

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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MEDICAL ELECTRICAL EQUIPMENT –

Part 2-33: Particular requirements for the basic safety and essential performance of magnetic resonance equipment for medical diagnosis

INTERPRETATION SHEET 1

This interpretation sheet has been prepared by subcommittee 62B: Medical imaging equipment, software, and systems, of IEC technical committee 62: Medical equipment, software, and systems.

The text of this interpretation sheet is based on the following documents:

DISH	Report on voting
62B/1315/DISH 2-33:2022	62B/1319/RVDISH

Full information on the voting for the approval of this interpretation sheet can be found in the report on voting indicated in the above table.

Definition 201.3.214 (EFFECTIVE STIMULUS DURATION $t_{s,eff}$)

The definition is clarified by the following:

- It is important to consider that the magnetic field gradient displayed in Figure 201.101 can be realized by simultaneous activation of multiple GRADIENT UNITS.
- The concept of $t_{s,eff}$ applies both to cardiac stimulation and peripheral nerve stimulation.
- The appropriate timescale for evaluating the duration of monotonic increase or decrease of the GRADIENT OUTPUT is in the order of the chronaxie. When a discrete time-segment based approach is used for numerical evaluation, one or more discrete time segments deviating from monotonic increase or decrease will likely not reset $t_{s,eff}$ nor modify the likelihood of stimulation. Application of a filter as suggested in Annex AA (Formula AA.22) can prevent unintentional misinterpretation of monotonicity.