



IEC 62529

Edition 1.0 2007-11

INTERNATIONAL STANDARD

IEEE 1641™

Standard for Signal and Test Definition

ITeC Standards
(<https://standards.iteh.ai>)
Document Preview

IEC 62529:2007

<https://standards.iteh.ai/catalog/standards/iec/53709f90-9744-46d2-968a-9ca805d48c44/iec-62529-2007>

WITHDRAWN



THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2007 IEEE

All rights reserved. IEEE is a registered trademark in the U.S. Patent & Trademark Office, owned by the Institute of Electrical and Electronics Engineers, Inc.

Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the IEC Central Office.

Any questions about IEEE copyright should be addressed to the IEEE. Enquiries about obtaining additional rights to this publication and other information requests should be addressed to the IEC or your local IEC member National Committee.

IEC Central Office
3, rue de Varembé
CH-1211 Geneva 20
Switzerland
Email: inmail@iec.ch
Web: www.iec.ch

The Institute of Electrical and Electronics Engineers, Inc
3 Park Avenue
US-New York, NY10016-5997
USA
Email: stds-info@ieee.org
Web: www.ieee.org

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

- Catalogue of IEC publications: www.iec.ch/searchpub

The IEC on-line Catalogue enables you to search by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, withdrawn and replaced publications.

- IEC Just Published: www.iec.ch/online_news/justpub

Stay up to date on all new IEC publications. Just Published details twice a month all new publications released. Available on-line and also by email.

- Electropedia: www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing more than 20 000 terms and definitions in English and French, with equivalent terms in additional languages. Also known as the International Electrotechnical Vocabulary online.

- Customer Service Centre: www.iec.ch/webstore/custserv

If you wish to give us your feedback on this publication or need further assistance, please visit the Customer Service Centre FAQ or contact us.

Email: csc@iec.ch
Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00



IEC 62529

Edition 1.0 2007-11

INTERNATIONAL STANDARD

IEEE 1641™

Standard for signal and test definition

Standards
(<https://standards.iteh.ai>)
Document Preview

IEC 62529:2007

<https://standards.iteh.ai/catalog/standards/iec/33709190-9744-46d2-968a-9ca805d48c44/iec-62529-2007>

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE **XH**

ICS 25.040

ISBN 2-8318-9482-4

CONTENTS

FOREWORD.....	10
IEEE introduction.....	13
1. Overview.....	14
1.1 Scope.....	14
1.2 Purpose.....	15
2. Definitions, abbreviations, and acronyms.....	15
2.1 Definitions	15
2.2 Abbreviations and acronyms	17
3. Structure of this standard	18
3.1 Layers.....	18
4. Signal modeling language (SML) layer.....	20
5. Basic signal component (BSC) layer	20
5.1 BSC layer base classes.....	20
5.2 BSCs	21
5.3 SignalFunction template	22
6. Test signal framework (TSF) layer.....	22
6.1 TSF classes	22
6.2 TSF signals	23
7. Test procedure language (TPL) layer.....	25
7.1 Goals of the TPL.....	25
7.2 Elements of the TPL	25
7.3 Use of the TPL.....	25
Annex A (normative) Signal modeling language (SML)	26
A.1 Use of the SML.....	26
A.2 Introduction.....	26
A.3 Physical types	27
A.4 Signal definitions	30
A.5 Pure signals	31
A.5.1 Nonperiodic signals.....	31
A.5.2 Periodic signals	32
A.6 Pure signal-combining mechanisms	33
A.6.1 Piecewise continuous signals (PCSs).....	33
A.6.2 Sum.....	36
A.6.3 Product	36
A.7 Pure function transformations.....	36
A.7.1 Fourier transform.....	37
A.8 Measuring, limiting, and sampling signals	37
A.8.1 Confining parameters to a limit.....	38
A.8.2 Sampling signals	38
A.9 Digital signals	38

A.9.1	Defining Digital.....	39
A.9.2	Defining DigitalSignal	39
A.9.3	Conversion routines.....	40
A.9.4	Patterns	41
A.10	Basic component SML.....	42
A.10.1	Source ::SignalFunction	42
A.10.2	Conditioner ::SignalFunction	44
A.10.3	EventFunction ::SignalFunction.....	47
A.10.4	Sensor ::SignalFunction	50
A.10.5	Digital ::SignalFunction	50
A.10.6	Connection ::SignalFunction.....	51
Annex B (normative) Basic signal component (BSC) layer.....		53
B.1	BSC layer base classes.....	53
B.2	BSC subclasses	53
B.3	Description of a BSC	58
B.3.1	Diagrammatic representation of a BSC.....	58
B.3.2	BSC interfaces.....	59
B.3.3	Types of BSCs.....	60
B.3.4	BSC attribute default values.....	61
B.3.5	BSC subclass descriptions.....	61
B.4	Physical class	63
B.4.1	Permissible physical types and their units.....	65
B.4.2	Unit prefixes	69
B.5	PulseDefns class	70
B.5.1	PulseDefn class	71
B.6	SignalFunction class	71
B.6.1	Source ::SignalFunction	72
B.6.2	Conditioner ::SignalFunction.....	80
B.6.3	EventFunction ::SignalFunction.....	94
B.6.4	Sensor ::SignalFunction	100
B.6.5	Digital ::SignalFunction	106
B.6.6	Connection ::SignalFunction.....	108
Annex C (normative) Dynamic signal descriptions.....		112
C.1	Introduction.....	112
C.2	Basic classes	113
C.2.1	ResourceManager.....	113
C.2.2	Signal.....	114
C.2.3	BSCs.....	116
C.3	Dynamic signal goals and use cases	118
Annex D (normative) IDL basic components.....		119
D.1	Introduction.....	119
D.2	IDL BSC library.....	119
Annex E (informative) Test signal framework (TSF) for ATLAS.....		161
E.1	Introduction.....	161
E.2	AC_SIGNAL<type: Current Power Voltage>	161
E.2.1	Definition	161
E.2.2	Interface properties.....	162

E.2.3	Notes.....	162
E.2.4	Model description.....	162
E.2.5	Rules.....	162
E.2.6	Example.....	163
E.3	AM_SIGNAL	163
E.3.1	Definition	163
E.3.2	Interface properties.....	164
E.3.3	Notes.....	164
E.3.4	Model description.....	164
E.3.5	Rules.....	165
E.3.6	Example.....	165
E.4	DC_SIGNAL<type: Voltage Current Power>	165
E.4.1	Definition	165
E.4.2	Interface properties.....	166
E.4.3	Notes.....	166
E.4.4	Model description.....	166
E.4.5	Rules.....	167
E.4.6	Example.....	167
E.5	DIGITAL_PARALLEL	168
E.5.1	Definition	168
E.5.2	Interface properties.....	168
E.5.3	Notes.....	168
E.5.4	Model description.....	169
E.5.5	Rules.....	169
E.5.6	Example.....	169
E.6	DIGITAL_SERIAL	170
E.6.1	Definition	170
E.6.2	Interface properties.....	171
E.6.3	Notes.....	171
E.6.4	Model description.....	171
E.6.5	Rules.....	171
E.6.6	Example.....	172
E.7	DME_INTERROGATION	172
E.7.1	Definition	172
E.7.2	Interface properties.....	173
E.7.3	Notes.....	173
E.7.4	Model description.....	174
E.7.5	Rules.....	164
E.7.6	Example.....	174
E.8	DME_RESPONSE	175
E.8.1	Definition	175
E.8.2	Interface properties.....	176
E.8.3	Notes.....	177
E.8.4	Model description.....	177
E.8.5	Rules.....	179
E.8.6	Example.....	179
E.9	FM_SIGNAL<type: Voltage Power Current>	180
E.9.1	Definition	180
E.9.2	Interface properties.....	180
E.9.3	Notes.....	180
E.9.4	Model description.....	180
E.9.5	Rules.....	181
E.9.6	Example.....	181
E.10	ILS_GLIDE_SLOPE<type: Voltage Power>	182

E.10.1	Definition	182
E.10.2	Interface properties.....	183
E.10.3	Notes.....	184
E.10.4	Model description.....	184
E.10.5	Rules.....	185
E.10.6	Example.....	185
E.11	ILS_LOCALIZER<type: Power Voltage>	186
E.11.1	Definition	186
E.11.2	Interface properties.....	186
E.11.3	Notes.....	187
E.11.4	Model description.....	187
E.11.5	Rules.....	188
E.11.6	Example.....	188
E.12	ILS_MARKER	189
E.12.1	Definition	189
E.12.2	Interface properties.....	190
E.12.3	Notes.....	190
E.12.4	Model description.....	190
E.12.5	Rules.....	191
E.12.6	Example.....	191
E.13	PM_SIGNAL	191
E.13.1	Definition	191
E.13.2	Interface properties.....	192
E.13.3	Notes.....	192
E.13.4	Model description.....	192
E.13.5	Rules.....	193
E.13.6	Example.....	193
E.14	PULSED_AC_SIGNAL<type: Current Power Voltage>	194
E.14.1	Definition	194
E.14.2	Interface properties.....	194
E.14.3	Notes.....	194
E.14.4	Model description.....	195
E.14.5	Rules.....	195
E.14.6	Example.....	195
E.15	PULSED_AC_TRAIN<type: Voltage Current Power>	196
E.15.1	Definition	196
E.15.2	Interface properties.....	196
E.15.3	Notes.....	197
E.15.4	Model description.....	197
E.15.5	Rules.....	197
E.15.6	Example.....	198
E.16	PULSED_DC_SIGNAL<type: Voltage Current Power>	198
E.16.1	Definition	198
E.16.2	Interface properties.....	199
E.16.3	Notes.....	199
E.16.4	Model description.....	199
E.16.5	Rules.....	200
E.16.6	Example.....	200
E.17	PULSED_DC_TRAIN<type: Voltage Current Power>	201
E.17.1	Definition	201
E.17.2	Interface properties.....	201
E.17.3	Notes.....	201
E.17.4	Model description.....	202
E.17.5	Rules.....	202

E.17.6	Example.....	202
E.18	RADAR_RX_SIGNAL	203
E.18.1	Definition	203
E.18.2	Interface properties.....	203
E.18.3	Notes.....	204
E.18.4	Model description.....	204
E.18.5	Rules.....	205
E.18.6	Example.....	205
E.19	RADAR_TX_SIGNAL<type: Current Voltage Power>	206
E.19.1	Definition	206
E.19.2	Interface properties.....	206
E.19.3	Notes.....	207
E.19.4	Model description.....	207
E.19.5	Rules.....	207
E.19.6	Example.....	207
E.20	RAMP_SIGNAL<type: Voltage Current Power>	208
E.20.1	Definition	208
E.20.2	Interface properties.....	209
E.20.3	Notes.....	209
E.20.4	Model description.....	209
E.20.5	Rules.....	209
E.20.6	Example.....	210
E.21	RANDOM_NOISE	210
E.21.1	Definition	210
E.21.2	Interface properties.....	210
E.21.3	Notes.....	211
E.21.4	Model description.....	211
E.21.5	Rules.....	211
E.21.6	Example.....	211
E.22	RESOLVER	212
E.22.1	Definition	212
E.22.2	Interface properties.....	213
E.22.3	Notes.....	213
E.22.4	Model description.....	213
E.22.5	Rules.....	214
E.22.6	Example.....	215
E.23	RS_232.....	215
E.23.1	Definition	215
E.23.2	Interface properties.....	215
E.23.3	Notes.....	216
E.23.4	Model description.....	216
E.23.5	Rules.....	216
E.24	SQUARE_WAVE<type: Current Voltage Power>	216
E.24.1	Definition	216
E.24.2	Interface properties.....	217
E.24.3	Notes.....	217
E.24.4	Model description.....	217
E.24.5	Rules.....	218
E.24.6	Example.....	218
E.25	SSR_INTERROGATION<type: Voltage Current Power>	219
E.25.1	Definition	219
E.25.2	Interface properties.....	219
E.25.3	Notes.....	220
E.25.4	Model description.....	221

E.25.5	Rules	221
E.25.6	Example	221
E.26	SSR_RESPONSE<type: Voltage Current Power>	222
E.26.1	Definition	222
E.26.2	Interface properties	222
E.26.3	Notes	223
E.26.4	Model description	224
E.26.5	Rules	225
E.26.6	Example	225
E.27	STEP_SIGNAL	226
E.27.1	Definition	226
E.27.2	Interface properties	226
E.27.3	Notes	227
E.27.4	Model description	227
E.27.5	Rules	227
E.27.6	Example	227
E.28	SUP_CAR_SIGNAL	228
E.28.1	Definition	228
E.28.2	Interface properties	228
E.28.3	Notes	229
E.28.4	Model description	229
E.28.5	Rules	230
E.28.6	Example	230
E.29	SYNCHRO	230
E.29.1	Definition	230
E.29.2	Interface properties	231
E.29.3	Notes	232
E.29.4	Model description	232
E.29.5	Rules	233
E.29.6	Example	233
E.30	TACAN	234
E.30.1	Definition	234
E.30.2	Interface properties	235
E.30.3	Notes	236
E.30.4	Model description	236
E.30.5	Rules	238
E.30.6	Example	238
E.31	TRIANGULAR_WAVE_SIGNAL<type: Voltage Current Power>	239
E.31.1	Definition	239
E.31.2	Interface properties	239
E.31.3	Notes	240
E.31.4	Model description	240
E.31.5	Rules	240
E.31.6	Example	240
E.32	VOR	241
E.32.1	Definition	241
E.32.2	Interface properties	242
E.32.3	Notes	242
E.32.4	Model description	243
E.32.5	Rules	244
E.32.6	Example	244
Annex F (informative) IDL for TSF for ATLAS		245

F.1	Introduction.....	245
F.2	IDL for TSF for ATLAS library.....	245
Annex G (normative) Carrier language requirements		265
G.1	Carrier language requirements.....	265
G.1.1	General requirements	265
G.1.2	Human interface and communication.....	265
G.2	IDL.....	265
G.3	Data types	265
G.3.1	Enumeration data type.....	266
G.3.2	Integer data type	266
G.3.3	Real data type	266
G.3.4	Character data type.....	267
G.3.5	Boolean data type.....	267
G.3.6	File data type	267
G.3.7	Array data type	267
G.3.8	Record data type.....	267
G.3.9	Variables and constants	267
G.4	Data-processing requirements.....	267
G.4.1	Data manipulation	267
G.4.2	Arithmetic operators.....	268
G.4.3	Relational operators.....	268
G.4.4	Logical operators.....	268
G.4.5	Other operators	269
G.4.6	Mathematical functions	269
G.4.7	File-handling functions.....	269
G.4.8	Type conversion functions	270
G.4.9	String related functions	270
G.4.10	Other functions	271
G.5	Control structures.....	271
G.5.1	If.....	271
G.5.2	Else	271
G.5.3	Case	271
G.5.4	For	271
G.5.5	While	271
Annex H (normative) Test procedure language (TPL).....		273
H.1	TPL layer	273
H.2	Elements of the TPL	273
H.3	Structure of test requirements	273
H.4	Carrier language.....	273
H.5	Signal statements	273
H.5.1	Definition of signal statements.....	273
H.5.2	Structure of signal statements	274
H.5.3	Syntax of signal statements	274
H.6	Mapping of test statements to carrier language	275
H.7	Test statement definitions	275
H.7.1	Setup statements.....	275
H.7.2	Reset statement.....	283
H.7.3	Connect statement	284
H.7.4	Disconnect statement.....	286
H.7.5	Enable statement	287

H.7.6	Disable statement	288
H.7.7	Read statement	289
H.7.8	Change statement	290
H.7.9	Compare statement	290
H.7.10	Wait_For statement	292
H.8	Elements used in test statement definitions	292
H.8.1	<TSFClass>	292
H.8.2	Attribute-Value groups	293
H.9	Attributes with multiple properties	300
H.9.1	Entering literal data	300
H.9.2	Using arrays of data	302
H.9.3	Acquiring sensor data	303
H.10	Transferring data in digital signals	304
H.10.1	Representation of digital data	304
H.10.2	Transmitting digital data using digital sources	305
H.10.3	Acquiring digital sensor data	307
H.10.4	Bidirectional digital signals	307
H.11	Creating test requirements	308
H.11.1	Creating test statements	308
H.11.2	Use of gate in signal statements	309
H.12	Delimiting TPL statements	310
H.12.1	Introducing a group of one or more TPL statements	310
H.12.2	Indicating end of group of TPL statements	310
Annex I (normative)	Extensible markup language (XML) signal descriptions (XSDs)	312
I.1	Introduction	312
I.2	XML signal schema definition	312
Annex J (informative)	XML for TSF for ATLAS	350
J.1	Introduction	350
J.2	TSF XML schema	350
J.2.1	Library information (<TSFLibrary> tag)	350
J.2.2	TSF information (<TSF> tag)	350
J.2.3	Interface information (<interface> tag)	351
J.2.4	Model information (<model> tag)	351
J.2.5	XML schema	352
J.3	XML for TSF for ATLAS	353
Annex K (informative)	Support for ATLAS nouns and modifiers	398
K.1	STD support for ATLAS signals	398
K.2	STD support for ATLAS nouns	398
K.3	STD support for ATLAS noun modifiers	401
K.3.1	Example of noun modifier supported by combination of BSCs	411
K.3.2	Example of noun modifier supported by a technique	411
K.4	Support for ATLAS extensions	411
Annex L (informative)	Bibliography	412
Annex M (informative)	List of participants	413

INTERNATIONAL ELECTROTECHNICAL COMMISSION

STANDARD FOR SIGNAL AND TEST DEFINITION

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC/IEEE 62529 has been processed through Technical Committee 93: Design automation.

The text of this standard is based on the following documents:

IEEE Std	FDIS	Report on voting
1641(2004)	93/251/FDIS	93/262/RVD

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

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IEC/IEEE Dual Logo International Standards

This Dual Logo International Standard is the result of an agreement between the IEC and the Institute of Electrical and Electronics Engineers, Inc. (IEEE). The original IEEE Standard was submitted to the IEC for consideration under the agreement, and the resulting IEC/IEEE Dual Logo International Standard has been published in accordance with the ISO/IEC Directives.

IEEE Standards documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information contained in its standards.

Use of an IEC/IEEE Dual Logo International Standard is wholly voluntary. The IEC and IEEE disclaim liability for any personal injury, property or other damage, of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, or reliance upon this, or any other IEC or IEEE Standard document.

The IEC and IEEE do not warrant or represent the accuracy or content of the material contained herein, and expressly disclaim any express or implied warranty, including any implied warranty of merchantability or fitness for a specific purpose, or that the use of the material contained herein is free from patent infringement. IEC/IEEE Dual Logo International Standards documents are supplied "AS IS".

The existence of an IEC/IEEE Dual Logo International Standard does not imply that there are no other ways to produce, test, measure, purchase, market, or provide other goods and services related to the scope of the IEC/IEEE Dual Logo International Standard. Furthermore, the viewpoint expressed at the time a standard is approved and issued is subject to change brought about through developments in the state of the art and comments received from users of the standard.

Every IEEE Standard is subjected to review at least every five years for revision or reaffirmation. When a document is more than five years old and has not been reaffirmed, it is reasonable to conclude that its contents, although still of some value, do not wholly reflect the present state of the art. Users are cautioned to check to determine that they have the latest edition of any IEEE Standard.

In publishing and making this document available, the IEC and IEEE are not suggesting or rendering professional or other services for, or on behalf of, any person or entity. Neither the IEC nor IEEE is undertaking to perform any duty owed by any other person or entity to another. Any person utilizing this, and any other IEC/IEEE Dual Logo International Standards or IEEE Standards document, should rely upon the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

Interpretations – Occasionally questions may arise regarding the meaning of portions of standards as they relate to specific applications. When the need for interpretations is brought to the attention of IEEE, the Institute will initiate action to prepare appropriate responses. Since IEEE Standards represent a consensus of concerned interests, it is important to ensure that any interpretation has also received the concurrence of a balance of interests. For this reason, IEEE and the members of its societies and Standards Coordinating Committees are not able to provide an instant response to interpretation requests except in those cases where the matter has previously received formal consideration.

Comments for revision of IEC/IEEE Dual Logo International Standards are welcome from any interested party, regardless of membership affiliation with the IEC or IEEE. Suggestions for changes in documents should be in the form of a proposed change of text, together with appropriate supporting comments. Comments on standards and requests for interpretations should be addressed to:

Secretary, IEEE-SA Standards Board, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, USA and/or General Secretary, IEC, 3, rue de Varembe, PO Box 131, 1211 Geneva 20, Switzerland.

Authorization to photocopy portions of any individual standard for internal or personal use is granted by the Institute of Electrical and Electronics Engineers, Inc., provided that the appropriate fee is paid to Copyright Clearance Center. To arrange for payment of licensing fee, please contact Copyright Clearance Center, Customer Service, 222 Rosewood Drive, Danvers, MA 01923 USA; +1 978 750 8400. Permission to photocopy portions of any individual standard for educational classroom use can also be obtained through the Copyright Clearance Center.

NOTE – Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. The IEEE shall not be responsible for identifying patents for which a license may be required by an IEEE standard or for conducting inquiries into the legal validity or scope of those patents that are brought to its attention.

IEEE Standard for Signal and Test Definition

Sponsor

**IEEE Standards Coordinating Committee 20 on
Test and Diagnosis for Electronic Systems**

Approved 2 February 2005

American National Standards Institute

Approved 23 September 2004

IEEE-SA Standards Board

Abstract: This standard provides the means to define and describe signals used in testing. It also provides a set of common basic signals, mathematically underpinned so that signals can be combined to form complex signals usable across all test platforms.

Keywords: ATE, ATLAS, automatic test equipment, signal definitions, test definitions, test requirements, test signals, unit under test, UUT