



**NSAI**  
Standards

Irish Standard  
I.S. EN 16602-60-12:2014

Space product assurance - Design, selection, procurement and use of die form monolithic microwave integrated circuits (MMICs)

**I.S. EN 16602-60-12:2014**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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Assurance produit des projets spatiaux - Conception,  
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intégrés monolithique hyperfréquence de forme die

Raumfahrtproduktsicherung - Design, Auswahl,  
Beschaffung und Nutzung von MMIC

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## Foreword

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This document (EN 16602-60-12:2014) has been prepared by Technical Committee CEN/CLC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16602-60-12:2014) originates from ECSS-Q-ST-60-12C.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document has been developed to cover specifically space systems and has therefore precedence over any EN covering the same scope but with a wider domain of applicability (e.g. : aerospace).

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



## **Introduction**

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This Standard covers the design, selection, procurement and use of III-V monolithic microwave integrated circuits (MMICs) for space equipment.

It defines the design activity for the technical (methodology, phases to be followed) and quality (quality assurance, design review) aspects, and, the selection and procurement rules for these components taking into account whether or not the processes have been validated.

# 1 Scope

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This Standard applies to all types of MMIC (monolithic microwave integrated circuit) based on III-V compound materials for RF applications (i.e. frequency range  $\geq 1$  GHz). The requirements for the procurement of components in die form are defined.

It is not within the scope of this Standard to address packaged MMICs and discrete microwave components, these are dealt with in the relevant ESCC specification (ESCC 9010 and ESCC 5010).

This standard may be tailored for the specific characteristic and constraints of a space project in conformance with ECSS-S-ST-00.

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