Microwave Coaxial Connectors



muRata

Innovator in Electronics

Murata Manufacturing Co., Ltd.

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Min	iaturized Microwave Coaxial Connector Cable List

Part Numbering

Coaxial Connectors (Chip Type Receptacle)

(Part Number) | MM | 7329 | -27 | 00 | R | A1

Product ID

Product ID	
ММ	Microwave Coaxial Connectors (Chip Type Receptacle)

2 Series

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

3Individual Specification Code (1)

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

4 Individual Specification Code (2)

Code	Individual Specification Code (2)
00	Serial

5Package Product ID

Code	Package Product ID		
В	Bulk		
R	Reel		

6 Package Detail

Code	Package Detail
A1	FSC, SWD, GSC Type 1000pcs. /Reel (ø178mm)
В3	SWD Type, 3000pcs. /Reel (ø330mm)
B4	FSC Type, 4000pcs. /Reel (ø330mm)
В5	GSC Type, 5000pcs. /Reel (ø330mm)

Coaxial Connectors (with Cable)

(Part Number)	MX	FG	76		
	•	•	•	A	

Product ID

Product ID	
MX	Coaxial Connectors (with Cable)

2Connector (1)

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

3Cable

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

4Connector (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

6Length

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

6 Individual Specification Code

Expressed by two figures.

Microwave Coaxial Connectors



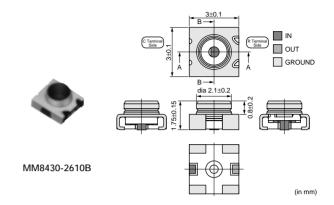
Microwave Coaxial Connectors with Switch SWD Type

■ 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 disconnection easily by special probe.
- 3. Small size, low profile, size 3x3x1.75mm (LxWxH)
- 4. Excellent characteristics, low IL 0.2dB max. V.S.W.R. 1.3 max. Isolation 15dB min. (DC to 6GHz)
- 5. Surface mountable and reflow solderable
- 6. Tape package available

■ Applications

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

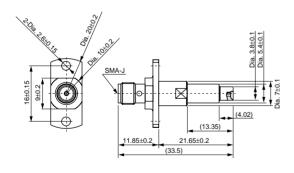


Part Number		Contact Resistance (max.) (ohm)	Voltage	Insulation Resistance (M ohm)	Durability (cycles)	Frequency Rating	Temperature Range (degree C)	VSWR	Insertion Loss (On) (dB)	Isolation (Off) (dB)	Inner Electrode (C)	Inner Electrode (R) (material)	Outer Electrode (material)
MM8430-2610	250	0.05	300 (AC)	500	500	to 6GHz	-40 to +85	1.2 max. (DC to 3GHz)	0.1 max. (DC to 3GHz)		Stainless Steel Gold plated	11	Copper Alloy Silver plated

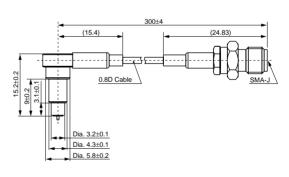
Impedance: 50ohm

■ Measurement Probe Dimensions

MM126036



MXGS83RK3000



(in mm)

Continued on the following page.

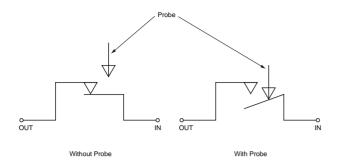


(in mm)



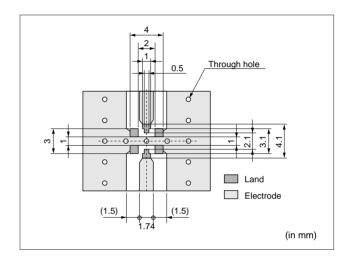
Continued from the preceding page.

■ Structure

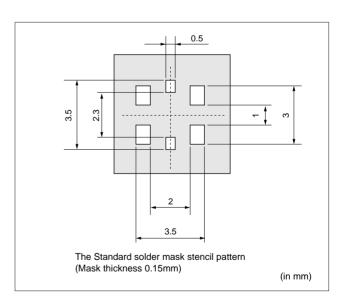


■ Standard Land Dimensions

- 1. Standard pattern dimensions
- I/O pattern should be designed to match 50 ohm impedance
- Typical PCB material is glass epoxy (εr=4.8). Thickness is
- The solder resist should be printed except for the land pattern on the PCB.



2. Standard solder mask stencil pattern Follow Standard solder mask stencil pattern to avoid the possibility of solder being trapped under connector.



■ Notice (Storage and Operating Condition)

- 1. Environment Conditions
- (1) This product is designed for use in electrical equipment in the environment (temperature, humidity, atmospheric pressure, 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 oxide 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) Dusty conditions
- (g) In freezing
- (h) 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 (Soldering and Mounting)

1. Reflow soldering

Soldering must be carried out without exceeding the allowable 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".

Follow recommended solder mask stencil pattern to avoid the possibility of solder being trapped under connector.

2. Soldering by soldering iron

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

Pre-heating Temperature 150°C

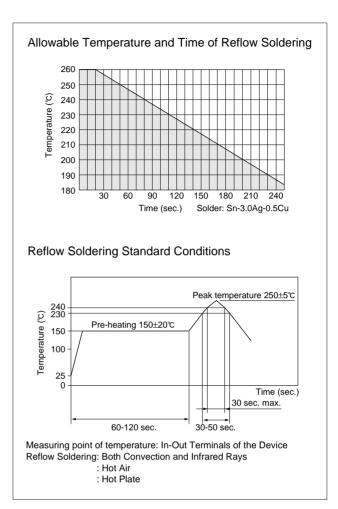
Time 60 to 120 s.

Soldering Temperature (at the tip of the soldering

iron) less than 350℃

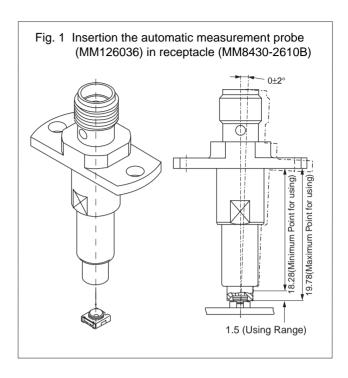
Time less than 3 s.

- 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.
- 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 thoroughly cleaned from connector to prevent possible deterioration of electrical characteristics.
- 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 (Handling)

- 1. Automatic measurement probe (MM126036)
- Automatic measurement probe (MM126036) should be used under conditions 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°) direction.



2. L type probe with locking function (MXGS83RK3000)

- Avoid pulling cable when probe is locked into connector.
- Avoid twisting probe or cable when engaging or disengaging from 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.

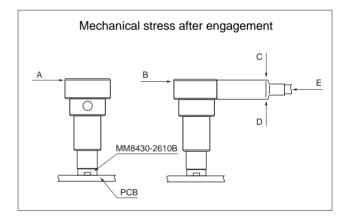
Stress E: 0.7N max.

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

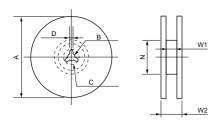
Avoid excessive stress when handling and transporting printed circuit board after connector and/or assembly has been secured to PCB.



(in mm)

Package

■ Dimensions of Reel



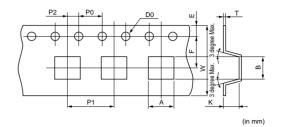
Murata Part Number	Α	В	С	D	N (min.)	W1	W2 (max.)
MM8430-2610RA1	178	13	21	2	Dia. 50	13.5	18.5
MM8430-2610RB3	330	13	21	2	Dia. 50	13.5	18.5
TOLERANSE	+2.0	+0.5	+0.8	+0.5	_	+1.5	_

■ Minimum Quantity

MM8430-2610RA1: 180mm dia. reel/1000 pcs. MM8430-2610RB3: 330mm dia. reel/3000 pcs.

MM8430-2610B: Bulk/free

■ Dimensions of Taping



1	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

Microwave Coaxial Connectors



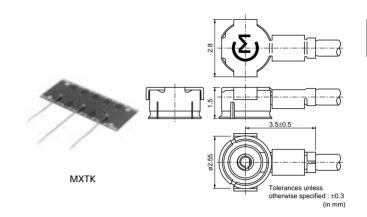
Ultra-Miniature SMT GSC Type

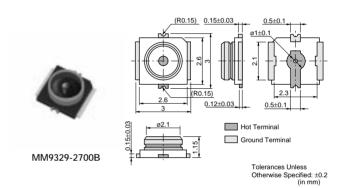
■ Features

- 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 design 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

■ Applications

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



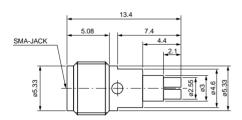


Part Number	Rated Voltage (V)	Contact Resistance (max.) (ohm)	Withstanding Voltage (rms)	Insulation Resistance (min.) (M ohm)	Durability (cycles)	Frequency Rating (GHz)	Temperature Range (degree C)	VSWR	Center Contact	Outer Contact	Insulator
MM9329-2700	250	0.015	300 (AC)	500	100	to 6.0	-40 to +90	1.2 max. (DC to 3GHz)	Copper Alloy Gold plated	Copper Alloy Silver plated	Engineering plastic

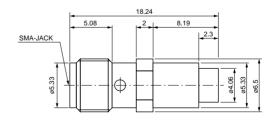
Impedance: 50ohm

■ Measurement Probe Dimensions (for Receptacle)

MM121470 (Hand measurement)



MM121471 (Automatic measurement)

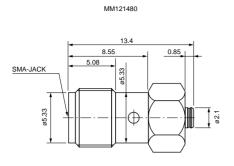


(in mm)

Continued on the following page.



■ Measurement Probe Dimensions (for Cable Assembly) ■ Cable Length Tolerance



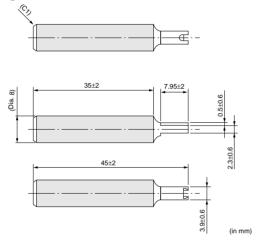
(in mm)

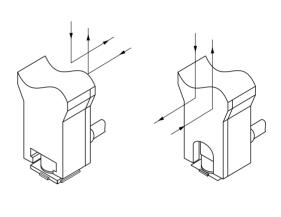
L L
0-11-1

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

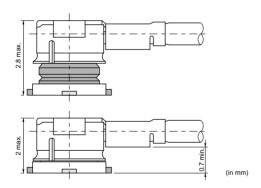
*L must be 20mm Min.

■ Disengagement Tool (Part Number: M22001)





■ Profile Dimensions



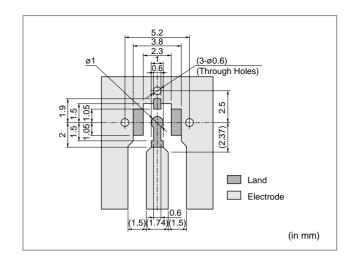
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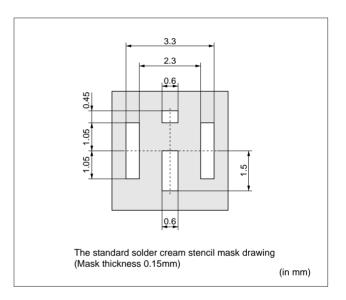
Continued from the preceding page.

■ Land Pattern Dimensions

- 1. Standard pattern dimensions
- I/O pattern should be designed to match 50 ohm impedance
- Typical PCB material is glass epoxy (εr=4.8). Thickness is
- The solder resist should be printed except for the land pattern on the PCB.



2. Standard solder mask stencil pattern Follow Standard solder mask stencil pattern to avoid the possibility of solder being trapped under connector.



■ Notice (Storage and Operation Condition)

- 1. Environment Conditions
- (1) This product is designed for use in electrical equipment in the environment (temperature, humidity, atmospheric pressure, 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 oxide 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) Dusty conditions
- (g) In freezing
- (h) 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 (Soldering and Mounting)

1. Reflow soldering

Soldering must be carried out without exceeding the allowable 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".

Follow Standard solder mask stencil mask pattern to avoid the possibility of solder being trapped under connector.

2. Soldering by soldering iron

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

Pre-heating Temperature 150℃

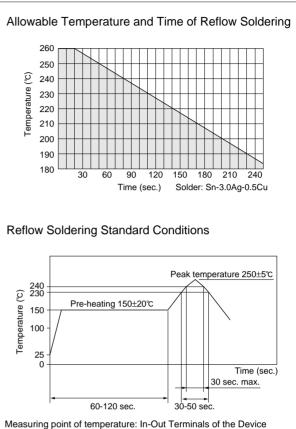
Time 60 to 120 s.

Soldering Temperature (at the tip of the soldering

iron) less than 350°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.
- 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 thoroughly cleaned from connector to prevent possible deterioration of electrical characteristics.
- 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.



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

: Hot Air : Hot Plate

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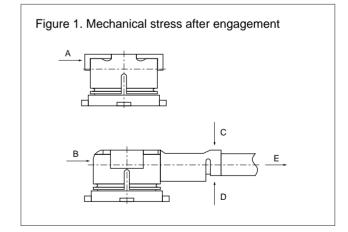
■ Notice (Handling)

- 1. Usage Condition
- (1) Do not apply electrical voltage greater than specified in the drawing. 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 product's performance is not influenced by contact of other components.
- (3) Please contact the manufacturer beforehand, if the product is to be used in frequently bent position.
- 2. Handling
- (1) Avoid excessive stress when handling and transporting printed circuit board after connector and/or assembly has been secured to PCB.
- (2) Do not try to pull the cable, when a connector with a coaxial cable is handled.
- (3) Disregarding the following notes could cause mechanical damage and/or poor electrical performance.
- 3. Handling Instructions
- (1) Cable is designed to fit only with MM9329-2700B receptacle. Any other receptable cannot be used with this cable.
- (2) Disengagement:
 - Use tool P/N M22001 to insert or remove cable in a vertical direction from receptacle. Avoid pulling only the cable to prevent cable damage.
- (3) Avoid twisting probe or cable when engaging or disengaging from connector.
- (4) Mechancical stress:

The stress to the connector should be limited as shown in Figure1.

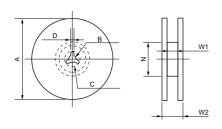
- (a) Stress to the housing.
 - Stress A and B: 4.9N max.
- (b) Stress to the outer sleeve.
 - Stress C: 2.94N max.
 - Stress D: 1.96N max.
- (c) Cable pull strength.

Stress E: 4.9N max.



Package

■ Dimensions of Reel



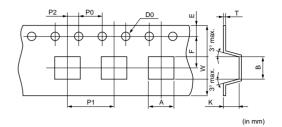
							(in mm)
Murata Part Number	Α	В	С	D	N (min.)	W1	W2 (max.)
MM9329-2700RA1	178	13	21	2	Dia. 50	13.5	18.5
MM9329-2700RB5	330	13	21	2	Dia. 50	13.5	18.5
TOLERANSE	±2.0	±0.5	±0.8	±0.5	-	±1.5	_

■ Minimum Quantity

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

MM9329-2700B: 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	1.25±0.15

P0	P1	P2	Т
4±0.1	8±0.1	2±0.1	0.3±0.05

Microwave Coaxial Connectors



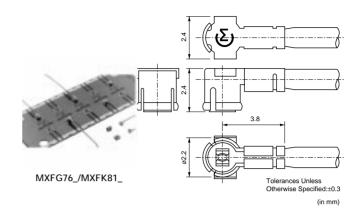
Miniature SMT FSC Type

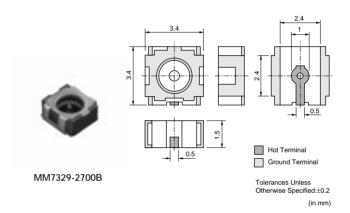
■ Features

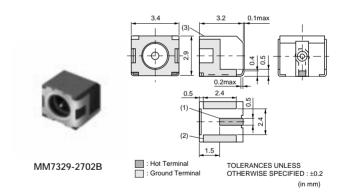
- 1. High engagement
- 2. Miniature (LxWxH: 3.4x3.4x1.5mm) for High density mounting
- 3. Low profile (3.0mm max.)
- 4. SMD and reflow soldering applicable
- 5. Taping package applicable
- 6. Mountable by automatic placer
- 7. High performance (V.S.W.R. 1.3 max. at 3GHz)
- 8. Matched with ultra-thin FEP coaxial cables (0.8mm dia)

■ Applications

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







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

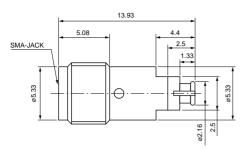
Impedance: 50ohm



■ Measurement Probe Dimensions

for Receptacle

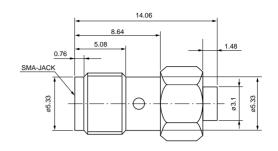
MM121454 (For FSC type receptacle)



(in mm)

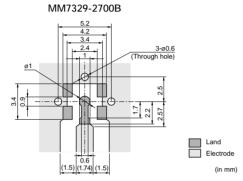
for Cable Assembly

MM121460 (For FSC type cable assembly)



(in mm)

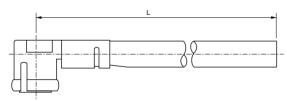
■ Land Pattern Dimensions



(Note) - Pattern should be designed to match 50 ohm impedance circuit.
- Typical PCB material is glass epoxy (er=4.8). Thickness is 1.0mm.
- The solder resist should be printed except for the land pattern on the PCB.

MM7329-2702B Land Electrode (1.5) (1.74) (1.5)

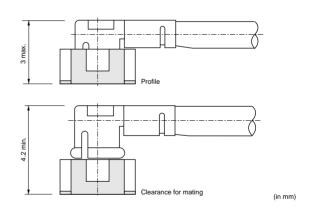
■ Cable Length Tolerance



Cable L	ength L(mm)(*)	Dimensional
Over	Till	tolerance(mm)
40	100	± 3
100	500	± 4
500	1000	±10
1000	_	+2% of L

*L must be 40mm Min

■ Profile Dimensions



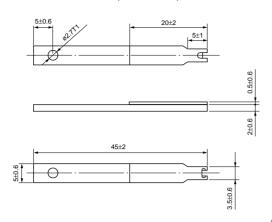
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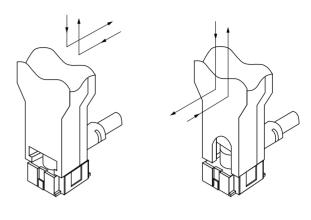
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■ Disengagement Tool

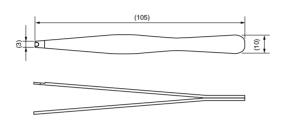
M19000 (for MM7329-2700B)



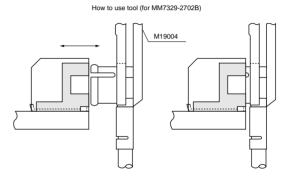
How to use tool (for MM7329-2700B)







(in mm)



■ Notice (Storage and Operating Condition)

- 1. Environment Conditions
- (1) This product is designed for use in electrical equipment in the environment (temperature, humidity, atmospheric pressure, 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 oxide 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) Dusty conditions
- (g) In freezing
- (h) 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 (Soldering and Mounting)

1. Reflow soldering

Soldering must be carried out without exceeding the allowable 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".

Follow Standard solder mask stencil mask pattern to avoid the possibility of solder being trapped under connector.

2. Soldering by soldering iron

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

Pre-heating Temperature

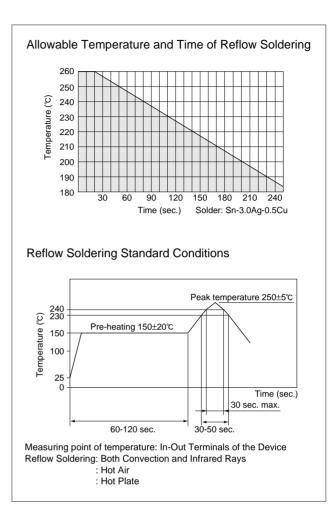
> Time 60 to 120 s.

Soldering Temperature (at the tip of the soldering

iron) less than 350℃

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 thoroughly cleaned from connector to prevent possible deterioration of electrical characteristics.
- 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.



Continued on the following page.



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Continued from the preceding page.

■ Notice (Handling)

- 1. Usage Condition
- (1) Do not apply electrical voltage greater than specified in the drawing. 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 product's performance is not influenced by contact of other components.
- (3) Please contact the manufacturer beforehand, if the product is to be used in frequently bent position.

2. Handling

- (1) Avoid excessive stress when handling and transporting printed circuit board after connector and/or assembly has been secured to PCB.
- (2) Do not try to pull the cable, when a connector with a coaxial cable is handled.
- (3) Disregarding the following notes could cause mechanical damage and/or poor electrical performance.

3. Handling Instructions

(1) Cable is designed to fit only with MM7329-2700B and MM7329-2702B receptacles. 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) to insert or remove cable in a vertical direction from receptacle. Avoid pulling only the cable to prevent cable damage.

- (3) Avoid twisting probe or cable when inserting or removing from receptacle.
- (4) Mechancical stress:

The stress to the connector should be limited as shown in Figure1.

(a) Stress to the housing.

Stress A and B: 4.9N max.

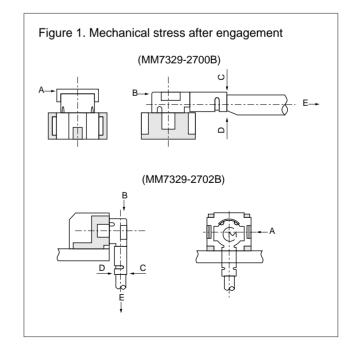
(b) Stress to the outer sleeve.

Stress C: 2.94N max.

Stress D: 1.96N max.

(c) Cable pull strength.

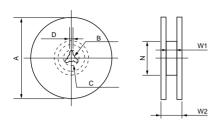
Stress E: 7.84N max. (for MM7329-2700B) 4.9N max. (for MM7329-2702B)



Package

■ Dimensions of Reel

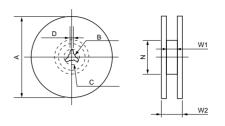
MM7329-2700RA1/RB4



(in mm)

Murata Part Number	Α	В	С	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	_

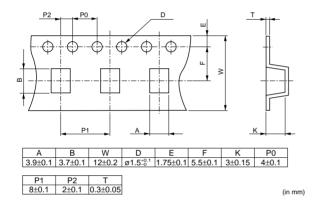
MM7329-2702RAB/RB2



(in mm)

Murata Part Number	Α	В	С	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



■ Minimum Quantity

MM7329-2700RA1: 180mm dia. reel/1000 pcs. MM7329-2700RB4: 330mm dia. reel/4000 pcs.

MM7329-2700B: Bulk/free

MM7329-2702RA1: 180mm dia. reel/ 500 pcs. MM7329-2702RB2: 330mm dia. reel/2000 pcs.

MM7329-2702B: Bulk/free

Microwave Coaxial Connectors



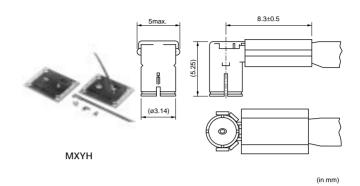
Low Pofile BFA Type

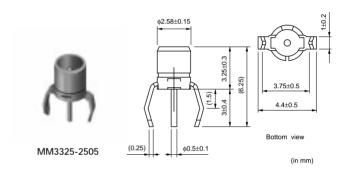
■ Features

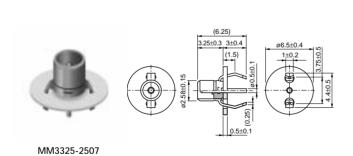
- 1. Miniature and low profile (6.3mm max.)
- 2. High performance (V.S.W.R. 1.2 max. at 4GHz)
- 3. Low RF leakage

■ Applications

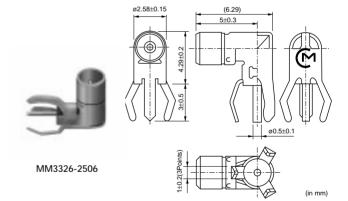
Portable telephones, mobile telephones, cordless telephones, oscilloscope, GPS, and any other R.F. circuits for microwave equipment.







(in mm

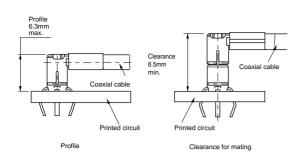


Part Number	Rated Voltage (V)	Contact Resistance (max.) (ohm)	Withstanding Voltage (rms)	Insulation Resistance (min.) (M ohm)	Durability (cycles)	Frequency Rating (GHz)	Temperature Range (degree C)	VSWR	Center Contact	Outer Contact	Insulator
MM3325-2505	250	0.01	300 (AC)	1000	50	to 4.0	-40 to +90	1.2 max.	Copper Alloy Gold plated	Copper Alloy Silver plated	Engineering plastic
MM3325-2507	250	0.01	300 (AC)	1000	50	to 4.0	-40 to +90	1.2 max.	Copper Alloy Gold plated	Copper Alloy Silver plated	Engineering plastic
MM3326-2506	250	0.01	300 (AC)	1000	50	to 2.0	-40 to +90	1.2 max.	Copper Alloy Gold plated	Copper Alloy Silver plated	Engineering plastic

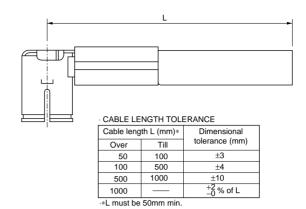
Impedance: 50ohm



■ Profile Dimensions



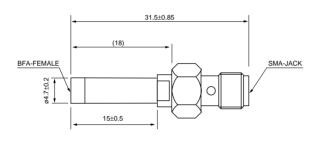
■ Cable Length Tolerance



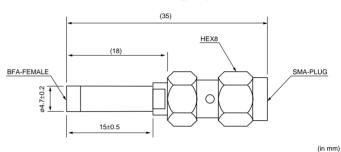
■ Measurement Probe Dimensions

for Receptacle

MM121352 (For BFA type receptacle)

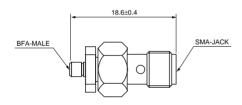


MM121372 (For BFA type receptacle)

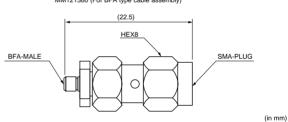


for Cable Assembly

MM121360 (For BFA type cable asse

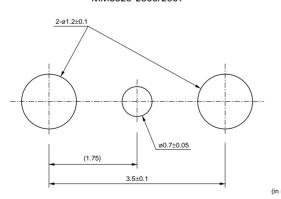


MM121380 (For BFA type cable assembly)

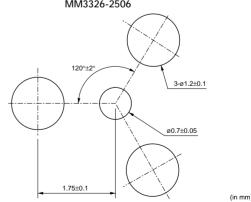


■ Mounting Dimensions

MM3325-2505/2507



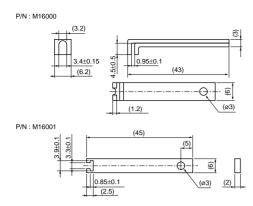
MM3326-2506



Continued on the following page.



■ Disengagement Tool



(in mm)

■ Notice (Storage and Operating Condition)

- 1. Environment Conditions
- (1) This product is designed for use in electrical equipment in the environment (temperature, humidity, atmospheric pressure, 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 oxide 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) Dusty conditions
- (g) In freezing
- (h) 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 (Soldering and Mounting)

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.

- We cannot warrant against mishaps caused by any use of this product that deviates from allowable temperature and time of reflow soldering.
- 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.
- Use Rosin based flux, but not with strong acid flux (Chlorine content should be less than 0.20wt%)
- (2) Flux should be thoroughly cleaned from connector to prevent possible deterioration of electrical characteristics.
- 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)

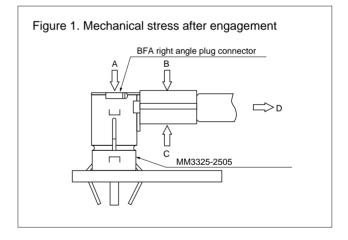
- 1. Usage Condition
- (1) Do not apply electrical voltage greater than specified in the drawing. It might cause degradation or destruction of the product. Even if it endures during a short time, long time qualification is not guaranteed.
- (2) Comfirm product's performance is not influenced by contact of other components.

2. Handling

- Avoid excessive stress when handling and transpoting printed circuit board after connector and/or assembly has been secured to PCB.
- (2) Disregarding the following notes could cause damage and/or poor electrical performance.
- 3. Handling Instructions
- (1) This cable is only fit with MM3325-2505, MM3325-2507 and MM3326-2506 receptacle. Any other receptable cannot be used with this cable.
- (2) Disengagement:
 - Use tool P/N M16000 or M16001 and pull off vertically in the direction of connector coupling axis. Do not try to pull out by the cable, because there is the possibility of wire breaks.
- (3) Avoid twisting probe or cable when engaging or disengaging from connector.
- (4) Mechanical stress:

The stress to the connector should be limited as shown in Figure 1.

- (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.



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
N	lurata cable cod	е	62	63	75	76
Material Inner		-	copper covered steel wire	copper covered steel wire	Silver coated copper covered steel wire	Silver coated copper covered steel wire
conductor	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
	Material	1	Cross linked polyethylene compound	Cross linked polyethylene compound	FEP	FEP
Insulator	Melting point (Reference only)	Degree C	230	230	285	285
	Total Dia.	(mm)	0.8	0.8	0.8	0.8
0.1	Material	•	Bare copper wire	Bare copper wire	Tin plated copper wire	Tin plated copper wire
Outer	Dia. of wire	(mm)	0.1	0.1	0.05	0.05
Conductor	Total Dia.	(mm)	Inner 1.3 Outer 1.8	1.3	Inner 1.05 Outer 1.3	1.05
	Material	-	Polyvinyl chloride compound	Polyvinyl chloride compound	FEP	FEP
Sheath	Nominal thickness	(mm)	0.35	0.35	0.1	0.1
	Color	-	Gray	Gray	Gray	Gray
Ove	rall Dia.	(mm)	2.5	2.0	1.5	1.24
Minimum b	ending radius	(mm)	10	8	8	6
Nominal	impedance	(Ohm)	50	50	50	50
Continuous o	perating voltage		300 Vrms max.	300 Vrms max.	300 Vrms max.	300 Vrms max.
Nominal sta	tic capacitance	pacitance (pF/m) 100 100		100	100	
	dB/m at 1GHz		1.6	1.6	1.56	1.56
Nominal	dB/m at 2GHz		2.3	2.3	2.3	2.3
Insertion	dB/m at 3GHz		2.8	2.8	2.9	2.9
loss	dB/m at 4GHz		3.2	3.2	3.5	3.5
	dB/m at o	6GHz				
Į.	Assembly to BFA		Suitable	Suitable	Suitable	Not Suitable
Į.	Assembly to FSC		Not Suitable	Not Suitable	Not Suitable	Suitable
P	ssembly 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	
N	lurata cable cod	e	81	88	92	
Inner	Material	-	Silver coated copper wire	Silver coated copper covered steel wire	Silver coated copper wire	
conductor	No. and Dia.	(No./mm)	7/0.05	1/0.15	7/0.05	
	Total Dia.	(mm)	0.15	0.15	0.15	
	Material	-	FEP	PFA	PFA	
Insulator	Melting point (Reference only)	Degree C	250	302-310	302-310	
	Total Dia.	(mm)	0.4	0.43	0.4	
0.1	Material	-	Tin plated copper wire	Tin plated copper wire	Tin plated copper wire	
Outer conductor	Dia. of wire	(mm)	0.05	0.05	0.05	
Conductor	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)		(mm)	0.8	0.83	0.8	
Minimum I	pending radius	(mm)	4.8	3.3	3.3	
Nomina	impedance	(Ohm)	50	50	50	
Continuous	operating voltage		300 Vrms max.	300 Vrms max.	300 Vrms max.	
Nominal sta	tic capacitance	(pF/m)	100	100	100	
	dB/m at 1GHz		3.0	2.89	3.0	
Nominal	dB/m at 2GHz		4.26	4.28	4.26	
Insertion	dB/m at 3GHz		5.24	5.39	5.24	
loss	dB/m at 4GHz		6.18	6.44	6.18	
	dB/m at o	6GHz		8.4	9.17	
	Assembly to BFA		Not Suitable	Not Suitable	Not Suitable	
1	Assembly to FSC		Suitable	Not Suitable	Not Suitable	
Assembly to GSC			Not Suitable	Suitable	Suitable	



⚠ Note:

1. Export Control

For customers outside Japan

Murata products should not be used or sold for use in the development, production, stockpiling or utilization of any conventional weapons or mass-destructive weapons (nuclear weapons, chemical or biological weapons, or missiles), or any other weapons.

For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

- 2. Please contact our sales representatives or product engineers before using the products in this catalog for the applications listed below, which require especially high reliability for the prevention of defects which might directly damage to a third party's life, body or property, or when one of our products is intended for use in applications other than those specified in this catalog.
 - Aircraft equipment
 Undersea equipment
- ② Aerospace equipment④ Power plant equipment
- Medical equipment
- 6 Transportation equipment (vehicles, trains, ships, etc.)
- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Data-processing equipment
- 10 Application of similar complexity and/or reliability requirements to the applications listed in the above
- 3. Product specifications in this catalog are as of November 2004. They are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering. If there are any questions, please contact our sales representatives or product engineers.
- 4. Please read rating and ACAUTION (for storage, operating, rating, soldering, mounting and handling) in this catalog to prevent smoking and/or burning, etc.
- 5. This catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.
- 6. Please note that unless otherwise specified, we shall assume no responsibility whatsoever for any conflict or dispute that may occur in connection with the effect of our and/or a third party's intellectual property rights and other related rights in consideration of your use of our products and/or information described or contained in our catalogs. In this connection, no representation shall be made to the effect that any third parties are authorized to use the rights mentioned above under licenses without our consent.
- 7. No ozone depleting substances (ODS) under the Montreal Protocol are used in our manufacturing process.



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