

**Sectional Specification: Microwave modular electronic
units of assessed quality - Part 1: Capability approval
procedure**

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Descriptors: Modular electronic units, capability approval, sectional specification

English version

Sectional Specification:
Microwave modular electronic units of assessed quality
Part 1: Capability approval procedure

Rahmenspezifikation:
Elektronische Mikrowellenmodule mit
bewerteter Qualität
Teil 1: Befähigungsanerkennung

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This sectional specification has been prepared by the United Kingdom under the single originator procedure for approval and publication of CECC specifications (see RP 11: Part V). It is to be used for the assessment of Microwave Modular Electronic Units (MMEUs) within the CECC capability approval scheme. The content is in accordance with the generic specification for Modular Electronic Units (MEUs); EN 160000 and meets the requirements of Rule of Procedure 14 (RP 14).

This sectional specification is based, wherever possible, on the publications of the International Electrotechnical Commission.

It includes, as (blank) examples, formats for a capability qualifying component specification and customer's detail specification (CDS).

The use of this sectional specification is as follows:

- a) a potential customer makes an enquiry to the manufacturer for a Microwave Modular Electronic Unit within the scope of his capability published in CECC 00200;
- b) the specification is negotiated between the manufacturer and the customer, until an agreed customer's detail specification is finalized;
- c) the Microwave Modular Electronic Unit is inspected and released in accordance with the agreed Customer's Detail Specification.

In order to facilitate the review of the document, the 'index of electrical test methods' has been published as Part 2 of this sectional specification.

The text of the draft based on document CECC(Secretariat)3317 was submitted to the formal vote; together with the voting report, circulated as document CECC(Secretariat)3522, it was approved as EN 160200-1 on 1994-04-15.

The following dates were fixed:

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| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) 1998-06-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) 1999-06-01 |
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Sectional specification for microwave modular electronic units of assessed quality
Part 1: Capability approval procedure

Section 1 General matters

1.1 Scope

This CECC Sectional Specification, in conjunction with the Generic Specification EN 160000 describes, a system for capability approval of manufacturers of Microwave Modular Electronic Units (MMEUs) which are not covered by other CECC specifications.

It defines standard terms, inspection procedures and methods of test for capability approval of MMEUs. These units may be supplied to either a Customer's Detail Specification (CDS) or as Standard Catalogue Items.

Examples of typical MMEUs which are covered by this specification and related Blank Detail Specifications (BDSs) are:

- amplifiers;
- couplers/power dividers;
- isolators/circulators;
- mixers;
- oscillators;
- switches;
- attenuators;
- filters;
- limiters;
- noise sources;
- phase shifters;
- transmitters (e.g. Integrated Multichannel).

The MMEUs may incorporate passive and/or active devices/elements.

1.2 Related documents

See clause 1.2 of EN 160000.

Latest issue of the following documents applies unless otherwise stated:

ISO 31	Specification for quantities, units and symbols
IEC 50 (726)	International electrotechnical vocabulary - Transmission lines and waveguide
IEC 68	Environmental testing
IEC 154	Flanges for waveguides
IEC 410	Sampling plans and procedures for inspection by attributes
IEC 512	Electromechanical components for electronic equipment: basic testing procedures and measuring methods
CECC 00007	Sampling plans and procedures for inspection by attributes
CECC 00009	Basic testing procedures and measuring methods for electromechanical components
CECC 00200	Qualified products list
CECC 00016	Requirement for the use of statistical process control (SPC) in the CECC system
CECC 00017	Basic specification: Microwave common modules for use up to 20 GHz Interfaces, fixings, connection protocol and module coding
CECC 00114 Part III	Rule of procedure 14; Quality assessment procedures; Capability approval of an electronic component manufacturing activity
CECC 00400	Handbook for the production of CECC documents
CECC 22000	Radio frequency coaxial connectors

CECC 63000	Film and hybrid integrated circuits
EN 100015	Protection of electrostatic sensitive devices; Part 1: Minimum requirements
EN 160200-2	Sectional specification: Microwave modular electronic units of assessed quality Part 2: Index of test methods

1.3 Units, symbols and terminology

Unless otherwise stated they shall be as defined within ISO 31, IEC 50(726) and clause 1.3 of EN 160000. The following terminology is applicable to this specification:

1.3.1 *Microwave modular electronic unit (MMEU)*

For the purpose of this specification the term MMEU relates to devices designed to work within the frequency band 300 MHz - 300 GHz. The definition for Modular Electronic Unit (MEU) is contained in clause 1.3 of EN 160000.

MMEUs may consist of passive and/or active elements which are interconnected to form an electronic circuit.

1.3.2 *Components*

For the purpose of this specification, in addition to conventional discrete electronic components (e.g. resistors, capacitors and semiconductor devices), the following items which utilise microwave transmission theory in their design are considered to be components:

- lumped elements (passive circuits based on microstrip/stripline);
- machined, cast and electroformed items (e.g. passive filter);
- moulded/metallized and microwave absorbent materials (e.g. loads).

1.4 Standard and preferred values

1.4.1 *Preferred climatic categories*

The MMEUs covered by this specification are classified into climatic categories according to the general rules given under IEC 68-1.