enable to convert to the RCA-phono socket;</li> <li>2. The RCA-phono socket for the composite that comes with cable or other connectors and the cable that enable to convert to the RCA-phono socket;</li> <li>3. To support the HDMI connection that enables to protect the duplication in the event of digital output and comes with cable.</li> </ol>

Section 7: Paragraph 4.2 of the Section 4 related to the RF Tuner and Decoder Requirements in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be revoked and substituted by the following paragraph:

#### **“4.2 DVB-T2 Operating Modes**

The method of RF tuner and decoder for the DVB-T2 system shall be in line with the ETSI EN 302 755 v.1.2.1 [5] or a current version of the ETSI EN 302 755. However, it shall support to function according to the Table 3.”

Section 8: Paragraph 7.5 of the Section 7 related to General Requirements on Information Evaluation and Display in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be added as follow:

“Moreover, the digital terrestrial television receiver shall support the audio description in a manner of Broadcast Mix according to ETSI TS 101 154 [7]. In this regard, the user shall be able to turn on/off the audio description by pressing the “Audio” button in general or “AD” button specifically on a remote control.”

Section 9: Paragraph 7.7 of the Section 7 related to General Requirements on Information Evaluation and Display in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be revoked and substituted by the following paragraph:

#### **“7.7 Logical Channel Descriptor**

The digital terrestrial television receiver shall support to function according to the Logical Channel Descriptor version 2 while the Private Data Specifier ID (PDS ID) is equal to 0x0000 22FC. In addition, such Logical Channel Descriptor version 2 is information related to channel arrangement in the service area as detailed in the Table 7.”

Section 10: Paragraph [3.1] in between [3] and Section [4] of the reference in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be added as follow:

“[3.1] EN 55013:2001 Sound and television broadcast receivers and associated equipment – Radio disturbance characteristics – Limits and methods of measurement”

Section 11: Paragraph [5] of the reference in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting

and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be revoked and substituted by the following reference:

“[5] ETSI EN 302 755 v1.2.1 (2011-02): Digital Video Broadcasting (DVB); Frame structure channel coding and modulation for a second generation digital terrestrial television broadcasting system (DVB-T2)”

Section 12: Paragraph [17] of the reference in the technical standard of the digital terrestrial television receiver NBTC Mor.Sor. 4002-2555 as attached in the National Broadcasting and Telecommunications Commission, Re: Technical Standard for Digital Terrestrial Television Receiver shall be added as follow:

“[17] IEC 62301 Edition 2.0 2011-01: Household electrical appliances – Measurement of standby power”

Announced on the Date of 9 May 2013

Colonel Natee Sukolrath

Chair of the Radio and Television Broadcasting Businesses Commission, Acting on Behalf  
of Chair of the National Broadcasting and Telecommunications Commission

This English Translation is prepared with the sole purpose of facilitating the comprehension of foreign participants in the broadcasting rules and regulations and shall not in any event be construed or interpreted as having effect in substitution for or supplementary to the Thai version thereof.

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