Preliminary Specification of COAXIAL CONNECTOR
Preliminary SPEC No. : NMM04-PV0122E
Part Number : MM206417
SPECIFICATION

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Checked by T.Kuriyama
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Revised A: 8/Mar. /'16 YM, B: 22/Jul. /'20 MM, C: 5/Jul. /'21 MS, D: 20/Oct./'22 MS, E:8/Dec./25 KA

1. MECHANICAL

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Automatic measurement probe for SWG
MM126317 and MM126312 are used as calibration adapters.
SOP of this probe setting in the fixture is VG15-OT-MM060.

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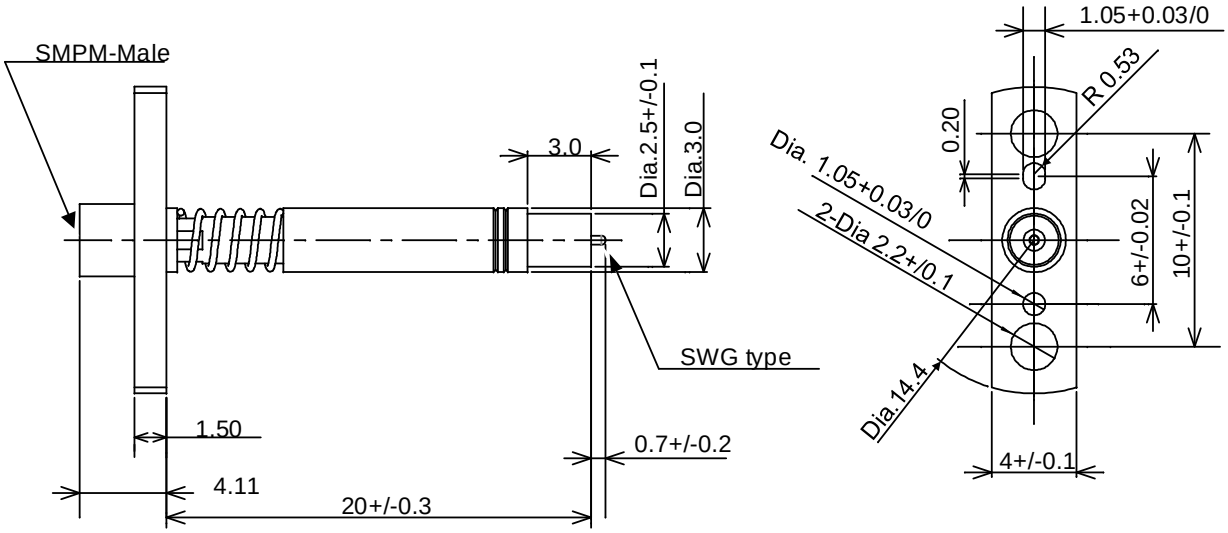


Scale: Free
Tolerance Unless Otherwise Specified: +/- 0.2
Unit: mm

Figure 1. Construction

2. RATING:

| Item | Specification |
|---|---|
| Voltage Rating | 30Vr.m.s. maximum |
| Nominal Frequency Range | DC to 11GHz |
| Nominal Impedance | 50Ω |
| B> Temperature Rating | 25°C +/- 15°C |
| Insulation Resistance | 500 MΩ minimum |
| B> Withstanding Voltage | No evidence of breakdown in AC 300V r.m.s, 1 minute |
| B> Initial Contact Resistance (without conductor resistance) | 70mΩ max. |
| A> Voltage Standing Wave Ratio (V.S.W.R.) | 1.4max (DC to 3GHz)<br>1.5max (3GHz to 6GHz)<br>2.3max (6GHz to 11GHz) |
| A> Insertion Ioss | 0.4 dB Max (DC to 3GHz)<br>0.6 dB Max (3GHz to 6GHz)<br>1.8 dB Max (6GHz to 11GHz) |
| Durability | 250K cycles |

3. USE THIS PRODUCT

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3.1 Attach to fixture

The probe must be attached to fixture at the two screw holes in probe flange. (Figure 2)
Using guide pins is recommended. The guide pins should not be above probe flange.

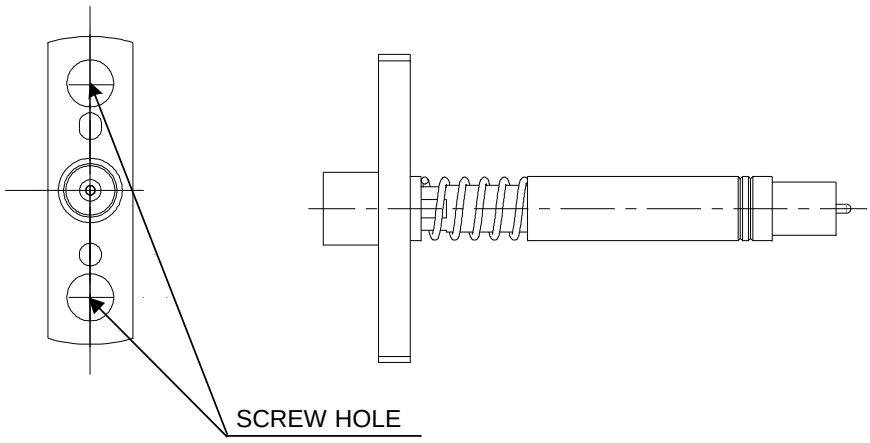


Figure 2. Screw hole

3.2 The tolerance of position against SWG type receptacle

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3.2.1 MM206417 has a centering function by its design, +/-0.5(Typical)mm is permitted against the hole center of SWG type receptacle.
Please avoid needless force to SMPM interface when MM206417 is disengaged from SWG type receptacle and comes back to its original position.
To avoid the needless force, please use extension cable assembly, MXHQ87SM3000/MXHQ87SN3000 (Figure 3/Figure 4).
Centering function +/-0.5(Typical)mm may not be permitted against the hole center of SWG type receptacle, when MM206417 is affected by the needless force.

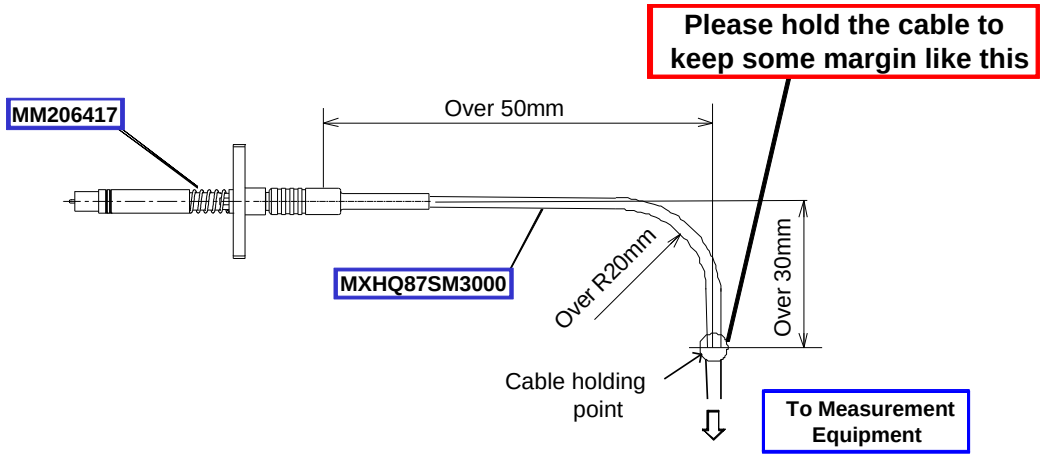


Figure 3 Instruction of MXHQ87SM3000

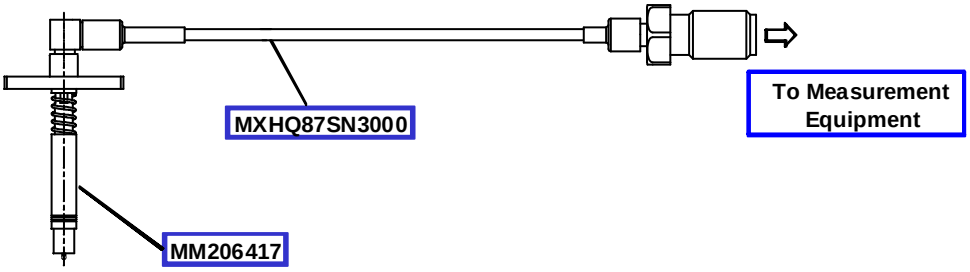


Figure 4. Instruction of MXHR87SN3000

Please use M19500 for un-mating MM206417 with MXHQ87SM3000/MXHQ87SN3000 (Figure 5).

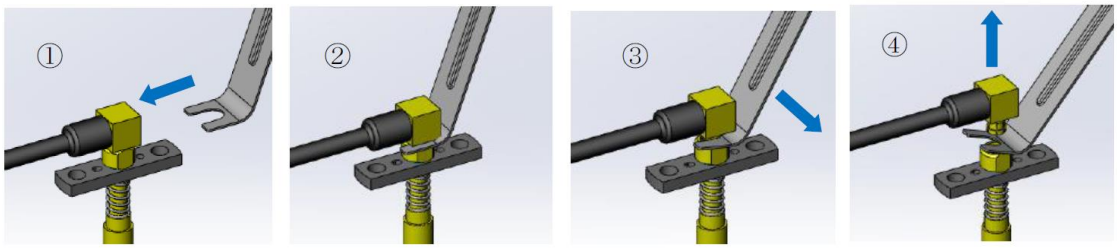


Figure 5. SMPM interface un-mating jig: M19500

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3.2.2 To get 10dB or higher isolation (up to 11GHz), the engagement strokes from the bottom surface of flange to the tip of probe is 18.5mm to 19.5mm (Figure 6).

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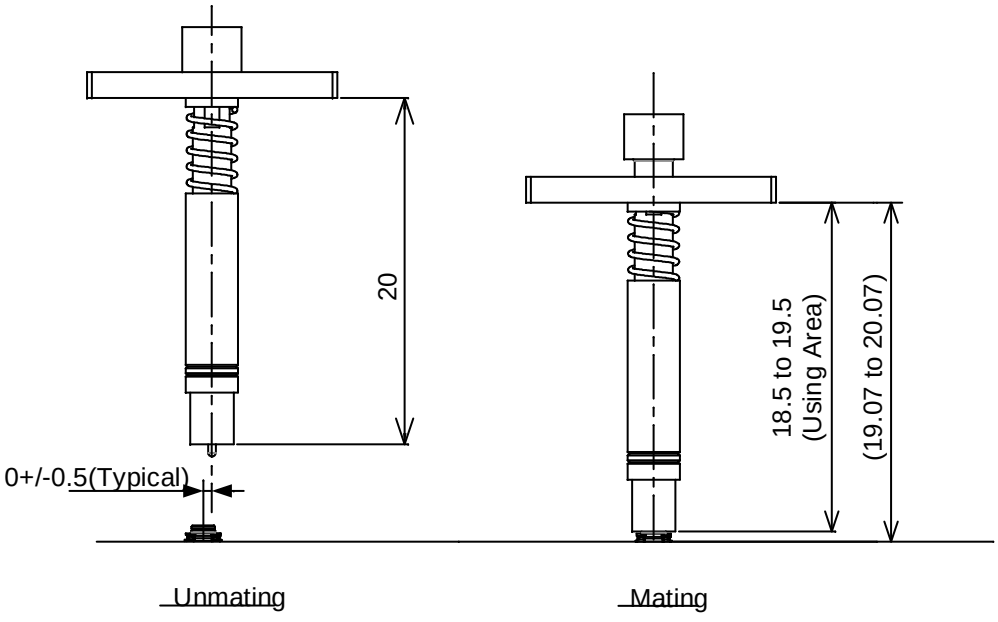


Unit:mm

Figure 6. Acceptable Engagement range to SWG

3.3 The slant angle tolerance of probe against SWG type Receptacle (Figure 7)
To have a stable measurement, slant angle of MM206417 must be within +/-2degree.

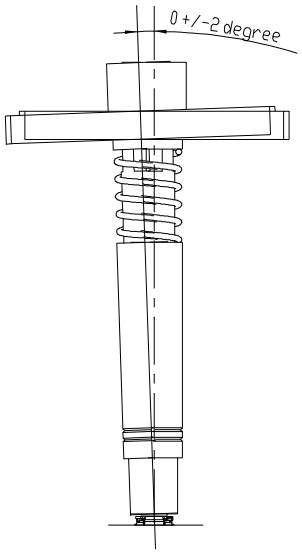


Figure 7. Probe Shape Operation Manual for Auto Measurement probe (MM206417)

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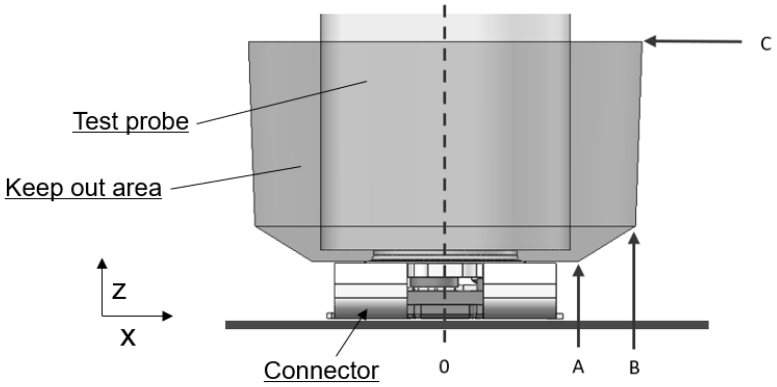
4 Keep out area of test probe
Following is keep out area of test probe tip. Please do not put any parts or devices in that area in order to ensure proper alignment.




Keep out coordinates from connector center

| | x | z |
|---|---|---|
| A | 1.32 | 0.50 |
| B | 1.83 | 0.81 |
| C | 1.87 | 2.00 |

UNIT: mm

Figure.8 Keep out area of test probe