

MHF® 4(4L) RECEPTACLE HIGH CYCLE SMA ADAPTER

Part No. 90698-0001

Product Specification

Qualification Test Report No. TR-15037

2	S22258	June 21, 2022	Y. Imaji	K. Yufu	Y. Hashimoto
1	S18209	March 23, 2018	Y. Imaji	K. Yufu	K. Yotsutani
0	S15189	May 1, 2015	S. Hamada	K. Yotsutani	T. Takano
Rev.	ECN	Date	Prepared by	Checked by	Approved by

1. Scope

This Product Specification defines the test conditions and the performances of the MHF 4(4L) RECEPTACLE HIGH CYCLE SMA ADAPTER

2. Product Name and Parts No.

2.1 Product Name

MHF 4(4L) RECEPTACLE HIGH CYCLE SMA ADAPTER

2.2 Parts No.

90698-0001

3. Rating

3.1 Operating Conditions

Operating temperature: 243 to 343K(-30°C to 70°C) (Containing temperature rise by current)

4. Test and Performance

Test Condition

Unless otherwise specified, all tests and measurements shall be performed under the following conditions in accordance with MIL-STD-202.

Temperature: 288K to 308K(15°C to 35°C)

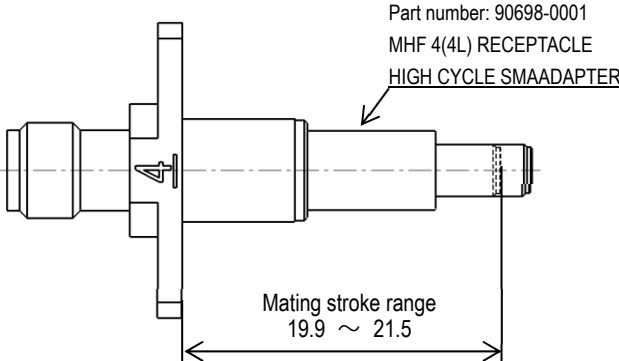
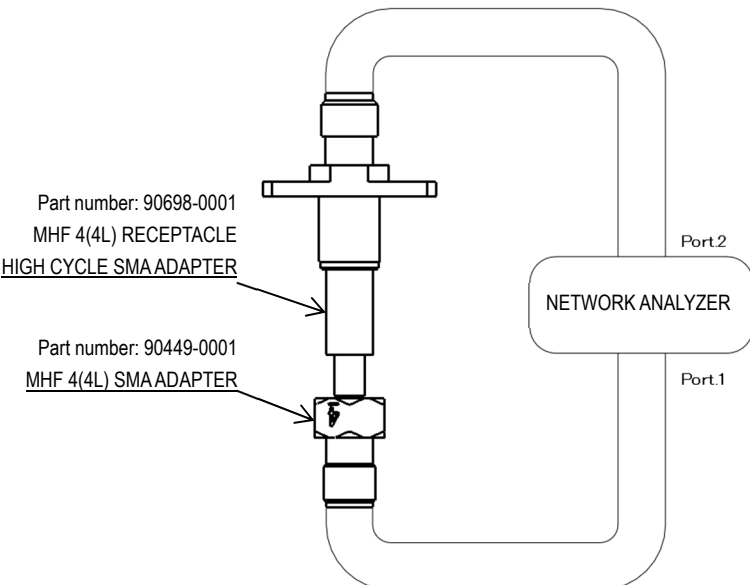
Pressure: 866hPa to 1066hPa(650mmHg to 800mmHg)

Relative humidity: 45 to 75% R.H.

4.1. Electrical Performance

1. Insulation resistance	
Reference standard:	MIL-STD-202-302
Test conditions:	Apply DC 100 V between the inner contact and the ground contact.
Pass criteria:	500 MΩ MIN.

2. Dielectric withstanding voltage	
Reference standard:	MIL-STD-202-301
Test conditions:	Apply AC 300V(rms) between the neighboring contacts for a minute.
Pass criteria:	No abnormalities such as creeping discharge, flashover, insulator breakdown occur.

3. VSWR		
Reference standard:	-	
Test conditions:	Measure VSWR at maximum stroke of 19.9mm and at minimum stroke 21.5mm as show in Fig. 1. (See Fig. 2 for measuring method.)	
 Part number: 90698-0001 MHF 4(4L) RECEPTACLE HIGH CYCLE SMAADAPTER Mating stroke range 19.9 ~ 21.5 Fig. 1  Part number: 90698-0001 MHF 4(4L) RECEPTACLE HIGH CYCLE SMAADAPTER Part number: 90449-0001 MHF 4(4L) SMAADAPTER Port.2 Port.1 NETWORK ANALYZER Fig. 2 <tr><td>Pass criteria:</td><td>0.1~3GHz: 1.30 MAX. 3~6GHz: 1.50 MAX. 6~9GHz: 1.65 MAX. 9~12GHz: 2.00 MAX.</td></tr>	Pass criteria:	0.1~3GHz: 1.30 MAX. 3~6GHz: 1.50 MAX. 6~9GHz: 1.65 MAX. 9~12GHz: 2.00 MAX.
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4.Insertion Loss	
Reference standard:	-
Test conditions:	Measure Insertion Loss at maximum stroke of 19.9mm and at minimum stroke 21.5mm as show in above Fig. 1. (See above Fig. 2 for measuring method.)
Pass criteria:	0.1~6GHz: -0.8dB MIN. 6GHz~12GHz: -1.0dB MIN.

4.2. Mechanical Performance

1. Durability	
Reference standard:	-
Test conditions:	Set the MHF4 HIGH CYCLE ADAPTOR to the push and pulling machine. Mate and unmate 10,000 cycles at speed of 25±3mm/min. Mate and unmate horizontally to the mating axis.
Pass criteria:	VSWR: Shall meet 4.1.3. Insertion Loss: Shall meet 4.1.4. Appearance: No abnormality adversely affecting the performance shall occur.

4.3 Test Sequence and Sample Quantity

Table 1 Test Sequence and Sample Quantity

Test Item	Test Sequence
VSWR	1, 6
Insertion Loss	2, 7
Insulation Resistance	3
D. W. Voltage	4
Durability(10,000 cycles)	5
Sample QTY.	3 pcs.

*The number of group is test sequence.

5. Recommended Metal Mask

N / A.

6. Precautions for Handling Adapter

See HIM-22010.