

ISO 17981:2024-10 (E)

Space systems - Cube satellite (CubeSat) interface

Contents

Page

Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Abbreviated terms.....	2
5 Internal interface requirements.....	3
5.1 Unit to unit interface.....	3
5.1.1 General.....	3
5.1.2 PC-104 style.....	3
5.1.3 Backplane style.....	6
5.2 Mission payload to platform interface.....	6
5.2.1 Mechanical connection.....	6
5.2.2 Connection methods.....	6
5.2.3 Ground lines.....	6
5.2.4 Power.....	6
5.2.5 Analogue data interface.....	6
5.2.6 Digital data interface.....	6
5.2.7 Debugging.....	6
5.2.8 EMC.....	7
5.2.9 Fault isolation and recovery.....	7
5.2.10 Harmlessness to other payloads, platform and missions.....	7
5.2.11 Safety requirements.....	7
5.2.12 Radiation.....	7
6 Datasheet requirements for CubeSat units.....	7
6.1 General.....	7
6.2 General requirements.....	7
6.3 Electrical power system unit.....	9
6.4 Communication unit.....	10
6.5 Command and data handling unit.....	11
6.6 Attitude determination and control unit.....	11
6.7 Antenna unit.....	11
7 Datasheet requirements for CubeSat platforms.....	12
7.1 General.....	12
7.2 Mechanical interface.....	12
7.3 Electrical interface.....	12
7.4 Software information.....	12
7.5 Operation-related Information.....	12
7.6 Safety information.....	13
7.7 Reliability information.....	13
7.8 Assembly, integration and testing Information.....	13
8 External electrical interface (umbilical).....	14
Annex A (informative) Typical digital data communication for CubeSats.....	15
Annex B (informative) PC-104 style example.....	17
Annex C (informative) Backplane style example.....	20
Bibliography.....	34