Preliminary Specification of MULTI LINE CONNECTOR
Preliminary SPEC No. : NMM04-PY0854
Part Number : MM3531-2700A14B/RE5/RF18

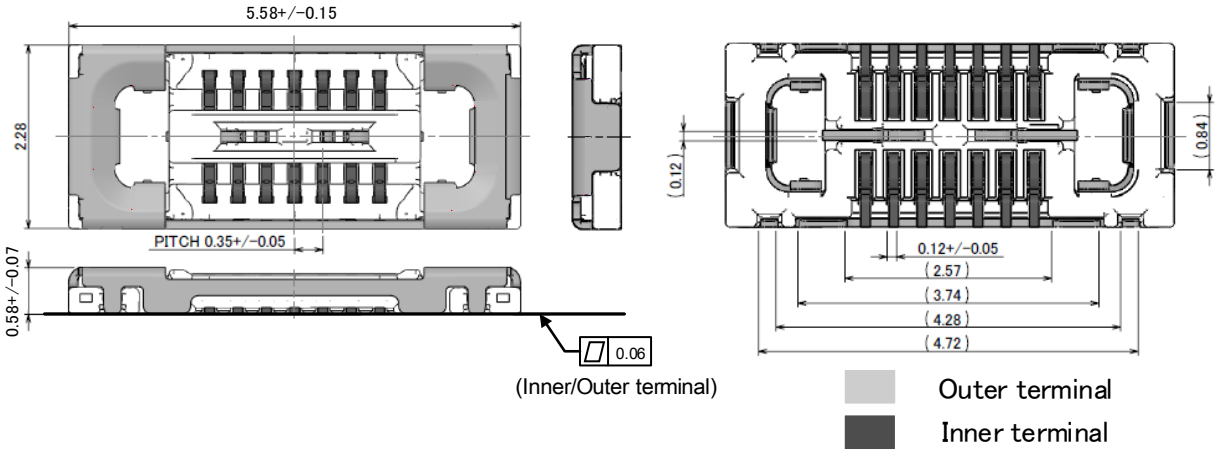
Written by : M. Yoshiyuki
Checked by : A. Morita
Date : 1/Mar./2021

SPECIFICATION

1. PART NUMBER

Part Number	Packaging	Quantity	Remarks
MM3531-2700A14B	Bulk Package	Free	
MM3531-2700A14RE5	180 mm dia. reel	5000 pcs/reel	ESD protection
MM3531-2700A14RF18	330 mm dia. reel	18000 pcs/reel	ESD protection

2. MECHANICAL



Scale: Free
Tolerances Unless Otherwise Specified: +/-0.2
Unit: mm

FIGURE1. Construction

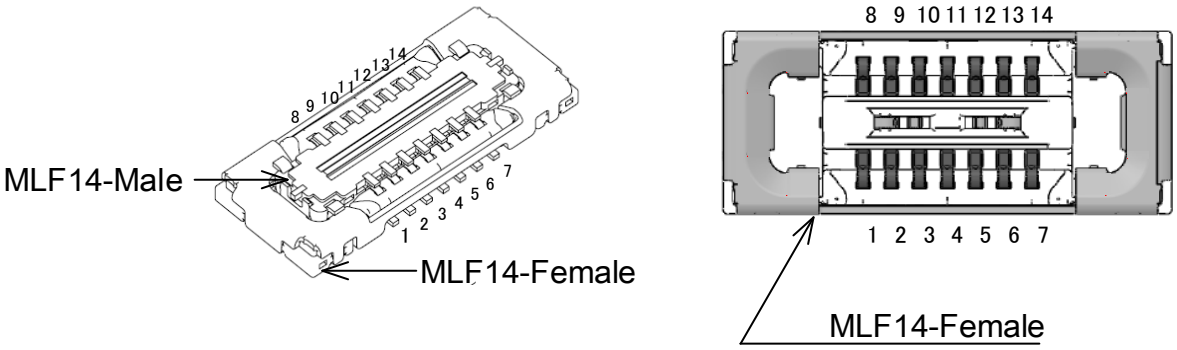


FIGURE2. Mating state

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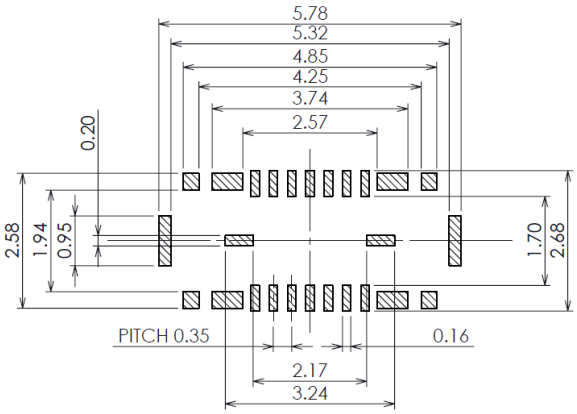
3. RATING:

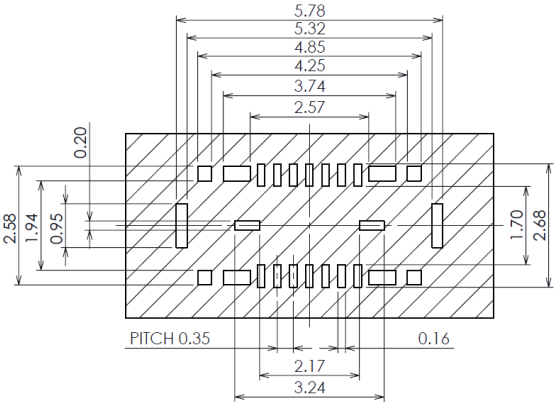
Item	Specification
Voltage Rating	30V r.m.s. maximum
Nominal Frequency Range	DC to 20GHz
Nominal Impedance	50Ω
Power Rating	2W max.(@2GHz)
Temperature Rating	-40°C to +85°C
Insulation Resistance	500 MΩ minimum
Withstanding Voltage	No evidence of breakdown in AC150Vr.m.s, 1minute
Initial Contact Resistance (without conductor resistance)	Signal contact 50mΩ max. GND contact 20mΩ max.
Voltage Standing Wave Ratio (V.S.W.R.)	Meet the requirements of following spec. 1.2 max. (DC~3GHz) 1.2 max. (3GHz~6GHz) 1.3 max. (6GHz~9GHz) 1.3 max. (9GHz~12GHz) 1.35 max. (12GHz~15GHz) 1.5 max. (15GHz~18GHz) 1.65 max. (18GHz~20GHz)
Allowable current	Signal Terminal: 0.5A Max/Pin

4. STANDARD PATTERN DIMENSION

LAND PATTERN



SOLDER RESIST

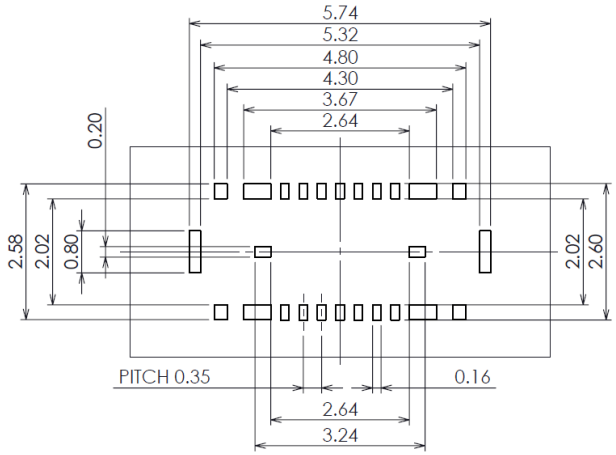


Unit: mm

(Note) I/O pattern is designed to be the impedance match 50 ohm.
The material of PWB is the epoxy resin of glass fabric base. (εr =3.4@1GHz). Thickness is 0.1mm.
The solder resist is printed except for the land pattern on the PWB Standard pattern dimensions.
Land pattern and Solder resist pattern must be followed to avoid soldering defects.

FIGURE3. Standard pattern Dimensions

5. STANDARD STENCIL MASK PATTERN



(Thickness is 0.08mm)

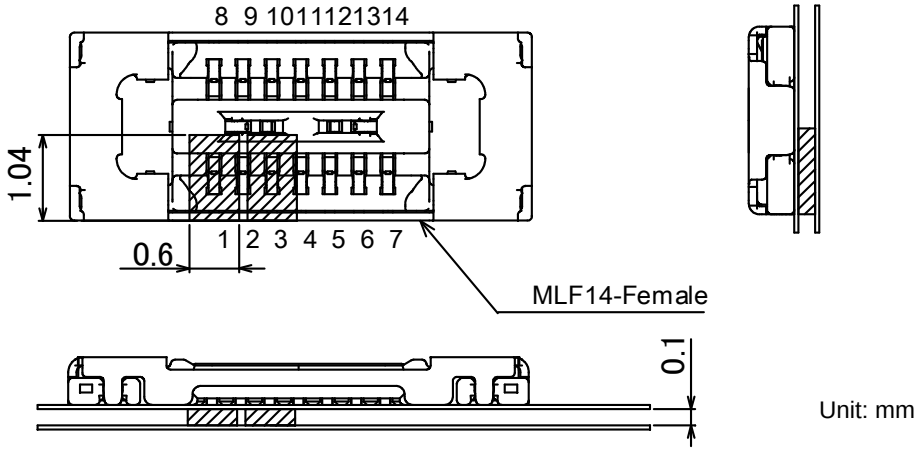
Unit: mm

(Note) There is the possibility at receptacle to solder- joint with some gap in between PWB by the excess solder.
It is important to follow the standard land pattern and stencil mask pattern to avoid soldering defects.

FIGURE4. Standard stencil mask pattern

6. KEEP OUT AREA UNDERNEATH CONNECTOR

For example, when RF line is Pin1 and 3.



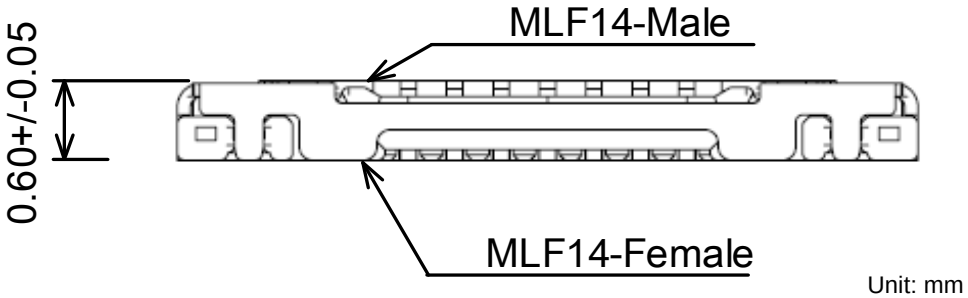
Unit: mm

(Note) Hatched space is keep out area underneath connector.
Don't put any signal lines and ground patterns in hatched space.
And put GND layer underneath connector. (Gap: 0.1mm)

FIGURE5. Keep out area underneath connector

7. MATING HEIGHT

FIGURE6 shows engagement is completed.



Unit: mm

FIGURE6. Completion of engagement

8. ⚠CAUTION

8.1 Limitation of Applications

Please do not use our products for the applications listed below which require specially high reliability for the prevention of defects which may directly or indirectly cause damage to the third party's life, body or property.

(1) Aircraft equipment
(2) Aerospace equipment
(3) Undersea equipment
(4) Power plant control equipment
(5) Medical equipment
(6) Transportation equipment (vehicles, trains, ships, etc.)
(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.

8.2 Handling

This product fits only with Murata test probes and adaptors that are designed for this product.
Any other Murata probes and adaptors, and all of non-Murata probes and adaptors are prohibited to be used with this product. Please note that Murata will never guarantee the quality of products, probes and adaptors if they are not used in compliance with this clause.