

NFR Nr. 01

Note on Frequencies concerning wireless telecommande and telemetry equipment (frequency classification 3)

1. Legal base / overview

According to Art. 25 paragraph 1 of the Telecommunications Law (LTC), the Federal Office for Communications (OFCOM / BAKOM) manages the frequency spectrum. The OFCOM sets up a National Frequency Allocation Plan that is approved by the Communications Commission (art. 3 of the Federal Council's Ordinance on Frequency Management and Radiocommunications Licences (OGC)). The Notes on Frequencies (NFR), as annexes, are part of the national frequency allocation plan and are designed at giving the general public a clear understanding of the fine-tuned allocation system of frequency bands in a summarized, simplified fashion, by equipment categories and/or by usage.

2. Frequency classification

The equipment mentioned in the title of this Note on Frequencies apply to Frequency Class 3. These are collective frequencies allocated to an unlimited number of frequency operators within a specific area (Art. 6 OGC).

In the Frequency Class 3, no right to protection from interference exists.

3. Frequencies

3.1 Inductive radio equipment

9 ... 16 kHz	40 ... 135 kHz
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The operating frequencies are issued by the conformity authority. The frequencies will be located in the above-mentioned frequency bands.

If possible, modulated equipment should be located in the higher frequency band (40-135 kHz), preferably using the carrier frequencies 45, 55, 65,125 kHz.

Special frequencies for Devices for Detecting Avalanche Victims only: 2275 Hz and 475 kHz.

Further technical parameters according to CEPT/ERC/REC 70-03, Annexes 2 and 9. Published by the European Radio Office (ERO), Copenhagen, DK <http://www.ero.dk/>

3.2 Radio equipment

3.2.1 Frequency bands for low power devices

For wireless radiocontrol and radiomeasurement equipment with integral antenna, the following frequency bands are available:

Frequency Band	Max. level of Power or Field Strength
6.765 – 6.795 MHz	42 dB μ A/m (10m)
7.400 – 8.800 MHz	9 dB μ A/m (10m)
13.553 – 13.567 MHz	42 dB μ A/m (10m)
26.957 – 27.283 MHz	10 mW e.r.p.
40.660 – 40.700 MHz	10 mW e.r.p.
433.050 – 434.790 MHz	10 mW e.r.p.
868.000 – 868.600 MHz	25 mW e.r.p.
868.700 – 869.200 MHz	25 mW e.r.p.
869.300 – 869.400 MHz ¹⁾	¹⁾
869.400 – 869.650 MHz	500 mW e.r.p.
869.700 – 870.000 MHz	5 mW e.r.p.
2400 - 2483.5 MHz	10 mW e.i.r.p.
5725 - 5875 MHz	25 mW e.i.r.p.
24.00 - 24.25 GHz	100 mW e.i.r.p.
61.00 - 61.50 GHz	100 mW e.i.r.p.
122 - 123 GHz	100 mW e.i.r.p.
244 - 246 GHz	100 mW e.i.r.p.

¹⁾ Frequency range not usable at time. Technical parameters are to be determined by CEPT

e.r.p. = effective radiated power. e.i.r.p. = equivalent isotropically radiated power.

Further technical parameters according to CEPT/ERC/REC 70-03, Annex 1.

Published by the European Radio Office (ERO), Copenhagen, DK <http://www.ero.dk/>

3.2.2 Special frequency bands for one way data transmission for security, medical-biotelemetry / -implants and animal observation, see NFR Nr. 04

3.2.3 Frequencies for devices with higher power

Additionally, the following single frequencies for transmissions with higher radiated output power are available:

e.r.p. max. 0.1 Watt

13.560 MHz *	27.145 MHz *	27.615 MHz
26.995 MHz *	27.195 MHz *	27.635 MHz
27.045 MHz *	27.255 MHz *	27.675 MHz
27.095 MHz *	27.545 MHz	27.725 MHz
27.755 MHz		.
40.665 MHz *	40.775 MHz 1)	40.885 MHz 1)
40.675 MHz *	40.785 MHz 1)	40.915 MHz 1)
40.685 MHz *	40.815 MHz 1)	40.925 MHz 1)
40.695 MHz *	40.825 MHz 1)	40.935 MHz 1)
40.715 MHz 1)	40.835 MHz 1)	40.965 MHz 1)
40.725 MHz 1)	40.865 MHz 1)	40.975 MHz 1)
40.735 MHz 1)	40.875 MHz 1)	40.985 MHz 1)
40.765 MHz 1)		

*) ISM-equipment also operates within this range

1) for airplane model radio control only

e.r.p. max. 0.5 Watt

173.275 MHz	173.250 MHz	173.350 MHz
433.250 MHz *	433.525 MHz * 2)	434.150 MHz *
433.300 MHz *	433.600 MHz *	434.400 MHz *
433.350 MHz *	433.700 MHz *	434.450 MHz *
433.425 MHz * 2)	433.750 MHz *	434.500 MHz *

*) ISM-equipment also operates within this range

2) for digital transmissions only

e.r.p. max. 2.5 Watt

173.100 MHz		
433.650 MHz *	433.800 MHz *	434.100 MHz *
434.200 MHz *		

*) ISM-equipment also operates within this range

e.r.p. max. 25 Watt

433.850 MHz *	433.900 MHz *	433.950 MHz *
434.050 MHz *		

*) ISM-equipment also operates within this range