AMP CO® Multimedia Insert CATV+Telephone+100BT

1. SCOPE

1.1 Content

This specification covers performance, tests and quality requirements for AMP CO Multimedia Insert PN 1711336-X. This assembly provides a universal connection interface between premise wiring of an office and the user's network of communications equipment.

1.2 Qualification

When tests are performed on subject product line, procedures specified in Figure 1 shall be used. All inspections shall be performed using applicable inspection plan and product drawing.

2. APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

2.1 CommScope Documents

A. 109-197: Test specification vs EIA and IEC test methods
B. 501-93021: Qualification test report
C. C-1711336: Customer drawing Multimedia Insert (CATV+Telephone+100BT)

2.2 Industrial Standards

A. ISO/IEC 11801: Generic cabling for customer premises
B. EN 50173: Information technology; generic cabling systems
C. IEC 60512: Basic testing procedures and measuring methods for electromechanical components for electronic equipment
D. IEC 60068: Basic environmental testing procedures; test spec. as in Figure 1
E. ISO/IEC 15018 N917 A: Generic cabling for homes; electromechanical components for electronic equipment

3. REQUIREMENTS

3.1 Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable product drawing.

3.2 Materials

Materials shall be as specified on applicable product drawings .

3.3 Ratings

A. Voltage: 150 Vac max.
B. Current: Signal application only
C. Temperature: -40 to 70 ºC

3.4 Performance and Test Description

Product is designed to meet electrical, mechanical and environmental performance requirements specified in Figure 1. Unless otherwise specified, all tests shall be performed at ambient environmental conditions In accordance with 5.3.1. of IEC 60068-1.

3.5. Test Requirements and Procedures Summary

Test Description	Requirement	Procedure
Examination of product	Meets requirements of product drawing	Visual, dimensional and functional per applicable quality inspection plan
ELECTRICAL		
Input/output resistance (only for RJ-45 connectors)	200 mΩ max. initial and final	IEC 60512-2-1, test 2a Subject samples to 20 mV max. open circuit at 100 mA max. See Figure 3
Insulation resistance (only for RJ-45 connectors)	100 MΩ min.	IEC 60512-2, test 3a method C Test at 500 Vdc between adjacent contacts
Dielectric withstanding voltage (only for RJ-45 connectors)	1000 Vdc or ac peak contact to contact 1 minute hold 5 mA max. leakage current 1500 Vdc contact-ground or ac peak	IEC 60512-2, test 4a Test between adjacent contacts of unmated assemblies and between contacts and ground fingers
Current-carrying capacity (only for RJ-45 connectors)	0.75 Adc applicable for an ambient temperature of 60º C	IEC 60512-3, test 5b See Figure 4
Transfer impedance (only for RJ-45 connectors)	ISO/IEC 11801 2nd ed.	IEC 60512-25-5
Transmission parameters	ISO/IEC 11801 2nd ed. F connector: BCT B limit according to ISO/IEC 15018 from 70 MHz Data jack: Cat 5 limit according to ISO/IEC 11801 2nd ed. Phone jack: Cat 3 limit according to TIA/EIA-568-B.2	IEC 60512-25-1, -2, -4 and -5 IEC 60603-7-7 ed. 2/CD annex J for TCL
ENVIRONMENTAL		
Stress relaxation	See note	IEC 60068-2-2, test method Ba Subject mated samples to temperature life at 70 ºC for 500 hours See Figure 3
Flowing mixed gas corrosion	See note	IEC 60512-11-7, test conditions: SO_2 0,5 ppm, H_2S 0,1 ppm (Volume) T = 25 ± 2 ºC HR = 75 ± 3 % Test time 4 days

NOTE *Shall meet visual requirements, show no physical damage and shall meet requirements of additional tests as specified in Test Sequence in Figure 2.*

Figure 1

3.6. Product Qualification and Requalification Test Sequence

	Test group (a)			
	1	2	3	4
	Test sequence (b)			
Examination of product	1,5	1,10	1,5	1,5
ELECTRICAL				
Input/output resistance		2,9	2,4	
Insulation resistance		4,8		
Dielectric withstanding voltage		5,7		
Current-carrying capacity		3		
Transfer impedance				2,4
Transmission parameters Notes (c), (d), (e) and (f) Test only 4 samples	2,4			
ENVIRONMENTAL				
Stress relaxation	3	6		3
Flowing mixed gas corrosion			3	

NOTES

(a) See paragraph 4.1.A.
(b) Numbers indicate sequence in which tests are performed.
(c) Connecting hardware transmission parameters through RJ-45 connector: perform NEXT, RL, IL, FEXT, Propagation Delay, Delay Skew and TCL according to ISO/IEC 11801 after stress relaxation test. Test Group 1, Sequence 4.
(d) Link transmission parameters through RJ-45 connector: assembly two links using 15 meters PiMF 600 cable and the 4 samples and perform NEXT, RL and IL. Test Group 1, Sequence 2. Do not perform the mentioned transmission parameters after stress relaxation test.
(e) Link transmission parameters through F connector: using the same previous link, perform RL and IL. Test Group 1, Sequence 2. Do not perform the mentioned tests after stress relaxation test.
(f) Link length through F connector: maximum link length for 23AWG cable shall be 35 m; maximum link length for 22AWG cable shall be 40 m.

Figure 2

4. QUALITY ASSURANCE PROVISIONS

4.1. Qualification Testing

A. Sample Selection

Samples shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production. All test groups, except group 1, shall each consist of a minimum of 5 samples.

B. Test Sequence

Qualification inspection shall be verified by testing samples as specified in Figure 2.

4.2. Requalification Testing

If changes significantly affecting form, fit or function are made to the product or manufacturing process, product assurance shall coordinate requalification testing, consisting of all or part of the original testing sequence as determined by development / product, quality and reliability engineering.

4.3 Acceptance

Acceptance is based in verification that the product meets the requirements of Figure 1. Failures attributed to equipment, test setup or operator deficiencies shall not disqualify the product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification. Testing to confirm corrective action is required before resubmittal.

4.4 Quality Conformance Inspection

Applicable CommScope quality inspection plan will specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with applicable product drawing and this specification.

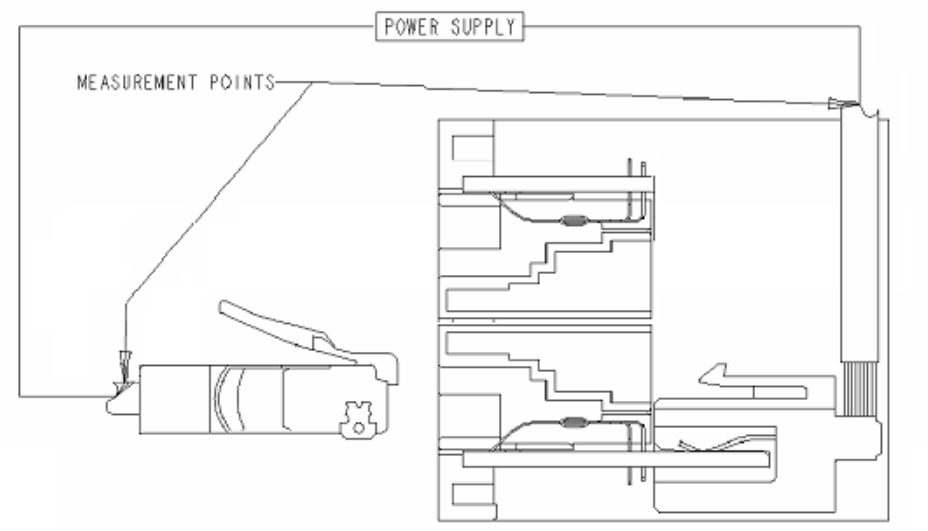

Figure 3

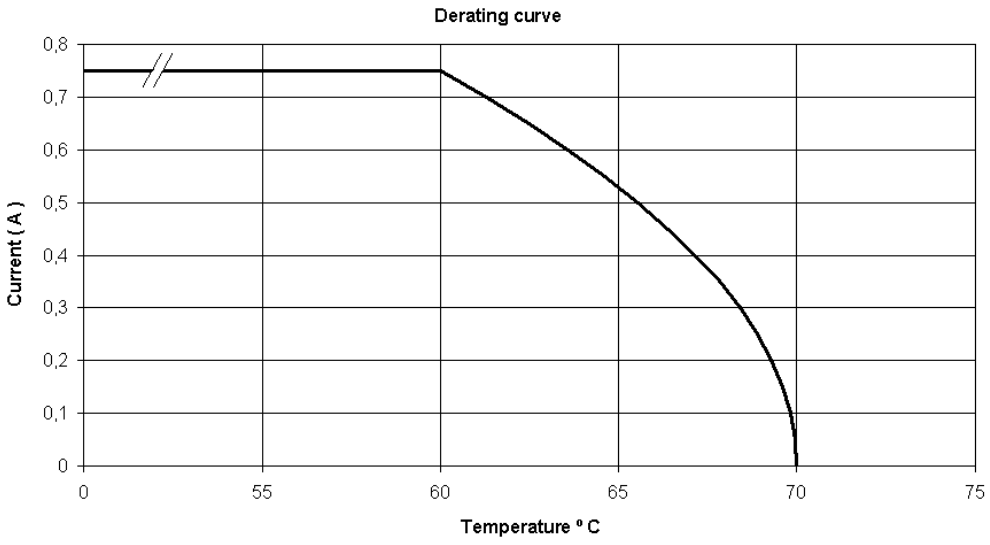

Figure 4