Junkosha
Creating Unsurpassed Value

Up to 110GHz

Flexible & Hand Formable

High Phase Stability
Low Insertion Loss

JUNFLON® MWX001

- Low insertion loss and excellent phase stability against bending up to 110GHz.
- Insertion Loss – drastically improved.（Before13.7dB/m→After11.8dB/m) NEW
- High quality signal transmission with excellent flexibility and form-sustainability.
- Safety Lock Function adopted to preserve 1.0mm(m) connector’ s central pin. NEW
- Standard type armored with SUS spiral tube for mechanical damage reduction.

Cable Properties

Electrical Properties

Maximum operating frequency	110.0 GHz
Characteristic impedance (typ.)	50 Ω
Capacitance (typ.)	88 pF/m
Propagation delay (typ.)	4.2 nsec/m
Wavelength reduction rate (typ.)	79 %
Maximum frequency insertion loss (110.0GHz)	11.8 dB/m
VSWR (per connector / both ends of assy)	1.197/1.43

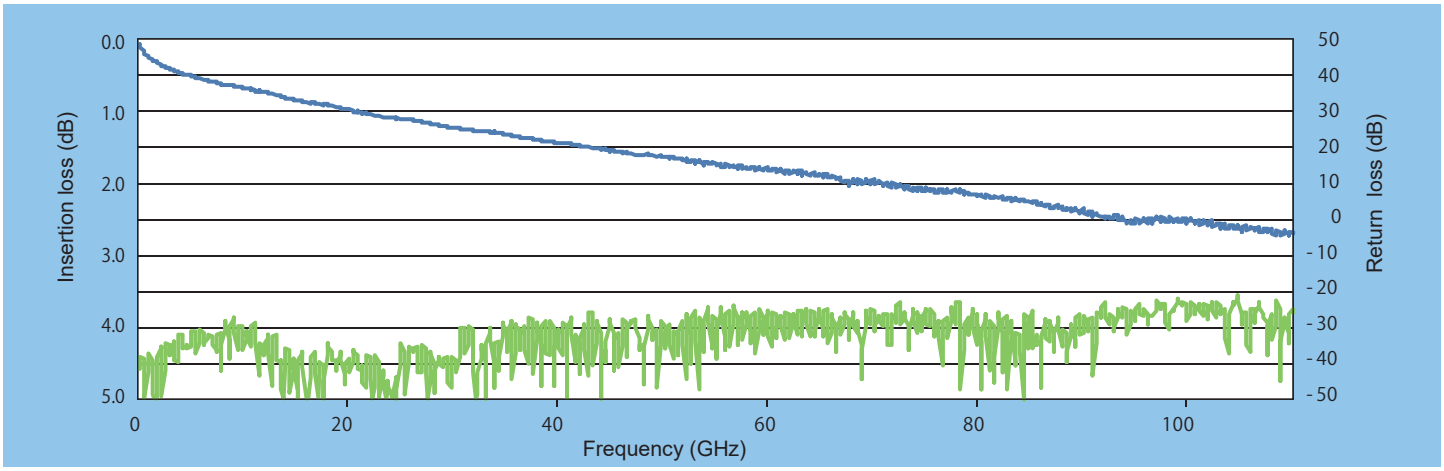
Mechanical Properties

Cable outer diameter	4.0 mm
Minimum bending radius (inner side)	15 mm
Cable mass (typ.)	50 g/m
Continuous operating temperature range	-30 ～ +85 ℃
Assembly length	100 ～ 200 mm
Armored side pressure	157 N/cm

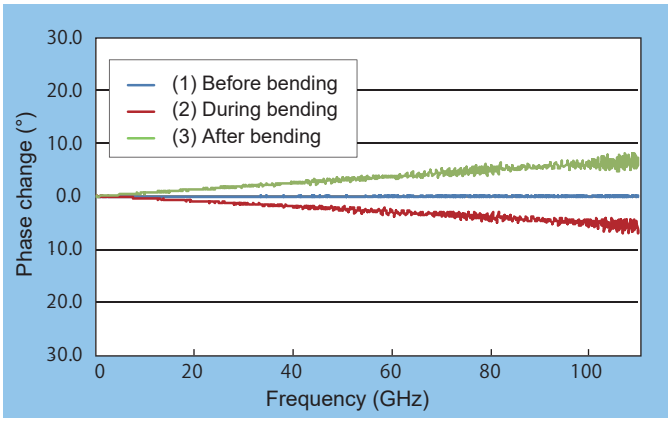
- Typical insertion loss $0.86\times(0.035\times f\ (GHz)+0.9\times\sqrt{f\ (GHz)}+0.4\ )\times L(m)$
- Maximum insertion loss $0.86\times(0.035\times f\ (GHz)+0.9\times\sqrt{f\ (GHz)}+0.4\ )\times 1.12\times L(m)$

Insertion loss and Return loss

Assembly length 200mm, Connector: Both side 1.0mm(m)



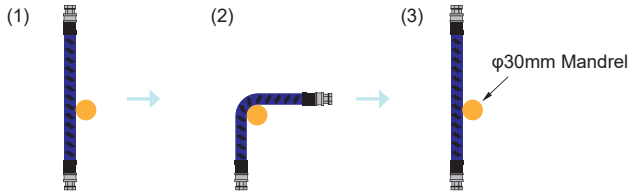
Static Bending Data (Phase Change)



(1) The initial phase value of the sample cable is measured.

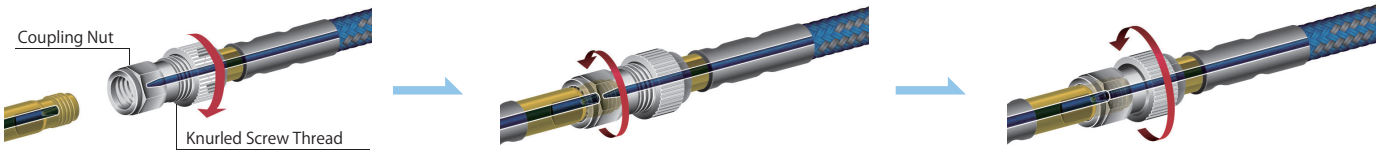
(2) The phase waveform is recorded while the cable is wrapped 90 degree on a mandrel of φ30mm.

(3) The phase waveform is recorded after straightening the cable



How to connect the safety lock

Patent pending



Rotate the knurled parts and check the knurled screw thread. Central pin is located back side, seeing from the coupling nut side.

Same as the normal 1.0mm(m) connectors, fit the coupling nut with female connector. They will be fixed under the condition that both connector' s central axis is matched. Central pin has not connected yet.

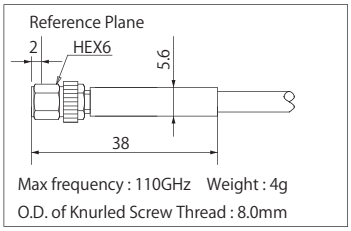
Rotate the knurled parts, then let the cable side central pin forward, and insert to female connector's socket. With the help of fixed coupling nut, central axis is matched. This helps not to happen pin's slanting.

Connector Type

● 1.0mm(m) straight

With safety lock function

Code : WMT

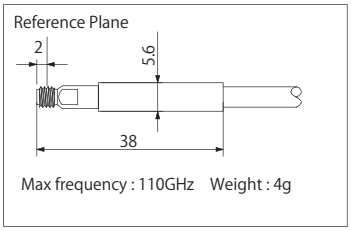


Max frequency : 110GHz Weight : 4g

O.D. of Knurled Screw Thread : 8.0mm

● 1.0mm(f) straight

Code : WFS



Max frequency : 110GHz Weight : 4g

Pracing orders

MWX001 – 00100 WFSWMT /B

Cable	····· MWX001
Assembly length	····· 100mm
Connector I	····· 1.0mm(f) straight
Connector II	····· 1.0mm(m) straight with the Safety Lock
Armored type	

Connector I / Connector II	1.0mm(m) : WMT	1.0mm(f) : WFS
1.0mm(m) : WMT	WMTWMT	WFSWMT
1.0mm(f) : WFS	—	WFSWFS

*To allowcontinuing product improvements, specifications are subject tochange without notice.

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Junkosha USA Inc.

18201 Von Karman Avenue
Suite 1080
Irvine, CA 92612
https://www.junkosha-mwx.com/

www.junkosha-mwx.com