

BRITISH STANDARD 4727 : Part 3 : Group 03 : 1971

UDC 001.4 : [621.3 + 628.9 + 535]

**GLOSSARY OF
ELECTROTECHNICAL, POWER,
TELECOMMUNICATION,
ELECTRONICS, LIGHTING AND
COLOUR TERMS**

**PART 3. TERMS PARTICULAR TO
TELECOMMUNICATIONS AND ELECTRONICS**

Group 03. Telegraphy, including facsimile, terminology

BRITISH STANDARDS INSTITUTION

BS 4727 : Part 3 : Group 03 : 1971

**GLOSSARY OF
ELECTROTECHNICAL, POWER,
TELECOMMUNICATION,
ELECTRONICS, LIGHTING AND
COLOUR TERMS**

**PART 3. TERMS PARTICULAR TO
TELECOMMUNICATIONS AND ELECTRONICS**

Group 03. Telegraphy, including facsimile, terminology

Price £1

BRITISH STANDARDS INSTITUTION

Incorporated by Royal Charter

2 PARK STREET, LONDON W1A 2BS

Telex : 266933

Telephone : 01-629 9000

BS 4727 : Part 3 : Group 03 : 1971

THIS BRITISH STANDARD, having been approved by the Electrical Industry Standards Committee and the Telecommunication Industry Standards Committee, was published under the authority of the Executive Board on 20th August, 1971.

© British Standards Institution, 1971.

SBN: 580 06794 7

The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

In order to keep abreast of progress in the industries concerned, British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the committees charged with the revision of the standards to which they refer.

A complete list of British Standards, numbering over 9000, fully indexed and with a note of the contents of each, will be found in the BSI Catalogue. The BSI Catalogue may be consulted in many public libraries and similar institutions.

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following BSI references relate to the work on this standard:
Committee references ELE/TLE/1 ELE/TLE/1/8

CO-OPERATING ORGANIZATIONS

The Electrical Industry Standards Committee and the Telecommunication Industry Standards Committee under whose supervision this British Standard was prepared consist of representatives from the following Government departments and scientific and industrial organizations:

- | | |
|---|---|
| Associated Offices' Technical Committee | Engineering Equipment Users' Association |
| *Association of Consulting Engineers | *Institution of Electrical Engineers |
| Association of Manufacturers of Domestic Electrical Appliances | *Institution of Electronic and Radio Engineers |
| Association of Mining Electrical and Mechanical Engineers | Institution of Production Engineers |
| Association of Supervisory and Executive Engineers | *Lighting Industry Federation Limited |
| *British Broadcasting Corporation | *Ministry of Defence |
| *British Electrical and Allied Manufacturers' Association | Ministry of Defence, Army Department |
| *British Radio Equipment Manufacturers' Association | *Ministry of Defence, Navy Department |
| *British Radio Valve Manufacturers' Association | *Ministry of Public Building and Works |
| *British Railways Board | *Ministry of Technology |
| Cable and Wireless Limited | Municipal Passenger Transport Association (Incorporated) |
| Crown Agents for Oversea Governments and Administrations | National Inspection Council for Electrical Installation Contracting |
| Department of Employment and Productivity | National Physical Laboratory (Ministry of Technology) |
| Electric Cable Makers' Confederation | Oil Companies Materials Association |
| Electrical Contractors' Association (Incorporated) | *Post Office |
| Electrical Contractors' Association of Scotland | Public Transport Association (Incorporated) |
| Electrical Research Association | Radio and Electronic Component Manufacturers' Federation |
| *Electricity Council, the Central Electricity Generating Board and the Area Boards in England and Wales | Relay Services Association of Great Britain |
| *Electronic Engineering Association | *Science Research Council—Radio and Space Research Station |
| *Electronic Valve and Semi-conductor Manufacturers' Association | Scientific Instrument Manufacturers' Association |
| | Society of British Aerospace Companies |
| | South of Scotland Electricity Board |
| | *Telecommunication Engineering and Manufacturing Association |

The Government departments and scientific and industrial 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:

Institute of Physics and the Physical Society	Telephone Manufacturers' Technical Development Committee
Radio and Electronics Technical Press	

GUIDE TO THE GLOSSARY

Part 1. Terms common to power, telecommunications and electronics

- Group 01. Fundamental concepts
- Group 02. General technological terminology
- Group 03. Relay terminology
- Group . Measurement terminology*
- Group . Semiconductor terminology*
- Group . Electronic tube terminology*
- Group . Magnetism terminology*
- Group . Radiological terminology*
- Group . Radio interference terminology*
- Group . Integrated electronic circuit terminology*

Titles to any further groups will be added in due course.

Part 2. Terms particular to power engineering

- Group 01. General power terminology
- Group 02. Static convertor terminology
- Group 03. Rotating machinery terminology
- Group 04. Transformer terminology*
- Group 05. Voltage fluctuation terminology*
- Group . Power switchgear terminology*
- Group . Power systems terminology*
- Group . Systems operation terminology*
- Group . Traction terminology*
- Group . Tariffs terminology*

Titles to any further groups will be added in due course.

* Not yet published, as at August, 1971.

Part 3. Terms particular to telecommunications and electronics

- Group 01. General telecommunication and electronics terminology
- Group 02. Telephony terminology
- Group 03. Telegraphy, including facsimile, terminology
- Group 04. Broadcasting, radio and television terminology
- Group 05. Propagation and media terminology
- Group 06. Radio location and navigation terminology*
- Group 07. Radiocommunication terminology

Titles to any further groups will be added in due course.

Part 4. Terms particular to lighting and colour

- Group 01. Radiation and photometry terminology
- Group 02. Vision and colour terminology
- Group 03. Lighting technology terminology*

CONTENTS

	Page		Page
Co-operating organizations	2	Foreword	5
Guide to the glossary	3		

GLOSSARY

303 1 GENERAL	6	303 5 TELEGRAPH TRANSMISSION TERMS	14
303 2 SYSTEMS	7	303 51 Methods of working	14
		303 52 Modulation and restitution	15
		303 53 Distortion and margin	16
303 3 TRAFFIC AND OPERATING TERMS	10	303 54 Miscellaneous	17
		303 6 APPARATUS AND EQUIPMENT	18
303 4 CODES	12	303 7 FACSIMILE	21
		ALPHABETICAL INDEX	24

BRITISH STANDARD GLOSSARY OF ELECTROTECHNICAL, POWER, TELECOMMUNICATION, ELECTRONICS, LIGHTING AND COLOUR TERMS

Part 3. Terms Particular to Telecommunications and Electronics

Group 03. Telegraphy, including facsimile, terminology

FOREWORD

This Group of Part 3 of this British Standard Glossary, prepared under the authority of the Electrical Industry Standards Committee and the Telecommunication Industry Standards Committee, contains terms and definitions relating to telegraphy, including facsimile, and supersedes Subsections 72, 'Telegraphy', and 73, 'Facsimile telegraphy', of BS 204*. The terms and definitions are in close agreement with the corresponding terms in the latest edition of the International Electrotechnical Vocabulary prepared by the International Electrotechnical Commission (IEC).

In this new glossary a number of significant changes have been introduced. It has been decided to combine into one glossary the subjects previously covered by BS 204, BS 205†, BS 233‡ and BS 1611§ glossaries. The glossary is divided into four main Parts, each of which is further subdivided into groups. Each group will comprise the terms and definitions used in a particular branch of electrical engineering and will be issued individually as soon as it is completed. This arrangement makes it possible to add new groups, or revise existing groups, at any time without affecting the remainder of the glossary.

The four main Parts of the glossary are as follows:

- Part 1. Terms common to power, telecommunications and electronics.
- Part 2. Terms particular to power engineering.
- Part 3. Terms particular to telecommunications and electronics.
- Part 4. Terms particular to lighting and colour.

As groups of terms within the new framework are published, the corresponding parts of the British Standard glossaries mentioned above will be withdrawn. Ultimately the new glossary will replace these standards completely and they will then be withdrawn.

Fundamental and general terms common to power, telecommunications and electronics, respectively form the first two groups of Part 1. General terms particular to Part 2 and Part 3 similarly form the first groups of their respective Parts. The specialist groups contain only the terms and definitions relating to their subject.

As far as has been practicable all terms and definitions established in current usage and falling within the scope of this glossary have been included. Experience has shown that it is rarely possible to replace, or even to modify, a well established term no matter what the logical or aesthetic shortcomings of that term may be. Current usage has therefore been accepted as the authority for terms and their meanings except where there has been a very good reason for doing otherwise, as, for example, where terms have been considered to be fundamentally wrong, ambiguous, superfluous or in need of standardization. Where two or more synonymous terms are in use

* BS 204, 'Glossary of terms used in telecommunication (including radio) and electronics'.

† BS 205, 'Glossary of terms used in electrical engineering'.

‡ BS 233, 'Glossary of terms used in illumination and photometry'.

§ BS 1611, 'Glossary of colour terms used in science and industry'.

those which are deprecated are omitted from the body of the text but are entered in the alphabetical index with a cross reference to the standard term. In cases where it was felt that the time was not yet right to deprecate a synonym, preferred terms are given first and other terms are printed in less prominent type to indicate the intention to deprecate them in the course of time. Where synonyms are considered of equal value they are shown in the same type.

Where terms are used with somewhat different meanings in different branches of electrical engineering, appropriate definitions are given in the groups of the glossary corresponding to these branches. Such a definition, when taken out of the context of its group, should always be quoted with a preamble indicating its proper context.

It is to be noted that the given definition of a term represents the generally accepted meaning of that term. Under no circumstances should it be regarded as taking the place of a specification.

An effort has been made to arrange the terms in a logical order proceeding from the general to the specific and from the whole to the part and placing allied terms in proximity within a subsection or section of the group. Each term has assigned to it a Part number (one digit) and a Group number of two digits followed by a space and four digits, the first digit of which represents the section, the second digit the subsection and the last two digits the place within the subsection.

A general view of the arrangement of the group in the glossary can be obtained from the Guide to the Glossary. An alphabetical index of the terms of the group is provided at the end to facilitate reference to particular terms. For simplicity, only the last four digits of a term's number are quoted in the index. It is recommended that the user of any group of the glossary should consider the group in association with the groups covering general or fundamental terms within the Part, for Parts 2 and 3, and also together with Groups 01 and 02 of Part 1.

In this glossary round brackets () enclose words or phrases which are not part of the term or definition and can be omitted without affecting the meaning.

Square brackets [] enclose words which may replace a preceding part of an expression. The limiting sign ⌈ indicates, if necessary, how many of the preceding words are replaced.

303 1 GENERAL

No.	Term	Definition
303 1001	telegraph channel	A means of one-way transmission of telegraph signals. A telegraph channel is characterized by the number of significant conditions and by the modulation rate it is designed to transmit. For example, a 50 baud channel for two-condition modulation.
303 1002	telegraph circuit	A means of both-way transmission of telegraph signals comprising associated 'send' and 'receive' channels.
303 1003	telegraph network	A group of stations, installations, centres and channels co-ordinated for the purpose of providing a telegraph service.
303 1004	baud	The unit of modulation rate. It corresponds to a rate of one unit interval per second. <i>Example.</i> If the duration of the unit interval is 20 ms, the modulation rate is 50 bauds.

303 2 SYSTEMS

No.	Term	Definition
303 2001	alphabetic telegraphy	A system of telegraphing texts by means of the transmission of signals each corresponding to an element of the text (letters, figures, punctuation marks, etc.) or a group of these elements.
303 2002	automatic telegraphy	Transmission by an automatic transmitter.
303 2003	manual telegraphy	Transmission which is not automatic.
303 2004	Morse telegraphy	Any method of telegraph operation in which the signals are formed in accordance with the Morse code.
303 2005	signal recording telegraphy	Any method of telegraph operation in which the received signal elements are recorded automatically for subsequent translation by an operator.
303 2006	printing telegraphy	Any method of telegraph operation in which the received signals are automatically recorded as printed characters.
303 2007	mosaic telegraphy	A system of alphabetic telegraphy in which the characters are formed as mosaics made up from units transmitted as individual signal elements.
303 2008	facsimile telegraphy; facsimile	A system of telegraphy providing reproduction in the form of fixed images (photographic or otherwise) of the form, and possibly of the depth of tone or of the colours, of an original document, whether written, printed or pictorial.
303 2009	phototelegraphy	A system of facsimile telegraphy having special regard to half-tone reproduction in which reception involves photographic processes.
303 2010	direct recording	<i>In facsimile telegraphy.</i> A method of reception in which a visible record is produced from the received signals without further processing.
303 2011	Hell system; Hellschreiber system	A form of mosaic telegraphy using a telegraph code in which each character is represented by a fixed number of unit elements, usually 49. The forming of the received characters is accomplished by a rotating spiral, continuously linked, being brought into contact, under the control of the unit elements, with a travelling paper tape.
303 2012	start-stop system	A system in which each group of code elements corresponding to an alphabetic signal is preceded by a start signal which serves to prepare the receiving mechanism for the reception and registration of a character, and is followed by a stop signal which serves to bring the receiving mechanism to rest in preparation for the reception of the next character.
303 2013	synchronous system	A system in which the sending and receiving instruments are operating continuously at substantially the same frequency and are maintained, by correction, in a desired phase relationship.
303 2014	Wheatstone automatic system	A Morse system in which signals are transmitted automatically using a previously prepared perforated tape, and recorded automatically either in the form of a perforated tape for automatic printing or in the form of an inked tape for translation by an operator.
303 2015	manual switching system	A telegraph switching system in which the caller's request is given to a switchboard operator who completes the call directly by hand, either with or without the assistance of one or more other switchboard operators.
303 2016	automatic switching system	A telegraph switching system in which the caller is enabled, without the aid of a switchboard operator, to complete a call by means of remotely controlled selectors.