

Notification of the National Telecommunications Commission

On Technical Standards for Telecommunication Equipment

Re: Wireless Microphone in the Frequency Range 794 - 806 MHz

Whereas it is deemed appropriate to prescribe technical standards and requirements in telecommunication services, pursuant to Section 29 (4) of the Radiocommunications Act B.E. 2498 (1955), and its amendments, together with Section 78 paragraph one of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E. 2543 (2000), the National Telecommunications Commission hereby issues the Notification on Technical Standards for Telecommunication Equipment regarding Wireless Microphone in the Frequency Range 794 - 806 MHz, as detailed in the Standard No. NTC TS 006 – 2548 appended hereto.

Issued on the 29th day of August B.E. 2548 (2005)

General Choochart Promphrasid

Chairman of the National Telecommunications Commission



Technical Standards for Telecommunication Equipment

NTC TS 006 — 2548

**Wireless Microphone
In the Frequency Range 794 – 806 MHz**

Office of the National Telecommunications Commission

87 Phahon Yothin 8 Road, Samsennai, Phayathai, Bangkok 10400

Tel. 0 2271 0151–60 Website: www.ntc.or.th

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Technical Standards for Telecommunication Equipment:
Wireless Microphone in the Frequency Range 794 - 806 MHz

1. Scope

This technical standard specifies the minimum technical characteristics for wireless microphone in the frequency range 794 - 806 MHz with necessary bandwidth not exceeding 200 kHz.

2. Technical Requirements

2.1 Rated carrier power

Definition **Rated carrier power** is the carrier power of the equipment declared by the manufacturer in its technical documents. The carrier power is the average power delivered to the artificial antenna during a radio frequency cycle, in the absence of modulation. The measured carrier power shall be within ± 1.5 dB of the rated carrier power.

Limit The rated carrier power shall not exceed 50 milliwatts (mW).

2.2 Conducted spurious emissions

Definition **Conducted spurious emissions** are emissions at the antenna connector on a frequency or frequencies which are outside the necessary bandwidth and the level of which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic emissions, parasitic emissions, intermodulation products and frequency conversion products, but exclude out-of-band emissions.

Limit The power levels of conducted spurious emissions within the frequency range 9 kHz - 4 GHz shall be attenuated below the carrier power in the absence of modulation at least $43 + 10 \log P$ (dB) or 70 dBc, whichever is less stringent, where P is mean power in watt (W).

2.3 Frequency error

Definition **Frequency error** is the difference between the measured carrier frequency in the absence of modulation and the nominal frequency of the transmitter.

Limit The frequency error shall not exceed 40 kHz.

2.4 Frequency deviation for radiocommunication equipment with frequency modulation (FM) or phase modulation (PM).

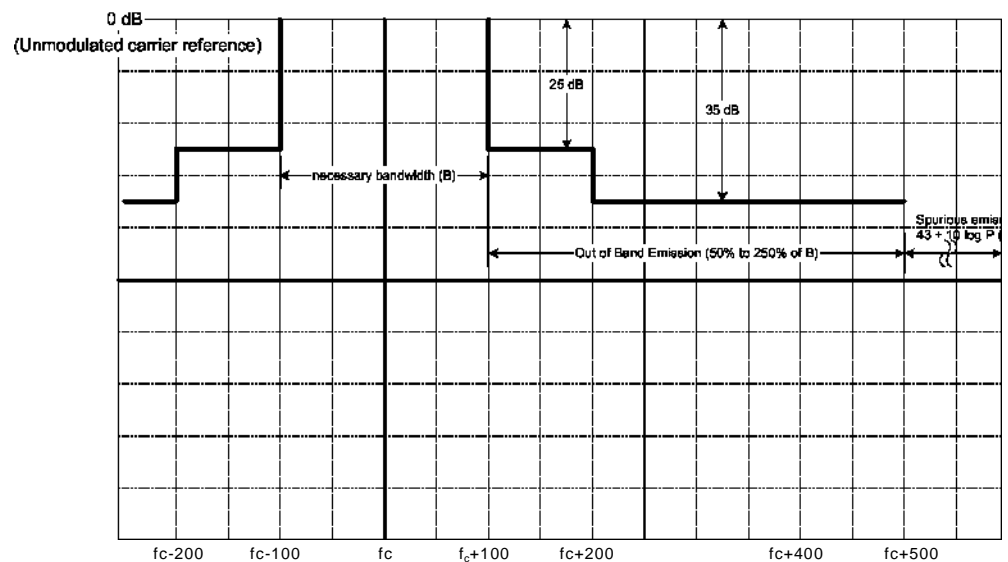
Definition **Frequency deviation** is the maximum difference between the instantaneous frequency of the modulated radio frequency signal and the carrier frequency in the absence of modulation.

Limit The frequency deviation shall not exceed ± 75 kHz.

2.5 Out-of-band emissions

Definition **Out-of-band emissions** are emissions at the antenna connector on a frequency or frequencies immediately outside the necessary bandwidth which results from the modulation process, but excluding spurious emissions.

Limit Out-of-band emissions shall be within the specified limits as shown in the diagram below:



3. Methods of Measurement

3.1 Rated carrier power

The method of measurement shall follow ETSI EN 300 422-1 [1], or any other equivalent method.

3.2 Conducted spurious emissions

The method of measurement shall follow ITU-R Rec. SM. 329-10 [2], ANSI/TIA/EIA-603-B [3], or any other equivalent method.

3.3 Frequency error

The method of measurement shall follow ANSI/TIA/EIA-603-B, or any other equivalent method.

3.4 Frequency deviation

The method of measurement shall follow ANSI/TIA/EIA-603-B, or any other equivalent method.

3.5 Out-of-band emissions

The method of measurement shall follow ANSI/TIA/EIA-603-B, or any other equivalent method.

Remarks:

- [1] ETSI EN 300 422-1: Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Wireless Microphones in the 25 MHz to 3 GHz frequency range; Part 1: Technical characteristics and test methods
 - [2] ITU-R Rec. SM. 329-10: Unwanted emissions in the spurious domain
 - [3] ANSI/TIA/EIA-603-B: Land mobile FM or PM communications equipment; Measurement and performance standards
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