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(2) 15 kHz for stations which were authorized for operation before December 1, 1961, in the 73.0–74.6 MHz band.

[51 FR 31213, Sept. 2, 1986, as amended at 52 FR 7418, Mar. 11, 1987; 53 FR 37308, Sept. 26, 1988; 56 FR 11516, Mar. 19, 1991; 57 FR 43407, Sept. 21, 1992; 58 FR 33344, June 17, 1993; 59 FR 7714, Feb. 16, 1994; 62 FR 40305, July 28, 1997; 63 FR 36606, July 7, 1998; 68 FR 46962, Aug. 7, 2003; 76 FR 67611, Nov. 2, 2011]

§ 80.207 Classes of emission.

(a) Authorization to use radiotelephone and radiotelegraph emissions by ship and coast stations includes the use of digital selective calling and selective calling techniques in accordance with § 80.225.

(b) In radiotelegraphy communications employing a modulated carrier the carrier must be keyed and modulated by an audio frequency.

(c) Authorization to use single sideband emission is limited to emitting a carrier;

(1) For full carrier transmitters at a power level between 3 and 6 dB below peak envelope power;

(2) For suppressed carrier transmitters at a power level at least 40 dB below peak envelope power; and

(3) For reduced or variable level carrier:

(i) In the 1600–4000 kHz band:

(A) For coast station transmitters 18±2 dB below peak envelope power;

(B) For ship station transmitters installed before January 2, 1982, 16±2 dB below peak envelope power; and

(C) For ship station transmitters installed after January 1, 1982, 18±2 dB below peak envelope power.

(ii) In the 4000–27500 kHz band:

(A) For coast station transmitters 18±2 dB below peak envelope power;

(B) For ship station transmitters installed before January 2, 1978, 16±2 dB below peak envelope power; and

(C) For ship station transmitters installed after January 1, 1978, 18±2 dB below peak envelope power.

(d) The authorized classes of emission are as follows:

Types of stations	Classes of emission
Ship Stations [1]	
Radiotelegraphy:	
100–160 kHz	A1A.
405–525 kHz	A1A, J2A.
1615–27500 kHz:	
Manual [15 16 17]	A1A, J2A, J2B, J2D.
DSC [6]	F1B, J2B.
NB–DP [14 16]	F1B, J2B, J2D.
Facsimile	F1C, F3C, J2C, J3C.
156–162 MHz [2]	F1B, F2B, F2C, F3C, F1D, F2D.
DSC	G2B.
216–220 MHz [3]	F1B, F2B, F2C, F3C.
1626.5–1646.5 MHz	([4]).
Radiotelephony:	
1615–27500 kHz [16]	H3E, J2D, J3E, R3E.
27.5–470 MHz [6]	G3D, G3E.
1626.5–1646.5 MHz	([4]).
Radiodetermination:	
285–325 kHz [7]	A1A, A2A.
405–525 kHz (Direction Finding) [8]	A3N, H3N, J3N, NON.
154–459 MHz: [12]	A1D, A2D, F1D, F2D, G1D, G2D.
2.4–9.5 GHz	PON.
Land Stations [1]	
Radiotelegraphy:	
100–160 kHz	A1A.
405–525 kHz	A1A, J2A.
1605–2850 kHz:	
Manual	A1A, J2A.
Facsimile	F1C, F3C, J2C, J3C.
Alaska-Fixed	A1A, J2A.
4000–27500 kHz:	
Manual [16]	A1A, J2A, J2B, J2D.
DSC [18]	F1B, J2B.
NB–DP [14 18]	F1,B J2B, J2D.
Facsimile	F1C, F3C, J2C, J3C.
Alaska-Fixed [17 18]	A1A, A2A, F1B, F2B, J2B, J2D.
72–76 MHz	A1A, A2A, F1B, F2B.

Types of stations	Classes of emission
156–162 MHz [2] [20]	F1B, F2B, F2C, F3C, F1D, F2D.
DSC	G2B.
216–220 MHz [3]	F1B, F2B, F2C, F3C.
Radiotelephony:	
1615–27500 kHz [18] [19]	H3E, J3E, R3E.
72–76 MHz	A3E, F3E, G3E.
156–470 MHz	G3E.
Radiodetermination:	
2.4–9.6 GHz	PON.
Distress, Urgency and Safety [8] [9]	
2182 kHz [10] [11]	A2B, A3B, H2B, H3E, J2B, J3E.
121.500 MHz	A3E, AEX, N0N.
123.100 MHz	A3E.
156.750 and 156.800 MHz [13]	G3E, G3N.
243.000 MHz	A3E, A3X, N0N.
406.0–406.1 MHz	G1D.

[1] Excludes distress, EPIRBs, survival craft, and automatic link establishment.
[2] Frequencies used for public correspondence and in Alaska 156.425 MHz. *See* §§ 80.371(c), 80.373(f) and 80.385(b). Transmitters approved before January 1, 1994, for G3E emissions will be authorized indefinitely for F2C, F3C, F1D and F2D emissions. Transmitters approved on or after January 1, 1994, will be authorized for F2C, F3C, F1D or F2D emissions only if they are approved specifically for each emission designator.
[3] Frequencies used in the Automated Maritime Telecommunications System (AMTS). *See* § 80.385(b).
[4] Types of emission are determined by the INMARSAT Organization.
[5] [Reserved]
[6] G3D emission must be used only by one-board stations for maneuvering or navigation.
[7] Frequencies used for cable repair operations. *See* § 80.375(b).
[8] For direction finding requirements see § 80.375.
[9] Includes distress emissions used by ship, coast, EPIRBs and survival craft stations.
[10] On 2182 kHz A1B, A2B, H2B and J2B emissions indicate transmission of the auto alarm signals.
[11] Ships on domestic voyages must use J3E emission only.
[12] For frequencies 154.585 MHz, 159.480 MHz, 160.725 MHz, 160.785 MHz, 454.000 MHz and 459.000 MHz, authorized for offshore radiolocation and related telecommand operations.
[13] [Reserved]
[14] NB–DP operations which are not in accordance with ITU–R Recommendations M.625 or M.476 are permitted to utilize any modulation, so long as emissions are within the limits set forth in § 80.211(f).
[15] J2B is permitted only on 2000–27500 kHz.
[16] J2D is permitted only on 2000–27500 kHz, and ship stations employing J2D emissions shall at no time use a peak envelope power in excess of 1.5 kW per channel.
[17] J2B and J2D are permitted provided they do not cause harmful interference to A1A.
[18] Coast stations employing J2D emissions shall at no time use a peak envelope power in excess of 10 kW per channel.
[19] J2D is permitted only on 2000–27500 kHz.
[20] If a station uses another type of digital emission, it must comply with the emission mask requirements of § 90.210 of this chapter, except that Automatic Identification System (AIS) transmissions do not have to comply with the emission mask requirements of § 90.210 of this chapter.

[51 FR 31213, Sept. 2, 1986]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 80.207, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at *www.govinfo.gov*.

§ 80.209 Transmitter frequency tolerances.

(a) The frequency tolerance requirements applicable to transmitters in the maritime services are shown in the following table. Tolerances are given as parts in 10^6 unless shown in Hz.

Frequency bands and categories of stations	Tolerances [1]
(1) Band 100–525 kHz:	
(i) Coast stations:	
For single sideband emissions	20 Hz.
For transmitters with narrow-band direct printing and data emissions	10 Hz [2]
For transmitters with digital selective calling emissions	10 Hz.
For all other emissions	100.
(ii) Ship stations:	
For transmitters with narrow-band direct printing and data emissions	20 Hz.
For transmitters with digital selective calling emissions	10 Hz [2]
For all other transmitters	10 Hz.
(iii) Ship stations for emergency only:	
For all emissions	20 Hz.
(iv) Survival craft stations:	
For all emissions	20 Hz.
(v) Radiodetermination stations:	
For all emissions	100.