LN004e

Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order

(Made by the Chief Executive in Council under section 39 of the Telecommunications Ordinance (Cap. 106))

1. Commencement

This Order shall come into operation on a day to be appointed by the Telecommunications Authority by notice published in the Gazette.

2. Interpretation

In this Order, unless the context otherwise requires---

"carrier power" (載波功率), "effective radiated power" or "e.r.p." (有效輻射功率), "equivalent isotropically radiated power" or "e.i.r.p." (等效全向輻射功率), "mean power" (平均功率), "mobile earth station" (移動地球站), "spurious emission" (雜散發射) and "unwanted emissions" (無用發射) have the meanings assigned to them respectively by Article 1 of Chapter 1 of the Radio Regulations published by the General Secretariat of the International Telecommunication Union, edition of 2001, as revised from time to time;

"digital modulation" (數碼調制) means the process by which the characteristics of a carrier wave (that is to say, an electromagnetic wave used to carry an information signal) are varied among a set of predetermined discrete values in accordance with a digital modulating function as specified in document ANSI C63.17-1998 published by the American National Standards Institute;

"frequency hopping spread spectrum modulation" (頻率跳變擴譜調制) means a modulation system which hops to channel frequencies that are selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies;

"modulation" (調制) has the meaning assigned to it in "Terms and Definitions" of the Recommendation ITU-R V.662 approved by the International Telecommunication Union, as revised from time to time;

"non-radiocommunications" (非無線電通訊) means telecommunications other than by means of radio waves;

"non-radiocommunications apparatus" (非無線電通訊器具) means telecommunications apparatus used for or in connection with non-radiocommunications;

"taxi" (的士) means a motor vehicle which is registered as a taxi under the Road Traffic Ordinance (Cap. 374);

"telecommunications apparatus" (電訊器具) means an apparatus used for or in connection with non-radiocommunications or radiocommunications or both.

3. Exemption for non-radiocommunications apparatus

(1) A person who establishes or maintains any non-radiocommunications apparatus which is not used to provide a public telecommunications service and---

(a) is lawfully connected to a telecommunications network or system for obtaining services from a person who operates that telecommunications network or system under any of the following licences issued or created under the Ordinance---

(i) a fixed carrier licence;

(ii) a fixed telecommunications network services licence;

(iii) a public non-exclusive telecommunications service licence (for services other than a licence for mobile virtual network operator services);

(iv) the class licence for in-building telecommunications systems;

(v) any other licence (including a class licence) for the provision of any public telecommunications service; or

(b) is used in a manner other than that described in paragraph (a) where---

(i) the person and the apparatus meet the conditions specified in subsection (2); and

(ii) the apparatus meets the technical criteria set out in Schedule 2,

is exempted from the obligation to hold a licence under section 8(1)(a) of the Ordinance.

(2) For the purposes of subsection (1)(b)(i), the conditions are that---

(a) the person does not use the apparatus in such a manner as to cause harmful interference with other telecommunications apparatus or any telecommunications system authorized under the Ordinance;

(b) the person complies with any direction given by the Authority for avoiding interference with other telecommunications apparatus or any telecommunications system authorized under the Ordinance;

(c) the apparatus tolerates interference from other telecommunications apparatus or any telecommunications system authorized under the Ordinance; and

(d) the apparatus is made available for inspection and testing, if so required, by any person authorized for the purpose by the Authority.

4. Exemption for radiocommunications apparatus relating to taxis

(1) Subject to subsection (2), a person who---

(a) possesses any radiocommunications apparatus capable of being used; or

(b) uses any radiocommunications apparatus,

solely for a lawful connection to a telecommunications network or system for obtaining services from a person who operates that telecommunications network or system under a public radiocommunications service licence for communication between a radiocommunications installation and taxis is exempted from the obligation to hold

a licence under section 8(1)(a) or (b) of the Ordinance, as the case may be.

(2) A person is not exempted from section 8(1)(a) or (b) of the Ordinance, as the case may be, unless---

(a) the person complies with any standards or specifications as may be prescribed under section 32D, and with any order or requirements as may be prescribed under section 32E, of the Ordinance;

(b) the person does not use the apparatus to provide a public telecommunications service;

(c) the person does not use the apparatus in such a manner as to cause harmful interference with other telecommunications apparatus or any telecommunications system authorized under the Ordinance;

(d) the person complies with any direction given by the Authority for avoiding interference with other telecommunications apparatus or any telecommunications system authorized under the Ordinance; and

(e) the apparatus is made available for inspection and testing, if so required, by any person authorized for the purpose by the Authority.

5. Exemption for other radiocommunications apparatus

(1) Subject to subsection (2), a person who is under an obligation to hold a licence under section 8(1)(a), (b), (c) or (d) of the Ordinance in respect of any radiocommunications apparatus is exempted from section 8(1)(a), (b), (c) or (d) of the Ordinance, as the case may be, if the apparatus is used or is capable of being used---

(a) for a lawful connection by radiocommunications to a telecommunications network or system for obtaining services from a person who operates that telecommunications network or system under any of the following licences issued or created under the Ordinance---

(i) a fixed carrier licence;

(ii) a mobile carrier licence;

(iii) a fixed telecommunications network services licence;

(iv) a public radiocommunications service licence (for services other than a licence for communication between a radiocommunications installation and taxis);

(v) a public radiocommunications service licence (for services other than land mobile services);

(vi) a public non-exclusive telecommunications service licence;

(vii) the class licence for in-building telecommunications systems;

(viii) any other licence (including a class licence) for the provision of any public telecommunications service; or

(b) in a manner other than that described in paragraph (a), and---

(i) in the case where the apparatus is used or is capable of being used as a mobile earth station, it meets the technical criteria set out in Schedule 1; or

(ii) in the case where the apparatus is used or is capable of being used other than as a mobile earth station, it meets the technical criteria set out in Schedule 2 and tolerates interference from other telecommunications apparatus or any telecommunications system authorized under the Ordinance.

(2) A person is not exempted from section 8(1)(a), (b), (c) or (d) of the Ordinance, as the case may be, unless---

(a) the person complies with any standards or specifications as may be prescribed under section 32D, and with any order or requirements as may be prescribed under section 32E, of the Ordinance;

(b) the person does not use the apparatus to provide a public telecommunications service;

(c) the person does not use the apparatus in such a manner as to cause harmful interference with other telecommunications apparatus or any telecommunications system authorized under the Ordinance;

(d) the person complies with any direction given by the Authority for avoiding interference with other telecommunications apparatus or any telecommunications system authorized under the Ordinance; and

(e) the apparatus is made available for inspection and testing, if so required, by any person authorized for the purpose by the Authority.

6. Exemption for hybrid telecommunications apparatus

(1) A person who is under an obligation to hold a licence under section 8(1)(a) of the Ordinance in respect of any non-radiocommunications apparatus that is used in a combination of those manners as described in section 3(1)(a) and (b) is exempted from section 8(1)(a) of the Ordinance if the provisions in section 3 are complied with.

(2) A person who is under an obligation to hold a licence under section 8(1)(a), (b), (c) or (d) of the Ordinance in respect of any radiocommunications apparatus that is used or is capable of being used in a combination of those manners as described in section 5(1)(a) and (b) is exempted from section 8(1)(a), (b), (c) or (d) of the Ordinance, as the case may be, if the provisions in section 5 are complied with.

(3) A person who is under an obligation to hold a licence under section 8(1)(a), (b), (c) or (d) of the Ordinance in respect of any telecommunications apparatus that is used or is capable of being used in a combination of any one or more of those manners as described in sections 3(1) and in 5(1) is exempted from section 8(1)(a), (b), (c) or (d) of the Ordinance, as the case may be, if the relevant provisions in both sections 3 and 5 are complied with.

7. Exemption for import and export of radiocommunications apparatus

A person who imports into, or exports from, Hong Kong any radiocommunications apparatus exempted under section 5 or 6 is also exempted from section 9 of the Ordinance if the apparatus is imported or exported, as the case may be, for the person's reasonable personal use and that the relevant quantity commensurates with such use.

8. Repeals

The following Orders are repealed---

(a) Telecommunications (Model Control Equipment) (Exemption from Licensing) Order (Cap. 106 sub. leg.);

(b) Telecommunications (Public Non-exclusive Telecommunications Service Customers) (Exemption from Licensing) Order (Cap. 106 sub. leg.);

(c) Telecommunications (Cordless Telecommunications Apparatus) (Exemption from Licensing) Order (Cap. 106 sub. leg.);

(d) Telecommunications (Low Power Devices) (Exemption from Licensing) Order (Cap. 106 sub. leg.);

(e) Telecommunications (Public Radiocommunications Service Customers) (Exemption from Licensing) Order (Cap. 106 sub. leg.);

(f) Telecommunications (Fixed Telecommunications Network Services) (Exemption from Licensing) Order (Cap. 106 sub. leg.); and

(g) Telecommunications (Mobile Earth Stations) (Exemption) Order (Cap. 106 sub. leg.).

SCHEDULE 1 [s. 5]

Technical Criteria for Apparatus Used, etc. as Mobile Earth Stations

1. The operating frequency for transmission shall be within the frequency band 1610 MHz to 1660.5 MHz or 1980 MHz to 2010 MHz.

2. The operating frequency for reception shall be within the frequency bands 1525 MHz to 1559 MHz, 1613.8 MHz to 1626.5 MHz, 2170 MHz to 2200 MHz or 2483.5 MHz to 2500 MHz.

3. The mean equivalent isotropically radiated power density produced by the mobile earth station shall not exceed -3 dBW/4kHz within the frequency band 1610 MHz to 1626.5 MHz.

4. The unwanted emissions generated by the mobile earth station shall comply with the relevant requirements in---

(a) Recommendation ITU-R M.1343 "Essential Technical Requirements of Mobile Earth Stations for Global Non-Geostationary Mobile-Satellite Service Systems in the Bands 1-3 GHz"; or

(b) Recommendation ITU-R M.1480 "Essential Technical Requirements of Mobile Earth Stations of Geostationary Mobile-Satellite Systems that are Implementing the Global Mobile Personal Communications By Satellite (GMPCS)---Memorandum of Understanding Arrangements in Parts of the Frequency Band 1-3 GHz",

approved by the International Telecommunication Union as revised from time to time.

SCHEDULE 2 [ss. 3 & 5]

Technical Criteria for Apparatus Used, etc. Other than as Mobile Earth Stations

Telecommunications apparatus shall operate within a frequency band shown in column 1 of the following table and shall generate an output level and spurious emission level as set out opposite to that frequency band in columns 2 and 3---

Column 1 Frequency Band	Column 2 Output Level	Column 3 Spurious Emission Level
3-195 kHz	electric field strength not to exceed 40 dB猩/m and magnetic field strength not to exceed 48.4 dBnA/m at 100 m from the apparatus	spurious emission level not to exceed the limits set out in Note [9]
1627.5-1796.5 kHz [1]	electric field strength not to exceed 88 dB猩/m at 30 m from the apparatus	electric field strength not to exceed 34 dB猩/m at 30 m from the apparatus within 0.5-30 MHz; spurious emission level not to exceed the limits set out in Note [9](b)
13.553-13.567 MHz	(a) electric field strength not to exceed 80 dB猩/m at 30 m; or (b) magnetic field strength not to exceed 42 dB渙/m at 10 m from the apparatus	spurious emission level not to exceed the limits set out in Note [9]
26.96-27.28 MHz	mean power not to exceed 0.5 W	
33-33.28 MHz	e.r.p. not to exceed 10 mW	
36.26-36.54 MHz		
36.41-36.69 MHz		
36.71-36.99 MHz		
36.96-37.24 MHz		

40.66-40.70 MHz
42.75-43.03 MHz
43.71-44.49 MHz [2] electric field strength not to exceed spurious emission level not to
10 mV/m at 3 m from the exceed the limits set out in
apparatus Note [10]
44.73-45.01 MHz e.r.p. not to exceed 10 mW spurious emission level not to exceed the limits set out in
Note [9]
46.6-46.98 MHz [2] electric field strength not to exceed spurious emission level not to
10 mV/m at 3 m from the exceed the limits set out in
apparatus Note [10]
47.13-47.41 MHz e.r.p. not to exceed 10 mW spurious emission level not to exceed the limits set out in
Note [9]
47.43-47.56 MHz [1] e.r.p. not to exceed 10 mW spurious emission level not to exceed the limits set out in
Note [9](b)
48.75-50 MHz [2] electric field strength not to exceed spurious emission level not to
10 mV/m at 3 m from the exceed the limits set out in
apparatus Note [10]
173.96-174.24 MHz e.r.p. not to exceed 20 mW spurious emission level not to
187.5-188.0 MHz e.r.p. not to exceed 10 mW exceed the limits set out in
Note [9]
253.85-255 MHz [3] e.r.p. not to exceed 12 mW e.r.p. not to exceed 2.5 瑂
266.75-267.25 MHz e.r.p. not to exceed 10 mW spurious emission level not to
313.75-314.25 MHz exceed the limits set out in
314.75-315.25 MHz Note [9]
380.2-381.325 MHz [3] e.r.p. not to exceed 12 mW e.r.p. not to exceed 2.5 瑂
409.74-410 MHz [4] e.r.p. not to exceed 0.5 W e.r.p. not to exceed 50 瑂
819.1-823.1 MHz (a) e.r.p. not to exceed 100 mW; spurious emission level not to
and exceed the limits set out in
(b) power spectral density not to Note [9]
exceed 10 mW per 25 kHz
864.1-868.1 MHz [5] carrier power or e.r.p. not to (a) e.r.p. not to exceed

250 nW
exceed 10 mW for frequency below 1 GHz
excluding 41-68 MHz,
87.5-118 MHz, 162-230 MHz
and 470-862 MHz;
(b) e.r.p. not to exceed 4 nW for frequency in the bands
41-68 MHz, 87.5-118 MHz, 162-230 MHz and
470-862 MHz; and
(c) e.r.p. not to exceed 1 琺 for frequency above 1 GHz

919.5-920.0 MHz	e.r.p. not to exceed 10 mW	spurious emission level not to exceed the limits set out in Note [9]	
1880-1900 MHz [6]	(a) peak power not to exceed 250 mW for apparatus with antenna output terminal; or (b) peak e.i.r.p. not to exceed 250 mW for apparatus with integral antenna	(a) e.r.p. not to exceed 250 nW for frequency below 1 GHz; and (b) e.r.p. not to exceed 1 琺 for frequency above or equal to 1 GHz	
1895-1906.1 MHz [7]	(a) carrier power not to exceed 10 mW for apparatus with antenna output terminal; or (b) e.r.p. not to exceed 10 mW for apparatus with integral antenna	(a) e.r.p. not to exceed 250 nW for frequency within 1895-1906.1 MHz; and (b) e.r.p. not to exceed 2.5 琺 for frequency within 30 MHz-10 GHz excluding 1895-1906.1 MHz	
2400-2483.5 MHz	(a) peak e.i.r.p. not to exceed 4 W for frequency hopping spread spectrum modulation or digital modulation systems; or (b) aggregate e.r.p. not to exceed 100 mW for any modulation	e.r.p. not to exceed 10 琺 outside the frequency band in which the fundamental frequencies are located	
5150-5350 MHz [11]	e.i.r.p. not to exceed 200 mW using only digital modulation	e.r.p. not to exceed 10 琺	
5725-5850 MHz	(a) peak e.i.r.p. not to exceed 4 W	e.r.p. not to exceed 10 琺	

	for frequency hopping spread spectrum modulation or digital modulation systems; or	outside the frequency band in which the fundamental frequencies are located
	(b) aggregate e.r.p. not to exceed 100 mW for any modulation	
18.82-18.87 GHz	(a) e.r.p. not to exceed 100 mW; and outside the frequency band in	e.r.p. not to exceed 10 珐
	(b) power spectral density not to exceed 3 mW per 100 kHz	which the fundamental frequencies are located
3000 GHz or above [8]	Not applicable	Not applicable

Note: [1] The apparatus shall operate within the frequency bands 1627.5-1796.5 kHz paired with 47.43-47.56 MHz and on one of the following pairs of frequencies---

Channel Number	kHz	MHz
1	1642.00	47.45625
2	1662.00	47.46875
3	1682.00	47.48125
4	1702.00	47.49375
5	1722.00	47.50625
6	1742.00	47.51875
7	1762.00	47.53125 or 47.44375
8	1782.00	47.54375

[2] The apparatus shall operate within the frequency bands 43.71-44.49 MHz, 46.6-46.98 MHz and 48.75-50 MHz and on any one or more of the following pairs of frequencies---

Channel Number	MHz	MHz
1	43.720	48.760
2	43.740	48.840
3	43.820	48.860
4	43.840	48.920
5	43.920	49.020
6	43.960	49.080
7	44.120	49.100
8	44.160	49.160
9	44.180	49.200
10	44.200	49.240
11	44.320	49.280
12	44.360	49.360
13	44.400	49.400

14 44.460 49.460
15 44.480 49.500
16 46.610 49.670
17 46.630 49.845
18 46.670 49.860
19 46.710 49.770
20 46.730 49.875
21 46.770 49.830
22 46.830 49.890
23 46.870 49.930
24 46.930 49.990
25 46.970 49.970

[3] The apparatus shall operate within the frequency bands 253.85-255 MHz paired with 380.2-381.325 MHz and the frequency pairs shall be as follows---

Speech Channel	380.2 + n x 0.0125 MHz, where n is an integer in the ranges 1 to 45 and 47 to 88	253.85 + n x 0.0125 MHz, where n is an integer in the ranges 1 to 45 and 47 to 88
Control Channel	380.775 MHz and 381.3125 MHz	254.425 MHz and 254.9625 MHz

[4] The apparatus shall employ frequency modulation and the carrier frequencies of the apparatus shall be 409.7375 + (0.0125 x n) MHz, where n is an integer in the range 1 to 20.

[5] The carrier frequencies of the apparatus shall be 864.05 + (0.1 x n) MHz, where n is an integer in the range 1 to 40.

[6] The carrier frequencies of the apparatus shall be 1880.064 + (1.728 x n) MHz, where n is an integer in the range 1 to 10.

[7] The carrier frequencies of the apparatus shall be 1895.15 + (n-- 1) x 0.3 MHz, where n is an integer in the range 1 to 37.

[8] The apparatus shall satisfy at least one of the following conditions:---

(a) the maximum usable range of the apparatus does not exceed 30 m;

(b) the transmission path does not cross a public street or unleased Government land.

[9] The apparatus shall generate a spurious emission level as set out opposite to the following frequency range---

(a) 3 kHz-30 MHz

Frequency Range	Spurious Emission Level
3-415 kHz	electric field strength not to exceed 17 dB猩/m and magnetic field

strength not to exceed 25.4 dBnA/m at 300 m from the apparatus

415 kHz-30 MHz electric field strength not to exceed 30 dB猩/m and magnetic field strength not to exceed 38.4 dBnA/m at 30 m from the apparatus

(b) 30 MHz-1000 MHz

Frequency Range	Spurious Emission Level
30-1000 MHz excluding 87-137 MHz and 470-790 MHz	e.r.p. not to exceed 300 nW
87-137 MHz and 470-790 MHz	e.r.p. not to exceed 60 nW

(c) 1-2 GHz

Frequency Range	Spurious Emission Level
1-2 GHz	e.r.p. not to exceed 1 琺

[10] The apparatus shall generate a spurious emission level as set out opposite to the following frequency range---

Frequency Range	Spurious Emission Level
1.705-30.0 MHz	electric field strength not to exceed 30 猩/m at 30 m from the apparatus
30-88 MHz	electric field strength not to exceed 100 猩/m at 3 m from the apparatus
88-216 MHz	electric field strength not to exceed 150 猩/m at 3 m from the apparatus
216-960 MHz	electric field strength not to exceed 200 猩/m at 3 m from the apparatus
above 960 MHz	electric field strength not to exceed 500 猩/m at 3 m from the apparatus

[11] Use of the band 5150-5350 MHz is restricted to indoor operations until the requirements of the International Telecommunication Union as applicable to the band are available, by which time the use of the band shall be in compliance with the requirements as laid down by the International Telecommunication Union.

CHENG Mei-sze, Maisie
Clerk to the Executive Council
Council Chamber
14 January 2003

Explanatory Note

This Order repeals and replaces seven existing exemption orders ("the existing orders") which were made under section 39 of the Telecommunications Ordinance (Cap. 106)("the Ordinance"). The object of the Order is to exempt a person from the

obligation to hold a licence under the Ordinance in respect of certain telecommunications apparatus.

2. The Order provides for---

(a) exemptions in respect of non-radiocommunications apparatus (section 3);

(b) exemptions in respect of radiocommunications apparatus (sections 4, 5 and 7);

(c) exemptions in respect of telecommunications apparatus that may be used in a combination of manners relating to both non-radiocommunications and radiocommunications apparatus (section 6);

(d) the repeal of the existing orders (section 8).