

NECESSARY BANDWIDTHS AND CLASSIFICATION OF EMISSIONS¹

1 Necessary bandwidth

The necessary bandwidth, determined in accordance with the formulae and examples, shall be expressed by three numerals and one letter. The letter occupies the position of the decimal point and represents the unit of bandwidth. The first character shall be neither zero nor K, M or G.

Necessary bandwidths²:

- between 0.001 and 999 Hz shall be expressed in Hz (letter H);
- between 1.00 and 999 kHz shall be expressed in kHz (letter K);
- between 1.00 and 999 MHz shall be expressed in MHz (letter M);
- between 1.00 and 999 GHz shall be expressed in GHz (letter G).

For the full designation of an emission, the necessary bandwidth, indicated in four characters, shall be added just before the classification symbols.

2 Classification of emission

The following symbols are used in the class of emission, as appropriate:

	Symbol	Description
First symbol (mandatory) Type of modulation of the main carrier	N	Emission of an unmodulated carrier
	A	Double-sideband
	H	Single-sideband, full carrier
	R	Single-sideband, reduced or variable level carrier
	J	Single-sideband, suppressed carrier
	B	Independent sidebands
	C	Vestigial sideband
	F	Frequency modulation
	G	Phase modulation
	D	Emission in which the main carrier is amplitude-and angle-modulated either simultaneously or in a pre-established sequence
	P	A sequence of unmodulated pulses
	K	A sequence of pulses modulated in amplitude
	L	A sequence of pulses modulated in width/duration
	M	A sequence of pulses modulated in position/phase
	Q	A sequence of pulses in which the carrier is angle-modulated during the angle-period of the pulse
	V	A sequence of pulses which is a combination of the foregoing or is produced by other means
	W	Cases not covered above, in which an emission consists of the main carrier modulated, either simultaneously or in a pre-established sequence, in a combination of two or more of the following modes: amplitude, angle, pulse
X	Cases not otherwise covered	

¹ Appendix 1 (Rev. WRC-12) of the Radio Regulations

² Examples:

0.002	Hz	=	H002	6	kHz	=	6K00	1.25	MHz	=	1M25
0.1	Hz	=	H100	12.5	kHz	=	12K5	2	MHz	=	2M00
25.3	Hz	=	25H3	180.4	kHz	=	180K	10	MHz	=	10M0
400	Hz	=	400H	180.5	kHz	=	181K	202	MHz	=	202M
2.4	kHz	=	2K40	180.7	kHz	=	181K	5.65	GHz	=	5G65

	Symbol	Description
Second symbol (mandatory) Nature of signal(s) modulating the main carrier	0	No modulating signal
	1	A single channel containing quantized or digital information without the use of a modulating sub-carrier
	2	A single channel containing quantized or digital information with the use of a modulating sub-carrier
	3	A single channel containing analogue information
	7	Two or more channels containing quantized or digital information
	8	Two or more channels containing analogue information
	9	Composite system with one or more channels containing quantized or digital information, together with one or more channels containing analogue information
	X	Cases not otherwise covered
Third symbol (mandatory) Type of information to be transmitted	N	No information transmitted
	A	Telegraphy – for aural reception
	B	Telegraphy – for automatic reception
	C	Facsimile
	D	Data transmission, telemetry, telecommand
	E	Telephony (including sound broadcasting)
	F	Television (video)
	X	Cases not otherwise covered
Fourth symbol (optional) Details of signal(s)	A	Two-condition code with elements of differing numbers and/or durations
	B	Two-condition code with elements of the same number and duration without error-correction
	C	Two-condition code with elements of the same number and duration with error-correction
	D	Four-condition code in which each condition represents a signal element (or one or more bits)
	E	Multi-condition code in which each condition represents a signal element (of one or more bits)
	F	Multi-condition code in which each condition or combination of conditions represents a character
	G	Sound of broadcasting quality (monophonic)
	H	Sound of broadcasting quality (stereophonic or quadraphonic)
	J	Sound of commercial quality (excluding symbols K and L below)
	K	Sound of commercial quality with the use of frequency inversion or band-splitting
	L	Sound of commercial quality with separate frequency-modulated signals to control the level of demodulated signal
	M	Monochrome
	N	Colour
	X	Cases not otherwise covered
Fifth symbol (optional) Nature of multiplexing	N	None
	C	Code-division multiplex
	F	Frequency-division multiplex
	T	Time-division multiplex
	W	Combination of frequency-division multiplex and time-division multiplex
	X	Other types of multiplexing