

Methods of

Measuring and expressing the performance of radio receivers for sound broadcasting —

Part 5: Measurement on frequency-modulated receivers of the response to impulsive interference

[IEC title: Methods of measurement on radio receivers for various
classes of emission —

Part 5: Specialized radio-frequency measurements. Measurement
on frequency-modulated receivers of the response to impulsive
interference]

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Cooperating organizations

The Electronic Equipment Standards Committee, under whose direction this British Standard was prepared, consists of representatives from the following Government department and scientific and industrial organizations:

- British Broadcasting Corporation*
- British Electrical and Allied Manufacturers' Association (BEAMA)
- British Radio Equipment Manufacturers' Association*
- Cable and Wireless Limited
- Cable Television Association of Great Britain*
- Electrical, Electronic, Telecommunications and Plumbing Union
- Electricity Supply Industry in England and Wales
- Electronic Components Industry Federation*
- Electronic Engineering Association*
- Institution of Electronic and Radio Engineers*
- Ministry of Defence
- Post Office*
- Post Office Engineering Union
- Scientific Instrument Manufacturers' Association

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- Consumer Standards Advisory Committee of BSI
- Consumers' Association
- Home Office
- Radio Society of Great Britain

This British Standard, having been prepared under the direction of the Electronic Equipment Standards Committee, was published under the authority of the Executive Board and comes into effect on 30 June 1980

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The following BSI references relate to the work on this standard:
Committee reference EEL/25
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Amendments issued since publication

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National foreword

This British Standard has been prepared under the direction of the Electronic Equipment Standards Committee and is Part 5 of a revision of BS 4054, which was first published in 1966. The method of measurement described in this Part of the standard was not included in the previous edition. It is identical with IEC Publication 315-5 “*Methods of measurement on radio receivers for various classes of emission — Part 5: Specialized radio-frequency measurements. Measurement on frequency-modulated receivers of the response to impulsive interference*”, published by the International Electrotechnical Commission (IEC). This British Standard is divided into five Parts of which this is Part 5. The other Parts are as follows:

- *Part 1: General conditions;*
- *Part 2: Measurements related to the audio-frequency part of the receiver;*
- *Part 3: Radio-frequency measurements on receivers for amplitude-modulated emissions;*
- *Part 4: Radio-frequency measurements on receivers for frequency-modulated emissions (In course of preparation).*

Discussions are taking place within IEC on the preparation of an International Standard that will form the basis of Part 4. Until international agreement is reached, BS 4054:1966, with amendments AMD 1451 and AMD 3288, will be retained for r.f. measurements on f.m. receivers.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication, without deviation, as a British Standard. Some terminology and certain conventions are not identical with those used in British Standards; attention is especially drawn to the following.

Wherever the word “Recommendation” appears, referring to this standard, it should be read as “British Standard”.

Scope clause (clause 2). Clause 2 of the International Standard is not presented in the way that is customary for the scope of a British Standard. Clause 2 should be read as the following, which makes no change in the technical meaning and is essentially a re-arrangement of the existing text.

“This Part of BS 4054 specifies the conditions and methods of measurement to be used to evaluate the protection afforded in frequency-modulated receivers against impulsive interference entering through the normal aerial input circuit, and produced by the ignition system of internal combustion engines or other impulsive interference with a similar repetition rate.

The impulsive interference is simulated by a generator giving short pulses with a repetition rate of 100 Hz.

The methods of measurement are applicable, most particularly, to radio receivers designed for the reception of frequency-modulated sound broadcasting in the frequency range between 41 MHz and 108 MHz. They apply both to mains-operated and to battery-operated receivers.”

This Part of BS 4054 should be used in conjunction with Parts 1 and 2 and, for the time being until the publication of Part 4, with the f.m. measurements described in BS 4054:1966.

Cross-references

International Standard	Corresponding British Standard
IEC 91: (will be superseded by IEC 315-4)	
IEC 315	BS 4054 <i>Methods of measuring and expressing the performance of radio receivers for sound broadcasting</i>
Part 1:1970	Part 1:1980 <i>General conditions</i> (Identical)
Part 2:1971	Part 2:1980 <i>Measurements related to the audio-frequency part of the receiver</i> (Technically equivalent)
Part 4	Part 4: <i>R.F. measurements on receivers for f.m. sound broadcasting emissions.</i>
(In course of preparation)	(Identical) (In course of preparation)

The related British Standard for CISPR Publications 1 and 2, published by the International Special Committee on Radio Interference (CISPR), is BS 727. The relevant text from CISPR Publication 2 is reproduced as a National appendix to this standard.

The reference to the C.C.I.T.T. Red Book,¹⁾ published by the International Telegraph and Telephone Consultative Committee (C.C.I.T.T.) is for information only.

NOTE *Textual errors.* When the text of the International Standard was adopted, the following errors were noted. They have been reported to IEC in a proposal to amend the text of the International Standard.

Clause 7, line 10, Figure 2 and Figure 3. The symbol “pVs” should be read as “pV s”.

Clause 9. Throughout the clause the symbol *U* should be printed thus, i.e. in sloping, not upright type.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 6, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

¹⁾ Obtainable from ITU, Place des Nations, 1211 Geneva-20, Switzerland.