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Space engineering - Electrical and electronic

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

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Table of contents

European Foreword	6
1 Scope	7
2 Normative references.....	8
3 Terms, definitions and abbreviated terms	9
3.1 Terms from other standards	9
3.2 Terms specific to the present standard	9
3.3 Abbreviated terms	15
3.4 Nomenclature	16
4 General requirements	18
4.1 Interface requirements.....	18
4.1.1 Overview	18
4.1.2 Signals interfaces	18
4.1.3 Commands	19
4.1.4 Telemetry	20
4.2 Design.....	20
4.2.1 Failure containment and redundancy	20
4.2.2 Data processing.....	23
4.2.3 Electrical connectors.....	24
4.2.4 Testing.....	25
4.2.5 Mechanical: Wired electrical connections	26
4.2.6 Miscellaneous	26
4.3 Verification	27
4.3.1 Provisions	27
4.3.2 Documentation	27
5 Electrical power.....	28
5.1 Functional description	28
5.2 Power subsystem and budgets.....	28
5.2.1 General.....	28
5.2.2 Provisions	28

5.3	Failure containment and redundancy.....	30
5.4	Electrical power interfaces.....	30
5.5	Power generation	31
5.5.1	Solar cell, coverglass, SCA and PVA qualification	31
5.5.2	Solar array specification and design	31
5.5.3	Solar array power computation	33
5.5.4	Solar array drive mechanisms.....	36
5.6	Electrochemical Energy Storage	36
5.6.1	Applicability.....	36
5.6.2	Batteries	36
5.6.3	Battery cell.....	38
5.6.4	Battery use and storage.....	39
5.6.5	Battery safety.....	39
5.7	Power conditioning and control.....	40
5.7.1	Applicability.....	40
5.7.2	Spacecraft bus.....	40
5.7.3	Battery Charge and Discharge Management	44
5.7.4	Bus under-voltage or over-voltage	45
5.7.5	Power converters and regulators	46
5.7.6	Payload interaction	47
5.8	Power distribution and protection	47
5.8.1	General.....	47
5.8.2	Harness	51
5.9	Safety.....	52
5.10	High voltage engineering.....	52
5.11	Verification	53
5.11.1	Provisions	53
5.11.2	<<deleted>>	53
6	Electromagnetic compatibility (EMC).....	54
6.1	Overview	54
6.2	Policy	54
6.2.1	Overall EMC programme	54
6.2.2	EMC control plan	54
6.2.3	Electromagnetic compatibility advisory board (EMCAB).....	55
6.3	System level.....	55
6.3.1	Electromagnetic interference safety margin (EMISM)	55
6.3.2	Inter-element EMC and EMC with environment	56

6.3.3	Hazards of electromagnetic radiation	57
6.3.4	Spacecraft charging protection program	57
6.3.5	Intrasystem EMC	58
6.3.6	Radio frequency compatibility	58
6.3.7	Spacecraft DC magnetic field emission.....	58
6.3.8	Design provisions for EMC control	59
6.3.9	Detailed design requirements	59
6.4	Verification	59
6.4.1	Verification plan and report	59
6.4.2	Safety margin demonstration for critical or EED circuit	60
6.4.3	Detailed verification requirements.....	60
7	Radio frequency systems	61
7.1	Functional description	61
7.2	Antennas	62
7.2.1	General.....	62
7.2.2	Antenna structure	63
7.2.3	Antenna interfaces.....	68
7.2.4	Antennas Verification.....	69
7.3	RF Power	69
7.3.1	Overview	69
7.3.2	RF Power handling (thermal)	70
7.3.3	Corona or Gas Discharge	70
7.3.4	Qualification for power handling and gas discharge	71
7.4	Passive intermodulation	71
7.4.1	Overview	71
7.4.2	General requirements	71
7.4.3	Identification of potentially critical intermodulation products	72
7.4.4	Verification.....	72
7.4.5	Qualification for passive intermodulation.....	72
7.5	Verification	72
8	Pre-tailoring matrix per space product and feature types	74
8.1	Introduction	74
8.2	Use of the inclusive and exclusive requirement categories.....	75
Annex A (normative) EMC control plan - DRD		118
Annex B (normative) Electromagnetic effects verification plan (EMEVP) - DRD		121

Annex C (normative) Electromagnetic effects verification report (EMEVR) - DRD	124
Annex D (normative) Battery user manual - DRD	126
Bibliography	128

Figures

Figure 5-1: Output impedance mask (Ohm)	43
Figure 5-2: Source and load impedance characterisation.....	49
Figure 5-3: Thevenin equivalent model	49
Figure 5-4: Norton equivalent model	50

Tables

Table 4-1: <<deleted, merged with new Table 8-3>>	27
Table 5-1: Parameters for BOL worst and best case power calculations	35
Table 5-2: Additional power parameters for EOL worst and best case calculations.....	35
Table 5-3: <<deleted, merged with new Table 8-3>>	53
Table 7-1: <<deleted, merged with new Table 8-3>>	69
Table 7-2: <<deleted, merged with new Table 8-3>>	73
Table 8-1: Definition of pre-tailoring matrix applicability statuses	77
Table 8-2: Definition of features for exclusive requirements	77
Table 8-3: Pre-tailoring matrix per "Space product and feature types".....	78

European Foreword

This document (EN 16603-20:2020) has been prepared by Technical Committee CEN-CENELEC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16603-20:2020) originates from ECSS-E-ST-20C Rev.1.

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 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.

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 standardization request 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1

Scope

This Standard establishes the basic rules and general principles applicable to the electrical, electronic, electromagnetic, microwave and engineering processes. It specifies the tasks of these engineering processes and the basic performance and design requirements in each discipline.

It defines the terminology for the activities within these areas.

It defines the specific requirements for electrical subsystems and payloads, deriving from the system engineering requirements laid out in ECSS-E-ST-10 "Space engineering – System engineering general requirements".

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 16603-20-06	ECSS-E-ST-20-06	Space engineering – Spacecraft charging
EN 16603-20-07	ECSS-E-ST-20-07	Space engineering – Electromagnetic compatibility
EN 16603-20-08	ECSS-E-ST-20-08	Space engineering - Photovoltaic assemblies and components
EN 16603-20-20	ECSS-E-ST-20-20	Space engineering - Electrical design and interface requirements for power supply
EN 16603-33-11	ECSS-E-ST-33-11	Space engineering – Explosive systems and devices
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 16602-30-11	ECSS-Q-ST-30-11	Space product assurance – Derating – EEE components
EN 16602-40	ECSS-Q-ST-40	Space product assurance – Safety
	IEEE 145-1993	Antenna terms
	Impedance Specifications for Stable DC Distributed Power Systems, EEE transactions on power electronics, Vol. 17, no. 2, March 2002	Impedance Specifications for Stable DC Distributed Power Systems, X. Feng, J. Liu, F.C. Lee, IEEE Transactions on power electronics, Vol. 17, no. 2, March 2002

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