

<b>STN</b>	<b>Zabezpečovanie výrobkov kozmického programu. Dostupné súčiastky používané v kozmických systémoch.</b>	<b>STN EN 16602-20-10</b>
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Space product assurance - Off-the-shelf items utilization in space systems

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/15

Obsahuje: EN 16602-20-10:2014

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Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, odbor SÚTN, 2015  
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

ICS 49.140

English version

## Space product assurance - Off-the-shelf items utilization in space systems

Assurance produit des projets spatiaux - Utilisation d'éléments sur étagères dans les systèmes spatiaux

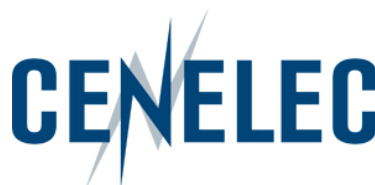
Raumfahrtproduktsicherung - Nutzung von off-the-shelf Produkten in Raumfahrtssystemen

This European Standard was approved by CEN on 6 March 2014.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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**CEN-CENELEC Management Centre:  
Avenue Marnix 17, B-1000 Brussels**

# Table of contents

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<b>Foreword</b> .....	<b>4</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>6</b>
<b>3 Terms, definitions and abbreviated terms</b> .....	<b>7</b>
3.1 Terms from other standards.....	7
3.2 Terms specific to the present standard .....	7
3.3 Abbreviated terms.....	7
<b>4 Principles</b> .....	<b>9</b>
4.1 Structure and organization of OTS item selection process.....	9
4.1.1 Market investigation and OTS items identification .....	9
4.1.2 OTS item characterization and selection .....	9
4.1.3 OTS item procurement and qualification .....	10
<b>5 Requirements</b> .....	<b>12</b>
5.1 Documentation .....	12
5.1.1 OTS plan.....	12
5.1.2 Equipment specification .....	12
5.1.3 OTS item evaluation dossier .....	12
5.2 Market investigation and OTS item identification .....	13
5.2.1 OTS item identification .....	13
5.2.2 Preliminary Make-or-Buy decision point .....	14
5.3 OTS characterization .....	15
5.3.1 General .....	15
5.3.2 Product assurance evaluation for OTS item characterization .....	16
5.4 Performance evaluation - Engineering related activities.....	20
5.4.1 Structural and mechanical evaluation.....	20
5.4.2 Thermal evaluation.....	20
5.4.3 Electrical .....	21
5.4.4 Maintenance .....	23

5.5	Final Make or Buy Decision .....	23
5.6	OTS item procurement and qualification .....	23
5.6.1	OTS item procurement.....	23
5.6.2	Qualification .....	24
<b>Annex A (normative) OTS plan - DRD .....</b>		<b>25</b>
<b>Annex B (normative) OTS item evaluation dossier - DRD.....</b>		<b>27</b>
<b>Annex C (informative) ECSS-DRD Informational Reference.....</b>		<b>33</b>
<b>Bibliography.....</b>		<b>34</b>
<b>Figures</b>		
	Figure 4-1: OTS items selection process flow.....	11
	Figure B-1 : Example of an OTS item status evaluation matrix.....	30
	Figure B-2 : Example of an comparison of existing OTS item qualification vs project requirements .....	31
	Figure B-3 : Example of OTS item dedicated data summary .....	32

## Foreword

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This document (EN 16602-20-10:2014) has been prepared by Technical Committee CEN/CLC/TC 5 “Space”, the secretariat of which is held by DIN.

This standard (EN 16602-20-10:2014) originates from ECSS-Q-ST-20-10C.

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.

# 1 Scope

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This Standard applies to all parties involved at all levels in the utilization of OTS items into space segment hardware and launchers.

For the purpose of this Standard, Off-the-Shelf (OTS) Items are those that, even if not necessarily developed for space applications, can be procured from the market and utilized in a space system.

This Standard contains the requirements for the utilization of OTS Items, in terms of their selection, characterization and procurement for space system use.

This Standard considers complex OTS items, as for example: motherboards, cards, data storage units/items, optical equipments, photo cameras and video units, LANs, mechanical/electrical and electromechanical devices, batteries, sensors, monitoring support units, medical equipments and items, laptops.

This Standard does not cover:

- software OTS,
- re-use of OTS items already qualified for space applications,

**NOTE** However, items not belonging to the same lot of the OTS item already evaluated using this standard, can be subjected to partial re-evaluation and re-qualification since, on the commercial market, fast evolution of the design occurs.

- Pieces, parts and materials, such as electrical, electronic and electromechanical (EEE) parts, thermocouples, rivets, fasteners, connectors, fittings, adhesives, insulation, wiring and plumbing.

This standard is not specifically addressing the re-use of OTS items for the same space application for which they were initially qualified.

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

## 2

## Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this ECSS Standard. For dated references, subsequent amendments to, or revision of any of these publications do not apply. However, parties to agreements based on this ECSS Standard are encouraged to investigate the possibility of applying the more recent editions of the normative documents indicated below. For undated references, the latest edition of the publication referred to applies.

EN reference	Reference in text	Title
EN 16601-00-01	ECSS-S-ST-00-01	ECSS System - Glossary of terms
EN 16603-10	ECSS-E-ST-10	Space engineering - System engineering general requirements
EN 16603-10-02	ECSS-E-ST-10-02	Space engineering - Verification
EN 16603-10-12	ECSS-E-ST-10-12	Space engineering - Methods for the calculation of radiation received and its effects, and a policy for design margins
EN 16603-20	ECSS-E-ST-20	Space engineering - Electrical and electronic
EN 16603-31	ECSS-E-ST-31	Space engineering - Thermal control general requirements
EN 16603-32	ECSS-E-ST-32	Space engineering - Structural general requirements
EN 16603-50-05	ECSS-E-ST-50-05	Space engineering - Radio frequency and modulation
EN 16603-50-14	ECSS-E-ST-50-14	Space engineering - Spacecraft discrete interfaces
EN 16602-20	ECSS-Q-ST-20	Space product assurance - Quality assurance
EN 16602-60	ECSS-Q-ST-60	Space product assurance - Electrical, electronic and electromechanical (EEE) components
EN 16602-70	ECSS-Q-ST-70	Space product assurance - Materials, mechanical parts and processes
EN 16602-70-28	ECSS-Q-ST-70-28	Space product assurance - Repair and modification of printed circuit board assemblies for space use

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**