For Discussion **SSAC Paper 3/2018**
on 26 April 2018

RADIO SPECTRUM AND TECHNICAL STANDARDS ADVISORY COMMITTEE

Proposed Performance Specification for Short Range Devices Operating in the 4.2 – 4.8 GHz and/or 6.0 – 8.5 GHz Bands Employing Ultra-wideband Technology

Purpose

This paper seeks Members' views on the following new HKCA specification:

HKCA 1080 Issue 1	Performance Specification for Short Range Devices Operating in the 4.2 – 4.8 GHz and/or 6.0 – 8.5 GHz Bands Employing Ultra-Wideband Technology

Background

2. Ultra-Wideband ("UWB") is a technology for short-range radiocommunications, involving the generation and transmission of very low power radio-frequency signal that spreads over a very large frequency range, typically of some 500 MHz. UWB may be integrated into various applications such as short-range indoor and outdoor communications, medical imaging, radar imaging, material sensing, asset tracking, surveillance, etc. UWB devices have been available in the international market for some time. In most European countries, the United States, Mainland China and many countries in the Asia-Pacific region, UWB devices are allowed to be used either on a licence-exempted basis or under a class licensing regime.

3. In view of the recent demand from the industry, the Communications Authority ("CA") issued on 6 April 2018 a public consultation

paper[1] ("the Consultation Paper") seeking to vary the existing Class Licence for Short Range Device[2] ("the varied Class Licence") with a view to expanding its scope to regulate, among others, the possession, use and trading of UWB devices in Hong Kong. The public consultation will close on 4 May 2018. Accordingly, there is a need to prescribe a new HKCA 1080 specification governing the technical requirements of UWB devices for use in Hong Kong as a reference for the varied Class Licence.

Proposed HKCA 1080 Specification

4. As set out in the Consultation Paper, the CA proposes that UWB devices shall operate in the 4.2 – 4.8 GHz and/or 6 – 8.5 GHz bands with a maximum mean spectral power density of – 41.3 dBm/MHz. In addition, UWB devices shall meet the technical requirements of either one or more of the following standards:

(a) ETSI EN 302 065-1 "Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Requirements for Generic UWB applications";

(b) ETSI EN 302 065-2 "Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 2: Requirements for UWB location tracking";

(c) ETSI EN 302 065-3 "Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised 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";

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[1] Consultation Paper - Variation to the Class Licence for Short Range Device to Regulate the Use of and Trade in Ultra-Wideband Radiocommunications Devices under Section 7C of the Telecommunications Ordinance (Chapter 106) posted at https://www.coms-auth.hk/filemanager/en/content_711/cp20180406_e.pdf

[2] The Class Licence for Short Range Device currently regulates the use of radiocommunications equipment operating in the 433 – 434.79 MHz band for short-range applications.

(d) ETSI EN 302 065-4 "Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonised 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"; and

(e) Code of Federal Regulations (USA); Title 47 Telecommunication; Chapter 1 Federal Communications Commission, Part 15 Radio Frequency Devices: Subpart F - "Ultra-Wideband Operation".

A copy of the draft HKCA 1080 specification is enclosed at Annex.

Certification Requirement

5. In line with the arrangement of other short-range devices, UWB devices operating in the 4.2 – 4.8 GHz and 6.0 – 8.5 GHz bands are proposed to be classified under the Voluntary Certification Scheme of the Hong Kong Telecommunications Equipment Evaluation and Certification Scheme. For the avoidance of doubts, suppliers, manufacturers and dealers shall ensure that their UWB devices comply with HKCA 1080 specification, irrespective of whether they would apply for the voluntary certification.

WTO Notification

6. As the proposed HKCA 1080 is based on open standards, notification to the World Trade Organisation (WTO) is not required.

Advice Sought

7. Members are invited to give their comments on the draft HKCA 1080 specification.

Office of the Communications Authority
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