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NATIONAL FOREWORD

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EUROPEAN STANDARD

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English version

Space engineering - Electrical and electronic

Ingénierie spatiale - Génie électrique et électronique

Raumfahrttechnik - Elektrik und Elektronik

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European Foreword

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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of an identical text or by endorsement, at the latest by March 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.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).

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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 constraints of a space project in conformance with ECSS-S-ST-00.

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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, X. Feng, J. Liu, F.C. Lee, IEEE 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