

# Phase Stability & Slim Cable

# Up to 67 GHz

# Junkosha MWX161

- Cable assemblies with small diameter at neck part and the most suitable for multi-port VNA.
- Torque Driver is available to mount on narrow pitch connector arrangement board.
- Cable assemblies with excellent phase stability against bending and temperature.
- Cable assemblies with excellent mechanical characteristics using SUS flexible tubing for protection.
- Wide range of connectors: 3.5 mm, 2.92 mm, 2.4 mm and 1.85 mm

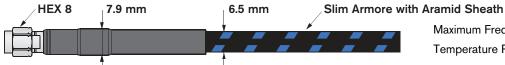
#### **Property**

Maximum operating frequency	67.0 GHz
Characteristic impedance	50±1 Ω
Capacitance (typ.)	90 pF/m
Propagation delay (typ.)	4.35 ns/m
Velocity of propagation (typ.)	77 %
Higher mode frequency (typ.)	70 GHz
VSWR (typ.)	1.30
Maximum frequency insertion loss (67.0 GHz)	7.3 dB/m

Maximum outer diameter	7.9 mm(0.311 <sup>"</sup> )
Cable outer diameter	6.5 mm(0.256 ″)
Minimum bending radius (inner side)	30 mm
Cable mass (typ.)	79 g/m
Continuous operating temperature range	−65∼+125 °C
Armored side pressure	196 N/cm
Assembly length	600~1,500 mm ( 24~60 " )



Image courtesy of Keysight Technologies Inc.

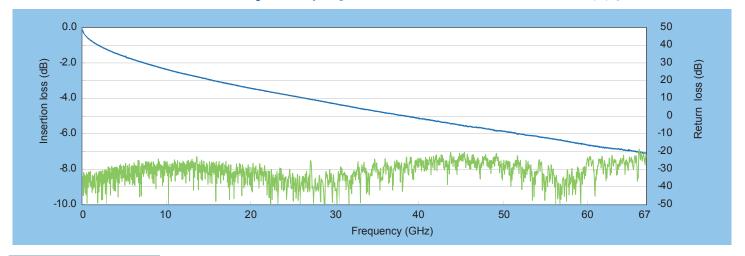


Maximum Frequency: 67 GHz

Temperature Range: -65 ~ +125 degree C

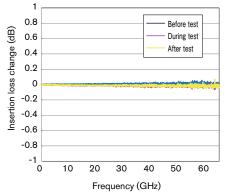
#### **Insertion loss and Return loss**

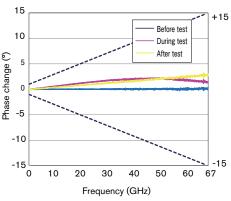
#### Assembly length 1000mm, Connector: Both side 1.85 mm (m)



#### **Technical Data**

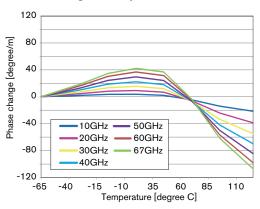
### Static bending data (insertion loss, phase) Bending radius: 30 mm





- \*The above figures are measured values for reference only.
- \*The cable was wrapped 360 degree around  $\phi$ 60 mm mandrel.

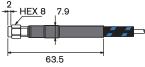
#### Phase change vs. temperature



The cable was measured in chamber every 20 ~ 30 degree C from -65 to 125 degree C, 30 minutes after the temperature changed. Figure shows the excellent phase stability over the temperature changes.

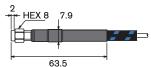
#### **Connector Type**

#### ●3.5 mm (m) [Code : DMS]



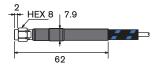
Maximum frequency: 26.5 GHz

#### ■2.92 mm (m) [Code : KMS]



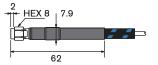
Maximum frequency: 40.0 GHz

#### ●2.4 mm (m) [Code : LMS]



Maximum frequency: 50.0 GHz

#### ●1.85 mm (m) [Code: VMS]



Maximum frequency: 67.0 GHz

#### Order form example

Please provide the following information when placing an order.



#### Example 1

Assembly length: 1000mm Connector I: 3.5mm (m) Connector II: 3.5mm (m)

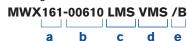
#### Catalog No.



#### **Example 2**

Assembly length: 610mm Connector I: 2.4mm (m) Connector II: 1.85mm (m)

Catalog No.



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<sup>\*</sup>To allow continuing product improvements, specifications are subject to change without notice.

<sup>\*</sup>The data are measured, not guaranteed values. \*MWX is a registered trademark of Junkosha Inc.