

**THE ALLOWABLE VALUES FOR OCCUPIED BANDWIDTHS AND THE MODULATION METHODS CONCERNING RADIO EQUIPMENT FOR A RADIO STATION THAT EXECUTES 22-, 26-, OR 38-GHZ BAND SUBSCRIBER RADIO ACCESS COMMUNICATIONS, WHICH THE MINISTER OF PUBLIC MANAGEMENT, HOME AFFAIRS, POSTS AND TELECOMMUNICATIONS ANNOUNCES IN A SEPARATE ANNOUNCEMENT, AND A RADIO STATION THAT EXECUTES RADIO ACCESS COMMUNICATIONS DEFINED IN THE RULES FOR REGULATING RADIO EQUIPMENT, ARTICLE 7, PARAGRAPH (25), ITEM II)**

(Article 49-19 paragraph (1) item ii) proviso, paragraph (3) item ii) proviso and Table 2 -33 of the Ordinance  
Regulating Radio Equipment)

April 1, 2003

Ministry of Public Management, Home Affairs, Posts and Telecommunications Announcement No. 260

Subject to the provisos in Ordinance Regulating Radio Equipment (Radio Regulatory Commission Regulations No. 18 of 1950), Article 49-19 paragraph (1) item ii) proviso, paragraph (3) item ii) proviso and Table 2-33, the MPHPT announces that it has defined, as follows, the allowable values for occupied bandwidths and the modulation methods concerning radio equipment for a radio station that executes 22-, 26-, or 38-GHz band subscriber radio access communications, which the Minister of Public Management, Home Affairs, Posts and Telecommunications announces in a separate Announcement, and a radio station that executes radio access communications defined in the Rules for Regulating Radio Equipment, Article 7, Paragraph (25), Item ii).

Note that the MPHPT abrogates the 1998 Ministry of Posts and Telecommunications Announcement No.604 (with regard to defining the allowable values for occupied bandwidths and the modulation methods concerning radio equipment for a radio station that executes 22-, 26-, or 38-GHz band subscriber radio access communications).

1. Modulation method

32 quadrature amplitude modulation, 64 quadrature amplitude modulation, and orthogonal frequency division multiplexing (OFDM)

2. Allowable values for occupied bandwidths

Each of the allowable values for occupied bandwidths for transmitting devices that use modulation methods listed in the left column of the following table shall be a value that is calculated by using a corresponding formula listed in the right column of the same table. However, if the product has a fraction lower than 500 kHz, the final result shall be calculated by rounding up the fraction to 500 kHz, and if it has a fraction higher than

500 kHz and lower than 1 MHz, the final result shall be calculated by rounding up the fraction to 1 MHz.

Modulation method	Formula
4-frequency shift keying modulation	$f_{CL} \times 1.6$ (Modulation index: 0.4rad) $f_{CL} \times 2.0$ (Modulation index: 0.7rad)
Quadrature phase shift keying modulation	$f_{CL} \times (1+\alpha)$ $\alpha$ : Roll-off ratio (Roll-off ratio $\leq 0.5$ )
16 quadrature amplitude modulation 32 quadrature amplitude modulation 64 quadrature amplitude modulation	$f_{CL} \times 1.3$ (Roll-off ratio $\leq 0.5$ )
GMSK	$f_{CL} \times 1.0$ (Normalized 3-dB bandwidth for Gaussian low-pass filter (on one side): 0.25) $f_{CL} \times 1.2$ (Normalized 3-dB bandwidth for Gaussian low-pass filter (on the other side): 0.5)
OFDM	$f_{CL} \times \text{No. of subcarriers} \times 1.1$

$f_{CL}$ : Clock frequency (MHz)