

**Notification of the Office of the National Broadcasting and Telecommunications Commission****Re: Technical Standards for Telecommunications Equipment and Device for Ultra-Wideband Radiocommunication Equipment in the 1.6 - 10.6 GHz Band**

Whereas it is expedient to determine technical standards for telecommunications equipment and device for ultra-wideband radiocommunication equipment in the 1.6-10.6 GHz band to be suitable for the situations of technology and use of domestic radio frequency in conformity to international requirements for usefulness and safety toward body, life and property from use of radiocommunication equipment, the proper technical standard must be determined to have clear technical standard of radiocommunication equipment and device to ensure the use of non-interference with one another, resulting in overall benefit of telecommunications industry.

By virtue of provisions under Section 27 (10) and (24) of Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services Act B.E. 2553 (2010) in accompany with Section 29 (4) of Radio Communications Act B.E. 2498 (1955), the National Broadcasting and Telecommunication Commission therefore promulgates the following.

Clause 1 This Notification shall come into force as from the day following the date of its publication in the Government Gazette.

Clause 2 This Notification shall apply instead in case where all notifications, rules, regulations, and any other orders have **otherwise** been specified herein, or in conflict or contradiction herewith.

Clause 3 Technical standards for telecommunications equipment and device for ultra-wideband radiocommunication equipment in 1.6 - 10.6 GHz frequency range in accordance with Technical Standards for Telecommunications Equipment and Device NTBC TS 1034-2561 enclosed herewith.

Promulgated on 30 November 2018

General Sukit Khamasunthorn

**The Commissioner of the National Broadcasting and Telecommunication Commission**

Act as the Chairman of the National Broadcasting and Telecommunication Commission

(Official Emblem)

**Technical Standards for Telecommunications Equipment and Device**

**NTBC TS 1034-2561**

**For Ultra-wideband Radiocommunication**

**in 1.6 – 10.6 GHz Frequency range**

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**Technical Standards for Telecommunications Equipment and Device**

**NBTC TS 1034-2561**

**Telecommunications Equipment and Device for Ultra-Wideband Radiocommunication Equipment  
in the 1.6 – 10.6 GHz Band**

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**Technical Standards for Telecommunications Equipment and Device**

**NBCT TS 1034-2561**

**Telecommunications Equipment and Device for Ultra-Wideband Radiocommunication Equipment  
in the 1.6 – 10.6 GHz Band**

**1. Scope**

Minimum technical specification of ultra-wideband radiocommunication equipment using radio frequency within the 1.6 – 10.6 GHz frequency range is identified in this technical standard.

**2. Technical Standards**

**2.1 Radio Frequency Requirements**

Radio frequency requirements of ultra-wideband radiocommunication equipment in the 1.6 – 10.6 GHz frequency range shall be as follows.

2.1.1 Maximum radiated average power density (e.i.r.p.) shall not exceed the following values.

<b>Radio frequency</b>	<b>Maximum radiated average power density (e.i.r.p.) (dBm/MHz)</b>
1.6 – 2.0 GHz	- 41.3
2.0 – 2.2 GHz	- 62.0
2.2 – 3.4 GHz	- 41.3
3.4 – 4.2 GHz	- 77.0
4.2 – 4.5 GHz	- 41.3
4.5 – 4.8 GHz	- 77.0
4.8 – 10.6 GHz	- 41.3

2.1.2 Technical specification shall be in line with the requirements in any of the following standards.

- (1) EN 302 065-1 : Short Range Devices (SRD) using Ultra Wide Band Technology (UWB); Harmonized Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Requirements for Generic UWB applications
- (2) EN 302 065-2 : Short Range Devices (SRD) using Ultra Wide Band Technology (UWB); Harmonized Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 2: Requirements for UWB location tracking

## Technical Standards for Telecommunications Equipment and Device

### NBTC TS 1034-2561

#### Telecommunications Equipment and Device for Ultra-Wideband Radiocommunication Equipment in the 1.6 – 10.6 GHz Band

- (3) EN 302 065-3 : Short Range Devices (SRD) using Ultra Wide Band Technology (UWB); Harmonized Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 3: Requirements for UWB devices for ground based vehicular applications
- (4) EN 302 065-4 : Short Range Devices (SRD) using Ultra Wide Band Technology (UWB); Harmonized Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 4: Material Sensing devices using UWB technology below 10.6 GHz;
- (5) FCC Title 47 : Ultra-Wideband Operation  
Part 15  
Subpart F

#### 2.2 Electrical Safety Requirements

Electrical safety requirements of ultra-wideband radiocommunication equipment which is the information technology equipment are in accordance with the requirements in any of the following standards.

- 2.2.1 IEC 60950-1 : Information Technology equipment – Safety – Part 1: General Requirements
- 2.2.2 TIS 1561-25561 : Information Technology Equipment – Safety Volume 1 General  
or Updated Version Required Characteristics
- 2.2.3 IEC 62368-1 : Audio/Video, Information and Communication Technology Equipment – Safety Requirements

Remark : For ultra-wideband radiocommunication equipment which is not information technology product, NBTC may determine electrical safety requirements as appropriate on case by case basis or any product with technical standard or technical requirement in electrical safety, standard of that product shall be applied.

#### 2.3 Radiation Exposure Requirements on Human Health from Use of Radiocommunication Equipment

The use of ultra-wideband radiocommunication equipment must conform to radiation exposure requirements on human health from use of radiocommunication equipment, and rules and measures of supervision on radiation exposure from use of radiocommunication equipment prescribed by NBTC.

**Technical Standards for Telecommunications Equipment and Device**

**NBTC TS 1034-2561**

**Telecommunications Equipment and Device for Ultra-Wideband Radiocommunication Equipment**

**in the 1.6 – 10.6 GHz Band**

**3. Declaration of Technical Standard Conformity**

Ultra-wideband radiocommunication equipment shall declare the conformity to this standard and shall be regarded as telecommunications equipment and device **Category A** as specified in Notification of the Office of the National Broadcasting and Telecommunication Commission on Standard Inspection and Certification for Telecommunications Equipment and Device.

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This translated version is prepared with the sole purpose of facilitating the comprehension of foreign participants in the telecommunication rules and regulations and shall not in any event or by any reason be construed or interpreted as having effect in substitution for supplementary to the Thai version thereof. If its translation to other languages is in contrary to Thai version, the latter shall prevail.

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