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**No. S 726****TELECOMMUNICATIONS ACT  
(CHAPTER 323)****TELECOMMUNICATIONS (EXEMPTION FROM SECTIONS  
33, 34(1)(b) AND 35) (AMENDMENT NO. 2)  
NOTIFICATION 2014**

In exercise of the powers conferred by section 73 of the Telecommunications Act, the Minister for Communications and Information hereby makes the following Notification:

**Citation and commencement**

**1.** This Notification may be cited as the Telecommunications (Exemption from sections 33, 34(1)(b) and 35) (Amendment No. 2) Notification 2014 and shall come into operation on 1 November 2014.

**Amendment of paragraph 2**

**2.** Paragraph 2 of the Telecommunications (Exemption from sections 33, 34(1)(b) and 35) Notification (N 1) is amended —

- (a) by deleting the word “and” at the end of sub-paragraph (a);
- (b) by deleting the words “the Schedule” in sub-paragraph (b) and substituting the words “the First Schedule”; and
- (c) by deleting the full-stop at the end of sub-paragraph (b) and substituting a semi-colon, and by inserting immediately thereafter the following sub-paragraphs:
  - “(c) the installation of an equipment specified in the Second Schedule, where the installation is in accordance with the technical specifications on white space devices published by the Authority at <http://www.ida.gov.sg>; and
  - (d) the operation of an equipment specified in the Second Schedule, where the operation is in accordance with the technical specifications on

white space devices published by the Authority at <http://www.ida.gov.sg>”.

### **Deletion of Schedule and new First and Second Schedules**

3. The Schedule to the Telecommunications (Exemption from sections 33, 34(1)(b) and 35) Notification is deleted and the following Schedules substituted therefor:

#### **“FIRST SCHEDULE**

Paragraph 2(b)

#### **EXEMPTION IN RESPECT OF LOCALISED ON-SITE INSTALLATION OR OPERATION OF EQUIPMENT\***

<i>Equipment</i>	<i>Authorised Radio Frequency Bands</i>	<i>Maximum Approved Field Strength or Power</i>
1. CB Walkie Talkie Transceivers	26.96 – 27.28 MHz	500 mW ERP
2. Multi-channel Walkie Talkie Transceivers	446.00 – 446.10 MHz 446.3250 – 446.4750 MHz 477.00 – 477.25 MHz	500 mW ERP 500 mW ERP 500 mW ERP
3. Wireless Microphones	0.51 – 1.60 MHz 40.66 – 40.70 MHz 88.00 – 108.00 MHz 180.000 – 200.000 MHz 470.00 – 806.00 MHz 487.00 – 507.00 MHz	57 dB $\mu$ V/m @ 3m 65 dB $\mu$ V/m @ 10m 60 dB $\mu$ V/m @ 10m 112 dB $\mu$ V/m @ 10m 10 mW ERP 112 dB $\mu$ V/m @ 10m
4. CB Band Radio Paging Systems	26.96 – 27.28 MHz 40.66 – 40.70 MHz	500 mW ERP 500 mW ERP

\*Other low power equipment that operate in radio frequency bands other than those listed, but which meet the output power limits specified for the same type of equipment are exempted from licensing as long as both the output power limits and the radio frequency bands are approved by the Authority.

5. Induction Loop Communication Systems	0.016 – 0.150 MHz 0.150 – 5.000 MHz 6.765 – 6.795 MHz 7.400 – 8.800 MHz	66 dB $\mu$ A/m @ 10m 13.5 dB $\mu$ A/m @ 10m 42 dB $\mu$ A/m @ 10m 9 dB $\mu$ A/m @ 10m
6. VHF Radio Paging System	151.125 MHz 151.150 MHz	1,000 mW ERP 1,000 mW ERP
7. Radio Detection and Alarm Systems — (a) Car Theft Alarm Systems (b) Burglar Alarm Systems (c) Field Disturbance Sensing Devices (d) Other Miscellaneous Radio Detection and Alarm Systems	0.016 – 0.150 MHz 13.553 – 13.567 MHz 26.96 – 27.28 MHz 146.35 – 146.50 MHz 240.15 – 240.30 MHz 300.00 – 300.30 MHz 312.00 – 316.00 MHz 444.40 – 444.80 MHz 10.50 – 10.55 GHz	100 dB $\mu$ V/m @ 3m 94 dB $\mu$ V/m @ 10m 500 mW ERP 100 mW ERP 100mW ERP 100mW ERP 100mW ERP 100mW ERP 117 dB $\mu$ V/m @ 10m
8. Medical and Biological Telemetry Devices	9.000 – 315.000 kHz 40.500 – 41.000 MHz 216.00 – 217.00 MHz 454.000 – 454.500 MHz 1,427.00 – 1,432.00 MHz All other frequencies	30 dB $\mu$ A/m @ 10m 0.01 mW ERP 100 mW ERP 2 mW ERP 100 mW ERP 25 $\mu$ W ERP

9. Wireless Modem	72.080 MHz 72.200 MHz 72.400 MHz 72.600 MHz 158.275/162.875 MHz 158.325/162.925 MHz 453.7250/458.7250 MHz 453.7375/458.7375 MHz 453.7500/458.7500 MHz 453.7625/458.7625 MHz	1,000 mW ERP 1,000 mW ERP 1,000 mW ERP 1,000 mW ERP 1,000 mW ERP 1,000 mW ERP 1,000 mW ERP 1,000 mW ERP 1,000 mW ERP 1,000 mW ERP
10. Radio Telemetry Equipment	26.96 – 27.28 MHz 29.700 – 30.000 MHz	500 mW ERP 500 mW ERP
11. Remote Control Devices — (a) Garage Door Openers (b) Cameras (c) Toys and Robots (d) Battery-operated Cars and Boats (e) TV Receivers/ Radio Systems (f) Other Miscellaneous Remote Control Devices	26.96 – 27.28 MHz 34.995 – 35.225 MHz 40.665 – 40.695 MHz 40.770 – 40.830 MHz 72.130 – 72.210 MHz	100 mW ERP 100 mW ERP 500 mW ERP 500 mW ERP 500 mW ERP

12. Cordless Telephones or Wireless PABX	1.605 – 1.800 MHz 49.67 – 49.97 MHz 43.72 – 46.97 MHz 48.76 – 49.97 MHz 821.00 – 822.00 MHz 924.00 – 925.00 MHz 1,880.00 – 1,900.00 MHz	94 dB $\mu$ V/m@ 3m 90 dB $\mu$ V/m @ 3m 90 dB $\mu$ V/m @ 3m 90 dB $\mu$ V/m @ 3m 90 dB $\mu$ V/m @ 3m 90 dB $\mu$ V/m @ 3m 250 mW EIRP
13. Wireless LAN, RFID or Low Power Devices	433.05 – 434.79 MHz 866.00 – 869.00 MHz 920.00 – 925.00 MHz 1,880.00 – 1,900.00 MHz 2,400.00 – 2,483.50 MHz 5,150.00 – 5,350.00 MHz 5,470.00 – 5,725.00 MHz 5,725.00 – 5,875.00 MHz 24,000 – 24,250 MHz 57,000 – 66,000 MHz	10 mW ERP 500 mW ERP 500 mW ERP 250 mW EIRP 200 mW EIRP 200 mW EIRP 1 W EIRP 1 W EIRP 100 mW EIRP 10 W EIRP
14. Stand-alone GPS Receivers	1,575.420 MHz	
15. Short Range Radar System	76.00 – 77.00 GHz	37 dBm EIRP for vehicle in motion 23.5dBm EIRP for stationary vehicle
16. Hearing Aids and Audio Assistance Aids	169.40 – 175.00 MHz	500 mW ERP
17. Ultra-Wideband Devices	Below 1.60 GHz 1.60 – 2.70 GHz 2.70 – 3.40 GHz 3.40 – 4.20 GHz	-90 dBm/MHz -85 dBm/MHz -70 dBm/MHz -41.3 dBm/MHz with interference mitigation techniques, otherwise - 70 dBm/MHz

	4.20 – 4.80 GHz	-41.3 dBm/MHz
	4.80 – 6.00 GHz	-70 dBm/MHz
	6.00 – 9.00 GHz	-41.3 dBm/MHz
	9.00 – 10.60 GHz	-65 dBm/MHz
	10.60 – 21.65 GHz	-85 dBm/MHz
	21.65 – 29.50 GHz	-41.3 dBm/MHz
	29.50 – 77.00 GHz	-85 dBm/MHz
	77.00 – 81.00 GHz	-3 dBm/MHz
	Above 81.00 GHz	-85 dBm/MHz

## SECOND SCHEDULE

Paragraph 2(c) and (d)

### EXEMPTION IN RESPECT OF INSTALLATION OR OPERATION OF EQUIPMENT

<i>Equipment</i>	<i>Authorised Radio Frequency Bands</i>	<i>Maximum Approved Field Strength or Power</i>
1. Fixed White Space Devices	181 – 188 MHz 209 – 223 MHz 502 – 518 MHz 614 – 622 MHz 630 – 710 MHz 718 – 742 MHz 750 – 774 MHz 790 – 806 MHz	4,000 m W EIRP for all authorised frequency bands

2. Portable Mode I White Space Devices	181 – 188 MHz 209 – 223 MHz 502 – 518 MHz 614 – 622 MHz 630 – 710 MHz 718 – 742 MHz 750 – 774 MHz 790 – 806 MHz	100 m W EIRP for all authorised frequency bands
3. Portable Mode II White Space Devices	181 – 188 MHz 209 – 223 MHz 502 – 518 MHz 614 – 622 MHz 630 – 710 MHz 718 – 742 MHz 750 – 774 MHz 790 – 806 MHz	100 m W EIRP for all authorised frequency bands

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[G.N. Nos. S 591/2003; S 651/2004; S 265/2006;  
S 1/2008; S 179/2011; S 252/2013; S 415/2014]

Made on 8 September 2014.

AUBECK KAM  
Permanent Secretary,  
Ministry of Communications  
and Information,  
Singapore.

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