

Contents

Preface	Preface-1
1. Introduction	1-1
1.1 Purpose and Scope	1-1
1.2 Target Audience	1-1
1.3 Summary of Changes from Issue 1 of GR-2898-CORE	1-1
1.4 Requirements Terminology	1-2
1.5 Requirement Labeling Conventions	1-3
1.5.1 Numbering of Requirement and Related Objects	1-3
1.5.2 Requirement, Conditional Requirement, and Objective Object Identification	1-4
2. General Information	2-1
2.1 Product Description	2-1
2.2 Deployment Environments	2-2
2.3 Installation and Operating Environment	2-3
2.3.1 Connector Performance in Harsh Environments	2-4
2.4 Related Telcordia Documents	2-5
3. General Requirements	3-1
3.1 Documentation	3-1
3.1.1 Practices	3-1
3.2 Markings, Packaging, and Shipping	3-1
3.2.1 Identification	3-1
3.2.2 Shipping Container and Packaging Arrangement	3-2
3.2.3 Package Label	3-2
3.3 Labels	3-3
3.3.1 Consumable Materials	3-3
3.4 Product Changes	3-3
3.5 Safety and Reliability Considerations	3-3
3.6 Installation Size & Weight	3-4
3.7 Maintenance	3-4
3.7.1 Components	3-5
3.7.2 Tools	3-5
4. Functional Design Criteria	4-1
4.1 Materials	4-1
4.1.1 Metallic Materials	4-1
4.1.2 Polymeric and Other Non-Metallic Materials	4-1
4.2 Cable Management Compartments	4-2
4.2.1 Access Compartments	4-2
4.2.2 Cable Entrance Capacity	4-2
4.2.3 Cable Compatibility	4-3
4.2.4 Cable Termination Hardware	4-3
4.2.5 Bonding and Grounding Hardware	4-4
4.3 Service Provider Splice Compartment	4-4

4.3.1	Splice Storage Capacity	4-5
4.3.2	Fiber and Splice Protection	4-5
4.4	Connector Bulkhead	4-6
4.4.1	Bulkhead Capacity	4-6
4.4.2	Connector Sleeves	4-6
4.4.3	Connector Requirements	4-6
4.4.4	Pigtail Requirements	4-7
4.5	Fundamental Demarcation Box Requirements	4-7
4.5.1	Deployment Configurations	4-7
4.5.1.1	Optical Power Monitoring	4-7
4.5.2	Demarcation Box Mounting Hardware	4-8
4.5.3	Door Restrainers	4-8
4.5.4	Drainage for Condensate	4-9
4.5.5	Insect Resistance	4-9
4.5.6	Fire Safety	4-9
4.6	Finish	4-10
4.6.1	Color	4-10
4.6.2	Appearance	4-10
4.6.3	Scrape Adhesion	4-11
4.6.4	Flexibility	4-11
4.7	Screens and Filters	4-11
5.	Application-Specific Requirements	5-1
5.1	General	5-1
5.2	Electrical Criteria	5-1
5.2.1	Bond Clamp Retention	5-1
5.2.2	AC Fault Test	5-2
5.3	Mechanical Criteria	5-2
5.3.1	Cable Clamping	5-2
5.3.2	Sheath Retention	5-3
5.3.3	Cable Flexing	5-3
5.3.4	Cable Torsion	5-3
5.3.5	Vertical Drop	5-3
5.3.6	Compression	5-3
5.3.7	Impact	5-4
5.3.8	Central Member (CM) Protrusion	5-4
5.4	Environmental Criteria	5-4
5.4.1	Accelerated Thermal Aging	5-5
5.4.2	Assembly	5-5
5.4.3	Temperature and Humidity	5-5
5.4.4	Weather Tightness	5-5
5.4.5	Water Resistance	5-5
5.4.6	Wind Resistance	5-6
5.4.7	Corrosion Resistance	5-7
5.4.8	Chemical Resistance	5-7
5.4.9	Ultraviolet Resistance	5-8
5.4.10	Fungus Resistance	5-8

5.5	Conditional Requirements	5-8
5.5.1	Shotgun Resistance	5-8
5.5.2	Steam Resistance	5-8
5.5.3	Cable Core Blocking Ability	5-8
5.5.4	Fire Resistance	5-9
5.5.5	Rodent Resistance	5-9
6.	Performance Verification/Test Procedures	6-1
6.1	Performance Tests, Test Conditions, and Samples	6-1
6.1.1	Test Conditions	6-3
6.1.2	Retesting	6-3
6.1.3	Sample Preparation	6-3
6.1.4	Optical Measurements	6-3
6.2	Electrical Tests	6-3
6.2.1	Bond Clamp Retention	6-4
6.2.2	AC Fault Test	6-4
6.3	Mechanical Tests	6-5
6.3.1	Cable Clamping	6-5
6.3.2	Sheath Retention	6-6
6.3.3	Cable Flexing	6-7
6.3.4	Cable Torsion	6-8
6.3.5	Vertical Drop	6-9
6.3.6	Compression	6-10
6.3.7	Impact	6-11
6.3.8	Central Member Protrusion	6-12
6.4	Environmental Tests	6-13
6.4.1	Thermal Aging	6-13
6.4.2	Assembly	6-14
6.4.3	Temperature and Humidity	6-14
6.4.4	Weather Tightness (Dust) Test	6-16
6.4.5	Water Resistance Tests	6-16
6.4.6	Wind Resistance	6-19
6.4.7	Corrosion Resistance	6-19
6.4.8	Chemical Resistance Tests	6-19
6.4.9	UV Resistance Test	6-21
6.4.10	Fungus Resistance Test	6-22
6.5	Conditional Requirements	6-22
6.5.1	Shotgun Resistance	6-22
6.5.2	Steam Resistance	6-23
6.5.3	Cable Core Blocking Ability	6-23
6.5.4	Building Fire Resistance	6-23
	Appendix A: Observational Standard	A-1
	References	References-1
	Requirement-Object Index	ROI-1

List of Figures

Figure 2-1.	Basic Fiber Demarcation Box	2-2
Figure 6-1.	AC Fault Test	6-5
Figure 6-2.	Cable Pullout Test	6-7
Figure 6-3.	Cable Flex Test	6-8
Figure 6-4.	Cable Torsion Test	6-9
Figure 6-5.	Compression Test	6-11
Figure 6-6.	Central Member Test Fixture	6-12
Figure 6-7.	Central Member Protrusion Test	6-13
Figure 6-8.	Temperature Cycle	6-15
Figure 6-9.	Water Immersion Test	6-17
Figure 6-10.	Three Point Test Fixture	6-20
Figure 6-11.	Test Bar Samples	6-22
Figure 6-12.	Cable Core Blocking Test	6-24
Figure 6-13.	Vertical Test Rack	6-26
Figure 6-14.	Burner Arrangement (Front View & Top View Shown)	6-27
Figure 6-15.	Horizontal Test Equipment	6-29
Figure 6-16.	Sample Placement - Horizontal Test	6-30
Figure A-1.	Telcordia Observational Standard for Evaluating Dust Accumulation	A-1

List of Tables

Table 2-1.	Deployment Environments for Fiber Demarcation Boxes . . .	2-3
Table 5-1.	Cable Pullout Criteria Levels	5-3
Table 5-2.	Impact Criteria Levels	5-4
Table 5-3.	Water Resistance Criteria Levels	5-6
Table 5-4.	Corrosion Resistance Criteria Levels	5-7
Table 6-1.	Recommend Performance Test Sequence	6-1
Table 6-2.	Water Resistance Criteria	6-16
Table 6-3.	Sample Examination Matrix	6-21