

HOW TO APPLY FOR TYPE-APPROVAL OR TYPE-ACCEPTANCE OF RADIO EQUIPMENT

What is type-approval?

Radio equipment (including radiocommunications equipment and Industrial, Scientific and Medical (ISM) equipment emitting radio frequency energy intentionally) shall meet minimum technical requirements prescribed by the Communications Authority (CA)¹. The technical requirements for radio equipment commonly in use in Hong Kong are prescribed normally in the form of HKCA specifications² for the purposes of ensuring electrical safety, prevention of interference and public network connection. Radio equipment which has been evaluated against and meets the relevant HKCA specification may be granted a type-approval.

2. There have been Local Certification Bodies and Foreign Certification Bodies (hereafter collectively referred to as “Certification Bodies (CBs)”) accredited or recognised to provide services for type-approval of radio equipment. For further details about the equipment certification arrangement in Hong Kong, please refer to the Information Note [OFCA I 421 “Hong Kong Telecommunications Equipment Evaluation and Certification \(HKTEC\) Scheme”](#).

Is it mandatory for radio equipment to obtain type approval?

3. Under the HKTEC Scheme, radio equipment is classified under the “Voluntary Certification Scheme” (VCS) or the “Compulsory Certification Scheme” (CCS).

4. Radio equipment classified under the VCS can be used or marketed in Hong Kong without obtaining type-approval. However, it is incumbent on manufacturers, suppliers or dealers to ensure that their radio equipment meets the prescribed technical

¹ Pursuant to the Communications Authority Ordinance (Cap. 616), with effect from 1 April 2012, all duties and powers of the Telecommunications Authority (TA) are conferred on the Communications Authority (CA), and all duties and powers of the Office of the Telecommunications Authority (OFTA) are conferred on the Office of the Communications Authority (OFCA), the executive arm of the CA.

² Before the establishment of the CA on 1 April 2012, the specifications prescribed by the TA were named as HKTA specifications. From 1 April 2012 onward, revised versions of existing HKTA specifications and new specifications prescribed by the CA will be named as HKCA specifications. For the avoidance of doubt, unless the specific issue number of the HKTA specification is explicitly specified, reference in any document to HKTA specification shall be construed as including reference to the corresponding HKCA specification as may be revised from time to time. In addition, reference in any document to HKCA specification shall be construed as referring to the corresponding HKTA specification if the HKCA specification under reference is not yet present.

requirements. The manufacturers, suppliers or dealers may apply to a Certification Body (CB) for type-approval of radio equipment against the relevant HKCA specifications on a voluntary basis. In general, voluntary type-approval applies to radio equipment which is exempted from licensing under the Telecommunications Ordinance. More details about the exempted radiocommunications equipment can be found in Information Note [OFCA I 402 “Technical Performances for Radiocommunications Apparatus covered by the Telecommunications \(Telecommunications Apparatus\) \(Exemption from Licensing\) Order”](#).

5. Radio equipment classified under the CCS must be granted a type-approval before it can be used or offered for sale in Hong Kong. Such equipment includes high power radiocommunications apparatus, the use of which is generally subject to licensing control.

How can type approval be obtained?

6. Type-approval of radio equipment can be obtained through one of the following methods -

- (a) Based on the result of tests on samples of the radio equipment conducted or arranged to be conducted by the CB against the relevant HKCA specification;
- (b) Based on the result of tests on samples of the radio equipment against the relevant HKCA specification or equivalent and other relevant documents and information produced by a Recognised Testing/Certification Agency (RTA) (please see para. 8 below); or
- (c) Based on the result of tests on samples of the radio equipment against the relevant HKCA specification or equivalent and other relevant documents and information produced by a testing agency other than (a) and (b) above, provided that the CB has evidence that the testing agency is competent to perform the relevant test in accordance with ISO/IEC 17025, such as documented evaluation performed by qualified personnel according to appropriate procedures (please see para. 8 below).

7. Classification of radio equipment under VCS and CCS can be found in the Schedule. The classification will be updated from time to time when required.

Which testing/certification agencies are recognised to conduct evaluation of radio equipment?

8. Testing/certification agencies meeting prescribed requirements for carrying out the evaluation against the HKCA specifications or equivalent will be recognised.

Applicants may appoint the Recognised Testing/Certification Agencies (RTAs) to conduct evaluation of their radio equipment. More details about RTAs can be found in Information Note [OFCA I 411 “Recognized Testing/Certification Agency \(RTA\) for Evaluation of Telecommunications Equipment”](#). In addition, testing agencies which have been assessed by the CB as competent to perform the relevant test in accordance with ISO/IEC 17025, such as documented evaluation performed by qualified personnel according to appropriate procedures, may also be acceptable.

What is the procedure of applying for type-approval?

9. The procedure consists of two stages -

A. Document evaluation

- (i) the submitted technical specification or service manual is examined to verify if the radio equipment is likely to pass the equipment evaluation in stage B; and
- (ii) the test report and other relevant documents and information produced by an RTA or a competent testing agency as specified in para. 8 above is examined to see if equipment evaluation is necessary.

B. Equipment evaluation - where necessary, equipment samples are requested to be submitted for laboratory testing against the relevant HKCA specification by the CB.

10. Normally, the manufacturers, suppliers or dealers of the radio equipment are the persons that will apply for type-approval. Please approach a CB for the detailed procedures. The lists of CBs, their contact information and scope of services are available from OFCA’s website at:

http://www.ofca.gov.hk/en/industry_focus/standards/tel_standards/telecom/list_of_certification_bodies/index.html

What is type-acceptance?

11. For radio equipment without relevant HKCA specification for type-approval evaluation, a type-acceptance procedure is available. Some CBs have also been accredited to provide services for type-acceptance of radio equipment based on type acceptance criteria (TAC) adopted by the CA. To this end, manufacturers, suppliers or dealers can submit the technical specifications of the equipment to a CB for consideration. Testing of equipment samples may be required. The applicant will be informed of the result of the type-acceptance evaluation.

How to find out whether a model of radio equipment has been type-approved or type-accepted?

12. For type-approved or type-accepted radio equipment, manufacturers, suppliers or dealers can affix on a voluntary basis a label prescribed by the CA to the equipment or to the packing materials. Although labelling is voluntary, manufacturers, suppliers and dealers are encouraged to use labels prescribed by the CA for consumer guidance. More details about the labelling arrangement can be found in the Standardisation Guide [HKCA 3211 “Standardisation Guide for Labelling of Telecommunications Equipment”](#).

13. In addition, the list of all type-approved or type-accepted radio equipment can be found from OFCA’s website at <http://app1.ofca.gov.hk/apps/cte/content/listEquip.asp?lang=E>. With information on the type of a radio equipment, its brand name and model number, users may check against the list whether that radio equipment has been type-approved or type-accepted.

Can a type-approved or type-accepted radio equipment be modified?

14. Modification to type-approved or type-accepted radio equipment requires prior approval from the issuer of type-approval or type-acceptance, i.e. CB or the CA. Supporting documents should be submitted to show that the radio equipment to be modified continues to comply with the required technical performance. However, cosmetic change (e.g. change in colour) is not considered as a “modification”.

How to obtain HKCA specifications, TAC and information notes?

15. HKCA specifications, TAC and information notes can be obtained through one of the following methods -

(a) OFCA’s Internet Home Page. The Home Page address is <http://www.ofca.gov.hk>;

(b) Hard copies will be available upon written request to -

Office of the Communications Authority,
29/F Wu Chung House,
213 Queen’s Road East, Wanchai,
Hong Kong.
(Attn : Senior Telecommunications Engineer (Standards))

How to obtain additional information?

16. Additional information may be obtained from -

Office of the Communications Authority,
29/F Wu Chung House,
213 Queen's Road East, Wanchai,
Hong Kong.
(Attn : Senior Telecommunications Engineer (Standards))

Tel No. : +852 2961 6388
Fax No. : +852 2838 5004
Email: standards@ofca.gov.hk

Office of the Communications Authority
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Schedule : Classification of Equipment Type

Equipment Type	Relevant Specification	Classification
SAR certification for type approved mobile equipment for use in the public mobile communications service	HKCA 2001	VCS
Mobile Equipment for use in the public mobile communications service including: <ul style="list-style-type: none"> • GSM, PCS and GSM/PCS dual-mode • 3G mobile CDMA Direct Spread (UTRA FDD) • 3G mobile CDMA Direct Spread (UTRA FDD) - 850 MHz band • 3G mobile cdma2000 Spread Spectrum • LTE (E-UTRA FDD) • LTE (E-UTRA TDD) • 5G NR standalone mode - 26/28 GHz band • 5G NR standalone mode - sub-6 GHz band • 5G NR non-standalone mode 	HKCA 1033 HKCA 1048 TAC 002 HKCA 1054 HKCA 1057 HKCA 1073 TAC 006 TAC 008 TAC 009	
TV antenna amplifier	HKCA 1019	
Radio equipment exempted from licensing	HKCA 1035	
Short range devices operating in the 433 MHz band	HKCA 1061	
Radiocommunications apparatus operating in the 27 MHz band for private use	HKCA 1041	
Radio Frequency Identification (RFID) equipment: <ul style="list-style-type: none"> • operating in the 865 – 868 MHz and/or 920 – 925 MHz bands 	HKCA 1049	
Radiocommunications apparatus including: <ul style="list-style-type: none"> • 1.7/47 MHz cordless telephone • 864.1/868 MHz cordless telephone • 46/49 MHz cordless telephone • DECT • Bluetooth • 2.4 GHz cordless telephone • 5.8 GHz cordless telephone • 254/380 MHz cordless telephone • 2.4 GHz wireless LAN equipment • 5 GHz wireless LAN equipment • 60 GHz radiocommunications equipment 	HKCA 1006 HKCA 1015 HKCA 1026 HKCA 1034 HKCA 1039 HKCA 1039 HKCA 1039 HKCA 1045 HKCA 1039 HKCA 1039 HKCA 1074	
409 MHz short-range portable radio	HKCA 1044	
Medical implant communication system	HKCA 1052	
Public paging receiver	HKCA 1004	
79 GHz short-range radar equipment	HKCA 1075	
Radio equipment operating in the 920 - 925 MHz band for the provision of public telecommunications services	HKCA 1078	
Short range devices operating in 4.2 – 4.8 GHz and/or 6.0 – 8.5 GHz bands employing UWB technology	HKCA 1080	

Equipment Type	Relevant Specification	Classification
Wireless microphone equipment not exempted from licensing	HKCA 1008	CCS
Citizen Band (CB) radio equipment, including: <ul style="list-style-type: none"> • CB radio transceiver for use on-board craft and vessels • CB radio transceiver operating in the 27 MHz band 	HKCA 1022 HKCA 1050	
Land mobile radio equipment including: <ul style="list-style-type: none"> • Angle modulated VHF and UHF land mobile radio transceiver • Public paging transmitter • Angle modulated VHF and UHF land mobile radio transceiver intended primarily for data application • Angle modulated 800 MHz trunked radio equipment • TETRA trunked radio equipment 	HKCA 1002 HKCA 1004 HKCA 1010 HKCA 1016 HKCA 1047	
<ul style="list-style-type: none"> • Base station and repeater equipment for use in the public mobile communications service including GSM, PCS, GSM/PCS dual-mode, CDMA direct spread (UTRA FDD), cdma2000 spread spectrum, LTE (evolved UTRA FDD), LTE (evolved UTRA TDD) and 5G NR 	HKCA 1020 HKCA 1043 HKCA 1053 HKCA 1056 HKCA 1072 TAC 001 TAC 003 TAC 005 TAC 007	
<ul style="list-style-type: none"> • Multi-Standard Radio (MSR) base station including Advanced Antenna System (AAS) base station 	HKCA 1065 TAC 004 TAC 010 TAC 011	
<ul style="list-style-type: none"> • Radiocommunications equipment for GSM-R • On-site radio paging equipment • Mobile communications on-board aircraft system 	HKCA 1064 HKCA 1069 HKCA 1077	
Aeronautical mobile radio equipment including: <ul style="list-style-type: none"> • Ground-based VHF radio equipment • Ground-based VHF Digital Link (VDL) Mode 2 radio equipment 	HKCA 1066 HKCA 1067	
Fixed link equipment including: <ul style="list-style-type: none"> • 1429-1530 MHz fixed link equipment • 38 GHz digital fixed link equipment • 23 GHz digital fixed link equipment • 5 GHz wireless access equipment • 11 GHz digital fixed link equipment • 13 GHz digital fixed link equipment • 18 GHz digital fixed link equipment 	HKCA 1003 HKCA 1036 HKCA 1037 HKCA 1042 HKCA 1068 HKCA 1070 HKCA 1071	
Other equipment including: <ul style="list-style-type: none"> • Industrial, Scientific & Medical (ISM) equipment • 2.3GHz digital multipoint radio equipment 	HKCA 1007 HKCA 1076	

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