# **Microwave Coaxial Connectors**



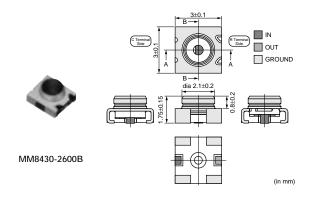
## **Microwave Coaxial Connectors with Switch SWD Type**

#### ■ Features

- 1. The coaxial connector with switch is very useful for characteristic measurement of hand held phone and microwave circuit.
- 2. It is possible to switch the line connection and desconnection easily by special probe.
- 3. Small size, low profile. Size 3x3x1.75mm (LxWxH).
- 4. Excellent characteristic. Low IL 0.2dB max.. V.S.W.R. 1.3 max. Isolation 15dB min. (at DC to 6GHz).
- 5. Surface mountable and reflow solderable.
- 6. Tape package available.

#### ■ Applications

Cellular phone, W-LAN, Other wireless and measurement equipment.

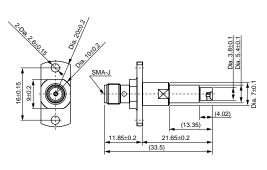


Part Number	Rated Voltage (Vrms)	Contact Resistance (ohm)	Withstand Voltage (Vrms)	Insulation Resistance (M ohm)	Durability (cycles)	Frequency Rating	Temperature Range (degree C)	VSWR	Insertion Loss (On) (dB)	Isolation (Off) (dB)	Inner Electrode (C)	Inner Electrode (R) (material)	Outer Electrode (material)
MM8430-2600B	250	0.05 max.	300 (AC)	500	500	DC to 6GHz	-40 to +90	1.2 max.	0.1 max. (DC to 3GHz)	20 min. (DC to 3GHz)	Stainless Steel Gold plated	11 3	Copper Alloy Silver plated

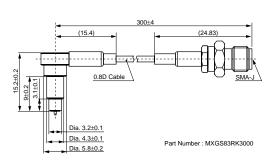
Impedance: 50 ohm

#### ■ Measurement Probe Dimensions

#### MM126036



#### MXGS83RK3000

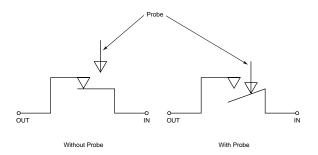


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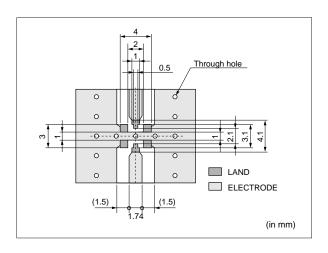
(in mm)

#### ■ Structure



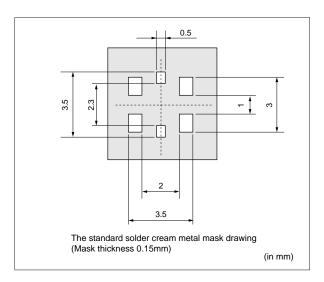
#### ■ Standard Land Dimensions

- 1. Standard pattern dimensions
- Please design I/O pattern so that the impedance match 50 ohm including the land pattern.
- The material of PCB is the epoxy resin of grass fabric base. (εr=4.8). Thickness is 1.0mm.
- The solder resist should be printed except for the land pattern on the PCB.



#### 2. Standard metal mask pattern

There is possibility to have the contact failure by solder shifting into contact point, if the excess solder is used by non standard metal mask pattern.



## **Notice**

#### ■ Notice (Storage and Operating Condition)

- 1. Environment Conditions
- (1) This product is designed for use of electrical equipment in the environment (temperature, humidity, atmospheric pressure and etc.) specified in this approval drawing: it may not be used in the following environments or under the following conditions:
  - (a) Ambient air containing corrosive gas
    (Chlorine gas, Hydrogen sulfide gas, Ammonia gas, Sulfuric acid gas, Nitric oxie gas, etc.)
  - (b) Ambient air containing volatile or combustible gas.
  - (c) In liquid (water, oil, chemical solution, organic solvents, etc.)
  - (d) In environments with a high concentration of

airborne particles.

- (e) In direct sunlight
- (f) Other environments similar to the above conditions.
- (2) Contact the manufacturer before using the product in any of the above environments or under any of the above conditions.
- 2. Storage

Store in manufacturer's package or tightly re-closed box with the following conditions. Use this product within 6 months after receipt. Check the terminal solderability before use, if the product has been stored for more than 6 months.

Temperature : -10 to +40 degree C Humidity : 15 to 85 % RH



## **Notice**

#### ■ Notice (Soldering and Mounting)

#### 1. Reflow soldering

Soldering must be carried out without exceeding the allow able soldering temperature and time shown within the shaded area of FIGURE "Allowable Temperature and Time of Reflow Soldering".

In case the soldering is repeated, the maximum time in FIGURE "Allowable Temperature and Time of Reflow Soldering" should be accumulated time. The standard soldering conditions are shown in FIGURE "Reflow Soldering Standard Conditions".

Use the pattern and Metal mask pattern is illustrated in details.

There is the possibility to have the contact failure by solder shifting into contact point, if the excess solder is used by non standard metal mask pattern.

2. Soldering by soldering iron

Soldering by soldering iron should be carried out in accordance to the following conditions.

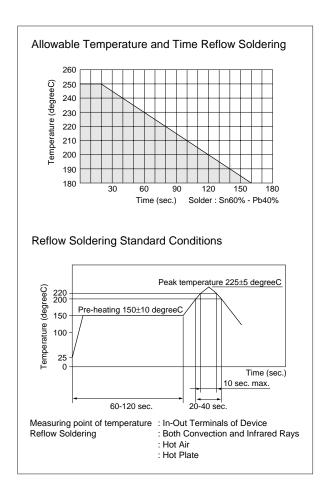
Pre-heating Temperature 150 degree C

Time 60 to 120 s.

Soldering Temperature (at the tip of the soldering

iron) less than 350 degree C Time less than 3 s.

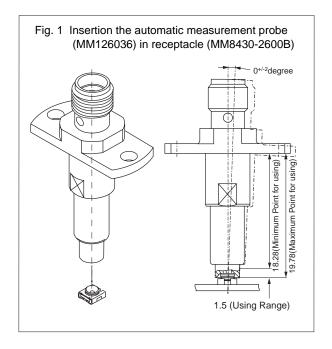
- We cannot warrant against mishaps caused by any use of this product that deviates from allowable temperature and time of reflow soldering.
- 4. In soldering, do not apply excessive mechanical force to terminals or leads greater than specified in the drawing.
- Please note the following in case of soldering terminals or leads of the product.
  - (1) Use Rosin based flux, but not with strong acid flux (Chlorine content should be less than 0.20wt%).
  - (2) Flux should be cleaned thoroughly.
- 6. Please mount this product at the position so that stress by wrap and/or bend of the PCB may not apply to it.
- 7. Please avoid the cleaning of this product.



## **Notice**

#### ■ Notice (Handling)

- 1. Automatic measurement probe (MM126036)
- Automatic measurement probe (MM126036) should be used on the condition in Fig. 1 for good connection without any damages.
- The engagement strokes from the flange to the tip of probe is 18.28mm to 19.78mm with vertical (0+/-2 degree) direction.



#### 2. L type probe with lock function (MXGS83RK3000)

- Do not try to pull the cable, when a connector with a coaxial cable is handled.
- Do not give a twisted torque to the cable and connector.
- Mechanical stress:

The stress to the connector should be limited as figure shown right.

- (1) Stress to the housing. Stress A and B: 0.7N Max.
- (2) Stress to the outer sleeve.

Stress C: 0.6N Max.

Stress D: 0.6N Max.

(3) Cable pull strength.

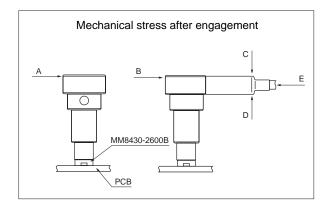
Stress E: 0.7N Max.

## 3. Usage Condition

- (1) Do not apply electrical voltage greater than specified in the catalog. It might cause degradation or destruction of the product. Even if it endures during a short time, long time qualification is not guaranteed.
- (2) Confirm that product performance is not influenced with any other components or materials which directly contact products.

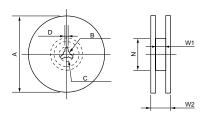
#### 4. Handling

Do not apply excessive shock or load to subassembly products such as soldered printed circuit board in case handling or transporting.



## **Package**

#### ■ Dimensions of Reel



(in mm)

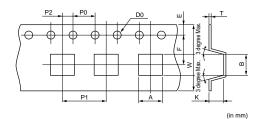
Murata Part Number	A	В	С	D	N (min.)	W1	W2 (max.)
MM8430-2600RA1	178	13	21	2	Dia. 50	13.5	18.5
MM8430-2600RB3	330	13	21	2	Dia. 50	13.5	18.5
TOLERANSE	±2.0	±0.5	±0.8	±0.5	-	±1.5	-

### ■ Minimum Quantity

MM8430-2600RA1: 180 mm dia. reel/1000 pcs. MM8430-2600RB3: 330 mm dia. reel/3000 pcs.

MM8430-2600B : Bulk/free

## ■ Dimensions of Taping



Α	В	W	D0	E	F	K
3.4+0.1	3.4+0.1	12+0.2	Dia.1.5+0.1	1.75+0.1	5.5+0.1	2.0+0.15

P0	P1	P2	T
4+0.1	8+0.1	2+0.1	0.3+0.05