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歐錦昌/BX4AA 說明

1、 本「無線電最大容許混附發射功率階度表」在 WRC-03 已作修正，由於內容甚多，請主管機關自行訂定.

附件三

無線電最大容許混附發射功率階度表

1. 下表標示混附發射之最大容許階度，而以發射機供至天線傳輸線之任何混附成分之平均功率階度來表示。

2. 來自天線及其傳輸線以外裝置之任何部分之混附發射，不得較如用該混附發射頻率以最大容許功率供至此天線系統所發生之效應為大。

3. 惟此項階度不應適用於緊急指位無線示標(EPIRB)電臺，緊急探測發射機，船舶之緊急發射機，救生船發射機，營救器電臺或當緊急情況時所使用之水上發射機。

4. 基於技術或運用之理由，特定業務可要求較表中更嚴緊之階度，應用於該等業務之階度必須為適當之世界性無線電行政會議所同意者，更嚴緊階度亦可經由有關之主管機關間協議後規定之。

5. 對於無線電測定電臺，迄至有可接受之測量方式為止，應達到該項混附發射之最低實用功率。

APPENDIX 3 (Rev.WRC-03)

Tables of maximum permitted power levels for spurious or spurious domain emissions

(See Article 3)

1 The following sections indicate the maximum permitted levels of certain unwanted emissions, in terms of power as indicated in the tables, of components supplied by a transmitter to the antenna transmission line. Section I, which provides spurious emission limits, is applicable until 1 January 2012 to transmitters installed on or before 1 January 2003; Section II, which limits emissions in the spurious domain, is applicable to transmitters installed after 1 January 2003 and to all transmitters after 1 January 2012. The provisions of No. **4.5** apply to unwanted emissions not covered in Sections I and II.

2 Spurious and spurious domain emissions (covered by Sections I and II) from any part of the installation, other than the antenna and its transmission line, shall not have an effect greater than would occur if this antenna system were supplied with the maximum permitted power at the frequency of that emission.

3 These levels shall not, however, apply to emergency position-indicating radiobeacon (EPIRB) stations, emergency locator transmitters, ships' emergency transmitters, lifeboat transmitters, survival craft stations or maritime transmitters when used in emergency situations.

4 For technical or operational reasons, more stringent levels than those specified may be applied to protect specific services in certain frequency bands. The levels applied to protect these services, such as safety and passive services, shall be those agreed upon by the appropriate world radiocommunication conference. More stringent levels may also be fixed by specific agreement between the administrations concerned. Additionally, special consideration of transmitter spurious or spurious domain emissions may be required for the protection of safety services, radio astronomy and space

services using passive sensors. Information on the levels of interference detrimental to radio astronomy, Earth exploration satellites and meteorological passive sensing is given in the most recent version of Recommendation ITU-R SM.329.

5 Spurious and spurious domain emission limits (covered by Sections I and II) for combined radiocommunication and information technology equipment are those for the radiocommunication transmitters. (WRC-03)

Section I – Spurious emission limits for transmitters installed on or before 1 January 2003 (valid until 1 January 2012)

6 Radar systems are exempt from spurious emission limits under this Section. The lowest practicable power of spurious emission should be achieved. (WRC-2000)

TABLE I

Attenuation values and absolute mean power levels used to calculate maximum permitted spurious emission power levels for use with radio equipment

Frequency band containing the assignment (lower limit exclusive, upper limit inclusive)	For any spurious component, the attenuation (mean power within the necessary bandwidth relative to the mean power of the spurious component concerned) shall be at least that specified below and the absolute mean power levels given shall not be exceeded[1]
9 kHz to 30 MHz	40 dB 50 mW [2, 3, 4]
30 MHz to 235 MHz – mean power above 25 W – mean power 25 W or less	 60 dB 1 mW [5] 40 dB 25 W
235 MHz to 960 MHz – mean power above 25 W – mean power 25 W or less	 60 dB 20 mW [6, 7] 40 dB 25 W [6, 7]
960 MHz to 17.7 GHz – mean power above 10 W – mean power 10 W or less	 50 dB 100 mW [6, 7, 8, 9] 100 W [6, 7, 8, 9]
Above 17.7 GHz	The lowest possible values achievable shall be employed (see Recommendation **66 (Rev.WRC-2000)***).

[1] When checking compliance with the provisions of the Table, it shall be verified that the bandwidth of the measuring equipment is sufficiently wide to accept all significant components of the spurious emission concerned.

[2] For mobile transmitters which operate below 30 MHz, any spurious component shall have an attenuation of at least 40 dB without exceeding the value of 200 mW, but every effort should be made to comply with the level of 50 mW wherever practicable.

[3] For transmitters of a mean power exceeding 50 kW which can operate on two or more frequencies covering a frequency range approaching an octave or more, while a reduction below 50 mW is not mandatory, a minimum attenuation of 60 dB shall be provided.

TABLE I (*end*)

[4] For hand-portable equipment of mean power less than 5 W, the attenuation shall be 30 dB, but every practicable effort should be made to attain 40 dB attenuation.

[5] Administrations may adopt a level of 10 mW provided that harmful interference is not caused.

[6] Where several transmitters feed a common antenna or closely spaced antennas on neighbouring frequencies, every practicable effort should be made to comply with the levels specified.

[7] Since these levels may not provide adequate protection for receiving stations in the radio astronomy and space services, more stringent levels might be considered in each individual case in the light of the geographical position of the stations concerned.

[8] These levels are not applicable to systems using digital modulation techniques, but may be used as a guide. Values for these systems may be provided by the relevant ITU-R Recommendations, when available (see Recommendation **66 (Rev.WRC-2000)***).

[9] These levels are not applicable to stations in the space services, but the levels of their spurious emissions should be reduced to the lowest possible values compatible with the technical and economic constraints to which the equipment is subject. Values for these systems may be provided by the relevant ITU-R Recommendations, when available (see Recommendation **66 Rev.WRC-2000)***).

* *Note by the Secretariat:* This Recommendation was abrogated by WRC-03.

Section II – Spurious domain emission limits for transmitters installed after 1 January 2003 and for all transmitters after 1 January 2012 (WRC-03)

Application of these limits

7 The frequency range of the measurement of spurious domain emissions is from 9 kHz to 110 GHz or the second harmonic if higher. (WRC-03)

8 Except as provided in § 9 and 10 of this Appendix, the spurious domain emission levels are specified in the following reference bandwidths:

– 1 kHz between 9 kHz and 150 kHz

– 10 kHz between 150 kHz and 30 MHz

– 100 kHz between 30 MHz and 1 GHz

– 1 MHz above 1 GHz. (WRC-03)

9 The reference bandwidth of all space service spurious domain emissions should be 4 kHz. (WRC-03)

10 For radar systems, the reference bandwidths for specifying spurious domain emission levels should be calculated for each particular system. Thus, for the four general types of radar pulse modulation utilized for radionavigation, radiolocation, acquisition, tracking and other radiodetermination functions, the reference bandwidth values are determined using the following:

– for a fixed-frequency, non-pulse-coded radar, the reciprocal of the radar pulse length, in seconds (e.g. if the radar pulse length is 1 s, then the reference bandwidth is 1/(1 s) 1 MHz);

– for a fixed-frequency, phase-coded pulsed radar, the reciprocal of the phase chip length, in seconds (e.g. if the phase-coded chip is 2 s long, then the reference bandwidth is 1/(2 s) 500 kHz);

– for a frequency modulated (FM) or chirped radar, the square root of the quantity obtained by dividing the chirp bandwidth in MHz by the pulse length, in s (e.g. if the FM is from 1 250 MHz to 1 280 MHz, i.e. 30 MHz, during the pulse length of 10 s, then the reference bandwidth is (30 MHz/10 s)$^{1/2}$ 1.73 MHz);

– for radars operating with multiple waveforms, the reference bandwidth for specifying spurious domain emission levels is determined empirically from observations of the radar emission and is obtained following the guidance given in the most recent version of Recommendation ITU-R M.1177.

In the case of radars, for which the bandwidth, as determined using the method above, is greater than 1 MHz, a reference bandwidth of 1 MHz should be used. (WRC-03)

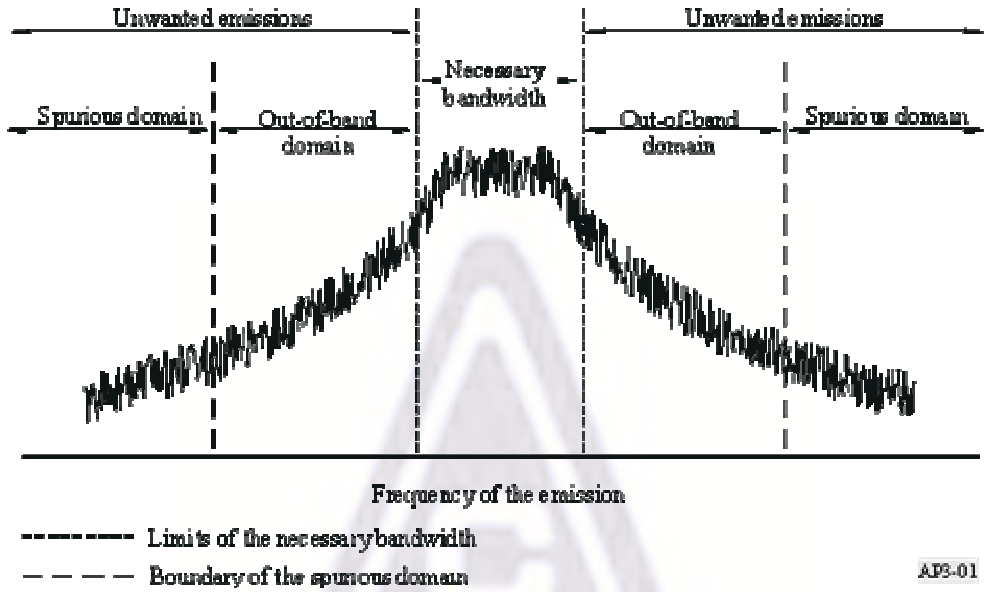
10*bis* Guidance regarding the methods of measuring spurious domain emissions is given in the most recent version of Recommendation ITU-R SM.329. The e.i.r.p. method specified in this Recommendation should be used when it is not possible to accurately measure the power supplied to the antenna transmission line, or for specific applications where the antenna is designed to provide significant attenuation in the spurious domain. Additionally, the e.i.r.p. method may need some modification for special cases. Specific guidance regarding the methods of measuring spurious domain emissions from radar systems is given in the most recent version of Recommendation ITU-R M.1177.

To improve measurement accuracy, sensitivity and efficiency, the resolution bandwidth in which spurious domain emissions are measured can be different from the reference bandwidth used for specifying spurious domain emission levels. (WRC-03)

11 The emission limits of this Section apply to all emissions, including harmonic emissions, intermodulation products, frequency conversion products and parasitic emissions, at frequencies in the spurious domain (see Fig. 1). The upper and lower parts of the spurious domain extend outward from a boundary determined using Annex 1. (WRC-03)

FIGURE 1 (WRC-03)

Out-of-band and spurious domains

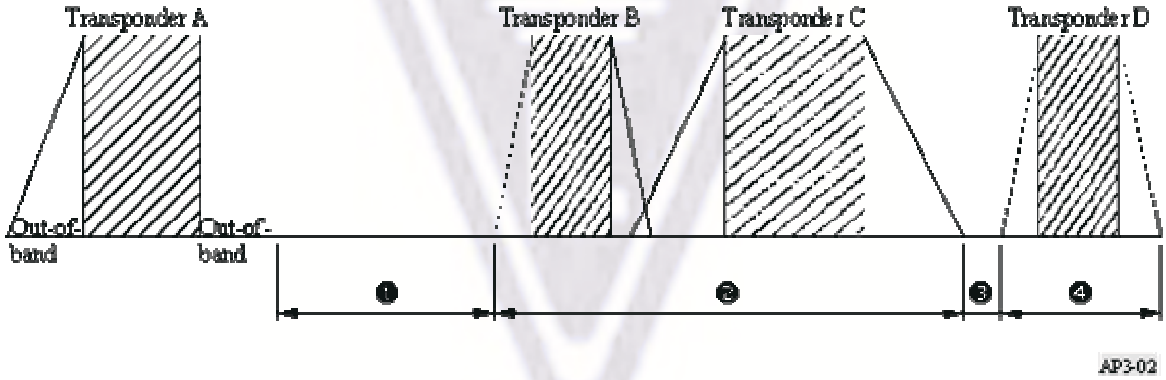


11*bis* (SUP - WRC-03)

11*ter* For the case of a single satellite operating with more than one transponder in the same service area, and when considering the limits for spurious domain emissions as indicated in § 11 of this Appendix, spurious domain emissions from one transponder may fall on a frequency at which a second, companion transponder is transmitting. In these situations, the level of spurious domain emissions from the first transponder is well exceeded by the fundamental or out-of-band domain emissions of the second transponder. Therefore, the limits of this Appendix should not apply to those emissions of a satellite that fall within either the necessary bandwidth or the out-of-band domain of another transponder on the same satellite, in the same service area (see Fig. 2). (WRC-03)

FIGURE 2

Example of the applicability of spurious domain emission limits to a satellite transponder



Transponders A, B, C and D are operating on the same satellite in the same service area. Transponder A is not required to meet spurious domain emission limits in frequency ranges and , but is required to meet them in frequency ranges and . (WRC-03)

12 Examples of applying 43 10 log (*P*) to calculate attenuation requirements

Where specified in relation to mean power, spurious domain emissions are to be at least *x* dB below the total mean power *P*, i.e. –*x* dBc. The power *P* (W) is to be measured in a bandwidth wide enough to include the total mean power. The spurious domain emissions are to be measured in the reference bandwidths given in the relevant ITU-R Recommendations. The measurement of the spurious domain emission power is independent of the value of necessary bandwidth. Because the absolute emission power limit, derived from 43 10 log (*P*), can become too stringent for high-power transmitters, alternative relative powers are also provided in Table II.

Example 1

A land mobile transmitter, with any value of necessary bandwidth, must meet a spurious domain emission attenuation of 43 10 log (*P*), or 70 dBc, whichever is less stringent. The reference bandwidths used for specifying spurious domain emission levels are provided in § 8 to 10 of this Appendix. Applying this in the frequency range between 30 MHz and 1 GHz gives a reference bandwidth of 100 kHz.

With a measured total mean power of 10 W:

– Attenuation relative to total mean power 43 10 log (10) 53 dBc.

– The 53 dBc value is less stringent than the 70 dBc, so the 53 dBc value is used.

– Therefore: Spurious domain emissions must not exceed 53 dBc in a 100 kHz bandwidth, or converting to an absolute level, they must not exceed 10 dBW – 53 dBc –43 dBW in a 100 kHz reference bandwidth.

With a measured total mean power of 1 000 W:

– Attenuation relative to total mean power 43 10 log (1 000) 73 dBc.

– The 73 dBc value is more stringent than the 70 dBc limit, so the 70 dBc value is used.

– Therefore: Spurious domain emissions must not exceed 70 dBc in a 100 kHz bandwidth, or converting to an absolute level, they must not exceed 30 dBW – 70 dBc –40 dBW in a 100 kHz reference bandwidth. (WRC-03)

Example 2

A space service transmitter with any value of necessary bandwidth must meet a spurious domain emission attenuation of 43 10 log (*P*), or 60 dBc, whichever is less stringent. To measure

spurious domain emissions at any frequency, Note 10 to Table II indicates using a reference bandwidth of 4 kHz.

With a measured total mean power of 20 W:

– Attenuation relative to total mean power 43 10 log (20) 56 dBc.

– The 56 dBc value is less stringent than the 60 dBc limit, so the 56 dBc value is used.

– Therefore: Spurious domain emissions must not exceed 56 dBc in a 4 kHz reference bandwidth, or converting to an absolute level, they must not exceed 13 dBW – 56 dBc −43 dBW in a 4 kHz reference bandwidth. (WRC-03)

TABLE II (WRC-03)

Attenuation values used to calculate maximum permitted spurious domain emission power levels for use with radio equipment

Service category in accordance with Article 1, or equipment type[15]	Attenuation (dB) below the power supplied to the antenna transmission line
All services except those services quoted below:	43 10 log (*P*), or 70 dBc, whichever is less stringent
Space services (earth stations)[10, 16]	43 10 log (*P*), or 60 dBc, whichever is less stringent
Space services (space stations)[10, 17]	43 10 log (*P*), or 60 dBc, whichever is less stringent
Radiodetermination[14]	43 10 log (*PEP*), or 60 dB, whichever is less stringent
Broadcast television[11]	46 10 log (*P*), or 60 dBc, whichever is less stringent, without exceeding the absolute mean power level of 1 mW for VHF stations or 12 mW for UHF stations. However, greater attenuation may be necessary on a case by case basis
Broadcast FM	46 + 10 log (*P*), or 70 dBc, whichever is less stringent; the absolute mean power level of 1 mW should not be exceeded
Broadcasting at MF/HF	50 dBc; the absolute mean power level of 50 mW should not be exceeded
SSB from mobile stations[12]	43 dB below *PEP*
Amateur services operating below 30 MHz (including those using SSB)[16]	43 10 log (*PEP*), or 50 dB, whichever is less stringent
Services operating below 30 MHz, except space, radiodetermination, broadcast, those using SSB from mobile stations, and amateur[12]	43 10 log (*X*), or 60 dBc, whichever is less stringent, where *X* *PEP* for SSB modulation, and *X* *P* for other modulation
Low-power device radio equipment[13]	56 10 log (*P*), or 40 dBc, whichever is less stringent
Emergency transmitters[18]	No limit

TABLE II (*end*) (WRC-03)

P: mean power in watts supplied to the antenna transmission line, in accordance with No. **1.158**. When burst transmission is used, the mean power *P* and the mean power of any spurious domain emissions are measured using power averaging over the burst duration.

PEP: peak envelope power in watts supplied to the antenna transmission line, in accordance with No. **1.157**.

dBc: decibels relative to the unmodulated carrier power of the emission. In the cases which do not have a carrier, for example in some digital modulation schemes where the carrier is not accessible for measurement, the reference level equivalent to dBc is decibels relative to the mean power *P*.

[10] Spurious domain emission limits for all space services are stated in a 4 kHz reference bandwidth.

11 For analogue television transmissions, the mean power level is defined with a specified video signal modulation. This video signal has to be chosen in such a way that the maximum mean power level (e.g. at the video signal blanking level for negatively modulated television systems) is supplied to the antenna transmission line.

12 All classes of emission using SSB are included in the category "SSB".

[13] Low-power radio devices having a maximum output power of less than 100 mW and intended for short-range communication or control purposes; such equipment is in general exempt from individual licensing.

[14] For radiodetermination systems (radar as defined by No. **1.100**), spurious domain emission attenuation (dB) shall be determined for radiated emission levels, and not at the antenna transmission line. The measurement methods for determining the radiated spurious domain emission levels from radar systems should be guided by the most recent version of Recommendation ITU-R M.1177. (WRC-03)

[15] In some cases of digital modulation (including digital broadcasting), broadband systems, pulsed modulation and narrow-band high-power transmitters for all categories of services, there may be difficulties in meeting limits close to 250% of the necessary bandwidth.

[16] Earth stations in the amateur-satellite service operating below 30 MHz are in the service category "Amateur services operating below 30 MHz (including those using SSB)". (WRC-2000)

[17] Space stations in the space research service intended for operation in deep space as defined by No. **1.177** are exempt from spurious domain emission limits. (WRC-03)

[18] Emergency position-indicating radio beacon, emergency locator transmitters, personal location beacons, search and rescue transponders, ship emergency, lifeboat and survival craft transmitters and emergency land, aeronautical or maritime transmitters. (WRC-2000)

ANNEX 1 (WRC-03)

Determination of the boundary between the out-of-band and spurious domains

1 Except as provided below, the boundary between the out-of-band and spurious domains occurs at frequencies that are separated from the centre frequency of the emission by the values shown in Table 1. In general, the boundary, on either side of the centre frequency, occurs at a separation of 250% of the necessary bandwidth, or at 2.5 B_N, as shown in Table 1. For most systems, the centre frequency of the emission is the centre of the necessary bandwidth. For multichannel or multicarrier transmitters/transponders, where several carriers may be transmitted simultaneously from a final output amplifier or an active antenna, the centre frequency of the

emission is taken to be the centre of the –3 dB bandwidth of the transmitter or transponder, and the transmitter or transponder bandwidth is used in place of the necessary bandwidth for determining the boundary. For multicarrier satellite systems, guidance on the boundary between the out-of-band and spurious domains is provided in the most recent version of Recommendation ITU-R SM.1541. Some systems specify unwanted emissions relative to channel bandwidth, or channel spacing. These may be used as a substitute for the necessary bandwidth in Table 1, provided they are found in ITU-R Recommendations.

TABLE 1

Values for frequency separation between the centre frequency and the boundary of the spurious domain

Frequency range	Narrow-band case		Normal separation	Wideband case	
	for $B_N <$	Separation		for $B_N >$	Separation
9 kHz < f_c 150 kHz	250 Hz	625 Hz	2.5 B_N	10 kHz	1.5 B_N + 10 kHz
150 kHz < f_c 30 MHz	4 kHz	10 kHz	2.5 B_N	100 kHz	1.5 B_N + 100 kHz
30 MHz < f_c 1 GHz	25 kHz	62.5 kHz	2.5 B_N	10 MHz	1.5 B_N + 10 MHz
1 GHz < f_c 3 GHz	100 kHz	250 kHz	2.5 B_N	50 MHz	1.5 B_N + 50 MHz
3 GHz < f_c 10 GHz	100 kHz	250 kHz	2.5 B_N	100 MHz	1.5 B_N + 100 MHz
10 GHz < f_c 15 GHz	300 kHz	750 kHz	2.5 B_N	250 MHz	1.5 B_N + 250 MHz
15 GHz < f_c 26 GHz	500 kHz	1.25 MHz	2.5 B_N	500 MHz	1.5 B_N + 500 MHz
f_c > 26 GHz	1 MHz	2.5 MHz	2.5 B_N	500 MHz	1.5 B_N + 500 MHz

NOTE – In Table 1, f_c is the centre frequency of the emission and B_N is the necessary bandwidth. If the assigned frequency band of the emissions extends across two frequency ranges, then the values corresponding to the higher frequency range shall be used for determining the boundary.

Example 1: The necessary bandwidth of an emission at 26 MHz is 1.8 kHz. Since B_N is less than 4 kHz, the minimum separation of 10 kHz applies. The spurious domain begins 10 kHz each side of the centre of the necessary bandwidth.

Example 2: The necessary bandwidth of an emission at 8 GHz is 200 MHz. Since the wideband case applies for B_N > 100 MHz at that frequency, the spurious domain begins 1.5 200 MHz + 100 MHz = 400 MHz each side of the centre of the necessary bandwidth. Using the general separation formula, the out-of-band domain would have extended to 2.5 200 MHz = 500 MHz either side of the centre frequency.

2 Tables 2 and 3 show exceptions to Table 1 for narrow-band and wideband cases, respectively, applicable to particular systems or services and frequency bands.

TABLE 2

Narrow-band variations for particular systems or services and frequency bands

System or service	Frequency range		Narrow-band case	
			for $B_N <$ (kHz)	Separation (kHz)
Fixed service	14 kHz-1.5 MHz		20	50[1]
	1.5-30 MHz	$P_T \leq 50$ W	30	75[2]
		$P_T > 50$ W	80	200[2]

[1] The separation value is based on an assumption that the maximum value of the necessary bandwidth is about 3 kHz for the frequency range 14 kHz-1.5 MHz. The separation value of 50 kHz is extremely large as compared with the necessary bandwidth. This is because unwanted emissions of high power transmitters under modulated conditions have to be below the spurious limit (70 dBc) at the boundary between the out-of-band and spurious domains.

[2] P_T is the transmitter power. The separation values are based on an assumption that the maximum value of the necessary bandwidth is about 12 kHz for the frequency range 1.5-30 MHz. The separation value of 200 kHz for $P_T > 50$ W is extremely large as compared with the necessary bandwidth. This is because unwanted emissions of high power transmitters under modulated conditions have to be below the spurious limit, 70 dBc, at the boundary between the out-of-band and spurious domains. Also, if future systems in the fixed service operating in this frequency range require a necessary bandwidth larger than 12 kHz, it may become necessary to review the 200 kHz separation.

TABLE 3

Wideband variations for particular systems or services and frequency bands

System or service	Frequency range	Wideband case	
		For $B_N >$	Separation
Fixed service	14-150 kHz	20 kHz	1.5 B_N + 20 kHz
Fixed-satellite service (FSS)	3.4-4.2 GHz	250 MHz	1.5 B_N + 250 MHz
FSS	5.725-6.725 GHz	500 MHz	1.5 B_N + 500 MHz
FSS	7.25-7.75 GHz and 7.9-8.4 GHz	250 MHz	1.5 B_N + 250 MHz
FSS	10.7-12.75 GHz	500 MHz	1.5 B_N + 500 MHz
Broadcasting-satellite service	11.7-12.75 GHz	500 MHz	1.5 B_N + 500 MHz
FSS	12.75-13.25 GHz	500 MHz	1.5 B_N + 500 MHz
FSS	13.75-14.8 GHz	500 MHz	1.5 B_N + 500 MHz

3 For primary radar, the boundary between the out-of-band and spurious domains is the frequency at which the out-of-band domain limits specified in the applicable ITU-R Recommendations are equal to the spurious domain limit defined in Table II of this Appendix. Further guidance on the boundary between the out-of-band and spurious domains for primary radar is provided in the most recent version of Recommendation ITU-R SM.1541.

包括指配之頻率（下限除外，上限包括在內）	對於任何混附成分其衰減（必需頻寬內之平均功率相對於有關混附成分之平均功率）應至少低於甲與乙欄所規定，又其絕對平均功率階度不得超過所規定者。（註解 1）	
	甲	乙
	階度適用於現用之發射機以及一九八五年一月二日以前所設者以迄一九九四年一月一日止	階度適用於一九八五年一月一日以後所設之發射機及一九九四年一月一日以後所有之發射機
9 千赫至 30 兆赫	40 分貝 50 毫瓦 （註解 2,3,4）	40 分貝 50 毫瓦 （註解 4,7,8）
30 兆赫至 235 兆赫 －平均功率 25 瓦以上	60 分貝 1 毫瓦（註解 5）	60 分貝 1 毫瓦（註解 9）
－平均功率 25 瓦或以下	40 分貝 25 微瓦（註解 5,6）	40 分貝 25 微瓦

235 兆赫至 960 兆赫 －平均功率 25 瓦以上	工作於 235 兆赫以上指配頻率之發射機並無規定之階度。此等發射機之混附發射功率應儘量低至可實用為度。	60 分貝 20 毫瓦（註解 10,11）
－平均功率 25 瓦或以下		40 分貝 25 毫瓦（註解 10,11）
960 兆赫至 17,7 秭赫 －平均功率 10 瓦以上		50 分貝 100 毫瓦（註解 10,11,12,13）
－平均功率 10 瓦或以下		100 微瓦 （註解 10,11,12,13）

17.7 秭赫以上		由於 17.7 秭赫以上之業務操作所運用技術之不同特性。在階度詳訂前需由無線電諮委會作進一步的研究。應儘可能遵守適當之 CCIR 建議書所示之數值,以至適當之建議書被採用為止,且應使用可能達到之最低數值 (參閱建議書第六十六號)。

最大容許混附發射功率階度表之註解

(1) 當依照該表之規定來查驗時，必須證實其測量設備之頻帶寬足以接受所有關於混附發射之重要成分。

(2) 平均功率超過 50 千瓦並工作於 30 兆赫以下而其頻率範圍接近一倍或以上之發射機，並不強迫減至 50 毫瓦以下，但應具有 60 分貝之最低衰減並應儘力以達 50 毫瓦之階度。

(3) 平均功率小於 5 瓦而工作於 30 兆赫以下之手提輕便式設備，其衰減至少應為 30 分貝，並應儘力以達 40 分貝之衰減。

(4) 工作於 30 兆赫以下之行動發射機，其任何混附成分至少已有 40 分貝之衰減且不超過 200 毫瓦，惟如可行應儘力以達 50 毫瓦之階度。

(5) 工作於 30 兆赫以上之調頻水上行動無線電電話設備，其任何混附發射之平均功率由於調變結果而落於任何其他國際水上行動頻路者，不得超過 10 微瓦之階度，而在國際水上行動頻帶內任何不相連續頻率上之任何其他混附發射平均功率不得超 2.5 微瓦之階度，但如例外使用發射機之平均功率在 20 瓦以上者，此等階度得按發射機平均功率比例增加之。

(6) 發射機持有平均功率 100 毫瓦以下如其具有平均功率階度不超過 10 微瓦者不強迫其符合達 40 分貝之衰減。

(7) 平均功率超過 50 千瓦並能工作於二個或以上頻率其頻率範圍接近一倍或以上之發射機，在不強迫減至 50 毫瓦以下時，應具有 60 分貝之最低衰減。

(8) 平均功率小於 5 瓦之手提輕便式設備，其衰減應為 30 分貝，惟應儘力以達 40 分貝之衰減。

(9) 如其不發生妨礙性干擾時，則主管機關得採用具有 10 毫瓦之階度。

(10)如數個發射機以鄰近各頻率供應一共同天線或極接近之各天線時，則應儘力符合所指定之階度。

(11)因此等階度對無線電天文學與太空業務之接收電臺可能無法提供適當之保護，基於有關各電臺地理位置之各別情形，則需考慮更嚴緊之階度。

(12)此等階度不能適用於使用數位調變技術之系統，但得用為指引。當可資利用時，則此等系統之數值得由有關之國際無線電諮詢委員會建議案提供。

(13)此等階度不適用於太空業務之各電臺，但其混附發射階度應減少至可能之最低數值，（以適應該設備在技術與經濟上之限制）。當可資利用時，則此等系統之數值得由有關國際無線電諮詢委員會建議案提供。