

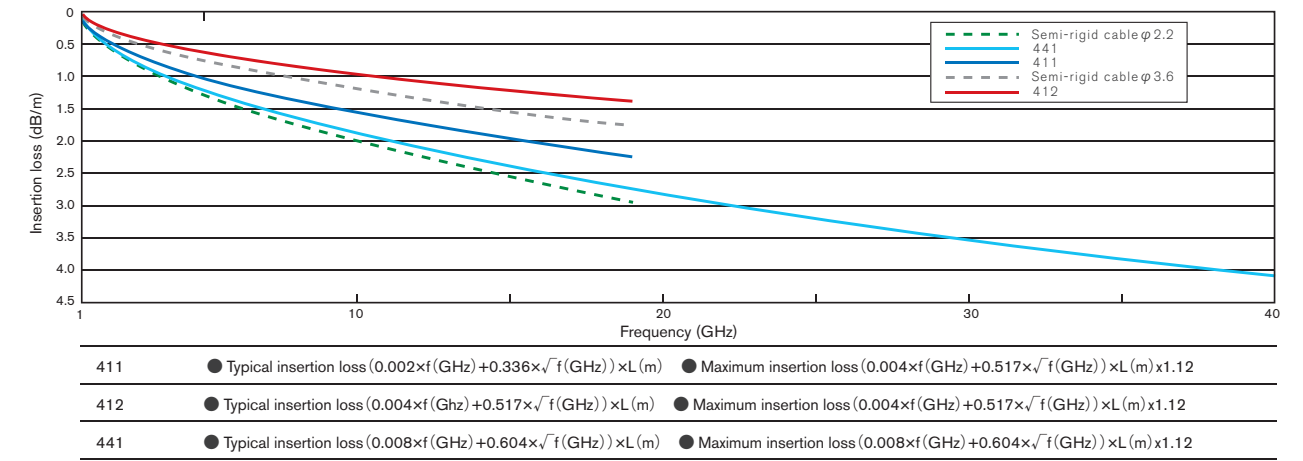
4 SERIES

411, 412, 441, 461

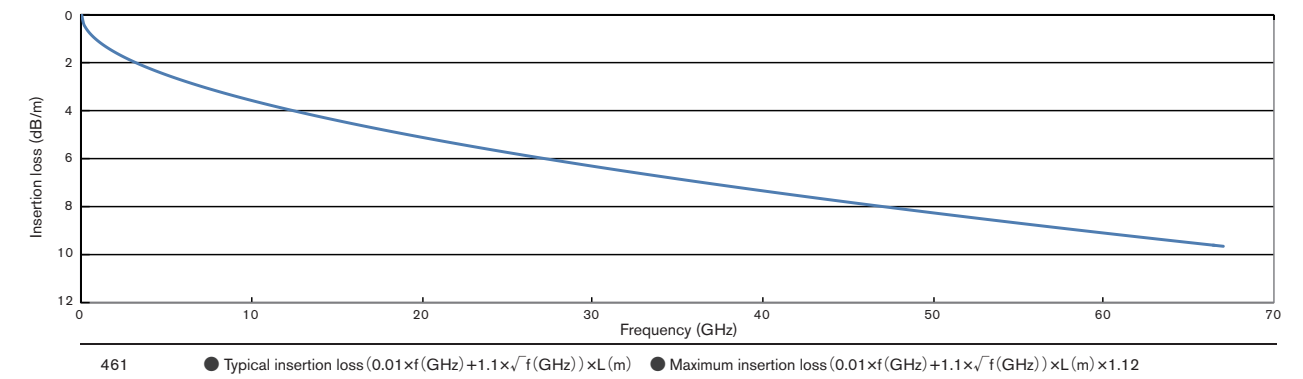


Technical Data

Comparison of typical insertion loss (4 series vs. semi-rigid cable L=1000mm)



Typical insertion loss (461 L=1000mm)



Property

Electrical properties	MWX411	MWX412	MWX441	MWX461
Maximum operating frequency	18.0 GHz	18.0 GHz	40.0 GHz	67.0 GHz
Characteristic impedance (typ.)	50 Ω	50 Ω	50 Ω	50 Ω
Capacitance (typ.)	85 pF/m	85 pF/m	90 pF/m	95 pF/m
Propagation delay (typ.)	4.3 ns/m	4.4 ns/m	4.3 ns/m	4.7 ns/m
Velocity of Propagation (typ.)	78 %	76 %	78 %	70 %
Higher mode frequency (typ.)	64.0 GHz	36.0 GHz	76.0 GHz	108 GHz
VSWR (per connector/both ends of assy.)	1.182/1.40	1.182/1.40	1.224/1.50	1.732/3
Maximum frequency insertion loss	2.2 dB/m (18.0 GHz)	1.4 dB/m (18.0 GHz)	4.3 dB/m (40.0 GHz)	12 dB/m (67.0 GHz)

Mechanical properties	MWX411	MWX412	MWX441	MWX461
Cable outer diameter	2.5 mm	4.0 mm	2.4 mm	1.33 mm
Minimum bending radius (inner side)	15 mm	20 mm	15 mm	5 mm
Cable mass (typ.)	19 g/m	41 g/m	17 g/m	4.6 g/m
Continuous operating temperature range	-30~+85 °C	-30~+85 °C	-30~+85 °C	-65~+125 °C
Assembly length	100~5,000 mm	100~5,000 mm	100~5,000 mm	40~2,000 mm
Remark	Semi-rigid cable φ 2.2 equivalent	Semi-rigid cable φ 3.6 equivalent	Semi-rigid cable φ 2.2 equivalent	Semi-rigid cable φ 1.2 equivalent

Example 441

Assembly length: 200 mm
 Connector I : 2.92 mm (m) straight
 Connector II : 2.92 mm (m) straight

Catalog No.
 MWX441-KP-KP L=200 mm

a: Cable
 b: Assembly length
 c: Connector

Order form example

Please provide the following information when placing an order.

*Please order in minimum order quantity.

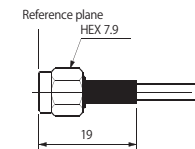
Option

For connectors not listed Please contact us separately.

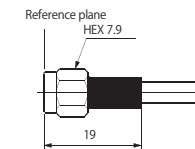
*The above figures are measured values for reference only.

Connector

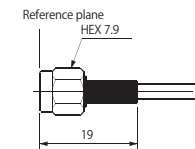
SMA (m) straight (Code: MWX411-AP)
 Maximum operating frequency: 18.0 GHz / Mass: 3g



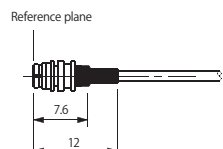
SMA (m) straight (Code: MWX412-AP)
 Maximum operating frequency: 18.0 GHz / Mass: 3g



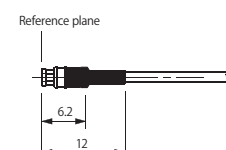
2.92mm (m) straight (Code: MWX441-KP)
 Maximum operating frequency: 40.0 GHz / Mass: 5g



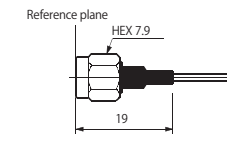
SMP (f) straight (Code: MWX461-SJ)
 Maximum operating frequency: 12.0 GHz / Mass: 1g



SMPM (f) straight (Code: MWX461-MJ)
 Maximum operating frequency: 67.0 GHz / Mass: 1g



SMA (m) straight (Code: MWX461-AP)
 Maximum operating frequency: 18.0 GHz / Mass: 3g



5SERIES

511, 512



Property

Electrical properties	MWX511	MWX512	Mechanical properties	MWX511	MWX512
Maximum operating frequency	18.0 GHz	18.0 GHz	Cable outer diameter	3.0 mm	4.4 mm
Characteristic impedance (typ.)	50 Ω	50 Ω	Minimum bending radius (inner side)	10 mm	15 mm
Capacitance (typ.)	97 pF/m	95 pF/m	Cable mass (typ.)	19 g/m	41 g/m
Propagation delay (typ.)	4.7 ns/m	4.7 ns/m	Continuous operating temperature range	-30~+85 °C	-30~+85 °C
Velocity of Propagation (typ.)	71 %	71 %	Assembly length	100~5,000 mm	100~5,000 mm
Higher mode frequency (typ.)	63.0 GHz	34.0 GHz	Remark	Semi-flexible cable φ2.1 equivalent	Semi-flexible cable φ3.45 equivalent
VSWR (per connector/ both ends of assy.)	1.182/1.40	1.182/1.40			
Maximum frequency insertion loss	3.1 dB/m (18.0 GHz)	2.0 dB/m (18.0 GHz)			

Order form example

Please provide the following information when placing an order.

*Please order in minimum order quantity.

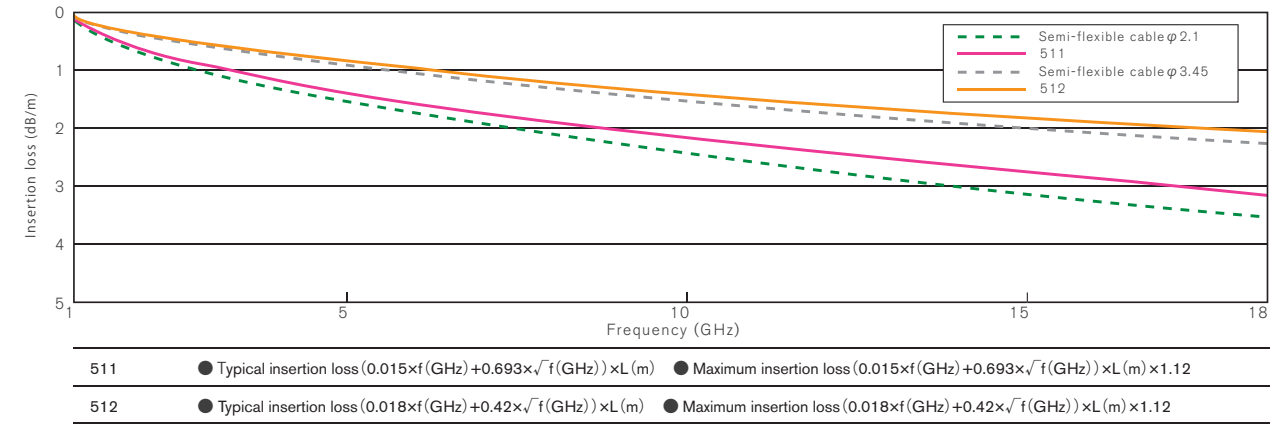
Example 511
 Assembly length: 200 mm
 Connector I : SMA (m) straight
 Connector II : SMA (m) straight
 Catalog No.
 MWX511-AP-AP L=200 mm

a: Cable
 b: Assembly length
 c: Connector

a c b

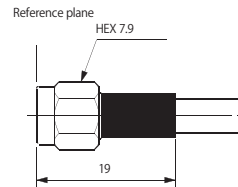
Technical Data

Comparison of typical insertion loss (5 series vs. semi-flexible cable L=1000mm)

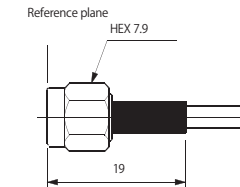


Connector

SMA (m) straight (Code: MWX511-AP)
 Maximum operating frequency: 18.0 GHz / Mass: 3g



SMA (m) straight (Code: MWX512-AP)
 Maximum operating frequency: 18.0 GHz / Mass: 3g



*The above figures are measured values for reference only.