

RADIO SPECTRUM AND TECHNICAL STANDARDS ADVISORY COMMITTEE

**Proposed New Performance Specifications
for Base Station and User Equipment for use in
Evolved Terrestrial Radio Access (E-UTRA)
Time Division Duplex (TDD) Network**

Purpose

This paper proposes the adoption of the following new HKCA specifications :

HKCA 1072 Issue 1	Performance specification for base station for use in Evolved Universal Terrestrial Radio Access (E-UTRA) Time Division Duplex (TDD) Network
HKCA 1073 Issue 1	Performance specification for user equipment for use in Evolved Universal Terrestrial Radio Access (E-UTRA) Time Division Duplex (TDD) Network

Background

2. In February 2012, the unpaired spectrum in the 2.3 GHz band (2300 – 2390 MHz) was assigned for the provision of broadband wireless access (BWA) services which can operate in TDD mode only. Since December 2012, E-UTRA TDD network services in the 2.3 GHz band have been available in the market. Radio equipment in the 2.3 GHz band have been certified by means of Type Acceptance Criteria¹ prescribed by the Communication Authority (CA) which specify the transmitter and receiver

¹ Type Acceptance Criteria for Base Station Equipment of 2.3GHz E-UTRA TDD Network available at : http://www.ofca.gov.hk/filemanager/ofca/en/content_791/9_TD-LTE%20BS%20acceptance%20criteria.pdf ;and Type Acceptance Criteria for User Equipment of 2.3GHz E-UTRA TDD Network available at: http://www.ofca.gov.hk/filemanager/ofca/en/content_791/TD-LTE_UE_acceptance_criteria.pdf

characteristics based on the relevant industry standards published by the Third Generation Partnership Project.

Proposed New HKCA 1072 and HKCA 1073 Specifications

3. Recently, the European Telecommunications Standards Institute (ETSI) has expanded the respective EN standards to cover E-UTRA radio equipment operating in TDD mode in the 2.3 GHz band. Having considered the frequency bands and technical requirements, it is recommended that the following EN standards be adopted in the proposed HKCA 1072 and HKCA 1073 specifications for certification of E-UTRA TDD base station and user equipment in the 2.3 GHz band respectively:

- (a) EN 301 908-1 “IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 1: Introduction and common requirements”
- (b) EN 301 908-13 “IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE)”
- (c) EN 301 908-14 “IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Station (BS)”

The proposed new HKCA specifications will replace the Type Acceptance Criteria for radio equipment operating in the 2.3 GHz E-UTRA TDD network previously issued by the CA.

Certification Requirement

4. E-UTRA TDD base station is classified under the Compulsory Certification Scheme of the Hong Kong Telecommunications Equipment Certification (HKTEC) Scheme. Such equipment must be certified against HKCA 1072 before it can be used in Hong Kong.

5. On the other hand, E-UTRA TDD user equipment is classified under the Voluntary Certification Scheme (VCS) of the HKTEC Scheme. Certification of such equipment is voluntary, but manufacturers, suppliers and

dealers must ensure that their equipment complies with HKCA 1073 even if they do not apply for certification.

WTO notification

6. As the proposed HKCA 1072 and HKCA 1073 are based on open standards, notification to the World Trade Organisation (WTO) is not necessary.

Recommendation

7. It is recommended that HKCA 1072 and HKCA 1073 attached in Annexes 1 - 2 be adopted by the CA.

Advice sought

8. Members are invited to comment on the recommendation above.

Office of the Communications Authority
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