Microwave Coaxial Connectors

MICROWAVE COAXIAL CONNECTORS

GLOBAL PART NUMBERS
JUNE 2001

muRata Innovator in Electronics
Murata
Manufacturing Co., Ltd.

Cat.No.O30E-4

CONTENTS

● Part Numbering (The structure of the "Global Part Numbers" that have been adopted since June 2001 and the meaning of each code are described herein. If you have any questions about details, inquire at your usual Murata sales office or distributor.)

Coaxial Connectors (Chip Type Receptacle)

(Global Part Number) **MM** | **7329** | **-27** | **00** | **R** | **A1**
❶ ❷ ❸ ❹ ❺ ❻

❶Product ID

Product ID	
MM	Microwave Coaxial Connectors (Chip Type Receptacle)

❷Series

Code	Series
3325	BFA Type Straight
3326	BFA Type Right Angle
7329	FSC Type
8430	SWD Type
9329	GSC Type

❸Individual Specification Code (1)

Code	Individual Specification Code (1)
-25	Discrete Terminal
-26	Switch Connector SMD Type
-27	Connector SMD Type

❹Individual Specification Code (2)

Code	Individual Specification Code (2)
00	Serial

❺Package Product ID

Code	Package Product ID
B	Bulk
R	Reel

❻Package Detail

Code	Package Detail
A1	FSC, SWD, GSC Type 1000pcs. /Reel (ø178mm)
B3	SWD Type, 3000pcs. /Reel (ø330mm)
B4	FSC Type, 4000pcs. /Reel (ø330mm)
B5	GSC Type, 5000pcs. /Reel (ø330mm)

Coaxial Connectors (with Cable)

(Global Part Number) **MX** | **FG** | **76** | | | |
❶ ❷ ❸ ❹ ❺ ❻

❶Product ID

Product ID	
MX	Coaxial Connectors (with Cable)

❷Connector (1)

Code	Connector (1)
FG	FSC Type for 76 Cable
FK	FSC Type for 81 Cable
TK	GSC Type
YH	BFA Type

❸Cable

Code	Cable
62	0.8D, PE, Double Shield Line
63	0.8D, PE, Single Shield Line
75	0.8D, FEP, Double Shield Line
76	0.8D, FEP, Single Shield Line
81	0.4D, FEP, Single Shield Line
88	0.4D, PFA, Single Shield Line, Single Line
92	0.4D, PFA, Single Shield Line, Spiral

❹Connector (2)

Code	Connector (2)
FG	FSC Type for 76 Cable
FK	FSC Type for 81 Cable
TK	GSC Type
YH	BFA Type
XX	None Connector

❺Length

Expressed by four figures. The unit is mm. From first to third figures are significant, and the fourth figure expresses the number of zeros which follow the three figures.

Ex.)

Code	Length
5000	500mm = 500 x 10^0
1001	1000mm = 100 x 10^1

❻Individual Specification Code

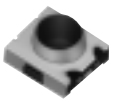
Expressed by two figures.

Microwave Coaxial Connectors

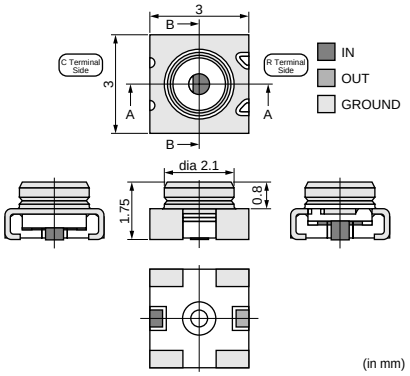
Microwave Coaxial Connectors with Switch SMD Type

■ 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.



MM8430-2600B



(in mm)

■ Applications

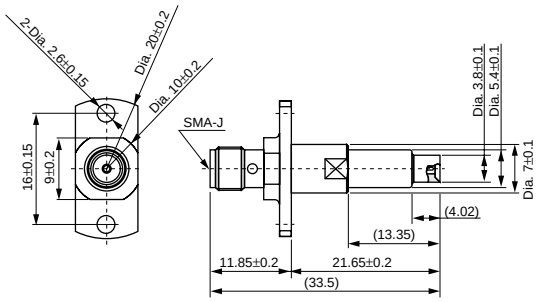
Cellular phone, W-LAN, Other wireless and measerement equipment.

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 max.	0.05 max.	300 (AC)	500	500	DC to 6GHz	-40 to +90	1.3 max. (DC to 6GHz)	0.1 max. (DC to 3GHz)	20 min. (DC to 3GHz)	Stainless Steel Gold plated	Copper Alloy Gold Plated	Copper Alloy Silver plated

Impedance : 50 ohm

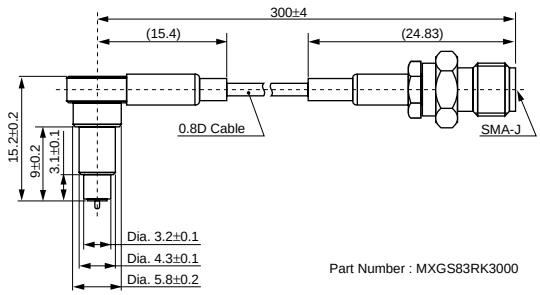
■ Measurement Probe Dimensions

MM126036



(in mm)

MXGS83RK3000



Part Number : MXGS83RK3000

(in mm)

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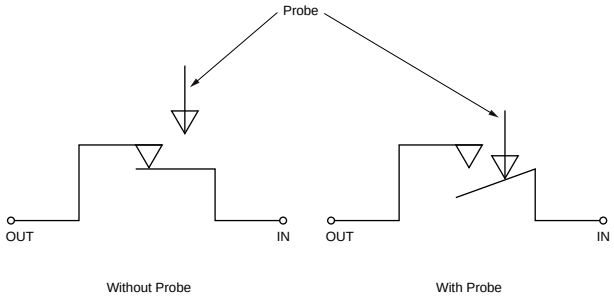
1

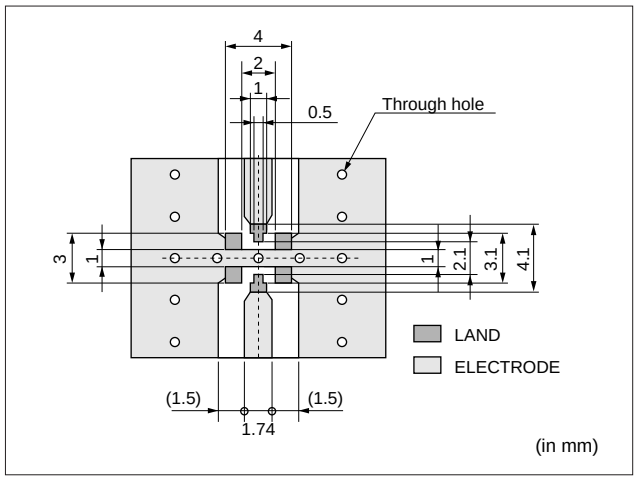
■ Structure



■ Standard Land Dimensions

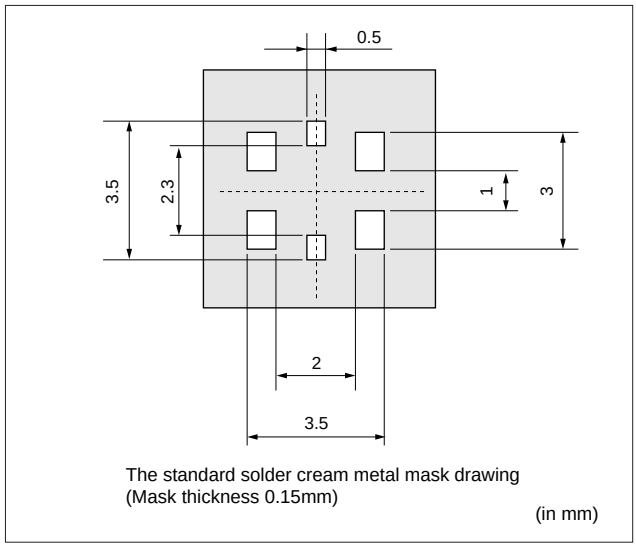
1. Standard pattern dimensions

- 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 (Storage and Operation 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

1

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.

3. 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.

5. Please note the following in case of soldering terminals or leads of the product.

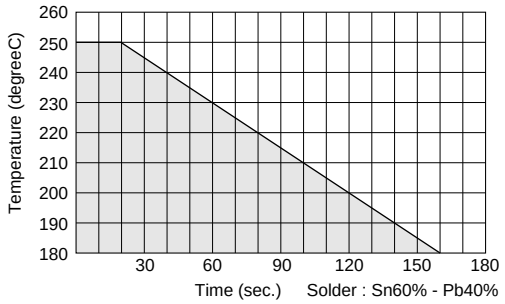
(1) Use Rosin based flux, but not with strong acid flux (Chlorine content should be less than 0.20wt%).

(2) Flux should be cleaned thoroughly.

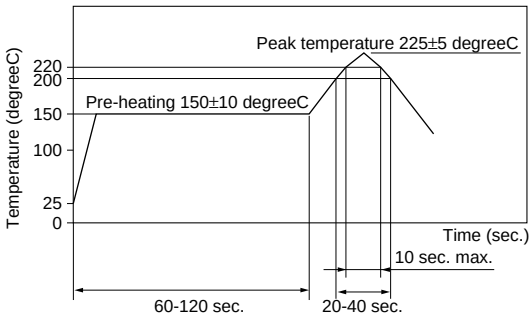
6. Please mount this product at the position so that stress by wrap and/or bend of the PCB may not apply to it.

7. Please avoid the cleaning of this product.

Allowable Temperature and Time Reflow Soldering



Reflow Soldering Standard Conditions



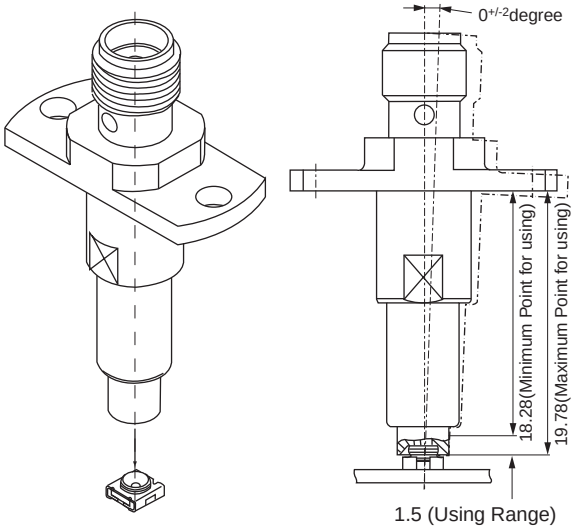
Measuring point of temperature : In-Out Terminals of Device
Reflow Soldering : Both Convection and Infrared Rays
: Hot Air
: Hot Plate

■ 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.

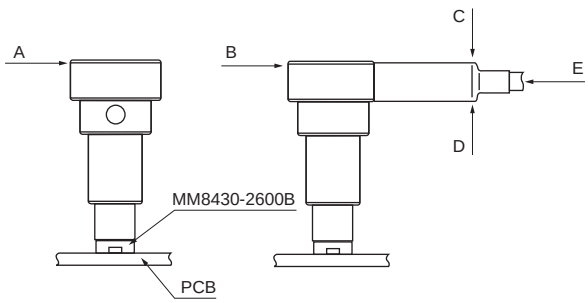
Fig. 1 Insertion the automatic measurement probe (MM126036) in receptacle (MM8430-2600B)



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.

Mechanical stress after engagement



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 perfomance is not influenced with any other components or materials which directly contact products.

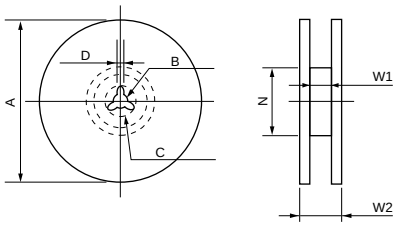
4. Handling

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

1

Package

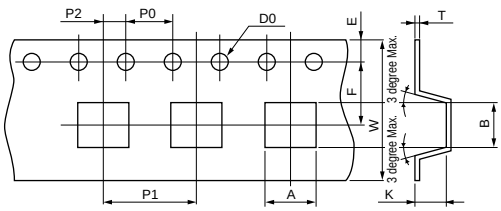
■ Dimensions of Reel



(in mm)

Murata Part Number	A	B	C	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	–

■ Dimensions of Taping



(in mm)

A	B	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

■ Minimum Quantity

MM8430-2600RA1: 180 mm dia. reel/1000 pcs.
MM8430-2600RB1: 330 mm dia. reel/3000 pcs.
MM8430-2600B : Bulk /free

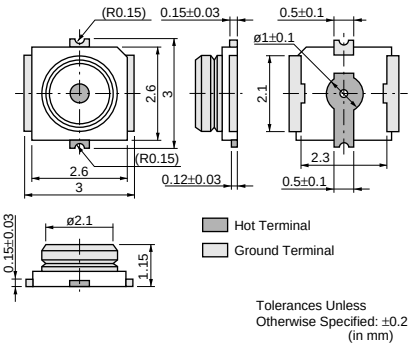
Microwave Coaxial Connectors

GSC type

■ Features

1. The mating height is only 2mm maximum by new mechanical design. Suitable for low profile design.
2. Receptacle size is 3.0x3.0mm. Suitable high density
3. New mating mechanical desigh makes stable feeling connection.
4. High performance with wide frequency range (DC to 6GHz). V.S.W.R. at DC to 3GHz is 1.2 maximum. V.S.W.R. at 3GHz to 6GHz is 1.3 maximum.
5. Surface mountable and reflow solderable.
6. Tape package available.

MM9329-2700B



Tolerances Unless Otherwise Specified: ±0.2 (in mm)

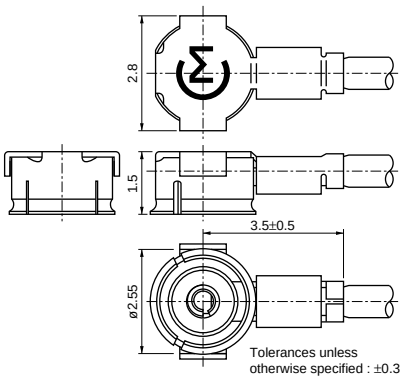
■ Applications

Portable telephone, cordless telephone(analog and digital), GPS, and other microwave radio and measurement equipment.

Part Number	Rated Voltage (V)	Contact Resistance (ohm)	Withstanding Voltage (rms)	Insulation Resistance (M ohm)	Durability (cycles)	Frequency Rating (GHz)	Temperature Range (degree C)	VSWR	Center Contact	Outer Contact	Insulator
MM9329-2700B	250	0.015 max.	300 (AC)	500 min.	100	DC - 6.0	-40~+90	1.3 max. (DC~6GHz)	Copper Alloy Gold plated	Copper Alloy Silver plated	Engineering plastic

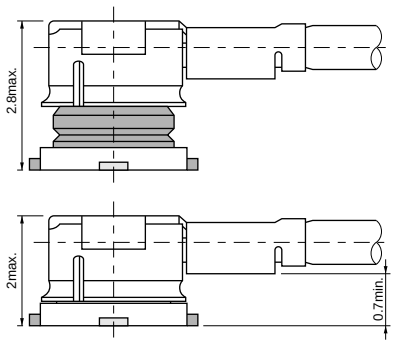
Impedance : 50 ohm

■ MXTK



Tolerances unless otherwise specified : ±0.3 (in mm)

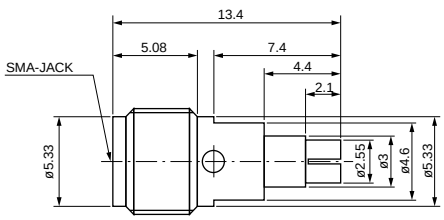
■ Profile Dimensions



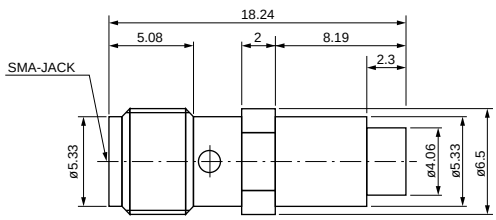
(in mm)

■ Measurement Probe Dimensions (for Receptacle)

MM121470 (Hand measurement)



MM121471 (Automatic measurement)



(in mm)

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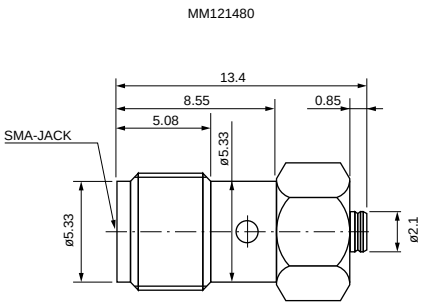
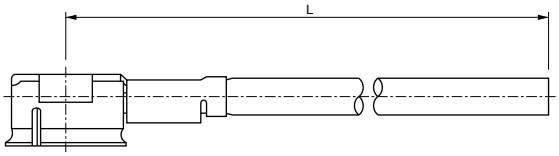
■ Measurement Probe Dimensions (for Cable Assembly)



(in mm)

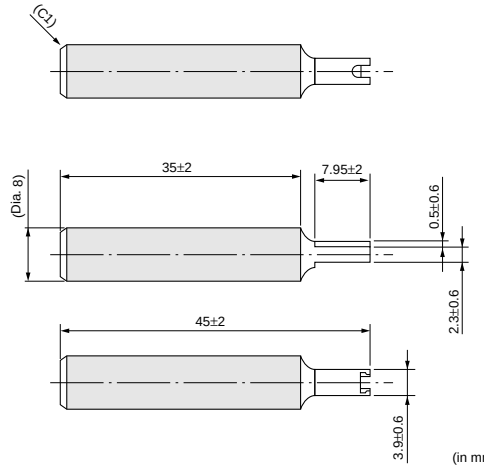
■ Cable Length Tolerance

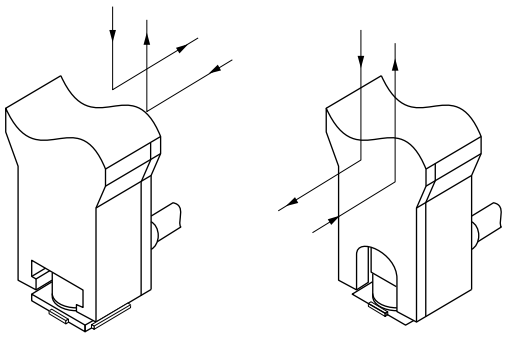


Cable Length L (mm) (∗)		Dimensional tolerance (mm)
Over	Till	
40	100	±3
100	500	±4
500	1000	±10
1000	–	+2% of L –0% of L

∗L must be 20mm Min.

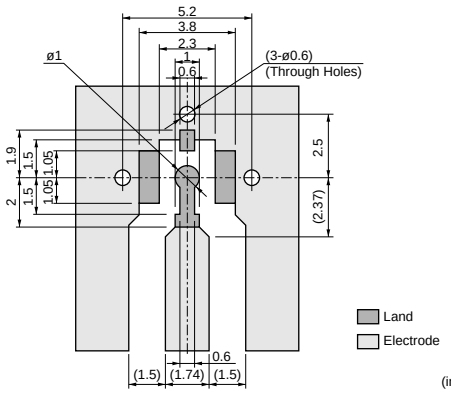
■ Disengagement Tool (Part Number: M22001)





(in mm)

■ Land Pattern Dimensions



(in mm)

Notice

■ Notice (Storage and Operation Condition)

1. Environment Conditions

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(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 at receptacle to solder-joint with some gap in between PCB by the excess solder.

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.

3. 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.

5. Please note the following in case of soldering terminals or leads of the product.

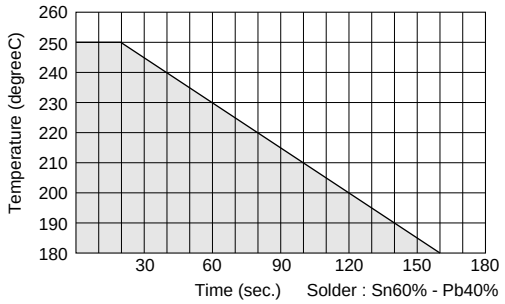
(1) Use Rosin based flux, but not with strong acid flux (Chlorine content should be less than 0.20wt%).

(2) Flux should be cleaned thoroughly.

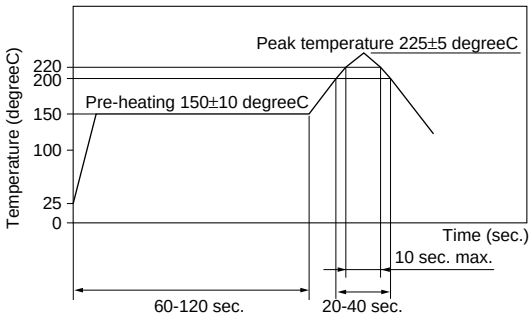
6. Please mount this product at the position so that stress by wrap and/or bend of the PCB may not apply to it.

7. Please dry out this product immediately after soldering and cleaning.

Allowable Temperature and Time Reflow Soldering



Reflow Soldering Standard Conditions



Measuring point of temperature : In-Out Terminals of Device
Reflow Soldering : Both Convection and Infrared Rays
: Hot Air
: Hot Plate

Continued on the following page.

Notice

Continued from the preceding page.

■ Notice (Handling)

1. Usage Condition

(1) Do not apply electrical voltage greater than specified in the drawing. It might because of degradation or destruction of the product. Even if it endures during a short time, long time qualification is not guaranteed.

(2) Confirm that there are not any influence to the product's performance which might because by other components which touch with the product.

(3) Please contact the manufacturer before hand, if the product is to be used in frequently bent position.

2. Handling

(1) Do not apply excessive shock or load to subassembly like soldered printed circuit board in case of handling and transporting it.

(2) Do not try to pull the cable, when a connector with a coaxial cable is handled.

(3) Disregard with following notes could give mechanical damage and/or poor electrical performance.

3. Handling Instructions

(1) This cable is just only fit with MM9329-2700B receptacle. Any other receptable can not be used with this cable.

(2) Disengagement:
Use tool P/N M22001. Do not try to pull out by the cable, because there is the possibility a wire breaks.

(3) Do not give a twisted torque to the cable and connector.

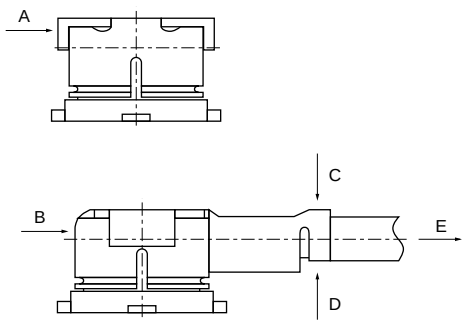
(4) Mechancical stress:
The stress to the connector should be limited as shown the following Figure1.

(a) Stress to the housing.
Stress A and B: 4.9N Max.

(b) Stress to the outer sleeve.
Stress C: 2.94N Max.
Stress D: 1.96N Max.

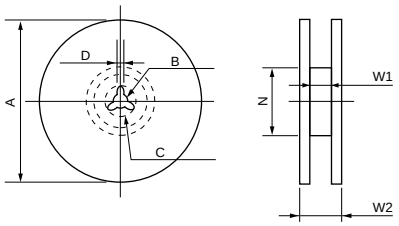
(c) Cable pull strength.
Stress E: 4.9N Max.

Figure 1. Mechanical stress after engagement



Package

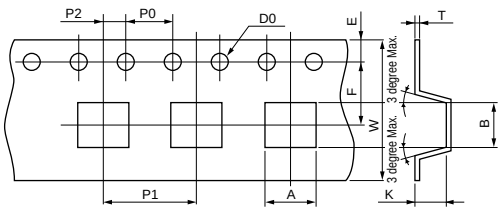
■ Dimensions of Reel



(in mm)

Murata Part Number	A	B	C	D	N (min.)	W1	W2 (max.)
MM9329-2700RA1	178	13	21	2	Dia. 50	13.5	18.5
MM9329-2700RB5	330	13	21	2	Dia. 50	13.5	18.5
TOLERANSE	±2.0	±0.5	±0.8	±0.5	–	±1.5	–

■ Dimensions of Taping



(in mm)

A	B	W	D0	E	F	K
3.8±0.1	3.8±0.1	12±0.2	Dia.1.5 $^{+0.1}_{-0}$	1.75±0.1	5.5±0.1	1.25±0.15

P0	P1	P2	T
4±0.1	8±0.1	2±0.1	0.3±0.05

■ Minimum Quantity

MM9329-2700RA1: 180 mm dia. reel/1000 pcs.
MM9329-2700RB5: 330 mm dia. reel/5000 pcs.
MM9329-2700B : Bulk /free

Microwave Coaxial Connectors

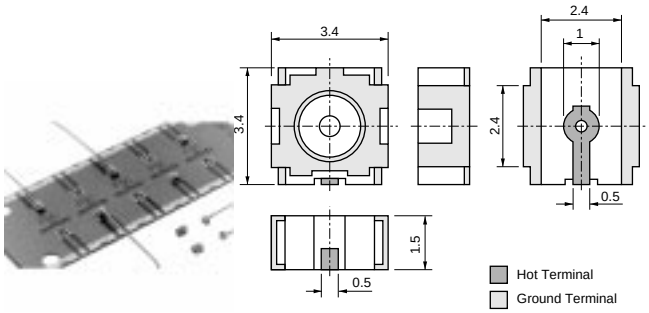
FSC type

■ Features

1. High engagement with new structure (50% up compared with ESC type)
2. Ultra-miniature (LxWxH: 3.4x3.4x1.5mm) for High density mounting.
3. Ultra-low plofile (3.0mm max.).
4. SMD and reflow soldering applicable.
5. Tapping package applicable.
6. Mountable by automatic placer.
7. High performance. (V.S.W.R. 1.2 max. at 3GHz)
8. Matched with ultra-thin FEP coaxial cables (0.8mm dia).

■ Applications

Portable telephone, mobile telephone, cordless telephone, GPS, and other microwave radio and mesurement equipment.

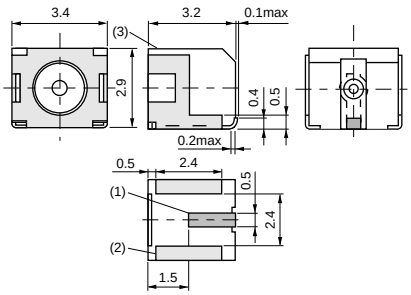


MM7329-2700B

Tolerances Unless Otherwise Specified:±0.2

(in mm)

■ MM7329-2702B

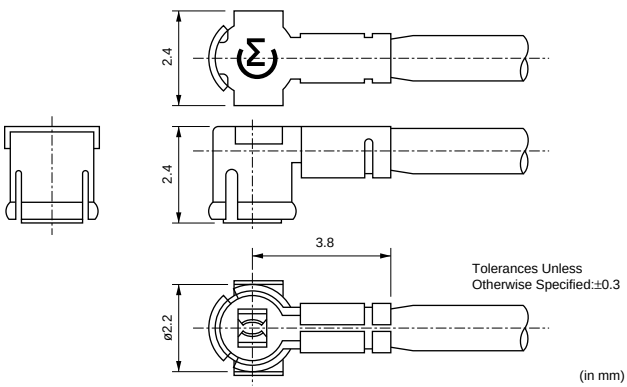


(in mm)

Part Number	Rated Voltage (V)	Contact Resistance (ohm)	Withstanding Voltage (rms)	Insulation Resistance (M ohm)	Durability (cycles)	Frequency Rating (GHz)	Temperature Range (degree C)	VSWR	Center Contact	Outer Contact	Insulator
MM7329-2700B	250	0.015 max.	300 (AC)	500 min.	50	DC - 3.0	-40~+90	1.3 max.	Copper Alloy Gold plated	Copper Alloy Gold plated	Engineering plastic
MM7329-2702B	250	0.015 max.	300 (AC)	500 min.	50	DC - 3.0	-40~+90	1.3 max.	Copper Alloy Gold plated	Copper Alloy Gold plated	Engineering plastic

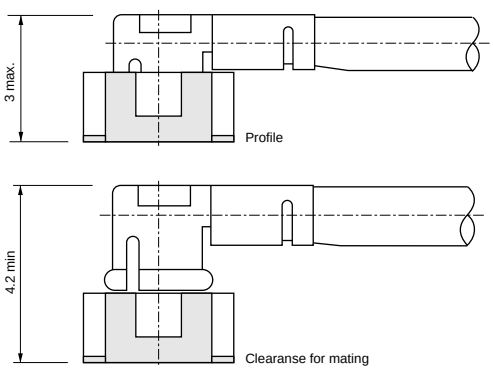
Impedance : 50 ohm

■ MXFG



(in mm)

■ Profile Dimensions



(in mm)

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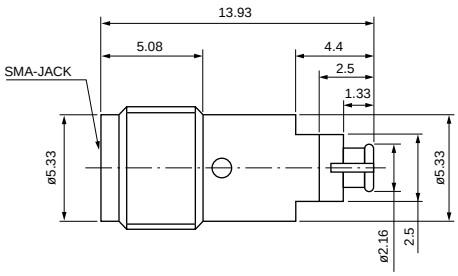
■ Measurement Probe Dimensions

for Receptacle

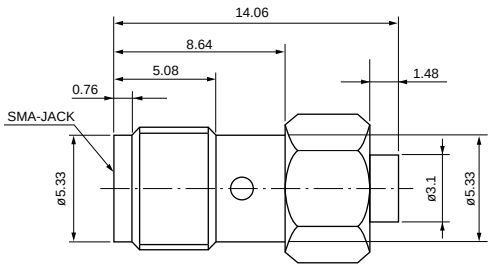
MM121454 (For FSC type receptacle)



(in mm)

for Cable Assembly

MM121460 (For FSC type cable assembly)

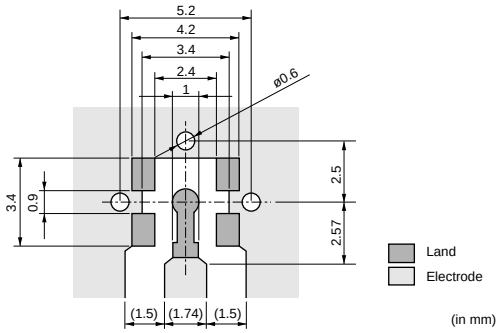


(in mm)

3

■ Land Pattern Dimensions

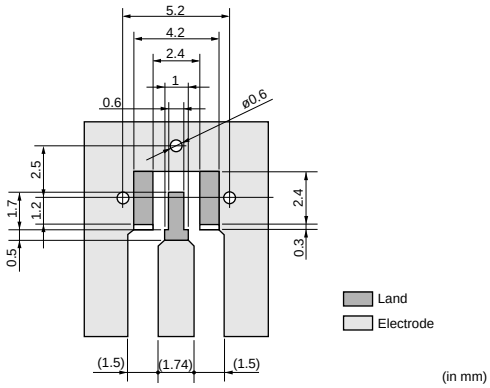
MM7329-2700B



(in mm)

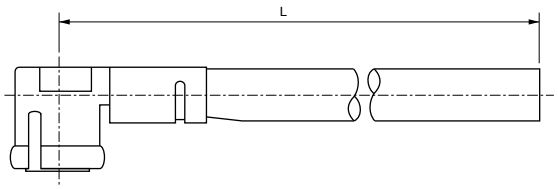
(Note) · Please design I/O pattern so that the impedance matches 50 ohm including the land pattern.
· The material of P.C.B. is the epoxy resin of glass fabric base. (εr=4.8)Thickness is 1.0mm.
· The solder resist should be printed except for the land pattern on the P.C.B.

MM7329-2702B



(in mm)

■ Cable Length Tolerance



Cable Length L(mm)(∗)		Dimensional tolerance(mm)
Over	Till	
40	100	± 3
100	500	± 4
500	1000	±10
1000	–	+2% of L −0% of L

∗L must be 40mm Min.

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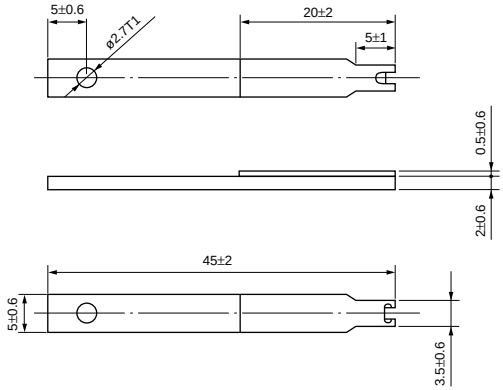
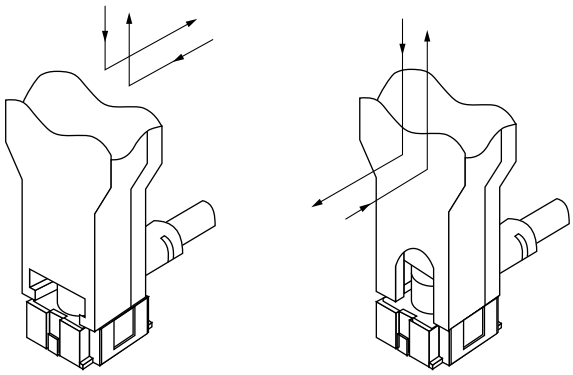
Continued from the preceding page.

■ Disengagement Tool

M19000 (for MM7329-2700B)

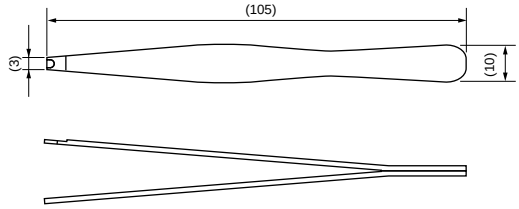


How to use tool (for MM7329-2700B)

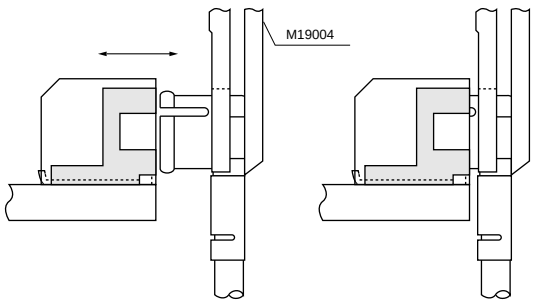


(in mm)

M19004 (for MM7329-2702B)



How to use tool (for MM7329-2702B)



(in mm)

Notice

■ Notice (Storage and Operation 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 at receptacle to solder-joint with some gap in between PCB by the excess solder.

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.

3. 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.

5. Please note the following in case of soldering terminals or leads of the product.

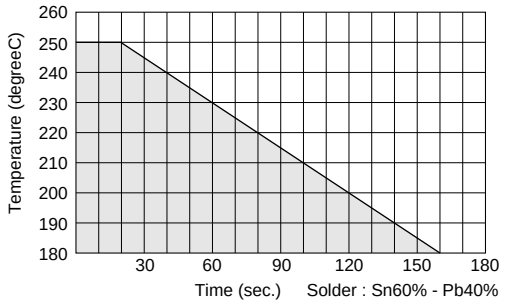
(1) Use Rosin based flux, but not with strong acid flux (Chlorine content should be less than 0.20wt%).

(2) Flux should be cleaned thoroughly.

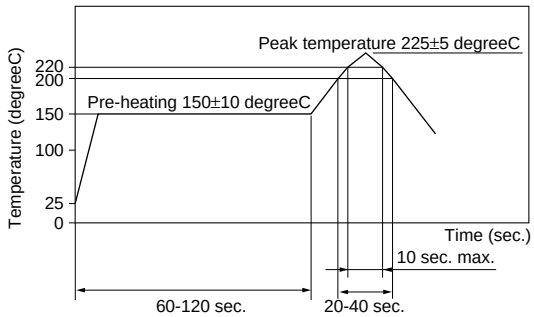
6. Please mount this product at the position so that stress by wrap and/or bend of the PCB may not apply to it.

7. Please dry out this product immediately after soldering and cleaning.

Allowable Temperature and Time Reflow Soldering



Reflow Soldering Standard Conditions



Measuring point of temperature : In-Out Terminals of Device
Reflow Soldering : Both Convection and Infrared Rays
: Hot Air
: Hot Plate

Continued on the following page.

Notice

Continued from the preceding page.

■ Notice (Handling)

1. Usage Condition

(1) Do not apply electrical voltage greater than specified in the drawing. It might because of degradation or destruction of the product. Even if it endures during a short time, long time qualification is not guaranteed.

(2) Confirm that there are not any influence to the product's performance which might because by other components which touch with the product.

(3) Please contact the manufacturer before hand, if the product is to be used in frequently bent position.

2. Handling

(1) Do not apply excessive shock or load to subassembly like soldered printed circuit board in case of handling and transporting it.

(2) Do not try to pull the cable, when a connector with a coaxial cable is handled.

(3) Disregard with following notes could give mechanical damage and/or poor electrical performance.

3. Handling Instructions

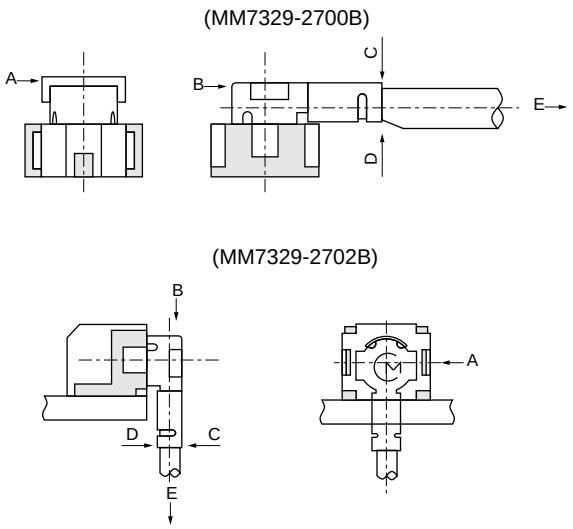
(1) This cable is just only fit with MM7329-2700B and MM7329-2702B receptacle. Any other receptable can not be used with this cable.

(2) Disengagement:
Use tool P/N M19000 (for MM7329-2700B) or M19004 (for MM7329-2702B). Do not try to pull out by the cable, because there is the possibility a wire breaks.

(3) Do not give a twisted torque to the cable and connector.

(4) Mechancical stress:
The stress to the connector should be limited as shown the following Figure1.
(a) Stress to the housing.
Stress A and B: 4.9N Max.
(b) Stress to the outer sleeve.
Stress C: 2.94N Max.
Stress D: 1.96N Max.
(c) Cable pull strength.
Stress E: 7.84N Max. (for MM7329-2700B)
4.9N Max. (for MM7329-2702B)

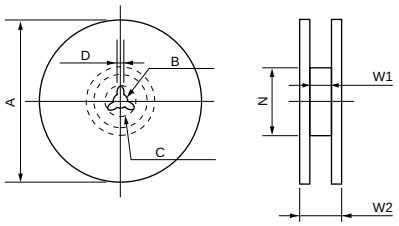
Figure 1. Mechanical stress after engagement



Package

■ Dimensions of Reel

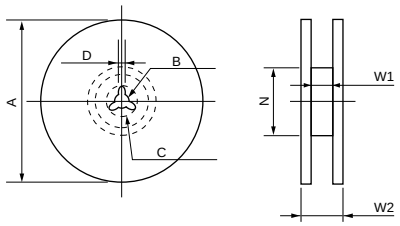
MM7329-2700RA1/RB4



(in mm)

Murata Part Number	A	B	C	D	N (min.)	W1	W2 (max.)
MM7329-2700RA1	178	13	21	2	Dia. 50	13.5	18.5
MM7329-2700RB4	330	13	21	2	Dia. 50	13.5	18.5
TOLERANSE	±2.0	±0.5	±0.8	±0.5	–	±1.5	–

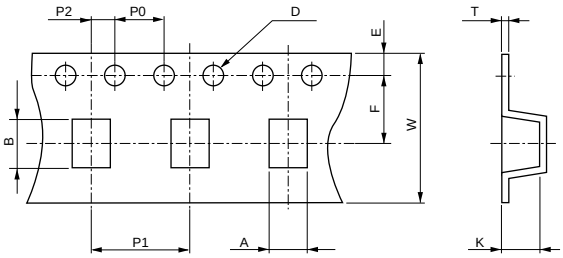
MM7329-2702RAB/RB2



(in mm)

Murata Part Number	A	B	C	D	N (min.)	W1	W2 (max.)
MM7329-2702RAB	178	13	21	2	Dia. 50	13.5	18.5
MM7329-2702RB2	330	13	21	2	Dia. 50	13.5	18.5
TOLERANSE	±2.0	±0.5	±0.8	±0.5	–	±1.5	–

■ Dimensions of Taping



A	B	W	D	E	F	K	P0
3.9±0.1	3.7±0.1	12±0.2	ø1.5$^{+0.1}_{0}$	1.75±0.1	5.5±0.1	3±0.15	4±0.1

P1	P2	T
8±0.1	2±0.1	0.3±0.05

(in mm)

■ Minimum Quantity

MM7329-2700RA1: 180 mm dia. reel/1000 pcs.
MM7329-2700RB4: 330 mm dia. reel/4000 pcs.
MM7329-2700B : Bulk /free
MM7329-2702RA1: 180 mm dia. reel/ 500 pcs.
MM7329-2702RB2: 330 mm dia. reel/2000 pcs.
MM7329-2702B : Bulk /free

Microwave Coaxial Connectors

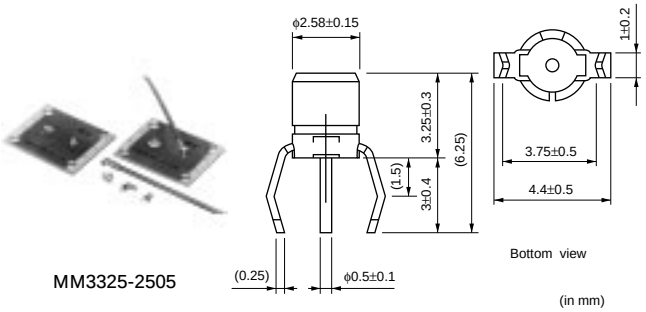
BFA type

■ Features

1. Ultra-miniature and low profile. (6.3mm max.)
2. High performance (V.S.W.R. 1.2 max. at 4GHz)
3. Very resonable price for commercial applications.
4. Cable assembly applicable.
5. Low RF leakage.
6. Available for ultra-thin coaxial cables.

■ Applications

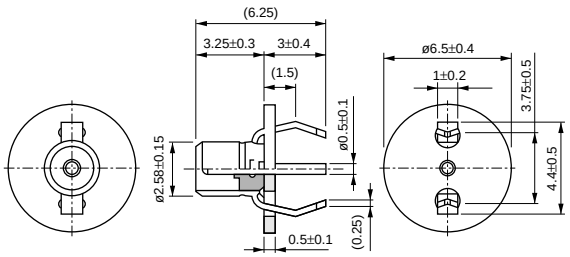
Portable telephones, mobile telephones, cordless telephones, oscilloscope, GPS, and any other R.F. circuits for microwave equipment.



MM3325-2505

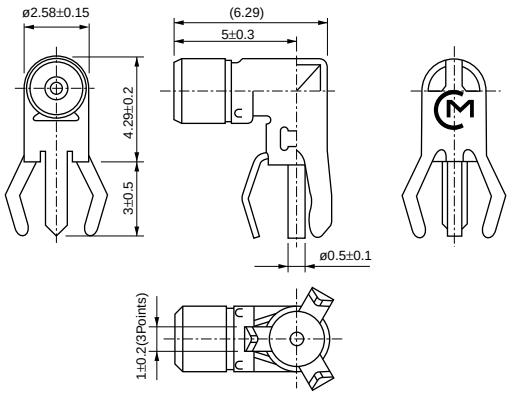
(in mm)

■ MM3325-2507



(in mm)

■ MM3326-2506

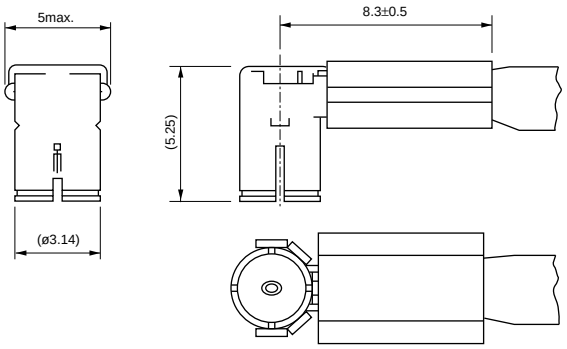


(in mm)

Part Number	Rated Voltage (V)	Contact Resistance (ohm)	Withstanding Voltage (rms)	Insulation Resistance (M ohm)	Durability (cycles)	Frequency Rating (GHz)	Temperature Range (degree C)	VSWR	Center Contact	Outer Contact	Insulator
MM3325-2505	250	0.01 max.	300 (AC)	1000 min.	50	DC - 4.0	-40~+90	1.2 max.	Beryllium copper or Brass Gold plated	Phosper bronze Silver/Nickel plated	Poly-phenylene Sulfide
MM3325-2507	250	0.01 max.	300 (AC)	1000 min.	50	DC - 4.0	-40~+90	1.2 max.	Beryllium copper or Brass Gold plated	Phosper bronze Silver/Nickel plated	Poly-phenylene Sulfide
MM3326-2506	250	0.01 max.	300 (AC)	1000 min.	50	DC - 2.0	-40~+90	1.2 max.	Beryllium copper or Brass Gold plated	Phosper bronze Silver/Nickel plated	Poly-phenylene Sulfide

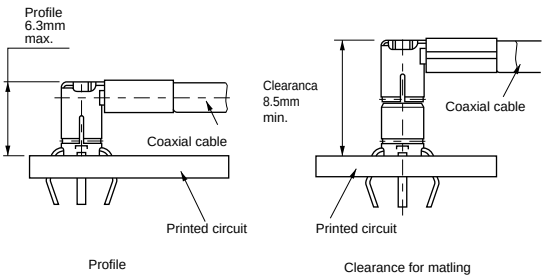
Impedance : 50 ohm

■ MXYH



(in mm)

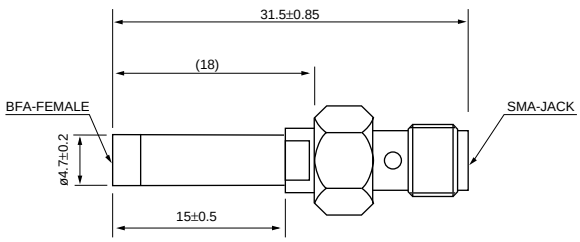
■ Profile Dimensions



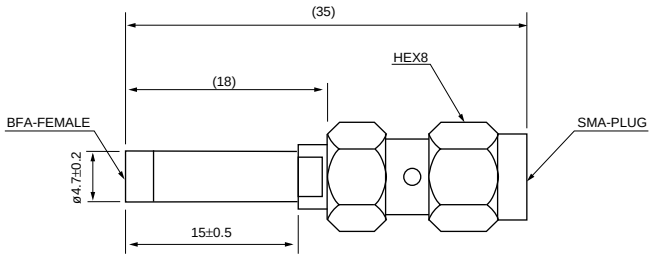
■ Measurement Probe Dimensions

for Receptacle

MM121352 (For BFA type receptacle)



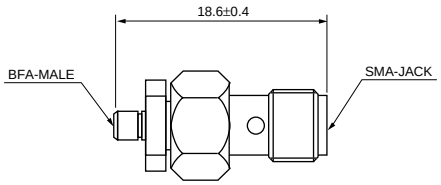
MM121372 (For BFA type receptacle)



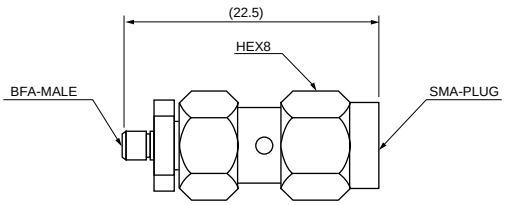
(in mm)

for Cable Assembly

MM121360 (For BFA type cable assembly)



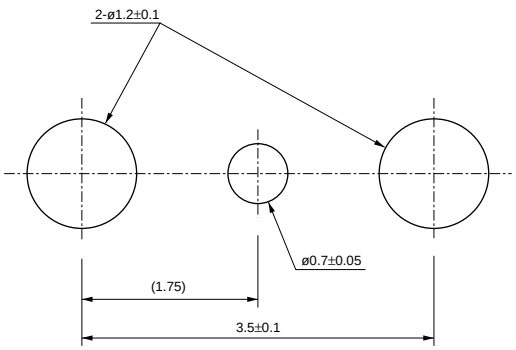
MM121380 (For BFA type cable assembly)



(in mm)

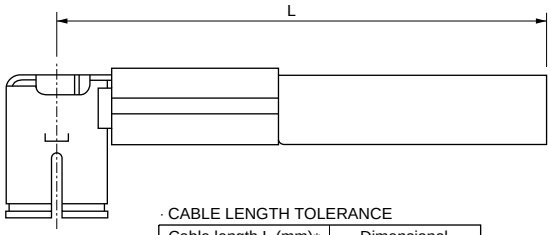
■ Mounting Dimensions

MM3325-2505/2507



(in mm)

■ Cable Length Tolerance



· CABLE LENGTH TOLERANCE

Cable length L (mm)∗		Dimensional tolerance(mm)
Over	Till	
50	100	±3
100	500	±4
500	1000	±10
1000	——	$^{+2}_{-0}$ %of L

·∗L must be 50mm Min.

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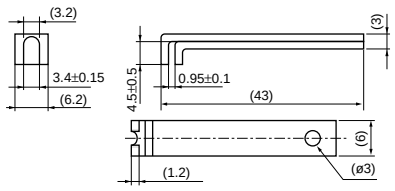
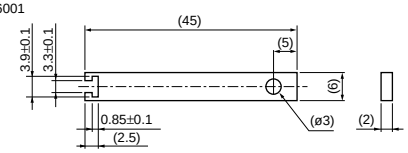
■ Disengagement Tool

P/N : M16000



P/N : M16001



(in mm)

Notice

■ Notice (Storage and Operation 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

4

■ Notice (Soldering and Mounting)

1. 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 then 350 degree C
  Time less than 3 s.
2. We cannot warrant against mishaps caused by any use of this product that deviates from allowable temperature and time of reflow soldering.
3. In soldering, do not apply excessive mechanical force to terminals or leads greater than specified in the drawing.
4. 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.
5. Please mount this product at the position so that stress by wrap and/or bend of the PCB may not apply to it.
6. Please dry out this product immediately after soldering and cleaning.

■ Notice (Handling)

1. Usage Condition
 (1) Do not apply electrical voltage greater than specified in the drawing. It might because of degradation or destruction of the product. Even if it endures during a short time, long time qualification is not guaranteed.
 (2) Confirm that there are not any influence to the product's performance which might because by the other components which touch with the product.
2. Handling
 (1) Do not apply excessive shock or load to subassembly like soldered printed circuit board in case of handling and transporting it.
 (2) This receptacle is just only fit with BFA tape cable assembly. Any other cable can not be used with this receptacle.

Notice

■ Notice (Handling)

1. Usage Condition

(1) Do not apply electrical voltage greater than specified in the drawing. It might because of degradation or destruction of the product. Even if it endures during a short time, long time qualification is not guaranteed.

(2) Confirm that there are not any influence to the product's performance which might because by other components which touch with the product.

2. Handling

(1) Do not apply excessive shock or load to subassembly like soldered printed circuit board in case of handling and transporting it.

(2) Do not try to pull the cable, when a connector with a coaxial cable is handled.

(3) Disregard with fllowing notes could give mechanical damage and/or poor electrical performance.

3. Handling Instructions

(1) This cable is just only fit with MM3325-2505, MM3325-2507 and MM3326-2506 receptacle. Any other receptable can not be used with this cable.

(2) Disengagement:
Use tool P/N M16000 or M16001. Do not try to pull out by the cable, because there is the possibility a wire breaks.

(3) Do not give a twisted torque to the cable and connector.

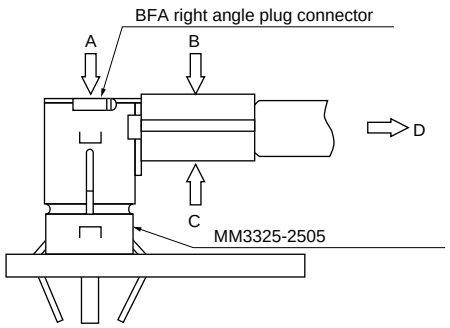
(4) Mechancical stress:
The stress to the connector should be limited as shown the following Figure1.

(a) Stress to the housing.
Stress A: 9.8N Max.

(b) Stress to the outer sleeve.
Stress B: 4.9N Max.
Stress C: 2.94N Max.

(c) Cable pull strength.
Stress D: 9.8N Max.

Figure 1. Mechanical stress after engagement



Miniaturized Microwave Coaxial Connector Cable List

			0.8D double shield Cross linked polyethylene cable	0.8D single shield Cross linked polyethylene cable	0.8D double shield FEP cable	0.8D single shield FEP cable
Murata cable code			62	63	75	76
Inner conductor	Material	-	copper covered steel wire	copper covered steel wire	Silver coated copper covered steel wire	Silver coated copper covered steel wire
	No. and Dia.	(No./mm)	1/0.26	1/0.26	1/0.26	1/0.26
	Total Dia.	(mm)	0.26	0.26	0.26	0.26
Insulator	Material	-	Cross linked polyethylene compound	Cross linked polyethylene compound	FEP	FEP
	Melting point (Reference only)	Degree C	230	230	285	285
	Total Dia.	(mm)	0.8	0.8	0.8	0.8
Outer conductor	Material	-	Bare copper wire	Bare copper wire	Tin plated copper wire	Tin plated copper wire
	Dia. of wire	(mm)	0.1	0.1	0.05	0.05
	Total Dia.	(mm)	Inner 1.3 Outer 1.8	1.3	Inner 1.05 Outer 1.3	1.05
Sheath	Material	-	Polyvinyl chloride compound	Polyvinyl chloride compound	FEP	FEP
	Nominal thickness	(mm)	0.35	0.35	0.1	0.1
	Color	-	Gray	Gray	Gray	Gray
Overall Dia.		(mm)	2.5	2.0	1.5	1.24
Minimum bending radius		(mm)	10	8	8	6
Nominal impedance		(Ohm)	50	50	50	50
Continuous operating voltage			300 Vrms max.	300 Vrms max.	300 Vrms max.	300 Vrms max.
Nominal static capacitance		(pF/m)	100	100	100	100
Nominal Insertion loss	dB/m at 1GHz		1.6	1.6	1.56	1.56
	dB/m at 2GHz		2.3	2.3	2.3	2.3
	dB/m at 3GHz		2.8	2.8	2.9	2.9
	dB/m at 4GHz		3.2	3.2	3.5	3.5
	dB/m at 6GHz					
Assembly to BFA			Suitable	Suitable	Suitable	Not Suitable
Assembly to FSC			Not Suitable	Not Suitable	Not Suitable	Suitable
Assembly to GSC			Not Suitable	Not Suitable	Not Suitable	Not Suitable

Miniaturized Microwave Coaxial Connector Cable List

			0.4D single shield FEP cable	0.4D single shield PFA cable	0.4D single shield PFA cable
Murata cable code			81	88	92
Inner conductor	Material	-	Silver coated copper covered alloy wire	Silver coated copper covered steel wire	Silver coated copper covered alloy wire
	No. and Dia.	(No./mm)	7/0.05	1/0.15	7/0.05
	Total Dia.	(mm)	0.15	0.15	0.15
Insulator	Material	-	FEP	PFA	PFA
	Melting point (Reference only)	Degree C	250	302-310	302-310
	Total Dia.	(mm)	0.4	0.43	0.4
Outer conductor	Material	-	Tin plated copper wire	Tin plated copper wire	Tin plated copper wire
	Dia. of wire	(mm)	0.05	0.05	0.05
	Total Dia.	(mm)	0.65	0.68	0.65
Sheath	Material	-	FEP	PFA	PFA
	Nominal thickness	(mm)	0.05	0.075	0.075
	Color	-	White	White	White
Overall Dia.		(mm)	0.8	0.83	0.8
Minimum bending radius		(mm)	4.8	3.3	3.3
Nominal impedance		(Ohm)	50	50	50
Continuous operating voltage			300 Vrms max.	300 Vrms max.	300 Vrms max.
Nominal static capacitance		(pF/m)	100	100	100
Nominal Insertion loss	dB/m at 1GHz		3.0	2.89	3.0
	dB/m at 2GHz		4.26	4.28	4.26
	dB/m at 3GHz		5.24	5.39	5.24
	dB/m at 4GHz		6.18	6.44	6.18
	dB/m at 6GHz			8.4	9.17
Assembly to BFA			Not Suitable	Not Suitable	Not Suitable
Assembly to FSC			Suitable	Suitable	Suitable
Assembly to GSC			Suitable	Suitable	Suitable

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   ③ Undersea equipment ④ Power plant equipment
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   ⑦ Traffic signal equipment ⑧ Disaster prevention / crime prevention equipment
   ⑨ Data-processing equipment ⑩ Application of similar complexity and/or reliability requirements to the applications listed in the above
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