

Recognized as an
American National Standard (ANSI)

IEEE Std 726™-1982(R2006)
(Revision of IEEE 726-1979)

IEEE Standard Real-Time BASIC for CAMAC¹

Sponsor

**Instrumentation and Detectors Committee
of the
IEEE Nuclear and Plasma Sciences Society**

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IEEE-SA Standards Board

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American National Standards Institute

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¹Computer Automated Measurement and Control

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Foreword

(This Foreword is not a part of ANSI/IEEE Std 726-1982, IEEE Standard Real-Time BASIC for CAMAC.)

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CAMAC and NIM Standards and Reports

Title	IEEE, ANSI Std No	IEC No	DOE No	EURATOM (EUR) or ENSONE No
CAMAC Instrumentation and Interface Standards*	SH08482* (Library of Congress No 8185060)	—	—	—
Modular Instrumentation and Digital Interface System (CAMAC)	ANSI/IEEE Std 583-1982	516	TID-25875 [†] and TID-25877 [†]	EUR 4100e
Serial Highway Interface System (CAMAC)	ANSI/IEEE Std 595-1982	640	TID-26488 [†]	EUR 6100e
Parallel Highway Interface System (CAMAC)	ANSI/IEEE Std 596-1982	552	TID-25876 [†] and TID-25877 [†]	EUR 4600e
Multiple Controllers in a CAMAC Crate	ANSI/IEEE Std 675-1982	729	DOE/EV-0007	EUR 6500e
Block Transfers in CAMAC Systems	ANSI/IEEE Std 683-1976 (Reaff 1981)	677	TID-26616 [†]	EUR 4100 suppl
Amplitude Analog Signals within a 50 Ω System	—	—	TID-26614	EUR 5100e
The Definition of IML A Language for Use in CAMAC Systems	—	—	TID-26615	ESONE/IML/01
CAMAC Tutorial Articles	—	—	TID-26618	—
Real-Time BASIC for CAMAC	ANSI/IEEE Std 726-1982	‡	TID-26619 [†]	ESONE/RTB/03
Subroutines for CAMAC	ANSI/IEEE Std 758-1979 (Reaff 1981)	713	DOE/EV-0016 [†]	ESONE/SR/01
Recommendations for CAMAC Serial Highway Drivers and LAM Graders for the SCC-L2	—	—	DOE/EV-0006	ESONE/SD/02
Definitions of CAMAC Terms	Included in SH08482	678	DOE/ER-0104	ESONE/GEN/01
Standard Nuclear Instrument Modules NIM	—	547**	TID-20893 (Rev 4)	—

*This is a hard cover book that contains ANSI/IEEE Std 583-1982, ANSI/IEEE Std 595-1982, ANSI/IEEE Std 596-1982, ANSI/IEEE Std 675-1982, ANSI/IEEE Std 683-1976 (Reaff 1981), ANSI/IEEE Std 726-1982 and IEEE Std 758-1979 (Reaff 1981), plus introductory material and a glossary of CAMAC terms.

[†]Superseded by corresponding IEEE Standard listed.

[‡]In preparation.

**Covers only mechanical features and connector pin assignments.

NOTE — Availability of Documents

ANSI	Sales Department, American National Standards Institute, 1430 Broadway, New York, NY 10018.
IEEE	IEEE Service Center, 445 Hoes Lane, Piscataway, New Jersey 08854, USA.
IEC	International Electrotechnical Commission, 1, rue de Varembe, CH-1211 Geneva 20, Switzerland.
DOE and TID Reports	National Bureau of Standards, Washington, D.C. 20234, USA, Attn: L. Costrell.
EURATOM	Office of Official Publications of the European Communities, P.O. Box 1003, Luxembourg.
ESONE	Commission of the European Communities, CGR-BCMN, B-2440 GEEL, Belgium, Attn: ESONE Secretariat, H. Meyer.

This standard deals with software for the CAMAC modular instrumentation and interface system of ANSI/IEEE Std 583-1982, Modular Instrumentation and Digital Interface System (CAMAC) (also Report EUR 4100e of the Commission of the European Communities). The report on which this standard was originally based, ERDA Report TID-26619, was prepared by the NIM Committee* of the United States Energy Research and Development Administration (now the Department of Energy) and the ESONE Committee** of European Laboratories. The corresponding ESONE document was ESONE/RTB/02.

This standard differs from these original documents in several respects, particularly to be consistent with the new standard for BASIC³ that has been developed jointly by ANSI X3J2, ECMA TC21 and EWICS TC2. Enhancements to the BASIC³ standard include a real-time module that provides input-output to process peripherals, response to asynchronous events, synchronization and communication between concurrent activities, and the handling of exceptions.

The BASIC³ standard is general, and specific parts of the syntax and semantics are left open to be defined appropriately for particular process peripheral systems. The purpose of this standard is to define specific syntax and semantics for use with CAMAC in the areas left open in the standard.

The revision of this standard was in conjunction with the 1981 review (1982 issue) of the entire family of IEEE CAMAC standards undertaken to incorporate existing addenda and corrections into the standards.

This standard was reviewed and balloted by the Nuclear Instruments and Detectors Committee of the IEEE Nuclear and Plasma Sciences Society. At the time of approval of this standard, the membership was as follows:

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³Standard ECMA-55 Minimal BASIC (1978), also published as: ANSI X3.60, American National Standard for Minimal BASIC (1978), ISO Minimal BASIC (1980) ref DIS 6376, ANSI X3J2/80-64, Draft American National Standard for BASIC (1980), and EWICS-TC2 81/7, IRTB Industrial Real-Time BASIC (1981), published by the CEC.
This is the standard referred to in this document when reference is made to “the ANSI standard”.

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