

HKTA 1005
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**PERFORMANCE SPECIFICATION FOR
ANGLE MODULATED VHF MARITIME BAND
RADIO EQUIPMENT FOR VOLUNTARY
FITTING IN SMALL CRAFT**



**Telecommunications Authority
Hong Kong**

FOREWORD

1. This specification is prescribed under section 32D of the Telecommunications Ordinance (Cap 106) (“the Ordinance”) to set out the technical and evaluation requirements for angle modulated VHF maritime band radio equipment for voluntary fitting in small craft. Radiocommunications apparatus falling into the scope of this specification shall meet the stipulated requirements.
2. Under the Ordinance, the possession or use of any radiocommunications apparatus or any apparatus emitting radio frequency energy must be covered by an appropriate licence issued by the Telecommunications Authority (TA) with the exception of those specifically exempted from licensing under the Ordinance, such as those covered by the Telecommunications (Telecommunications Apparatus)(Exemption from Licensing) Order.
3. At present, the Office of the Telecommunications Authority (OFTA) operates a **Hong Kong Telecommunications Equipment Evaluation and Certification (HKTEC) Scheme**. Details of the HKTEC Scheme can be found in the information note OFTA I 421. Under the Scheme, suppliers or manufacturers of the radiocommunications apparatus shall apply for certification of their apparatus against this specification. The application procedures for certification of radiocommunications apparatus can be found in the information note OFTA I 401.
4. The TA reserves the right to give separate certification to models he considers to be technical variants and the performance of which may differ between models.
5. The TA may amend any part of this specification as and when he deems necessary.
6. In case of doubt about the interpretation of this specification, the methods of carrying out the test and the validity of statements made by the equipment manufacturers or suppliers about the equipment, the decision of the TA shall be final.
7. The HKTA specifications and information notes are issued by the TA. The documents can be obtained through one of the following methods —
 - downloading direct through the OFTA's Internet Home Page. The Home Page address is <http://www.ofta.gov.hk>;
 - making a request for hard copies to :-

Radio Laboratory,
Standards Section,
Office of the Telecommunications Authority,
29/F Wu Chung House,
213 Queen’s Road East,

Wanchai,
Hong Kong.

Fax: +852 2343 5824
Email: certification@ofta.gov.hk

8. Enquiries about this specification may be directed to —

Radio Laboratory, Standards Section,
Office of the Telecommunications Authority,
29/F Wu Chung House,
213 Queen's Road East, Wanchai, Hong Kong.

Fax : +852 2343 5824
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AMENDMENT HISTORY

Item	Issue No.	Paragraph	Descriptions
1.	Issue 3 November 1996	4.1	Change of the frequency value of frequency channels 96 from "157.925 MHz" to "157.825 MHz"
2.	Issue 4 February 2003	Foreword	Add information of HKTEC Scheme and other editorial changes.
3.	Issue 5 October 2008	6.2	Change frequency value to 156.8 MHz to be in line with ITU Radio Regulations Appendix 18.
4.	Issue 5 October 2008	4.1, 4.2	Change of channels requirement. Swap 4.1 and 4.2.

1. Scope of Specification

1.1 This specification covers the minimum performance requirements for angle modulated radio transmitters and receivers used as base, mobile or portable equipment operating in the international and/or private maritime VHF band, with adjacent channel separation of 25 kHz for use in Hong Kong waters on voluntary fitted craft.

1.2 This specification is to be read in conjunction with the specification HKTA1002 entitled "Performance Specification for Angle Modulated Radio Transmitters and Receivers for use as Base, Repeater, Mobile and Portable Equipment in the Land Mobile Radio Service" published by the Office of the Telecommunications Authority. All the conditions, specifications, definitions, procedures, measurement technique and details given in HKTA1002 apply to this specification (including any amendments) except for those specified differently in this specification.

2. Test Conditions

All test conditions stated in the HKTA 1002 specification shall apply except for the extreme temperatures shall be 0° C to 40° C.

3. Emission

The equipment shall provide for an emission mode of 16K0G3E only.

4. Frequency

4.1 The equipment can be enabled to transmit and receive the international VHF maritime channels. The international VHF maritime channels are given in Appendix 18 of the Radio Regulations of the International Telecommunication Union.

4.2 The equipment may be able to transmit and receive on private VHF maritime single frequency channels 96 (157.825 MHz) and/or 99 (157.975 MHz).

5. Frequency Error

The frequency error, under both normal and extreme test conditions, shall not exceed 10 parts per million.

6. Power output

6.1 Definition

The rated value of the transmitter power output is the maximum value of the output power, when the transmitter is unmodulated, for which all the relevant specification requirements are met. The rated power shall be declared by the manufacturer.

6.2 Method of measurement of transmitter power output

The transmitter shall be connected as shown in Figure 2 of HKTA1002 and the power delivered to load shall be measured with the transmitter switched on, if equipped, the calling and safety channel 156.8 MHz. The measurements shall be made under both normal and extreme temperature conditions with power supply voltage of ± 10 per cent relative to nominal value. Tests shall also be done under normal temperature conditions, at nominal power supply voltage, with the equipment adjusted for operation on the highest and lowest channels for which it is equipped.

6.3 Limits

The rated output power shall not exceed 25 W. The carrier output power under normal temperature conditions with nominal supply voltage for tests on the highest and lowest channels shall not be below -3 dB relative to the rated output power. The carrier output power under extreme temperature conditions with power supply voltages of ± 10 per cent relative to nominal value, shall be within ± 2 dB of the rated power recorded under normal temperature conditions with nominal power supply voltage. Means shall be provided to enable the output power to be reduced to 1 watt, or less, under normal temperature conditions with nominal power supply voltage. The requirements of this specification shall also be met when the transmitter is operating at reduced power.

7. Frequency deviation characteristics

The characteristics stated in HKTA1002 for 25 kHz channel spacing equipment shall apply.

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