

2.4mm RF CONNECTOR

Part No. : 50203

Product Specification

Rev.	ECN	Date	Prepared by	Checked by	Approved by
1	S21222	May 18, 2021	K. Yufu	-	M. Takemoto
0	S21206	May 6, 2021	K. Yufu	-	M. Takemoto

- 1. Scope**

This product specification defines the test conditions and the performances of the 2.4mm RF CONNECTOR ADAPTER FOR PCB(INNER LAYER).
- 2. Product Name and Parts No.**
 - 2.1 Product Name**

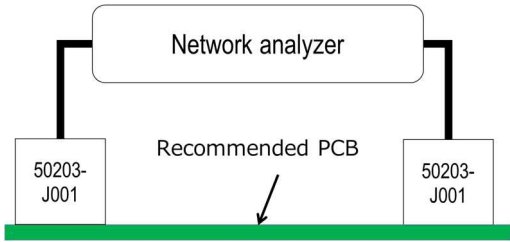
2.4mm RF CONNECTOR ADAPTER FOR PCB(INNER LAYER)
 - 2.2 Parts No.**

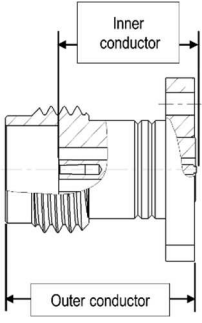
Jack type: 50203-J001
- 3. Storage Conditions**

Storage temperature: 278 to 308K (5°C to 35°C)
Storage humidity: 30~60% (Non-condensing)
- 4. Test and Performance**
 - Test Condition**

Temperature: 293K to 303K(20°C to 30°C)

4.1. Electrical Performance

1. VSWR	
Reference standard:	-
Test conditions:	Measure VSWR as shown in Fig.1 by network analyzer. Frequency: 0.1GHz~50GHz
 <p>The diagram shows a Network analyzer connected to two 50203-J001 connectors. These connectors are mounted on a green PCB labeled 'Recommended PCB'. The network analyzer is connected to the top of each connector.</p>	
Fig. 1	
Pass criteria:	1.5 MAX.

2. Contact resistance	
Reference standard:	-
Test conditions:	Apply 20mV MAX. DC open circuit voltage and 10mA MAX. DC short circuit current. Measure the contact resistance of signal and GROUND at the section shown in Fig.2.
 <p>The diagram is a cross-sectional view of the connector. It shows the 'Inner conductor' and the 'Outer conductor' with arrows pointing to their respective parts.</p>	
Fig. 2	
Pass criteria:	Inner contact: 4.0 mΩMAX. Outer contact: 2.5 mΩMAX.

3. Insulation resistance	
Reference standard:	-
Test conditions:	Apply DC 500 V between the inner contact and the ground contact.
Pass criteria:	5000 MΩ MIN.

4. Dielectric withstanding voltage	
Reference standard:	-
Test conditions:	Apply AC 500V(rms) between the neighboring contacts for a minute.
Pass criteria:	No abnormalities such as creeping discharge, flashover, insulator breakdown occur.

4.2. Mechanical Performance

1. Durability	
Reference standard:	-
Test conditions:	Repeat mate and unmate to applicable part 500 cycles with 1.65Nm torque wrench.
Pass criteria:	Shall meet all above electrical performance.

4.3 Test Sequence and Specimen Quantity

Table.1 Test Sequence and Sample Quantity

Test Item	Test sequence
VSWR	1,6
Contact resistance	2,7
Insulation resistance	3,8
Dielectric withstanding voltage	4,9
Durability	5
Specimen quantity	5

※Numbers indicate test sequences.