

GUIDELINES FOR APPLICATION FOR PRIVATE RADIO SYSTEM LICENCES

Introduction

Under the Telecommunications Ordinance (Cap. 106) (the Ordinance), other than a few exceptions, for example, sound/television broadcast receiving apparatus or low power radio devices and cordless phone apparatus exempted under an exemption order made under section 39 of the Ordinance, a licence is required for possession, establishment and maintenance (or use) of a radio system. Accordingly, an appropriate telecommunications licence should first be obtained from the Communications Authority (CA) before a person possesses and/or uses radio transmitting and receiving equipment for radiocommunications or other purposes such as tele-command or control.

Licences to be granted

2. For possession, establishment and maintenance of a radio system for provision of a public telecommunications service, a carrier/network/public service licence is required. If the radio system to be licensed is for own use or intra-corporate or closed user group¹ communication, a licence belonging to “the private radio system licence category” is to be granted. A list of licences belonging to this category is listed in Schedule 1.

Criteria for granting a private radio system licence

3. For the grant of a licence belonging to the private radio system licence category, the prospective licensee has to meet the following criteria:

- (a) The licensed radio installation should not be used for provision of a public service.

¹ Closed user group means a group of persons, businesses or companies engaged in a common business or activity which group was formed for the specific purpose of furthering such business or activity.

- (b) The licensee has to be a business entity registered under the Companies Ordinance (Cap. 622) or the Business Registration Ordinance (Cap. 310), or an organisation legally registered in Hong Kong. The CA may consider applications from individuals when the radio system is for cross-boundary trucks, industrial, scientific and medical (ISM) applications, telemetry, control, or radiodetermination².
- (c) No licence will be granted to persons who are not a public telecommunications service provider or a utility service provider (for example, power companies, broadcasters) for establishment of microwave links within Hong Kong.
- (d) The CA will not accept any application from a taxi organisation that does not provide radio taxi call service for a licence to use a mobile radio system.
- (e) Satellite earth station (including both very small aperture terminal (VSAT) or large earth station for own communication or communication with subsidiary or affiliate companies³ (intra-company or intra-corporate communication) or closed user group communication (see Note 1 on Page 1) is permitted under the self-provided external telecommunications system licence which is a licence belonging to the private radio system licence category.
- (f) If the licensed system comprises a satellite dish, the licensee should employ a person registered under section 3 of the Buildings Ordinance (Cap. 123) to certify that the aerial and its supporting framework of the licensed system is structurally safe.

² The definition of ISM applications and radiodetermination follows those stated in Article S1 of the Radio Regulations issued by the International Telecommunication Union (ITU). ISM applications refer to operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, medical, domestic or similar purposes, excluding applications in the field of telecommunications. Radiodetermination refers to determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of propagation properties of radio waves.

³ Subsidiary company and holding company have the same meaning as in the Companies Ordinance (Cap. 622). Affiliate companies means a company that is a subsidiary of the licensee's holding company.

- (g) Applications for a licence for a receive-only apparatus for reception or interception of messages of other licensees will not be approved unless there are good reasons and justifiable needs for reception or interception of such messages.
- (h) Unless otherwise specified or approved by the Authority, equipment to be used for mobile services must be a type approved by the CA. A list of type approved equipment (the "List of Certified Telecommunications Equipment") is maintained by OFCA and is open for public inspection at OFCA website at www.ofca.gov.hk.
- (i) The operating frequency or frequencies must be one or those assigned or allocated by the CA. Frequency allocations generally follow "Hong Kong Table of Frequency Allocations" published and updated by OFCA from time to time.
- (j) Other than messages exchanged on the "open channels" allowed by the CA, unless prior consent in writing of the CA is obtained the licensed installation should only be used for exchanges of messages within the licensed company/organisation/closed user group or with associate/affiliate companies. A list of open channels is given in Schedule 2.
- (k) For handheld portable radio transceivers of transmission power less one (1) watt (e.r.p.), the operating frequency or frequencies will be assigned in accordance with the "primary business" of the licensee as specified in Schedule 3.
- (l) Wireless microphones meeting the requirements specified in the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order are exempted from licensing. For wireless microphones working at frequencies within the frequency bands 174.15 to 174.925 MHz or 184.05 to 184.95 MHz, the CA may consider permitting their use under a licence in the private radio system licence. However, the exact operating frequency will be the one assigned by the CA.

- (m) The licensed equipment should meet the relevant performance specifications issued by the CA (Radio Equipment Specifications HKCA 10XX). These specifications are available at OFCA website at www.ofca.gov.hk.
- (n) The location(s) of the fixed/base station(s) of the proposed radio system have to be first approved by the CA.

Application Forms

4. To facilitate submission of applications, application forms/guidelines are available at OFCA or the Communications Authority website at www.coms-auth.hk.

Communications Authority

Schedule 1

A List of Licences Under The Private Radio System Licence Category

1. Aeronautical Very High Frequency Fixed Station Licence
2. Industrial, Scientific and Medical Electronic Machine Licence
3. Private Mobile Radio System Licence
4. Private Radio Paging System Licence
5. Radiodetermination and Conveyance of Commands, Status and Data Licence
6. Self-Provided External Telecommunications System Licence
7. Wide Band Link and Relay Station Licence

Schedule 2

Open Channels

This is a set of 22 single-frequency channels with 12.5 kHz channel spacing. All mobile stations authorised under a licence belonging to the private radio system licence category, in addition to their assigned frequencies, are allowed to use any or all of the frequencies in the single-frequency-simplex mode within this set of channels for communications with other licensees. Frequencies of the open channels are:

70.0500 MHz	70.0625 MHz	70.0750 MHz	70.0875 MHz	70.1000 MHz
70.1125 MHz	70.1250 MHz	149.3375 MHz	149.3500 MHz	149.3625 MHz
149.3750 MHz	149.3875 MHz	149.4000 MHz	149.4125 MHz	149.4250 MHz
149.4375 MHz	149.4500 MHz	149.4625 MHz	149.4750 MHz	149.4875 MHz
149.5375 MHz	149.5500 MHz			

Schedule 3

Frequency Assignment for Portables

- (a) If the operating frequencies are in the VHF band, the frequencies will be assigned according to the table below:

Freq. Group	Primary business of your company/organisation	Frequencies that will be assigned for your use (MHz)	Class of Emission	Max. effective radiated power
Group 1	Construction and /or Building	142.8500; 142.8875; 142.9125; 143.9375; 149.0375; 149.7750 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 2	Estate Management and/or Security	142.8625; 142.9250; 142.9500; 142.9750; 143.8750; 143.9250; 143.9875; 149.0500; 149.7625; 149.7875 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 3	Transportation and/or Delivery service	142.9000; 142.9625; 149.0250 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 4	Engineering and/or Consultant	142.8750; 142.9625; 143.9625 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 5	Public utilities	142.8250; 149.2750 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 6	Others	142.8375; 149.3000; 149.3125; 149.3250; 149.5000; 149.5250 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 8	Construction and/or Building	175.3750 (Only with base station installed)*; 175.4500 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 9	Estate management and/or Security	175.4125 (Only with base station installed)*; 175.4625; 175.4875 MHz and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 10	Transportation and/or Delivery service	175.4000 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 11	Engineering and/or Consultant	175.3875; 175.4250 and the "open channels" in Schedule 2	11K0F3E	1 Watt
Group 12	Public utilities #	175.4750 and the "open channels" in Schedule 2	11K0F3E	1 Watt

* To set up a base station, prior approval should first be obtained from the Office of the Communications Authority. The maximum effective radiated power of base station is 1.0W and class of emission is 11K0F3E. For outdoor antenna of the base station, if any, the maximum height of antenna above local terrain is 10 metres.

The handheld portable transceiver should equip with Continuous Tone Coded Squelch System (CTCSS) function.

- (b) If the operating frequencies are in the UHF band, the frequencies that will be assigned, irrespective of the primary business of your company/organisation, will be as below:

Frequencies (MHz) : 460.8500; 462.8500; 462.9250; 463.100;
463.375; 463.400 and the "open channels" in
Schedule 2

Class of emission : 16K0F3E

Maximum effective radiated power : 1 Watt

Frequency group : Group 7

- (c) If you choose the digital VHF band, the frequency that will be assigned for your use, irrespective of the primary business of your company/organisation, will be as below:

Frequencies (MHz): 148.6125 and the "open channels" #

Class of emission : 7K60FXE

Maximum effective radiated power : 1 Watt

Frequency group : Group 30

- (d) If you choose the digital UHF band, the frequency that will be assigned for your use, irrespective of the primary business of your company/organisation, will be as below:

Frequencies (MHz): 460.625 and the "open channels" #

Class of emission : 7K60FXE

Maximum effective radiated power : 1 Watt

Frequency group : Group 31