



# PRODUCT SPECIFICATION

## 1.0 SCOPE

This product specification specifies qualification testing parameters as well as mechanical, electrical and environmental performance requirements for VITA 67.1 & 67.2 connector products.

## 2.0 PRODUCT DESCRIPTION

### 2.1 PRODUCT NAME

VITA 67.1 & 67.2 multi-position back plane and daughter card modules.

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

- EIA-364
- ANSI / VITA 47
- ANSI / VITA 67.0
- ANSI / VITA 67.1
- ANSI / VITA 67.2
- MIL-STD-348-B

## 4.0 RATINGS

### 4.1 VOLTAGE

325 Vrms @ Sea Level

### 4.2 TEMPERATURE

Rating: -55°C TO + 85°C

### 4.3 FREQUENCY RATING

DC to 26.5 GHz

### 4.4 NOMINAL IMPEDANCE

50 Ohms

REVISION: <b>A</b>	ECR/ECN INFORMATION: EC No: 115555 DATE: 2017 / 04 / 10	TITLE: <b>PS-89675-470 VITA 67.1 &amp; 67.2</b>	SHEET No. <b>1 of 3</b>
DOCUMENT NUMBER: <b>PS-89675-470</b>	CREATED / REVISED BY: <b>AVIN</b>	CHECKED BY: <b>LLM</b>	APPROVED BY: <b>AZR</b>



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## 5.0 PERFORMANCE

### 5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Insulation Resistance	EIA-364-21, Rev D	≥ 5000 Megohms
2	Dielectric Withstanding Voltage	EIA-364-20, Rev D, Method A	500 Vrms Min.
3	Contact Resistance	EIA-364-23, Rev B, Manual Center Contact Outer Contact	6.0 Milliohms Max 2 Milliohms Max
4	Voltage Standing Wave Ratio	EIA-364-108	1.10 DC to 10 GHz 1.26 10 GHz to 26.5 GHz
5	Micro-Second Discontinuity	EIA-364-46, Rev B	< 10 Ω for 1 microsecond @ 100mA
6	Insertion Loss	EIA-364-101, Method A	-0.12 dB x √f(GHz) Max

### 5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
7	Material	N/A	See Sales Drawing
8	Finish	N/A	See Sales Drawing
9	Design	N/A	See Sales Drawing
10	Force to Engage and Disengage	EIA-364-13, Rev E, Method A	Engage ≤ 150N (33.7 lbs) Disengage ≥ 26N (5.85 lbs)
11	Connector Durability	EIA-364-09, Rev C, Manual Method	500 Cycles

### 5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
12	Vibration	EIA-364-28, Rev F, Sinusoidal	Test Condition 2 - 4
13	Shock (Mechanical)	EIA-364-27, Rev C	Test Condition G
14	Shock (Thermal)	EIA-364-32, Rev D, Method A	Test condition 1 Test Duration A
15	Humidity	EIA-364-31, Rev C, Cycling Temperature	Method III
16	Temperature Life	EIA-364-17, Rev C, Method A	Test condition 5B 250 HRS @ 125°C ± 2°

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## 5.4 TEST SEQUENCE TABLE

Test or Examination	Test Group (a, c)				
	1	2	3	4	5
	Test Sequence (b)				
Visual Inspection	3	3	3	3	2,9
Sample Preparation/Labeling	2	2	2	2	1
LLCR	4,8	7	5,7	5,7	5,8
VSWR	1,9	1,8	1,4,8	1,4,8	
Insulation Resistance					4,7
Dielectric Withstand Voltage					3
Dielectric Withstand Voltage to Failure					10
Vibration	6				
Mechanical Shock	7				
Durability		6			6
Mating Force		4			
Un-Mating Force		5			
Thermal Shock			6		
Operating Temperature / Temperature Life	5				
Humidity				6	
Final Visual Inspection	10	9	9	9	11

### NOTES:

- (a) Specimens shall be prepared in accordance with applicable instruction sheet and shall be selected at random from current production. All test groups shall consist of a minimum of 2 specimens each.
- (b) Numbers indicate sequence in which tests were performed.
- (c) Test Groups:
  1. Vibration / Shock.
  2. Mating / Un-Mating / Durability.
  3. Thermal Shock.
  4. Temperature / Humidity Cycling.
  5. Insulation Resistance / Dielectric Withstand Voltage.

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