

Description of emission	Necessary bandwidth		Designation of emission
	Formula	Sample calculation	
Composite transmission digital modulation using DSB-AM (Microwave radio relay system).	$B_n = 2RK/\log_2 S$	Digital modulation used to send 5 megabits per second by use of amplitude modulation of the main carrier with 4 signaling states. $R = 5 \times 10^6$ bits per second; $K = 1$; $S = 4$; $B_n = 5$ MHz	5M00K7
Binary Frequency Shift Keying	$(0.03 < 2D/R < 1.0)$; .. $B_n = 3.86D + 0.27R$.. $(1.0 < 2D/R < 2)$	Digital modulation used to send 1 megabit per second by frequency shift keying with 2 signaling states and 0.75 MHz peak deviation of the carrier. $R = 1 \times 10^6$ bps; $D = 0.75 \times 10^6$ Hz; $B_n = 2.8$ MHz	2M80F1D
Multilevel Frequency Shift Keying	$B_n = (R/\log_2 S) + 2DK$	Digital modulation to send 10 megabits per second by use of frequency shift keying with four signaling states and 2 MHz peak deviation of the main carrier. $R = 10 \times 10^6$ bps; $D = 2$ MHz; $K = 1$; $S = 4$; $B_n = 9$ MHz	9M00F7D
Phase Shift Keying	$B_n = 2RK/\log_2 S$	Digital modulation used to send 10 megabits per second by use of phase shift keying with 4 signaling states. $R = 10 \times 10^6$ bps; $K = 1$; $S = 4$; $B_n = 10$ MHz	10M0G7D
Quadrature Amplitude Modulation (QAM).	$B_n = 2R/\log_2 S$	64 QAM used to send 135 Mbps has the same necessary bandwidth as 64-PSK used to send 135 Mbps;. $R = 135 \times 10^6$ bps; $S = 64$; $B_n = 45$ MHz	45M0W
Minimum Shift Keying	2-ary:	Digital modulation used to send 2 megabits per second using 2-ary minimum shift keying. $R = 2.36 \times 10^6$ bps; $B_n = 2.36$ MHz	2M36G1D
	$B_n = R(1.18)$		
	4-ary:		
	$B_n = R(2.34)$		

■ 3. Section 2.948 is amended by revising paragraphs (a)(2), (a)(3), (b)(8) and (d) and adding paragraph (e) to read as follows.

§ 2.948 Description of measurement facilities.

(a) * * *

(2) If the equipment is to be authorized by the Commission under the certification procedure, the description of the measurement facilities shall be filed with the Commission's Laboratory in Columbia, Maryland. The data describing the measurement facilities need only be filed once but must be updated as changes are made to the measurement facilities or as otherwise described in this section. At least every three years, the organization responsible for filing the data with the Commission shall certify that the data on file is current. A laboratory that has been accredited in accordance with paragraph (d) of this section is not required to file a description of its facilities with the Commission's laboratory, provided the accrediting organization (or designating authority in the case of foreign laboratories) submits the following information to the Commission's laboratory:

(i) Laboratory name, location of test site(s), mailing address and contact information;

(ii) Name of accrediting organization;

(iii) Date of expiration of accreditation;

(iv) Designation number;

(v) FCC Registration Number (FRN);

(vi) A statement as to whether or not the laboratory performs testing on a contract basis;

(vii) For laboratories outside the United States, the name of the mutual recognition agreement or arrangement under which the accreditation of the laboratory is recognized.

(3) If the equipment is to be authorized under the Declaration of Conformity procedure, the laboratory making the measurements must be accredited in accordance with paragraph (d) of this section.

(b) * * *

(8) For a measurement facility that will be used for testing radiated emissions, a plot of site attenuation data taken pursuant to the procedures contained in Sections 5.4.6 through 5.5 of the following procedure: American National Standards Institute (ANSI) C63.4-2001, entitled "American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" published by the American National Standards Institute on June 22, 2001 as document number SH94908. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of C63.4-2001 may be obtained from: IEEE Customer Service, P.O. Box 1331, Piscataway, NJ 08855-1331, or UPS only IEEE Customer Service, 445 Hoes Lane, Piscataway, NJ 08854; telephone 1-800-678-4333 or +1-732-981-0600 (outside the United States and Canada). Copies of ANSI C63.4-2001 may be inspected at the following locations:

(i) Federal Communications Commission, 445 12th Street, SW.,

Office of Engineering and Technology (Room 7-B144), Washington, DC 20554,

(ii) Federal Communications Commission Laboratory, 7435 Oakland Mills Road, Columbia, MD 21046, or

(iii) Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

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(d) A laboratory that has been accredited with a scope covering the required measurements shall be deemed competent to test and submit test data for equipment subject to verification, DoC and certification. Such a laboratory shall be accredited by an approved accreditation organization based on the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) Standard 17025, "General Requirements for the Competence of Calibration and Testing Laboratories." The organization accrediting the laboratory must be approved by the Commission's Office of Engineering and Technology, as indicated in § 0.241 of this chapter, to perform such accreditation based on ISO/IEC 58, "Calibration and Testing Laboratory Accreditation Systems—General Requirements for Operation and Recognition." The frequency for revalidation of the test site and the information that is required to be filed, or retained by the testing party shall comply with the requirements established by the accrediting organization. However, in all cases, test site revalidation shall occur on an interval not to exceed two years.

(e) The accreditation of a laboratory located outside of the United States, or