



# PRODUCT SPECIFICATION

## 1.0 SCOPE

This Product Specification covers the SMB product family (Interface Only) and is a general performance guideline. Please contact Molex RFMS Engineering for specific design iteration performance ratings. As customer end use applications vary greatly, the performance requirements stated within are superseded by performance requirements stated on the Molex Sales Drawing(s).

## 2.0 PRODUCT DESCRIPTION

**2.1 PRODUCT NAME**  
SMB

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

MIL-STD-348B

## 4.0 RATINGS

### 4.1 VOLTAGE

335 Vrms at Sea Level  
85 Vrms at 70,000 Feet

### 4.2 TEMPERATURE

Rating: - 65°C TO + 165°C

### 4.3 FREQUENCY RATING

0 to 4.0 GHz

### 4.4 NOMINAL IMPEDANCE

50 or 75 Ohm (see sales drawing)

REVISION: <b>A5</b>	ECR/ECN INFORMATION: EC No: 175913 DATE: 2018 / 05 / 14	TITLE: <b>SMB PRODUCT FAMILY INTERFACE ONLY</b>	SHEET No. <b>1 of 4</b>
DOCUMENT NUMBER: <b>PS-89675-354</b>	CREATED / REVISED BY: <b>S.SHAH/AZR</b>	CHECKED BY: <b>SSS</b>	APPROVED BY: <b>WES</b>



# PRODUCT SPECIFICATION

## 5.0 PERFORMANCE

### 5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	<b>Insulation Resistance</b>	MIL-PRF-39012, paragraph 3.11	>=1000 Megohms
2	<b>Dielectric Withstanding Voltage</b>	MIL-PRF-39012, paragraph 3.17 Cable group I Cable group II, IIa	750 Vrms Min 1000 Vrms Min
3	<b>Low Level Contact Resistance (LLCR)</b>	MIL-PRF-39012, paragraph 3.16  Center Contact  Outer Contact	Initial: Baseline (Reference Only) Post Environment: 10.0 Milliohms Max Increase  Initial: Baseline (Reference Only) Post Environment: 10.0 Milliohms (Noble Plating) 20.0 Milliohms (Non-Noble Plating) Max Increase
4	<b>Voltage Standing Wave Ratio</b>	MIL-PRF-39012, paragraph 3.14	See Sales Drawing
5	<b>RF Insertion Loss</b>	MIL-PRF-39012, paragraph 3.27	Application specific. See Sales Drawing where applicable.

### 5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
6	<b>Material</b>	MIL-PRF-39012, paragraph 3.3	See Sales Drawing
7	<b>Finish</b>	MIL-PRF-39012, paragraph 3.3.1	See Sales Drawing
8	<b>Design</b>	MIL-PRF-39012, paragraph 3.4	See Sales Drawing
9	<b>Recommended Mating Torque</b>		N/A
10	<b>Force to Engage and Disengage</b>	MIL-PRF-39012, paragraph 3.5.1 Axial Force Radial Force	14.0 lbs Max. N/A
11	<b>Coupling Proof Torque</b>	MIL-PRF-39012, paragraph 3.6	N/A

REVISION: <b>A5</b>	ECR/ECN INFORMATION: EC No: 175913 DATE: 2018 / 05 / 14	TITLE: <b>SMB PRODUCT FAMILY INTERFACE ONLY</b>	SHEET No. <b>2 of 4</b>
DOCUMENT NUMBER: <b>PS-89675-354</b>	CREATED / REVISED BY: <b>S.SHAH/AZR</b>	CHECKED BY: <b>SSS</b>	APPROVED BY: <b>WES</b>



# PRODUCT SPECIFICATION

## 5.2 MECHANICAL REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
12	<b>Mating Characteristics</b>	MIL-PRF-39012, paragraph 3.7	MIL-STD-348B dimensions
13	<b>Connector Durability</b>	MIL-PRF-39012, paragraph 3.15	500 Cycles
14	<b>Center Contact Retention</b>	MIL-PRF-39012, paragraph 3.12 Axial Force (Cable Connectors) Axial Force (Adapters) Axial Force (PCB Connectors) Radial Torque	4 lbs MIN (terminated to cable) 4 lbs MIN N/A N/A
15	<b>Cable Retention</b>	MIL-PRF-39012, paragraph 3.24 Axial Force	Per Cable Specification

## 5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
16	<b>Vibration</b>	MIL-PRF-39012, paragraph 3.18 Per MIL-STD-202, Method 204	Test Condition B  <u>Signal (Center) LLCR:</u> 10.0 Milliohms Max Increase Post Environment  <u>Outer Conductor LLCR:</u> 10.0 Milliohms (Noble Plating) 20.0 Milliohms (Non-Noble Plating) Max Increase Post Environment
17	<b>Shock</b>	MIL-PRF-39012, paragraph 3.19 Per MIL-STD-202, Method 213	Test Condition B  <u>Signal (Center) LLCR:</u> 10.0 Milliohms Max Increase Post Environment  <u>Outer Conductor LLCR:</u> 10.0 Milliohms (Noble Plating) 20.0 Milliohms (Non-Noble Plating) Max Increase Post Environment

REVISION: <b>A5</b>	ECR/ECN INFORMATION: EC No: 175913 DATE: 2018 / 05 / 14	TITLE: <b>SMB PRODUCT FAMILY INTERFACE ONLY</b>	SHEET No. <b>3 of 4</b>
DOCUMENT NUMBER: <b>PS-89675-354</b>	CREATED / REVISED BY: <b>S.SHAH/AZR</b>	CHECKED BY: <b>SSS</b>	APPROVED BY: <b>WES</b>



# PRODUCT SPECIFICATION

18	<b>Shock (Thermal)</b>	MIL-PRF-39012, paragraph 3.2 Per MIL-STD-202, Method 107	Test Condition B  <u>Signal (Center) LLCR:</u> 10.0 Milliohms Max Increase Post Environment  <u>Outer Conductor LLCR:</u> 10.0 Milliohms (Noble Plating) 20.0 Milliohms (Non-Noble Plating) Max Increase Post Environment
19	<b>Corrosion (Salt Spray)</b>	MIL-PRF-39012, paragraph 3.13 Per MIL-STD-202, Method 101	Test Condition B
20	<b>Moisture Resistance</b>	MIL-PRF-39012, paragraph 3.21 Per MIL-STD-202, Method 106	DWV 750 Vrms (after drying)

REVISION: <b>A5</b>	ECR/ECN INFORMATION: EC No: 175913 DATE: 2018 / 05 / 14	TITLE: <b>SMB PRODUCT FAMILY INTERFACE ONLY</b>	SHEET No. <b>4 of 4</b>
DOCUMENT NUMBER: <b>PS-89675-354</b>	CREATED / REVISED BY: <b>S.SHAH/AZR</b>	CHECKED BY: <b>SSS</b>	APPROVED BY: <b>WES</b>