



CLASS ASSIGNMENT NO. 2 OF 2022

Malaysian Communications and Multimedia Commission

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CLASS ASSIGNMENT NO. 2 OF 2022

Class Assignment

IN exercise of the powers conferred by section 169 of the Communications and Multimedia Act 1998 [Act 588] ("Act"), the Commission issues class assignments which confers rights on any person to use the frequency bands for the following devices:

- (1) mobile and broadband wireless access device as specified in the First Schedule;
- (2) short-range radiocommunications device ("SRD") as specified in the Second Schedule;
- (3) trunked radio access device as specified in the Third Schedule;
- (4) personal radio service ("PRS") device as specified in the Fourth Schedule;
- (5) cordless telephone device as specified in the Fifth Schedule;
- (6) two-way radio pager access device as specified in the Sixth Schedule;
- (7) radio telemetry access device as specified in the Seventh Schedule;
- (8) fixed- satellite service earth station as specified in the Eighth Schedule;
- (9) infrared device as specified in the Ninth Schedule;
- (10) remote controlled device as specified in the Tenth Schedule;
- (11) security device as specified in the Eleventh Schedule;
- (12) wireless microphone device as specified in the Twelfth Schedule;
- (13) free space optics ("FSO") device as specified in the Thirteenth Schedule;
- (14) industrial, scientific and medical ("ISM") device as specified in the Fourteenth Schedule;
- (15) radio frequency identification device ("RFID") as specified in the Fifteenth Schedule;
- (16) active medical implant as specified in the Sixteenth Schedule;
- (17) aeronautical mobile telemetry access device as specified in Seventeenth Schedule;
- (18) mobile satellite access device as specified in the Eighteenth Schedule;
- (19) satellite broadcasting receiver device as specified in the Nineteenth Schedule;
- (20) terrestrial television broadcasting receiver device as specified in the Twentieth Schedule;
- (21) terrestrial radio broadcasting receiver device as specified in the Twenty-first Schedule;

- (22) one-way radio pager receiver device as specified in the Twenty-second Schedule;
- (23) satellite radionavigation receiver device as specified in the Twenty-third Schedule;
- (24) wireless closed circuit television (“CCTV”) access device as specified in the Twenty-fourth Schedule;
- (25) ultra- wideband (“UWB”) communication device as specified in the Twenty-fifth Schedule;
- (26) automotive radar device as specified in the Twenty-sixth Schedule;
- (27) inductive application device as specified in the Twenty-seventh Schedule;
- (28) satellite broadcasting receiver device (Direct-to-Home by MYTV Broadcasting Sdn Bhd) as specified in the Twenty-eighth Schedule;
- (29) personal locator beacon (“PLB”) device as specified in the Twenty-ninth schedule; and
- (30) unmanned aircraft systems (“UAS”) device in the Thirtieth Schedule

Commencement

1. These class assignment come into operation on 25 July 2022

Interpretation

2. (1) In the class assignments, unless the context otherwise requires-

“Annexes of International Civil Aviation Organisation” means the establishment and maintenance of international Standards and Recommended Practices (SARPs), as well as Procedures for Air Navigation (PANS) of the Convention on International Civil Aviation (Chicago Convention);

“designated frequency bands” means the frequency bands which are specified in paragraph 2 of each of the schedules in the class assignment;

“International Convention for the Safety of Life at Sea” means the International Convention for the Safety of Life at Sea concluded in London in 1974 concerning the safety of life at sea, and includes any subsequent convention, to which the Government is a party, and if any amendment to the Convention comes into operation with respect to Malaysia, references in the class assignments shall, unless the context otherwise requires, be construed as references to the Convention as amended;

“International Telecommunication Convention” means the Constitution and Convention of the International Telecommunication Union signed in Geneva in 1992 relating to telecommunications, and includes any subsequent Constitution and Convention, to which the Government is a party, and it extends to any radiocommunications regulations made under the Constitution and the Convention; and if any amendment to the Constitution and the Convention comes into operation with respect to Malaysia, references in the class assignments shall, unless the context otherwise requires, be construed as references to the Constitution and the Convention as amended; and

“Commission” means the Malaysian Communications and Multimedia Commission.

(2) Any term used in the class assignments shall, unless the context otherwise requires, have the same meaning as in the Act or subsidiary legislation made under the Act.

Protection

3. The devices under the class assignments shall not be afforded protection from any radio frequency interference.

Conditions

4. (1) The following conditions shall apply to all class assignments that confer rights on any person to use the frequency bands for the devices as specified in each of the schedules in this class assignment:

- (a) a person subject to a class assignment shall take all necessary steps to ensure that no major interference or harmful interference is caused to other radiocommunications services and devices;
- (b) a person subject to a class assignment shall take all necessary steps to eliminate any minor interference, major interference or harmful interference, if such interference occurs;
- (c) a person subject to a class assignment shall ensure that devices causing major interference or harmful interference to cease operation until such time as the major interference or harmful interference has been eliminated;
- (d) a person subject to a class assignment shall ensure that no devices used or operated in that frequency band shall exceed the specified output powers, emission parameters or coverage area as approved for the class assignment;

- (e) a person subject to a class assignment shall ensure that the devices, its operation and arrangement comply with the requirements,
- (f) a person subject to a class assignment shall comply with the International Telecommunication Convention, the International Convention for the Safety of Life at Sea and the Annexes of International Civil Aviation Organisation, unless the Civil Aviation Authority of Malaysia files differences;
- (g) a person subject to a class assignment shall ensure that the devices comply with the Act and subsidiary legislation made under the Act and any mandatory standards registered by the Commission;
- (h) a person subject to a class assignment shall ensure that only devices certified by the Commission or its registered certifying agency under the Act and any subsidiary legislations made under the Act, shall be used or operated in the frequency band specified in the class assignment, and the certified devices shall bear a certification label as approved by the Commission; and
- (i) a person subject to a class assignment shall not operate a device contrary to the Act, any subsidiary legislations made under the Act, the Spectrum Plan or in such a way that endangers people, animals or equipment.

(2) Notwithstanding subparagraph 4(1)(h) above, the devices under the Ninth, Nineteenth, Twentieth, Twenty-first, Twenty-second and Twenty-third Schedules shall not be required to be certified, unless the Commission issues standards or technical codes in respect of the same.

(3) The conditions in subparagraph 4(1) above are subject to any revision, amendment or revocation by the Commission.

(4) The specific conditions specified in each of the schedules shall be in addition to the conditions specified in subparagraph 4(1) above.

Use of Device and Frequency/Frequency Band for Other Purposes

5. Use of device and frequency/ frequency band for the purpose other than specified in the schedules will require prior written approval from the Commission, on a case by case basis.

Certification of devices

6. (1) All devices which are required to be certified under the class assignment shall be certified by the Commission or its registered certifying agency in accordance with the Communications and Multimedia (Technical Standards) Regulations 2000.

(2) The devices shall be certified by way of:

- (a) compliance approval; or
- (b) special approval.

(3) Compliance approval, which is also referred to as type approval, is granted to a specific model of a device which has been certified as compliant with the specified standards or technical codes.

(4) Special approval may be granted to any device which is to be used exclusively by an applicant for any of the following purpose only:

- (a) for the applicant's sole purpose;
- (b) for trials;
- (c) for market surveys, demonstration or exhibition;
- (d) research and development; or
- (e) training.

(5) Any device which is granted with special approval may be used within defined parameters which may include location, technical specifications, time period, type or class of users or other conditions of usage as specified in the approval.

(6) The list of standards which specifies the technical requirements for certification of devices are accessible from the Commission's website at <https://www.mcmc.gov.my>.

(7) The certification of devices is carried out by a registered certifying agency for all communications equipment.

Table for Class Assignment devices and conditions

Applications	Frequency bands	Maximum transmit power/ field strength/Conditions	Reference/Remarks
Short- range Radiocommunication Device (SRD)	3155 kHz to 3400 kHz	13.5 dB μ A/m at 10m	Refer to Second Schedule on detailed conditions of operation
	6765 kHz to 6795 kHz	100 mW Equivalent Isotropically Radiated Power (EIRP)	
	10200 kHz to 11000 kHz	10 mW EIRP	
	13553 kHz to 13567 kHz	100 mW EIRP	
	26.957 MHz to 27.283 MHz	100 mW EIRP	
	40.660 MHz to 40.700 MHz	1 W EIRP	
	87.5 MHz to 108 MHz	50 nW ERP	
	433 MHz to 435 MHz	100 mW EIRP	
	916 MHz to 919 MHz	25 mW EIRP with duty cycle <1% or Frequency Hopping or Listen Before Talk (LBT)	
	919 MHz to 923 MHz	500 mW EIRP	
	923 MHz to 924 MHz	500 mW EIRP with duty cycle <1% or Frequency Hopping or LBT	
	1880 MHz to 1900 MHz	250 mW EIRP	
	2400 MHz to 2500 MHz	500 mW EIRP	
	5150 MHz to 5250 MHz	200 mW EIRP (For outdoor use only)	
5150 MHz to 5350 MHz	1 W EIRP (For indoor use only)		
5470 MHz to 5650 MHz	1 W EIRP		

Applications	Frequency bands	Maximum transmit power/ field strength/Conditions	Reference/Remarks
	5725 MHz to 5875 MHz	1 W EIRP	
	5925 MHz to 6425 MHz	25 mW EIRP (For indoor and outdoor use)	
		200 mW EIRP (For indoor use only)	
	24 GHz to 24.25 GHz	1 W EIRP	
	57 GHz to 64 GHz	10 W EIRP	
	76 GHz to 77 GHz	5 W EIRP	
	122 GHz to 123 GHz	1 W EIRP	
	244 GHz to 246 GHz	1 W EIRP	
Personal Radio Service (PRS) device	26.965 MHz to 27.405 MHz	Refer to tables in Fourth Schedule for maximum permitted transmit power	Refer to Fourth Schedule on detailed conditions of operation and channelling plan
	446.00625 MHz to 446.196875 MHz		
	477.0125 MHz to 477.4875 MHz ¹		
	477.5250 MHz to 477.9875 MHz ¹		
Cordless telephone device	46.610 MHz to 46.970 MHz	50 mW EIRP	Refer to Fifth Schedule on detailed conditions of operation.
	49.610 MHz to 49.970 MHz	50 mW EIRP	
	1880 MHz to 1900 MHz	250 mW EIRP	
	2400 MHz to 2483.5 MHz	100 mW EIRP	
Two-way radio pager access device	152 MHz to 153 MHz	1 W EIRP	Refer to Sixth Schedule on detailed conditions of operation.

¹ Use of the frequency bands of 477.0125 MHz to 477.4875 MHz and 477.5250 MHz to 477.9875 MHz for PRS device is only allowed until 31 December 2022.

Applications	Frequency bands	Maximum transmit power/ field strength/Conditions	Reference/Remarks
Fixed- Satellite Service Earth Station	3400 MHz to 4200 MHz (downlink) / 5925 MHz to 6725 MHz (uplink)	Refer to tables in Eighth Schedule for maximum permitted transmit power	Refer to Eighth Schedule on detailed conditions of operation.
	10950 MHz to 11200 MHz (downlink) 11450 MHz to 11700 MHz (downlink) 12200 MHz to 12750 MHz (downlink) / 13750 MHz to 14500 MHz (uplink)		
	19700 MHz to 21200 MHz (downlink) / 29500 MHz to 30000 MHz (uplink)		
Infrared device	187.5 THz to 420 THz	125 mW EIRP	Refer to Ninth Schedule on detailed conditions of operation.
Remote controlled device	26.965 MHz to 27.275 MHz	50 mW EIRP	Refer to Tenth Schedule on detailed conditions of operation.
	40 MHz		
	47 MHz		
	49 MHz		
	303 MHz to 320 MHz		
	433 MHz to 435 MHz		
Security device	3 kHz to 195 kHz	50 mW EIRP	Refer to Eleventh Schedule on detailed conditions of operation.
	228.0063 MHz to 228.9937 MHz		
	303 MHz to 320 MHz		

Applications	Frequency bands	Maximum transmit power/ field strength/Conditions	Reference/Remarks
	400 MHz to 402 MHz		
	433 MHz to 435 MHz		
	76 GHz to 77 GHz		
Wireless microphone device	26.95728 MHz to 27.28272 MHz	50 mW EIRP	Refer to Twelfth Schedule on detailed conditions of operation.
	40.435 MHz to 40.925 MHz		
	87.5 MHz to 108 MHz	50 nW EIRP	
	174 MHz to 230 MHz	50 mW EIRP	
	470 MHz to 694 MHz		
	2400 MHz to 2500 MHz		
	5725 MHz to 5850 MHz		
Free Space Optic (FSO) device	193.5484 THz	650 mW EIRP	Refer to Thirteenth Schedule on detailed conditions of operation.
	352.9412 THz		
Industrial, Scientific and Medical (ISM) device	6765 kHz to 6795 kHz	500mW EIRP	Refer to Fourteenth Schedule on detailed conditions of operation.
	13.553 MHz to 13.567 MHz		
	26.957 MHz to 27.283 MHz		
	40.66 MHz to 40.70 MHz		
	2400 MHz to 2500 MHz		
	5725 MHz to 5875 MHz		
	24 GHz to 24.25 GHz		
	61 GHz to 61.5 GHz		
	122 GHz to 123 GHz;		

Applications	Frequency bands	Maximum transmit power/ field strength/Conditions	Reference/Remarks
	244 GHz to 246 GHz		
Radio Frequency Identification Device (RFID)	13.553 MHz to 13.567 MHz	100 mW EIRP	Refer to Fifteenth Schedule on detailed conditions of operation.
	433 MHz to 435 MHz	100 mW EIRP	
	919 MHz to 923 MHz	2 W ERP	
	2400 MHz to 2500 MHz	500 mW EIRP	
Active medical implant	9 kHz to 315 kHz	30 dB μ A/m at 10 m	Refer to Sixteenth Schedule on detailed conditions of operation.
	401 MHz to 402 MHz	25 μ W ERP for devices with Adaptive Frequency Agility (AFA) and Listen Before Talk (LBT) 250 nW ERP for devices using Low Power Low Duty Cycle (LPLDC)	
	402 MHz to 405 MHz	25 μ W ERP	
	405 MHz to 406 MHz	25 μ W ERP for devices with AFA and LBT 250 nW ERP for devices using LPLDC	
Aeronautical mobile telemetry access device	2400 MHz to 2483.5 MHz	100 mW EIRP	Refer to Seventeenth Schedule on detailed conditions of operation.
	5150 MHz to 5350 MHz		
	5470 MHz to 5725 MHz		
	5725 MHz to 5825 MHz		
Mobile satellite access device	1518 MHz to 1559 MHz	7 W EIRP	Refer to Eighteenth Schedule on detailed conditions of operation.
	1610 MHz to 1660.5 MHz		
	1668 MHz to 1668.4 MHz		

Applications	Frequency bands	Maximum transmit power/ field strength/Conditions	Reference/Remarks
	1980 MHz to 2010 MHz		
	2170 MHz to 2200 MHz		
Satellite broadcasting receiver device	10.7 GHz to 10.95 GHz	Receive only	Refer to Nineteenth and Twenty-eighth Schedules on detailed conditions of operation.
	10.95 GHz to 11.2 GHz		
	11.20 GHz to 11.45 GHz		
	11.45 GHz to 11.7 GHz		
	12.2 GHz to 12.75 GHz ²		
	11.463 GHz to 11.517 GHz 11.70 GHz to 11.95 GHz		
Satellite radionavigation receiver device	1164 MHz to 1400 MHz	Receive only	Refer to Twenty-third Schedule on detailed conditions of operation.
	1559 MHz to 1610 MHz		
	5000 MHz to 5030 MHz		
CCTV access device	2400 MHz to 2500 MHz	1 W EIRP	Refer to Twenty-fourth Schedule on detailed conditions of operation.
	4940 MHz to 4990 MHz		
	5150 MHz to 5350 MHz		
	5650 MHz to 5725 MHz		
	5725 MHz to 5875 MHz		
Ultra- Wideband (UWB) communication device (Generic and road/ rail vehicles)	3100 MHz to 3400 MHz	-36.00 dBm EIRP	Refer to Twenty-fifth Schedule on detailed conditions of operation.
	3400 MHz to 3800 MHz	-40.00 dBm EIRP	
	3800 MHz to 6000 MHz	-30.00 dBm EIRP	

² Use of the frequency band of 12.50 GHz to 12.75 GHz is only allowed until 31 December 2022.

Applications	Frequency bands	Maximum transmit power/ field strength/Conditions	Reference/Remarks
	6000 MHz to 8500 MHz	0.00 dBm EIRP/ -13.3dBm EIRP (road/ rail vehicle)	
	8500 MHz to 10600 MHz	-25.00 dBm EIRP	
Automotive radar device	21.65 GHz to 22 GHz	0.00 dBm EIRP	Refer to Twenty-sixth Schedule on detailed conditions of operation.
	22 GHz to 29.5 GHz	0.00 dBm EIRP	
	76 GHz to 77 GHz	55.00 dBm EIRP	
	77 GHz to 81 GHz	55.00 dBm EIRP	
Inductive application device	9 kHz to 90 kHz	72 dBuA/m at 10 m	Refer to Twenty-seventh Schedule on detailed conditions of operation.
	90 kHz to 119 kHz	42 dBuA/m at 10 m	
	119 kHz to 135 kHz	66 dBuA/m at 10 m	
	135 kHz to 140 kHz	42 dBuA/m at 10 m	
	140 kHz to 148.5 kHz	37.7 dBuA/m at 10 m	
	315 kHz to 400 kHz	-5 dBuA/m at 10 m	
	400 kHz to 600 kHz	-8 dBuA/m at 10 m	
	984 kHz to 7484 kHz	9 dBuA/m at 10 m	
	3155 kHz to 3400 kHz	13.5 dBuA/m at 10 m	
	6765 kHz to 6795 kHz	42 dBuA/m at 10 m	
	7400 kHz to 8800 kHz	9 dBuA/m at 10 m	
	10200 kHz to 11000 kHz	9 dBuA/m at 10 m	
	13553 kHz to 13567 kHz	42 dBuA/m at 10 m	
	26957 kHz to 27283 kHz	42 dBuA/m at 10 m	
148.5 kHz to 30 MHz	-5 dBuA/m at 10 m		

Applications	Frequency bands	Maximum transmit power/ field strength/Conditions	Reference/Remarks
Personal Locator Beacon (PLB) device	406.0 MHz to 406.1 MHz	The transmitter output power shall be within the limits of 5W ± 2dB (35 dBm - 39 dBm) measured into a 50-Ohm load, with a voltage standing-wave ratio (VSWR) not greater than 1.25:1	Refer to Twenty-ninth Schedule on detailed conditions of operation.
	121.5 MHz	Between 25 and 100 mW Effective Radiated Peak Envelope power (ERPEP).	
Unmanned Aircraft Systems (UAS) device	433 MHz to 435 MHz	100 mW EIRP	Refer to Thirtieth Schedule on detailed conditions of operation.
	2400 MHz to 2500 MHz	500 mW EIRP	
	5725 MHz to 5875 MHz	1 W EIRP	
	24.05 GHz to 24.25 GHz	100 mW EIRP	

FIRST SCHEDULE

Class Assignment for Mobile and Broadband Wireless Access Device

1. Definition

- (1) In this class assignment, “mobile and broadband wireless access device” means a device communicating with a radio base station provided by a licensee in the designated frequency bands.
- (2) In this class assignment, “mobile and broadband wireless access device” includes cellular mobile access device and broadband wireless access device.
- (3) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

Mobile and broadband wireless access devices shall only utilise the same frequency bands that was assigned by way of a spectrum assignment or an apparatus assignment for the purpose of receiving and transmitting within the frequency bands assigned to the radio base station and such utilisation of the frequency bands, amongst other uses, is on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a mobile and broadband wireless access device to communicate only with a radio base station subject to the operation of the radio base station being authorised by a spectrum assignment or an apparatus assignment.

SECOND SCHEDULE

Class Assignment for Short-range Radiocommunication Device

1. Definition

- (1) In this class assignment, “SRD” means a radiocommunications device that provides either unidirectional or bi-directional communication for mobile and fixed applications in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A SRD shall only utilise any of the frequency bands as specified in the second column of Table 2-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a SRD subject to the:

- (a) conditions as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

(1) Maximum Power

The maximum power shall not exceed the values as specified in the third column of Table 2-1; and

(2) Operational Restrictions

- (a) For SRD operating within the 5250 MHz to 5350 MHz and 5470 MHz to 5650 MHz frequency bands, the devices shall use Dynamic Frequency Selection (“DFS”) and Transmitter Power Control (“TPC”);
- (b) The radiated Power Spectral Density (“PSD”) for the devices operating within the 5250 MHz to 5350 MHz and 5470 MHz to 5650 MHz frequency bands is limited to 10 mW/MHz;
- (c) For SRD operating in the 5150 MHz to 5250 MHz frequency band, outdoor usage is allowed and the maximum EIRP for outdoor usage is limited to 200 mW;
- (d) For SRD operating in the frequency band 5150 MHz to 5350 MHz, the maximum EIRP for indoor usage is limited to 1 W;
- (e) The radiated PSD for outdoor and indoor devices operating within the 5925 MHz to 6425 MHz frequency band is limited to 1.25 mW/MHz;
- (f) The radiated PSD for narrowband usages (channel bandwidths below 20 MHz) for outdoor and indoor devices operating within the 5925 MHz to 6425 MHz frequency band is limited to 10 mW/MHz; and
- (g) The radiated PSD for indoor devices operating within the 5925 MHz to 6425 MHz frequency bands is limited to 10 mW/MHz.

TABLE 2-1

Frequency Bands and Maximum Power

Item	Frequency Bands	Maximum Power
1.	3155 kHz to 3400 kHz	13.5 dB μ A/m at 10m
2.	6765 kHz to 6795 kHz	100 mW EIRP
3.	10200 kHz to 11000 kHz	10 mW EIRP
4.	13553 kHz to 13567 kHz	100 mW EIRP
5.	26.9570 MHz to 27.2830 MHz	100 mW EIRP
6.	40.660 MHz to 40.7 MHz	1 W EIRP
7.	87.5 MHz to 108 MHz	50 nW ERP
8.	433 MHz to 435 MHz	100 mW EIRP
9.	916 MHz to 919 MHz	25 mW EIRP with duty cycle of <1%, Frequency Hopping or LBT

Item	Frequency Bands	Maximum Power
10.	919 MHz to 923 MHz	500 mW EIRP
11.	923 MHz to 924 MHz	500 mW EIRP with duty cycle of <1%, Frequency Hopping or LBT
12.	1880 MHz to 1900 MHz	250 mW EIRP
13.	2400 MHz to 2500 MHz	500 mW EIRP
14.	5150 MHz to 5250 MHz	200 mW EIRP (For outdoor use only)
15.	5150 MHz to 5350 MHz	1 W EIRP (For indoor use only)
16.	5470 MHz to 5650 MHz	1 W EIRP
17.	5725 MHz to 5875 MHz	1 W EIRP
18.	5925 MHz to 6425 MHz	25 mW EIRP (For indoor and outdoor use)
		200 mW EIRP (For indoor use only)
19.	24 GHz to 24.25 GHz	1 W EIRP
20.	57 GHz to 64 GHz	10 W EIRP
21.	76 GHz to 77 GHz	5 W EIRP
21.	122 GHz to 123 GHz	1 W EIRP
22.	244 GHz to 246 GHz	1 W EIRP

THIRD SCHEDULE

Class Assignment for Trunked Radio Access Device

1. Definition

- (1) In this class assignment, “trunked radio access device” means a device communicating with a trunked radio base station provided by a licensee in which the communications traffic may pass through any of the channels automatically assigned by the trunked radio system from a trunked group of channels served by a trunked radio base station in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A trunked radio access device shall only utilise the same frequency bands that was assigned by way of an apparatus assignment for the purpose of receiving and transmitting within the frequency bands and such utilisation of the frequency bands, amongst other uses, is on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a trunked radio access device to communicate only with a trunked radio base station subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) operation of the trunked radio base station being authorised by an apparatus assignment.

4. Condition(s)

The maximum EIRP shall not exceed 25 W.

FOURTH SCHEDULE

Class Assignment for Personal Radio Service Device

1. Definition

- (1) In this class assignment, “PRS device” means a two-way radiocommunications device operating in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A PRS device shall only utilise any of the following frequency bands assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 26.965000 MHz to 27.405000 MHz;
- (b) 446.006250 MHz to 446.093750 MHz;
- (c) 446.103125 MHz to 446.196875 MHz;
- (d) 477.0125 MHz to 477.4875 MHz³; or
- (e) 477.5250 MHz to 477.9875 MHz³.

3. Class assignment

This class assignment confers rights on any person to operate a PRS device subject to:

- (a) the conditions as specified in paragraph 4 of this schedule; and
- (b) the device operating within the frequency bands as specified in the second column of Tables 4-1, 4-2, 4-3, 4-4 and 4-5.

³ Use of the frequency bands of 477.0125 MHz to 477.4875 MHz and 477.5250 MHz to 477.9875 MHz for PRS device is only allowed until 31 December 2022.

4. Condition(s)

(1) Channel plan

The channel plan as specified in Tables 4-1, 4-2, 4-3, 4-4 and 4-5 shall be complied with;

(2) Modulation type and channel spacing

(a) The modulation type shall be as specified in the third column of Tables 4-1, 4-2, 4-3, 4-4 and 4-5; and

(b) The maximum channel spacing shall be as specified in the:

(i) first and second sub-columns of the fifth column of Table 4-1; and

(ii) fifth column of Tables 4-2, 4-3, 4-4 and 4-5;

(3) Reserved channels

The channels as specified in the sixth column of Tables 4-1, 4-4 and 4-5 shall be reserved for emergency and calling use;

(4) Encryption device

No encryption devices are to be employed on any of the channels as specified in Tables 4-1, 4-2, 4-3, 4-4 and 4-5;

(5) Maximum transmission period

(a) Transmission for voice shall not exceed 180 seconds in duration for each transmission; and

(b) Transmission, other than voice, shall not exceed 3 seconds in duration for each transmission;

(6) Call signs

No call signs are to be utilised other than in a field of operation where such call signs are required;

(7) Telephone interconnect

No connection of a PRS device to a telephony service is authorised;

(8) Operation restrictions

No person shall operate a PRS device:

(a) in such a way that would cause unnecessary alarm or serious affront to another person; or

(b) to harass or denigrate another person;

(9) Commandeer

A PRS device may be commandeered to assist in the case of:

(a) emergency;

- (b) national interest; or
 - (c) danger to person or property; and
- (10) The maximum EIRP shall not exceed the values as specified in the:
- (a) first and second sub columns of the fourth column of Table 4-1; and
 - (b) fourth column in Tables 4-2, 4-3, 4-4 and 4-5.

TABLE 4-1
27 MHz Citizen Band PRS Frequencies
 (A medium-range simplex radiocommunications service)

Channel	Frequency (MHz)	Modulation Type	Peak power (Watts) (Maximum ERP)		Channel Spacing (kHz)		Reserved Channel
			Double Side Band: AM/FM	Single Side Band: AM	Double Side Band: AM/FM	Single Side Band: AM	
1	26.9650	AM / FM	4	12	6	3	
2	26.9750	AM / FM	4	12	6	3	
3	26.9850	AM / FM	4	12	6	3	
4	27.0050	AM / FM	4	12	6	3	
5	27.0150	AM / FM	4	12	6	3	
6	27.0250	AM / FM	4	12	6	3	
7	27.0350	AM / FM	4	12	6	3	
8	27.0550	AM / FM	4	12	6	3	
9	27.0650	AM / FM	4	12	6	3	Emergency
10	27.0750	AM / FM	4	12	6	3	
11	27.0850	AM / FM	4	12	6	3	Calling
12	27.1050	AM / FM	4	12	6	3	
13	27.1150	AM / FM	4	12	6	3	
14	27.1250	AM / FM	4	12	6	3	
15	27.1350	AM / FM	4	12	6	3	
16	27.1550	AM / FM	4	12	6	3	
17	27.1650	AM / FM	4	12	6	3	
18	27.1750	AM / FM	4	12	6	3	
19	27.1850	AM / FM	4	12	6	3	
20	27.2050	AM / FM	4	12	6	3	

Channel	Frequency (MHz)	Modulation Type	Peak power (Watts) (Maximum ERP)		Channel Spacing (kHz)		Reserved Channel
			Double Side Band: AM/FM	Single Side Band: AM	Double Side Band: AM/FM	Single Side Band: AM	
21	27.2150	AM / FM	4	12	6	3	
22	27.2250	AM / FM	4	12	6	3	
23	27.2350	AM / FM	4	12	6	3	
24	27.2450	AM / FM	4	12	6	3	
25	27.2550	AM / FM	4	12	6	3	
26	27.2650	AM / FM	4	12	6	3	
27	27.2750	AM / FM	4	12	6	3	
28	27.2850	AM / FM	4	12	6	3	
29	27.2950	AM / FM	4	12	6	3	
30	27.3050	AM / FM	4	12	6	3	
31	27.3150	AM / FM	4	12	6	3	
32	27.3250	AM / FM	4	12	6	3	
33	27.3350	AM / FM	4	12	6	3	
34	27.3450	AM / FM	4	12	6	3	
35	27.3550	AM / FM	4	12	6	3	
36	27.3650	AM / FM	4	12	6	3	
37	27.3750	AM / FM	4	12	6	3	
38	27.3850	AM / FM	4	12	6	3	
39	27.3950	AM / FM	4	12	6	3	
40	27.4050	AM / FM	4	12	6	3	

TABLE 4-2

Analog Personal Mobile Radio 446 MHz (Analog PMR 446)

(A short-range simplex radiocommunications service)

Channel	Frequency (MHz)	Modulation Type	Peak power (Watts) (Maximum ERP)	Channel Spacing (kHz)
1	446.00625	FM	0.5	12.5
2	446.01875	FM	0.5	12.5

Channel	Frequency (MHz)	Modulation Type	Peak power (Watts) (Maximum ERP)	Channel Spacing (kHz)
3	446.03125	FM	0.5	12.5
4	446.04375	FM	0.5	12.5
5	446.05625	FM	0.5	12.5
6	446.06875	FM	0.5	12.5
7	446.08125	FM	0.5	12.5
8	446.09375	FM	0.5	12.5

TABLE 4-3

Digital Personal Mobile Radio 446 MHz (Digital PMR 446)
(A short-range simplex radiocommunications service)

Channel	Frequency (MHz)	Modulation Type	Peak power (Watts) (Maximum ERP)	Channel Spacing (kHz)
1	446.103125	4FSK	0.5	6.25
2	446.109375	4FSK	0.5	6.25
3	446.115625	4FSK	0.5	6.25
4	446.121875	4FSK	0.5	6.25
5	446.128125	4FSK	0.5	6.25
6	446.134375	4FSK	0.5	6.25
7	446.140625	4FSK	0.5	6.25
8	446.146875	4FSK	0.5	6.25
9	446.153125	4FSK	0.5	6.25
10	446.159375	4FSK	0.5	6.25
11	446.165625	4FSK	0.5	6.25
12	446.171875	4FSK	0.5	6.25
13	446.178125	4FSK	0.5	6.25
14	446.184375	4FSK	0.5	6.25
15	446.190625	4FSK	0.5	6.25
16	446.196875	4FSK	0.5	6.25

TABLE 4-4

477 MHz Citizen Band - PRS Frequencies

(A short-range simplex radiocommunications service)

Channel	Frequency (MHz)	Modulation Type	Peak power (Watts) (Maximum ERP)	Channel Spacing (kHz)	Reserved Channel
1	477.0125	FM / PM	5	12.5	
2	477.0250	FM / PM	5	12.5	
3	477.0375	FM / PM	5	12.5	
4	477.0500	FM / PM	5	12.5	
5	477.0625	FM / PM	5	12.5	
6	477.0750	FM / PM	5	12.5	
7	477.0875	FM / PM	5	12.5	
8	477.1000	FM / PM	5	12.5	
9	477.1125	FM / PM	5	12.5	Emergency
10	477.1250	FM / PM	5	12.5	
11	477.1375	FM / PM	5	12.5	Calling
12	477.1500	FM / PM	5	12.5	
13	477.1625	FM / PM	5	12.5	
14	477.1750	FM / PM	5	12.5	
15	477.1875	FM / PM	5	12.5	
16	477.2000	FM / PM	5	12.5	
17	477.2125	FM / PM	5	12.5	
18	477.2250	FM / PM	5	12.5	
19	477.2375	FM / PM	5	12.5	
20	477.2500	FM / PM	5	12.5	
21	477.2625	FM / PM	5	12.5	
22	477.2750	FM / PM	5	12.5	
23	477.2875	FM / PM	5	12.5	
24	477.3000	FM / PM	5	12.5	
25	477.3125	FM / PM	5	12.5	
26	477.3250	FM / PM	5	12.5	

Channel	Frequency (MHz)	Modulation Type	Peak power (Watts) (Maximum ERP)	Channel Spacing (kHz)	Reserved Channel
27	477.3375	FM / PM	5	12.5	
28	477.3500	FM / PM	5	12.5	
29	477.3625	FM / PM	5	12.5	
30	477.3750	FM / PM	5	12.5	
31	477.3875	FM / PM	5	12.5	
32	477.4000	FM / PM	5	12.5	
33	477.4125	FM / PM	5	12.5	
34	477.4250	FM / PM	5	12.5	
35	477.4375	FM / PM	5	12.5	
36	477.4500	FM / PM	5	12.5	
37	477.4625	FM / PM	5	12.5	
38	477.4750	FM / PM	5	12.5	
39	477.4875	FM / PM	5	12.5	

TABLE 4-5

477 MHz Family Band - PRS Frequencies

(A very short-range simplex radiocommunications service)

Channel	Frequency (MHz)	Modulation Type	Peak power (Watt) (Maximum EIRP)	Channel Spacing (kHz)	Reserved Channel
1	477.5250	FM / PM	0.5	12.5	
2	477.5375	FM / PM	0.5	12.5	
3	477.5500	FM / PM	0.5	12.5	
4	477.5625	FM / PM	0.5	12.5	
5	477.5750	FM / PM	0.5	12.5	
6	477.5875	FM / PM	0.5	12.5	
7	477.6000	FM / PM	0.5	12.5	

Channel	Frequency (MHz)	Modulation Type	Peak power (Watt) (Maximum EIRP)	Channel Spacing (kHz)	Reserved Channel
8	477.6125	FM / PM	0.5	12.5	
9	477.6250	FM / PM	0.5	12.5	Emergency
10	477.6375	FM / PM	0.5	12.5	
11	477.6500	FM / PM	0.5	12.5	Calling
12	477.6625	FM / PM	0.5	12.5	
13	477.6750	FM / PM	0.5	12.5	
14	477.6875	FM / PM	0.5	12.5	
15	477.7000	FM / PM	0.5	12.5	
16	477.7125	FM / PM	0.5	12.5	
17	477.7250	FM / PM	0.5	12.5	
18	477.7375	FM / PM	0.5	12.5	
19	477.7500	FM / PM	0.5	12.5	
20	477.7625	FM / PM	0.5	12.5	
21	477.7750	FM / PM	0.5	12.5	
22	477.7875	FM / PM	0.5	12.5	
23	477.8000	FM / PM	0.5	12.5	
24	477.8125	FM / PM	0.5	12.5	
25	477.8250	FM / PM	0.5	12.5	
26	477.8375	FM / PM	0.5	12.5	
27	477.8500	FM / PM	0.5	12.5	
28	477.8625	FM / PM	0.5	12.5	
29	477.8750	FM / PM	0.5	12.5	
30	477.8875	FM / PM	0.5	12.5	
31	477.9000	FM / PM	0.5	12.5	
32	477.9125	FM / PM	0.5	12.5	
33	477.9250	FM / PM	0.5	12.5	
34	477.9375	FM / PM	0.5	12.5	
35	477.9500	FM / PM	0.5	12.5	
36	477.9625	FM / PM	0.5	12.5	
37	477.9750	FM / PM	0.5	12.5	
38	477.9875	FM / PM	0.5	12.5	

FIFTH SCHEDULE

Class Assignment for Cordless Telephone Device

1. Definition

- (1) In this class assignment, “cordless telephone device” means a two-way low power mobile or portable device which communicates with a local base station in the designated frequency bands and is directly connected to a licensee.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A cordless telephone device shall only utilise any of the frequency bands as specified in the second column of Table 5-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a cordless telephone device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum EIRP shall not exceed the values as specified in the third column of Table 5-1.

TABLE 5-1
Frequency Bands and Maximum EIRP

Item	Frequency Bands (MHz)	Maximum EIRP
1.	46.610 MHz to 46.970 MHz	50 mW
2.	49.610 MHz to 49.970 MHz	50 mW
3.	1880 MHz to 1900 MHz	250 mW
4.	2400 MHz to 2483.5 MHz	100 mW

SIXTH SCHEDULE

Class Assignment for Two-Way Radio Pager Access Device

1. Definition

- (1) In this class assignment, “two-way radio pager access device” means a two-way radiocommunications device communicating with a paging base station provided by a licensee for receiving or sending a tone, voice, numeric or alphanumeric message in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A two-way radio pager access device shall only utilise the 152 MHz to 153 MHz frequency band assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a two-way radio pager access device to communicate only with a paging base station subject to the:

- (a) condition as specified in paragraph 4 of this schedule;
- (b) device operating within the frequency band as specified in paragraph 2 of this schedule; and
- (c) operation of the paging base station being authorised by an apparatus assignment.

4. Condition(s)

The maximum EIRP shall not exceed 1 W.

SEVENTH SCHEDULE

Class Assignment for Radio Telemetry Access Device

1. Definition

- (1) In this class assignment, “radio telemetry access device” means a one or two-way radiocommunications device communicating with a fixed station provided by a licensee for automatic or on request reporting of measurements or records through radio connectivity served by a fixed station in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A radio telemetry access device shall only utilise the same frequency bands that was assigned by way of an apparatus assignment for the purpose of receiving and transmitting within the frequency bands and such utilisation of the frequency bands, amongst other uses, is on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a radio telemetry access device to communicate only with a radio telemetry base station subject to the operation of the radio telemetry base station being authorised by an apparatus assignment.

EIGHTH SCHEDULE**PART A:****(Note: Part A shall only be effective until 31 December 2022)****Class Assignment for Fixed-Satellite Service Earth Station**

1. Definition

(1) In this class assignment:

- (a) “Fixed-satellite service (“FSS”) earth station” means a ground station used for Very Small Aperture Terminal (“VSAT”) and/or Hub and intended for communication with one or more space stations provided by a licensee in the designated frequency bands;
- (b) “VSAT” means a two-way earth station that transmits and receives data from FSS; and
- (c) “Hub” means a central FSS earth station connecting to multiple VSAT within a compound of a designated location.

(2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

An FSS earth station used for VSAT and/or Hub shall only utilise the frequency bands as per Table 8a-1 assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

TABLE 8a-1

Frequency Bands

Downlink Frequency (MHz)	Uplink Frequency (MHz)
3400 to 3700	6425 to 6725
3700 to 4200	5925 to 6425
11464.0 to 11700.0	14253.5 to 14489.5
12258.5 to 12494.5	13789.0 to 14243.0
19700 to 21200	29500 to 30000

3. Class assignment

This class assignment confers rights on any person to operate a FSS earth station subject to:

- (a) the conditions as specified in paragraph 4 of this schedule;
- (b) operating within the frequency bands as specified in Table 8a-1;
- (c) FSS earth station being connected to a network service provided through the associated space station as in Table 8a-2; and

TABLE 8a-2

Associated space station

Downlink Frequency (MHz)	Uplink Frequency (MHz)	Space station
3400 to 3700	6425 to 6725	Any space station which has completed coordination with Malaysian satellite network filing(s) and frequencies under these filings are registered in the ITU Master International Frequency Register (MIFR)
3700 to 4200	5925 to 6425	Space station named Malaysia East Asia Satellite ("MEASAT") at 91.5° East
11464.0 to 11700.0	14253.5 to 14489.5	
12258.5 to 12494.5	13789.0 to 14243.0	
19700.0 to 21200.0	29500.0 to 30000.0	Any space station which has completed coordination with Malaysian satellite network filing(s) and frequencies under these filings are registered in the ITU Master International Frequency Register (MIFR)

- (d) any one of the followings:
 - (i) FSS earth station being used by the end user for connecting with a licensed network service provider for use with other licensed network services or applications services;
 - (ii) FSS earth station being connected with a licensed network service provider for use as a private network facility; or

- (iii) FSS earth station being used for connecting with a licensed network service provider for telemetry applications.

4. Condition(s)

(1) Maximum antenna diameter

- (a) The maximum antenna diameter for FSS earth station used as VSAT is as specified in the third column of Table 8a-3; and

TABLE 8a-3

Maximum antenna diameter for VSAT

Downlink Frequency (MHz)	Uplink Frequency (MHz)	Maximum antenna diameter (metre)
3400 to 3700	6425 to 6725	3.8
3700 to 4200	5925 to 6425	2.4
11464.0 to 11700.0	14253.5 to 14489.5	
12258.5 to 12494.5	13789.0 to 14243.0	
19700.0 to 21200.0	29500.0 to 30000.0	1.2

- (b) There is no maximum limit of antenna diameter for FSS earth station used as Hub 3400 MHz to 3700 MHz (downlink) and 6425 MHz to 6725 MHz (uplink);

(2) Maximum data rate

The maximum data rate for FSS earth station should not exceed the values as specified in the third column of Table 8a-4;

TABLE 8a-4

Maximum data rate

Downlink Frequency (MHz)	Uplink Frequency (MHz)	Maximum data rate
3400 to 3700	6425 to 6725	Not applicable
3700 to 4200	5925 to 6425	Not exceeding 2 Mbps
11464.0 to 11700.0	14253.5 to 14489.5	Not exceeding 10 Mbps
12258.5 to 12494.5	13789.0 to 14243.0	Not exceeding 10 Mbps
19700.0 to 21200.0	29500.0 to 30000.0	Not applicable

- (3) Registration to the Commission is compulsory for every FSS earth station used as VSAT and Hub;
- (4) Operation of FSS earth station for Hub is limited to stations located at the locations in Table 8a-5; and

TABLE 8a-5

FSS Hub Station Location

No	FSS Hub Station Location	GPS
1	All Asia Broadcast Centre, Bukit Jalil, Selangor	3°03'5.07" N 101°42'0.53" E
2	MEASAT Teleport and Broadcast Centre, Cyberjaya, Selangor	2°56'5.00" N 101°39'29.00" E
3	TSGI Cyberport, Cyberjaya, Selangor	2°56'14.00" N 101°39'28.00" E

- (5) The maximum level of angle off-axis EIRP density from a VSAT in the designated frequency band shall not exceed the values as specified in the Recommendation ITU-R S.524: Maximum permissible levels of off-axis EIRP density from earth station in geostationary-satellite orbit networks operating in the fixed-satellite service transmitting in the 6 GHz, 13 GHz, 14 GHz and 30 GHz frequency bands.

PART B:

(Note: Part B shall only be effective from 1 January 2023)

Class Assignment for Fixed-Satellite Service Earth Station

1. Definition

(1) In this class assignment:

- (a) “Fixed-satellite service (“FSS”) earth station” means a fixed/transportable ground station used for Very Small Aperture Terminal (“VSAT”) and/or Hub and intended for communication with one or more space stations provided by a licensee in the designated frequency bands;
- (b) “VSAT” means a two-way earth station that transmits and receives data from FSS; and
- (c) “Hub” means a central FSS earth station connecting to multiple VSAT within a compound of a designated location.

(2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

An FSS earth station used for VSAT and/or Hub shall only utilise the frequency bands as per Table 8b-1 assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

TABLE 8b-1
Frequency Bands

Downlink Frequency (MHz)	Uplink Frequency (MHz)	FSS Earth Station
3400 to 3700	6425 to 6725	VSAT and Hub

Downlink Frequency (MHz)	Uplink Frequency (MHz)	FSS Earth Station
3700 to 4200	5925 to 6425	VSAT only
10950 to 11 200	13750 to 14500	
11450 to 11700		
12200 to 12750		
19700 to 21200	29500 to 30000	

3. Class assignment

This class assignment confers rights on any person to operate a FSS earth station subject to:

- (a) operating within the frequency bands as specified in paragraph 2 of this schedule; and
- (b) the conditions as specified in paragraph 4 of this schedule.

4. Condition(s)

(1) License requirement

Operation of FSS earth station must be provided by valid Network Service Provider and/or Network Facilities license holder;

(2) Connecting space station

FSS earth station connecting to any space station which has completed coordination with Malaysian satellite network filing(s) and the frequencies are registered in the ITU Master International Frequency Register (MIFR);

(3) Type of FSS earth station

Type of FSS earth station for designated frequency bands is as specified in the third column of Table 8b-1;

(4) Maximum antenna diameter

The maximum antenna diameter for FSS earth station used is as specified in the third column of Table 8b-2;

TABLE 8b-2
FSS Earth Station

Downlink Frequency (MHz)	Uplink Frequency (MHz)	Maximum antenna diameter (metre)	
		VSAT	Hub
3400 to 3700	6425 to 6725	No maximum limit	
3700 to 4200	5925 to 6425	2.4	Subject to Apparatus Assignment
10950 to 11200	13750 to 14500	1.2	Subject to Apparatus Assignment
11450 to 11700			
12200 to 12750			
19700 to 21200	29500 to 30000		

- (5) Registration to the Commission is compulsory for every FSS earth station used as VSAT and Hub;
- (6) Operation of FSS earth station for Hub operating in the 3400 MHz to 3700 MHz (downlink) and 6425 MHz to 6725 MHz (uplink) frequency bands is limited to stations located at the locations in Table 8-3; and

TABLE 8b-3

FSS Hub Station Location

No	FSS Hub Station Location	GPS
1	All Asia Broadcast Centre, Bukit Jalil, Selangor	3°03'5.07" N 101°42'0.53" E
2	MEASAT Teleport and Broadcast Centre, Cyberjaya, Selangor	2°56'5.00" N 101°39'29.00" E
3	TSGI Cyberport, Cyberjaya, Selangor	2°56'14.00" N 101°39'28.00" E

- (7) The satellite systems operating in the designated frequency band shall not exceed the values of power limits in Article 21 and Article 22 of the ITU Radio Regulations.

NINTH SCHEDULE

Class Assignment for Infrared Device

1. Definition

- (1) In this class assignment, “infrared device” means a radiocommunications device operating in the electromagnetic frequency band from 187.5 THz to 420 THz.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

An infrared device shall only utilise the 187.5 THz to 420 THz frequency band assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

3. Class assignment

This class assignment confers rights on any person to operate an infrared device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency band as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum power shall not exceed 125 mW.

TENTH SCHEDULE

Class Assignment for Remote Controlled Device

1. Definition

- (1) In this class assignment, “remote controlled device” means a device which is occasionally used to remotely control, by method of low power radio emissions, consumer devices including, but not limited to, remote controlled doors, air conditioners, gates, locks, video equipment, cameras, and toys.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A remote controlled device shall only utilise any of the following frequency bands assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 26.965 MHz to 27.275 MHz;
- (b) 40 MHz;
- (c) 47 MHz;
- (d) 49 MHz;
- (e) 303 MHz to 320 MHz; or
- (f) 433 MHz to 435 MHz.

3. Class assignment

This class assignment confers rights on any person to operate a remote controlled device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum EIRP shall not exceed 50 mW.

ELEVENTH SCHEDULE

Class Assignment for Security Device

1. Definition

- (1) In this class assignment, "security device" means a low power radio device specifically utilised for consumer security applications and used to remotely control, interrogate and download information, or detect objects.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A security device shall only utilise any of the following frequency bands assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 3 kHz to 195 kHz;
- (b) 228.0063 MHz to 228.9937 MHz;
- (c) 303 MHz to 320 MHz;
- (d) 400 MHz to 402 MHz;
- (e) 433 MHz to 435 MHz; or
- (f) 76 GHz to 77 GHz.

3. Class assignment

This class assignment confers rights on any person to operate a security device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum EIRP shall not exceed the values as specified in the third column of Table 11-1.

TABLE 11-1
Frequency Bands and Maximum EIRP

Item	Frequency Bands	Maximum EIRP
1.	3 kHz to 195 kHz	50 mW
2.	228.0063 MHz to 228.9937 MHz	50 mW
3.	303 MHz to 320 MHz	50 mW
4.	400 MHz to 402 MHz	50 mW
5.	433 MHz to 435 MHz	50 mW
6.	76 GHz to 77 GHz	50 mW

TWELFTH SCHEDULE

Class Assignment for Wireless Microphone Device

1. Definition

- (1) In this class assignment, “wireless microphone device” means a low power device for the transmission of audio or voice over short distances to a remote receiver to be amplified.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A wireless microphone device shall only utilise any of the following frequency bands assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 26.95728 MHz to 27.28272 MHz;
- (b) 40.435 MHz to 40.925 MHz;
- (c) 87.5 MHz to 108 MHz;
- (d) 174 MHz to 230 MHz;
- (e) 470 MHz to 694 MHz;
- (f) 2400 MHz to 2500 MHz; or
- (g) 5725 MHz to 5850 MHz.

3. Class assignment

This class assignment confers rights on any person to operate a wireless microphone device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum EIRP shall not exceed 50 mW for all frequency bands specified in paragraph 2 above except for frequency band 87.5 MHz to 108 MHz. The maximum EIRP for frequency band 87.5 MHz to 108 MHz shall not exceed 50 nW.

THIRTEENTH SCHEDULE

Class Assignment for Free Space Optics Device

1. Definition

- (1) In this class assignment, "FSO device" means a device that uses line-of-sight optical technology to provide a point-to-point communication link.
- (2) Subject to subparagraph 1(1) of this schedule, all terminology of an absolute technical nature shall have the same meaning as in the International Telecommunication Convention.

2. Frequency bands

A FSO device shall only utilise any of the following frequencies assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 193.5484 THz (wavelength of 1550 nm); or
- (b) 352.9412 THz (wavelength of 850 nm).

3. Class assignment

This class assignment confers rights on any person to operate a FSO device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum power shall not exceed 650 mW.

FOURTEENTH SCHEDULE

Class Assignment for Industrial, Scientific and Medical Device

1. Definition

- (1) In this class assignment, "ISM device" means a device which generate locally radio frequency energy that is used for industrial, scientific, medical, domestic or similar purposes, excluding in the field of telecommunications.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

An ISM device shall only utilise any of the following frequency bands as specified in Table 14-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate an ISM device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum power shall not exceed the values as specified in Table 14-1.

TABLE 14-1
Frequency Bands and Maximum EIRP

Item	Frequency Bands	Maximum EIRP
1.	6765 kHz to 6795 kHz	500 mW
2.	13.553 MHz to 13.567 MHz	500 mW
3.	26.957 MHz to 27.283 MHz	500 mW
4.	40.66 MHz to 40.70 MHz	500 mW
5.	2400 MHz to 2500 MHz	500 mW
6.	5725 MHz to 5875 MHz	500 mW
7.	24 GHz to 24.25 GHz	500 mW
8.	61 GHz to 61.5 GHz	500 mW
9.	122 GHz to 123 GHz	500 mW
10.	244 GHz to 246 GHz	500 mW

FIFTEENTH SCHEDULE

Class Assignment for Radio Frequency Identification Device

1. Definition

- (1) In this class assignment, “RFID” means a two-way radiocommunications device that is used to automatically identify any object, animal or person in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A RFID shall only utilise any of the frequency bands as specified in the second column of Table 15-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a RFID subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum power shall not exceed the values as specified in the third column of Table 15-1.

TABLE 15-1
Frequency Bands and Maximum Power

Item	Frequency Bands	Maximum Power
1.	13.553 MHz to 13.567 MHz	100 mW EIRP
2.	433 MHz to 435 MHz	100 mW EIRP
3.	919 MHz to 923 MHz	2 W ERP
4.	2400 MHz to 2500 MHz	500 mW EIRP

SIXTEENTH SCHEDULE

Class Assignment for Active Medical Implant Device

1. Definition

- (1) In this class assignment, “active medical implant device” means a device which is implanted in a body that communicates with a controller in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

An active medical implant shall only utilise the following frequency bands as specified in the second column of Table 16-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate an active medical implant subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum power shall not exceed the values as specified in the third column of Table 16-1.

TABLE 16-1
Frequency Bands and Maximum Power

Item	Frequency Bands	Maximum Power
1.	9 kHz to 315 kHz	30 dB μ A/m at 10 m
2.	401 MHz to 402 MHz	25 μ W ERP for devices with Adaptive Frequency Agility (AFA) and Listen Before Talk (LBT) 250 nW ERP for devices using Low Power Low Duty Cycle (LPLDC)
3.	402 MHz to 405 MHz	25 μ W ERP
4.	405 MHz to 406 MHz	25 μ W ERP for devices with AFA and LBT 250 nW ERP for devices using LPLDC

SEVENTEENTH SCHEDULE

Class Assignment for Aeronautical Mobile Telemetry Access Device

1. Definition

- (1) In this class assignment, “aeronautical mobile telemetry access device” means a device installed in an aircraft and communicating within an aircraft to indicate or record data through radio connectivity in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

An aeronautical mobile telemetry device shall only utilise any of the frequency bands as specified in the second column of Table 17-1 that is assigned for this class assignment, amongst other uses, is on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate an aeronautical mobile telemetry access device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum EIRP shall not exceed the values as specified in the third column of Table 17-1.

TABLE 17-1
Frequency Bands and Maximum EIRP

Item	Frequency Bands	Maximum EIRP
1.	2400 MHz to 2483.5 MHz	100 mW
2.	5150 MHz to 5350 MHz	100 mW
3.	5470 MHz to 5725 MHz	100 mW
4.	5725 MHz to 5825 MHz	100 mW

EIGHTEENTH SCHEDULE

Class Assignment for Mobile Satellite Access Device

1. Definition

- (1) In this class assignment, “mobile satellite access device” means a portable two-way radiocommunications device communicating with any satellite station provided by a licensee for the provision of application services in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A mobile satellite access device shall only utilise any of the frequency bands assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 1518 MHz to 1559 MHz;
- (b) 1610 MHz to 1660.5 MHz;
- (c) 1668 MHz to 1668.4 MHz.
- (d) 1980 MHz to 2010 MHz; or
- (e) 2170 MHz to 2200 MHz.

3. Class assignment

This class assignment confers rights on any person to operate a mobile satellite access device subject to the:

- (a) condition as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum EIRP shall not exceed the values as specified in Table 18-1.

TABLE 18-1

Frequency Bands and Maximum EIRP

Item	Frequency bands	Maximum EIRP
1	1518 MHz to 1559 MHz	7 W
2	1610 MHz to 1660.5 MHz	7 W
3	1668 MHz to 1668.4 MHz	7 W
4	1980 MHz to 2010 MHz	7 W
5	2170 MHz to 2200 MHz	7 W

NINETEENTH SCHEDULE

Class Assignment for Satellite Broadcasting Receiver Device

1. Definition

- (1) In this class assignment, “satellite broadcasting receiver device” means an earth station which is used to receive radio or television transmission provided by licensee in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A satellite broadcasting receiver device shall only utilise the following frequency bands assigned for this class assignment, amongst other uses, on a shared non-exclusive basis as follows:

- (1) Measat Broadcast Network Systems Sdn. Bhd.
 - (a) 10.7 GHz to 10.95 GHz;
 - (b) 10.95 GHz to 11.2 GHz;
 - (c) 11.20 GHz to 11.45 GHz;
 - (d) 11.45 GHz to 11.7 GHz;
 - (e) 11.70 GHz to 11.95 GHz; or
 - (f) 12.2 GHz to 12.75 GHz.⁴
- (2) Smart Digital International Sdn. Bhd.
 - (a) 12.568 GHz to 12.622 GHz

⁴ Use of the frequency bands of 12.50 GHz to 12.75 GHz is only allowed until 31 December 2022

3. Class assignment

This class assignment confers rights on any person to operate a satellite broadcasting receiver device subject to the:

- (a) conditions specified in paragraph 4 of this schedule;
- (b) satellite broadcasting receiver device operating within the frequency bands as specified in the subparagraph 2(1) of this schedule being connected to a network service provided through a space station named Malaysia East Asia Satellite (MEASAT) at 91.5° East;
- (c) satellite broadcasting receiver device operating within the frequency bands as specified in the subparagraph 2(2) of this schedule being connected to a network service provided through a space station named SES-12 operated by New Skies Satellite BV (“SES”) at 95° East; and
- (d) the device being used by the end user for receiving content applications service from a licensed service provider.

4. Condition(s)

The maximum diameter for a satellite broadcasting receiver device antenna shall not exceed 0.8 meters and 1.2 meters for single satellite broadcasting receiver device and multiple satellite broadcasting receiver device respectively. The use of 1.2 meters diameter satellite broadcasting receiver device antenna however, is restricted to multi dwelling buildings only.

TWENTIETH SCHEDULE

Class Assignment for Terrestrial Television Broadcasting Receiver Device

1. Definition

- (1) In this class assignment, “terrestrial television broadcasting receiver device” means a receiver which is used to receive television transmission from broadcasting transmitter station provided by a licensee in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A terrestrial television broadcasting receiver device shall only utilise the same frequency bands that was assigned by way of an apparatus assignment for the purpose of receiving the frequency bands and such utilisation of the frequency bands, amongst other uses, is on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a terrestrial television broadcasting receiver device to receive transmission from a broadcasting transmitter station subject the operation of the broadcasting transmitter station being authorised by an apparatus assignment.

TWENTY-FIRST SCHEDULE

Class Assignment for Terrestrial Radio Broadcasting Receiver Device

1. Definition

- (1) In this class assignment “terrestrial radio broadcasting receiver device” means a receiver which is used to receive radio transmission from broadcasting transmitter station provided by a licensee in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A terrestrial radio broadcasting receiver device shall only utilise the same frequency bands that was assigned by way of an apparatus assignment for the purpose of receiving the frequency bands and such utilisation of the frequency bands, amongst other uses, is on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a terrestrial radio broadcasting receiver device to receive transmission from a broadcasting transmitter station subject to the operation of the broadcasting transmitter station being authorised by an apparatus assignment.

TWENTY-SECOND SCHEDULE

Class Assignment for One-Way Radio Pager Receiver Device

1. Definition

- (1) In this class assignment, “one-way radio pager receiver device” means a one-way radiocommunications device communicating with a paging base station provided by a licensee for receiving a tone, voice, numeric or alphanumeric message in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A one-way radio pager receiver device shall only utilise the same spectrum that was assigned by way of an apparatus assignment for the purpose of receiving within the spectrum and such utilisation of the spectrum, amongst other uses, is on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a one-way radio pager receiver device to communicate only with a paging base station subject to the operation of the paging base station being authorised by an apparatus assignment.

TWENTY-THIRD SCHEDULE

Class Assignment for Satellite Radionavigation Receiver Device

1. Definition

- (1) In this class assignment, satellite radionavigation receiver device means a receiver device communicating with a space station which provides positional information in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

The satellite radionavigation receiver device shall only utilise the following frequency bands assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 1164 MHz to 1400 MHz;
- (b) 1559 MHz to 1610 MHz; or
- (c) 5000 MHz to 5030 MHz.

3. Class assignment

This class assignment confers rights on any person to operate a satellite radionavigation receiver device subject to such device operating within the frequency bands as specified in paragraph 2 of this schedule.

TWENTY-FOURTH SCHEDULE

Class Assignment for Wireless Closed Circuit Television Access Device

1. Definition

- (1) In this class assignment, “CCTV access device” means a device, either a CCTV camera or the associated terminal stations that provide for two-way point-to-point or two-way point-to-multipoint configuration for CCTV applications in the designated frequency bands not including the CCTV hub station.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency Bands

A wireless CCTV access device shall only utilise the following frequency bands assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 2400 MHz to 2500 MHz;
- (b) 4940 MHz to 4990 MHz;
- (c) 5150 MHz to 5350 MHz;
- (d) 5650 MHz to 5725 MHz; or
- (e) 5725 MHz to 5875 MHz.

3. Class Assignment

This class assignment confers rights on any person to operate the wireless CCTV access device subject to the:

- (a) conditions as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule, whereby for devices operating within the frequency bands specified

in subparagraphs 2(b) and 2(d) of this schedule, the operation of the CCTV hub station being authorised by an apparatus assignment.

4. Condition(s)

- (1) The maximum EIRP shall not exceed the values as specified in the third column of Table 24-1; and

TABLE 24-1
Frequency Bands and Maximum EIRP

Item	Frequency Bands	Maximum EIRP
1.	2400 MHz to 2500 MHz	1 W
2.	4940 MHz to 4990 MHz	1 W
3.	5150 MHz to 5350 MHz	1 W
4.	5650 MHz to 5725 MHz	1 W
5.	5725 MHz to 5875 MHz	1 W

- (2) Operational Restrictions

For wireless CCTV access devices operating within the 5250 MHz to 5350 MHz frequency band, the devices must use DFS and TPC.

TWENTY-FIFTH SCHEDULE

Class Assignment for Ultra - Wideband Communication Device

1. Definition

- (1) In this class assignment, “UWB communication device” means a device that utilises the UWB technology for short-range communication, involving the intentional communication to transmit and/or receive information between devices.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency Bands

A UWB communication device shall only utilise any of the frequency bands as specified in the second column of Table 25-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class Assignment

This class assignment confers rights on a person to operate a UWB communication device subject to the:

- (a) conditions as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

- (1) The maximum EIRP density shall not exceed the values as specified in the third and fourth column of Table 25-1;

TABLE 25-1
Frequency Bands and Maximum Mean EIRP Density

Item	Frequency Bands	General UWB Device		UWB device in Road and Rail vehicles	
		Maximum mean EIRP (dBm/MHz)	Maximum peak EIRP (dBm)	Maximum mean EIRP (dBm/MHz)	Maximum peak EIRP (dBm)
1.	3100 MHz to 3400 MHz	-70.00	-36.00	-70.00	-36.00
2.	3400 MHz to 3800 MHz	-80.00	-40.00	-80.00	-40.00
3.	3800 MHz to 6000 MHz	-70.00	-30.00	-70.00	-30.00
4.	6000 MHz to 8500 MHz	-41.30	0.00	-53.30	-13.30
5.	8500 MHz to 10600 MHz	-65.00	-25.00	-65.00	-25.00

- (2) The maximum peak of EIRP density is defined in 50 MHz bandwidth;
- (3) Additional requirements for general UWB communication device
- (a) General UWB communication device which operates in the frequency band of 3100 MHz to 10600 MHz shall only be utilised for communication purposes and shall only be used in confined areas of buildings or localised on-site operations. Use of outdoor mounted antennae is not permissible;
- (b) Emission of UWB communication device shall not be intentionally directed outside of the building in which the device is being used;
- (c) Transmission of UWB communication device shall only be permitted when it is in communication with an intended receiver. The device shall cease transmission unless it receives acknowledgment from the intended receiver;

- (d) The operation of UWB communication device is not permissible to the:
 - (i) Devices and/or antenna used or connected at fixed outdoor location;
 - (ii) Devices installed in flying models, aircraft or other aviation; and
 - (iii) Devices installed in road and rail vehicles; and

- (4) Additional requirements for UWB device in road and rail vehicles
 - (a) UWB device in road and rail vehicles that operates in the frequency band of 3100 MHz to 10600 MHz shall only be utilised for short range communications in road and rail vehicles, which include devices mounted inside or at the surface;
 - (b) The use of UWB device in road and rail vehicles does not apply to fixed road infrastructure installations;
 - (c) The use of UWB device in road and rail vehicles does not apply to fixed outdoor locations, for use in flying models, aircraft and other form of aviation; and
 - (d) The maximum mean EIRP spectral density for the emission outside the vehicle at elevation angles higher than 0 degree. The reference plane for the 0 degree is the sensor mounting height.

TWENTY-SIXTH SCHEDULE

Class Assignment for Automotive Radar Device

1. Definition

- (1) In this class assignment, “automotive radar device” means a radar device mounted on land transportation vehicles to detect the location and movement of persons or objects near a vehicle.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency Bands

An automotive radar system shall only utilise any of the frequency bands as specified in the second column of Table 26-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class Assignment

This class assignment confers rights on a person to operate an automotive radar device subject to the:

- (a) conditions as specified in paragraph 4 of this schedule; and
- (b) device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

- (1) The maximum mean EIRP density shall not exceed the values as specified in the third and fourth column of Table 26-1;

TABLE 26-1

Frequency Bands and Maximum Mean EIRP Density

Item	Frequency Bands	Maximum mean EIRP	Maximum peak EIRP
1.	21.65 GHz to 22 GHz	-61.30 dBm/MHz	0.00 dBm
2.	22 GHz to 29.5 GHz	-41.30 dBm/MHz	0.00 dBm
3.	76 GHz to 77 GHz	50.00 dBm	55.00 dBm
4.	77 GHz to 81 GHz	-3.00 dBm/MHz	55.00 dBm

- (2) The maximum peak of EIRP density is defined in 50 MHz bandwidth;
- (3) For the frequency band 24 GHz to 24.25 GHz, narrow band emission with a maximum peak EIRP of 30 dBm is allowed;
- (4) The emissions within 23.6 GHz to 24 GHz frequency band that appear 30° or greater above the horizontal plane shall be attenuated by at least 35 dB;
- (5) The automotive radar device shall be restricted for land transportation only; and
- (6) The operation of automotive radar device shall only be activated when the land transportation or vehicle is operating.

TWENTY-SEVENTH SCHEDULE

Class Assignment for Inductive Applications Device

1. Definition

- (1) In this class assignment, “inductive application device” means a radiocommunications device that provides communication over short distances for example anti-theft system, wireless power transfer, RFID, asset tracking, alarm systems, utilities management, railway applications, access control, for mobile and fixed applications in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

An inductive application device shall only utilise any of the frequency bands as specified in the second column of Table 27-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate an inductive application device subject to:

- (a) the condition as specified in paragraph 4 of this schedule; and
- (b) the device operating within the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

The maximum power shall not exceed the values as specified in Table 27-1.

TABLE 27-1

Frequency Bands and Maximum Power

Item	Frequency Bands	Maximum Power
1.	9 kHz to 90 kHz	72 dBuA/m at 10 m
2.	90 kHz to 119 kHz	42 dBuA/m at 10 m
3.	119 kHz to 135 kHz	66 dBuA/m at 10 m
4.	135 kHz to 140 kHz	42 dBuA/m at 10 m
5.	140 kHz to 148.5 kHz	37.7 dBuA/m at 10 m
6.	315 kHz to 400 kHz	-5 dBuA/m at 10 m
7.	400 kHz to 600 kHz	-8 dBuA/m at 10 m
8.	984 kHz to 7484 kHz	9 dBuA/m at 10 m
9.	3155 kHz to 3400 kHz	13.5 dBuA/m at 10 m
10.	6765 kHz to 6795 kHz	42 dBuA/m at 10 m
11.	7400 kHz to 8800 kHz	9 dBuA/m at 10 m
12.	10200 kHz to 11000 kHz	9 dBuA/m at 10 m
13.	13553 kHz to 13567 kHz	42 dBuA/m at 10 m
14.	26957 kHz to 27283 kHz	42 dBuA/m at 10 m
15.	148.5 kHz to 30 MHz	-5 dBuA/m at 10 m

TWENTY-EIGHTH SCHEDULE

Class Assignment for Satellite Broadcasting Receiver Device

(Direct-to-Home by MYTV Broadcasting Sdn Bhd)

1. Definition

- (1) In this class assignment, satellite broadcasting receiver device means an earth station which is used to receive radio or television transmission provided by licensee in the designated frequency bands.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A satellite broadcasting receiver device shall only utilise the frequency band 11.463 GHz to 11.517 GHz assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate a satellite broadcasting receiver device subject to the:

- (a) conditions specified in paragraph 4 of this schedule;
- (b) satellite broadcasting receiver device operating within the frequency band as specified in paragraph 2 of this schedule; and
- (c) satellite broadcasting receiver device being connected to a network service provided through space station AsiaSat-9 operated by Asia Satellite Telecommunications Company Limited at 122° East.

4. Conditions

(1) Satellite broadcasting receiver device antenna diameter

The maximum diameter for a satellite broadcasting receiver device antenna shall not exceed 0.66 m for single satellite broadcasting receiver device;

(2) Content Applications Service

The satellite broadcasting receiver device shall receive the same content applications service as received via Digital Terrestrial Television (“DTT”) provided by a licensed service provider; and

(3) Locations/Areas of Service

The satellite broadcasting receiver device shall only be used/installed at:

- (a) the DTT Phase 2B-2 coverage locations/areas⁵ at the DTT Phase 2B-2 sites listed below; and

No.	Site	State
1.	Bukit Chupak	Kelantan
2.	Bukit Palong	Kedah
3.	Padang Pauh	Perlis
4.	Bukit Penara	Penang
5.	Layang-Layang	Sabah
6.	Bukit Tampalagus	Sabah
7.	Bukit Kimiri	Sabah
8.	Felda Sahabat	Sabah
9.	Hotel Perkasa	Sabah
10.	Luasong	Sabah
11.	Nabawan	Sabah
12.	Gunung Telapa Buruk	Negeri Sembilan
13.	Bukit Ampangan	Sarawak
14.	Bukit Song	Sarawak
15.	Lubok Antu	Sarawak
16.	Miri	Sarawak

- (b) blind spot locations/areas⁶.

⁵ The DTT Phase 2B-2 coverage locations/areas are to be defined according to the technical parameters in the Detailed Business Plan dated 3 June 2013 and Detailed Business Plan – Revision Part 2: Service Rollout and Coverage dated 17 March 2014.

⁶ The DTT Phase 2B-2 coverage locations/areas are to be defined according to the technical parameters in the Detailed Business Plan dated 3 June 2013 and Detailed Business Plan – Revision Part 2: Service Rollout and Coverage dated 17 March 2014.

TWENTY- NINTH SCHEDULE

Class Assignment for Personal Locator Beacon Device

1. Definition

- (1) In this class assignment, “PLB device” means a personal electronic transmitting device that is designed to alert search and rescue authority when distress situation happened in the air, on the water, on the land and even in the remote areas.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

A PLB shall only utilise the following frequency band assigned for this class assignment, amongst other uses, on a shared non-exclusive basis:

- (a) 406.0 MHz to 406.1 MHz⁷; and
- (b) 121.5 MHz

3. Class assignment

This class assignment confers rights on any person to operate a PLB device, subject to the conditions specified in paragraph 4 of this schedule, to:

- (a) use the 406.0 MHz to 406.1 MHz frequency band to transmit a distress signal to the satellite networks provided by Cospas – Sarsat⁸ and relayed to a ground receiving station known as Local User Terminal(s) (LUTs); and
- (b) use the 121.5 MHz frequency to transmit homing signal only.

⁷ The use of the band 406-406.1 MHz by the mobile-satellite service is limited to low power satellite emergency position-indicating radiobeacons (see also **Article 31**). (WRC-07); ITU Radio Regulations No. **5.266**

⁸ Cospas – Sarsat is an international satellite system for search and rescue

4. Condition(s)

- (1) The maximum power shall not exceed the values as specified in the third column of Table 29-1;
- (2) Every PLB device used in Malaysia should be using country code number 533; and
- (3) Registration⁹ to the Malaysia Maritime Enforcement Agency is compulsory for every PLB device.

TABLE 29-1

Frequency Bands and Maximum Power

Item	Frequency Bands	Maximum power conditions
1	406.0 MHz to 406.1 MHz	The transmitter output power shall be within the limits of $5W \pm 2dB$ (35 dBm - 39 dBm) measured into a 50-Ohm load, with a voltage standing-wave ratio (VSWR) not greater than 1.25:1.
2	121.5 MHz	Between 25 and 100 mW Effective Radiated Peak Envelope power (ERPEP).

⁹ <http://bim.mmea.gov.my>

THIRTIETH SCHEDULE

Class Assignment for Unmanned Aircraft Systems Device

1. Definition

- (1) In this class assignment, “UAS device” means a radiocommunications device that is intended to be used for controlling the unmanned aircraft (UA), transmitting payload data from the UA and detection of obstacles during UA flight.
- (2) Subject to subparagraph 1(1) of this schedule, all terminologies of an absolute technical nature shall have the same meaning as provided in the International Telecommunication Convention.

2. Frequency bands

An UAS device shall only utilise any of the frequency bands as specified in the second column of Table 30-1 that is assigned for this class assignment, amongst other uses, on a shared non-exclusive basis.

3. Class assignment

This class assignment confers rights on any person to operate an UAS device subject to the:

- (a) conditions as specified in paragraph 4 of this schedule; and
- (b) the device operating in the frequency bands as specified in paragraph 2 of this schedule.

4. Condition(s)

- (1) Maximum Power
The maximum power shall not exceed the values as specified in the third column of Table 30-1; and

(2) Operational Restrictions

Any person who wishes to operate a UAS device shall refer to the Guidelines on the Use of Radio Spectrum for Unmanned Aircraft Systems issued by the Commission on the 26 October 2021 on MCMC's website.

TABLE 30-1

Frequency Bands and Maximum Power

Item	Frequency Bands	Maximum Power
1.	433 MHz to 435 MHz	100 mW EIRP
2.	2400 MHz to 2500 MHz	500 mW EIRP
3.	5725 MHz to 5875 MHz	1 W EIRP
4.	24.05 GHz to 24.25 GHz ¹⁰	100 mW EIRP

¹⁰ For radar system installed on-board unmanned aircraft

Revocation

7. The Notification of Issuance of Class Assignments No. 1 of 2022 dated 19 January 2022 is hereby revoked.

Dated: 20/7/22.



Tan Sri Mohamad Salim Bin Fateh Din

Interim Chairman

Malaysian Communications and Multimedia Commission