2 SERIES

221

Static bending | Flexibility | Frequency 26.5 GHz | Temperature range -30～+85℃ | Minimum bending radius 20～30 mm | RoHS compliant | Measurement | Armored | Lightweight Armored (for fixed wiring) | Delivery time 5 days | Listed in the catalogue; manufactured to order | Custom support

Property

Electrical properties

Maximum operating frequency	26.5 GHz
Characteristic impedance	50±1 Ω
Capacitance (typ.)	88 pF/m
Propagation delay (typ.)	4.4 ns/m
Velocity of Propagation(typ.)	76 %
Higher mode frequency (typ.)	27.5 GHz
VSWR (per connector/ both ends of assy.)	1.153/1.33
Maximum frequency insertion loss (26.5 GHz)	1.4 dB/m

Mechanical properties	Standard type	Armored type	Lightweight Armored type (for fixed wiring)
Cable outer diameter	6.0 mm	12.5 mm	11 mm
Minimum bending radius (inner side)	20 mm	20 mm	30 mm
Cable mass (typ.)	64 g/m	212 g/m	160 g/m
Continuous operating temperature range	−30～+85 ℃	−30～+85 ℃	−30～+85 ℃
Armored side pressure	—	196N/cm	196N/cm
Assembly length	200～5,000 mm	700～5,000 mm	500～5,000 mm

Order form example

Please provide the following information when placing an order.

＊See P.45"Connector combination codes"

Example 1
221
Assembly length：1000mm
Connector Ⅰ：SMA(m) straight
Connector Ⅱ：3.5mm(m) straight
Catalog No.
MWX221-01000AMSDMS
a b c

Example 2
221 Armored type
Assembly length：1500mm
Connector Ⅰ：N(m) straight
Connector Ⅱ：N(m) straight
Catalog No.
MWX221-01500NMSNMS/B
a b c d

Example 3
221 Lightweight Armored type
Assembly length：1000mm
Connector Ⅰ：SMA(m) straight
Connector Ⅱ：SMA(m) straight
Catalog No.
MWX221-01000AMSAMS/A
a b c d

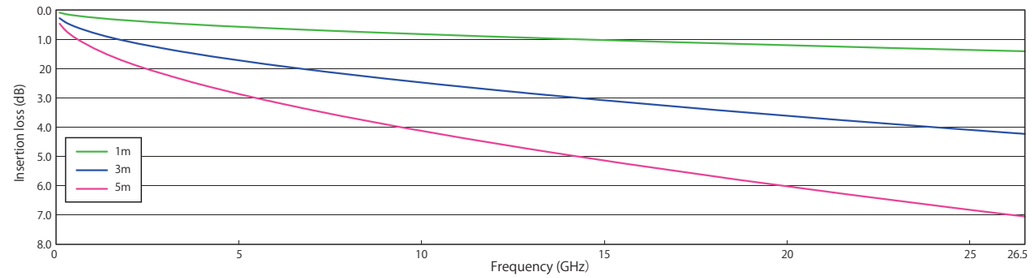
We have the capacity to deliver products with matched phases for customers who require this characteristic.

Option

a:Cable
b:Assembly length
c:Connector
d:Armored

Technical Data

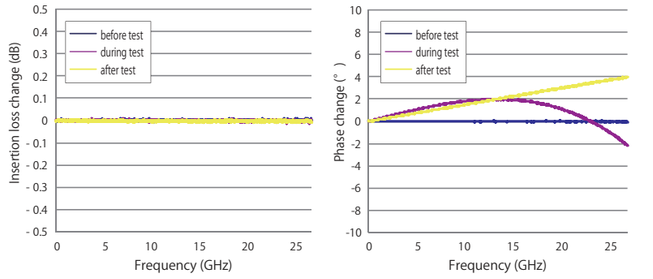
Cable typical insertion loss



● Typical insertion loss (0.0077×f(GHz)+0.2304×√f(GHz)+0.02)×L(m) ● Maximum insertion loss (0.0077×f(GHz)+0.2304×√f(GHz)+0.02)×1.12×L(m)

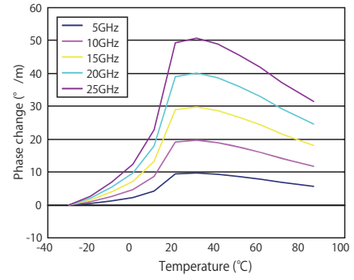
Static bending data (insertion loss, phase)

Bending radius: 30 mm



＊The cable was wrapped 360° around φ60mm mandrel.

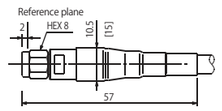
Phase change vs. temperature



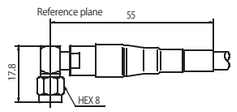
＊The cable was measured in chamber every 20 ℃ from -40 to 90 ℃, 1 hour after the temperature changed.

Connector

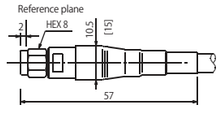
SMA(m) straight (Code：AMS)
Maximum operating frequency：18.5GHz／Mass:10g



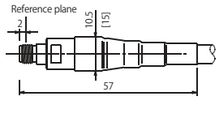
SMA(m) right Angle (Code：AMH)
Maximum operating frequency：18.0GHz／Mass:10g



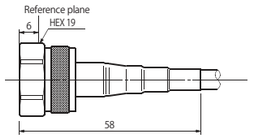
3.5mm(m) straight (Code：DMS)
Maximum operating frequency：26.5GHz／Mass:11g



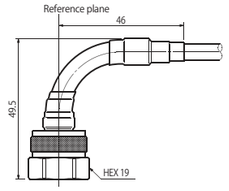
3.5mm(f) straight (Code：DFS)
Maximum operating frequency：26.5GHz／Mass:10g



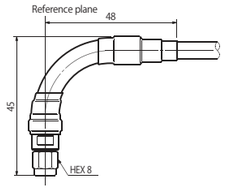
N(m) straight (Code：NMS)
Maximum operating frequency：18.0GHz／Mass:38g



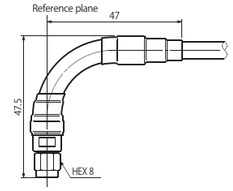
N(m) swept (Code：NMW)
Maximum operating frequency：18.0GHz／Mass:46g



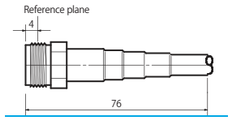
SMA(m) swept (Code：AMW)
Maximum operating frequency：18.5GHz／Mass:17g



3.5mm(m) swept (Code：DMW)
Maximum operating frequency：26.5GHz／Mass:18g



N(f) straight (Code：NFS)
Maximum operating frequency：18.0GHz／Mass:26g



・Swept and right angle are not available to armored type.
・Please see P.82 about" customer-specified swept and right angle connectors".
・[ ] : Armored type size.

＊The above figures are measured values for reference only.

2 SERIES

241

Static bending · Flexibility · Frequency 40.0 GHz · Temperature range -30~+85℃ · Minimum bending radius 20 mm · RoHS compliant · Measurement · Armored · Lightweight Armored (for fixed wiring) · Delivery time 5 days · Listed in the catalogue; manufactured to order · Custom support

Property

Electrical properties

Maximum operating frequency	40.0 GHz
Characteristic impedance	50±1 Ω
Capacitance (typ.)	88 pF/m
Propagation delay (typ.)	4.35 ns/m
Velocity of Propagation(typ.)	77 %
Higher mode frequency (typ.)	40.5 GHz
VSWR (per connector/ both ends of assy.)	1.197/1.43
Maximum frequency insertion loss (40.0 GHz)	3.0 dB/m

Mechanical properties	Standard type	Non-armored type custom-made	Lightweight Armored type (for fixed wiring)
Cable outer diameter	9.5 mm	4.1 mm	8 mm
Minimum bending radius (inner side)	20 mm	20 mm	20 mm
Cable mass (typ.)	137 g/m	35 g/m	98 g/m
Continuous operating temperature range	−30～+85 ℃	−30～+85 ℃	−30～+85 ℃
Armored side pressure	196N/cm	−	196N/cm
Assembly length	700～5,000 mm	200～5,000 mm	500～5,000 mm

＊Take care when handling the non-armored type product because its outer diameter of the cable is thin.

Order form example

Please provide the following information when placing an order.

＊ See P.45"Connector combination codes"

Example 1
241Armored type (standard)
Assembly length：1000mm
Connector Ⅰ：2.92mm(m) straight
Connector Ⅱ：2.92mm(m) straight
Catalog No.
MWX241-01000KMSKMS/B
a b c d

Example 2
241Non-armored type
＊The individual specification is required.

Example 3
241 Lightweight Armored type
Assembly length：1000mm
Connector Ⅰ：2.92mm(m) straight
Connector Ⅱ：2.92mm(m) straight
Catalog No.
MWX241-01000KMSKMS/A
a b c d

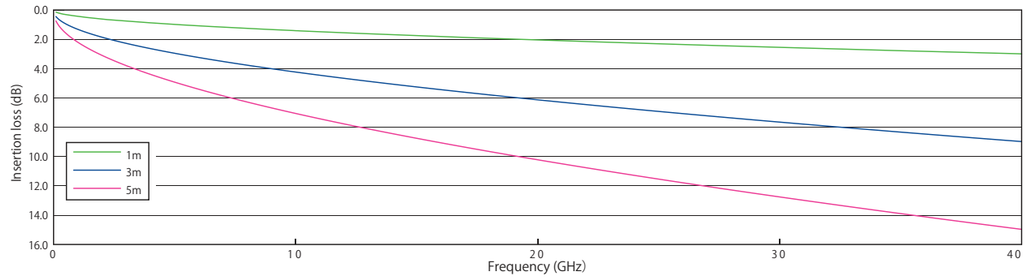
We have the capacity to deliver products with matched phases for customers who require this characteristic.

Option

a:Cable
b:Assembly length
c:Connector
d:Armored

Technical Data

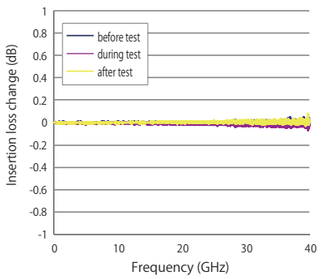
Cable typical insertion loss

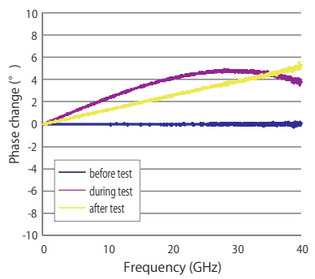


● Typical insertion loss (0.0095×f(GHz)+0.41×√f(GHz)+0.02)×L(m) ● Maximum insertion loss (0.0095×f(GHz)+0.41×√f(GHz)+0.02)×1.12×L(m)

Static bending data (insertion loss, phase)

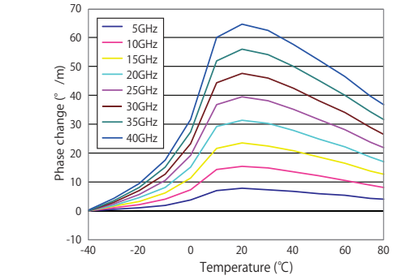
Bending radius: 20 mm





＊The cable was wrapped 360° around φ40mm mandrel.

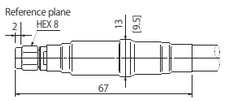
Phase change vs. temperature



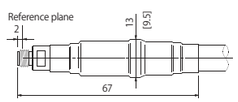
＊The cable was measured in chamber every 20 ℃ from -40 to 90 ℃, 1 hour after the temperature changed.

Connector

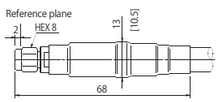
2.92mm (m) straight (Code：KMS)
Maximum operating frequency：40.0 GHz／Mass:10g



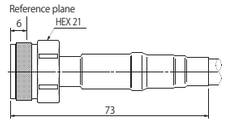
2.92mm (f) straight (Code：KFS)
Maximum operating frequency：40.0 GHz／Mass:10g



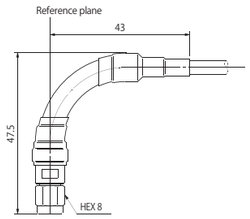
SMA (m) straight (Code：AMS)
Maximum operating frequency：18.5 GHz／Mass:12g



N (m) straight (Code：：NMS)
Maximum operating frequency：18.0 GHz／Mass:42g



2.92mm (m) swept (custom-made)
Maximum operating frequency：40.0 GHz／Mass:17g



・Swept and right angle are not available to armored type.
・Please see P.82 about" customer-specified swept and right angle connectors".
・[ ] : Non - armored type size.

＊The above figures are measured values for reference only.

2 SERIES

251

Static bending | Flexibility | Frequency 50.0 GHz | Temperature range -30~+85℃ | Minimum bending radius 6~20 mm | RoHS compliant | Measurement | Armored | Delivery time 5 days | Listed in the catalogue; manufactured to order | Custom support

Property

Electrical properties

Maximum operating frequency	50.0 GHz
Characteristic impedance	50±1 Ω
Capacitance (typ.)	88 pF/m
Propagation delay (typ.)	4.36 ns/m
Velocity of Propagation(typ.)	77 %
Higher mode frequency (typ.)	50.3 GHz
VSWR (per connector/ both ends of assy.)	1.197/1.43
Maximum frequency insertion loss (50.0 GHz)	3.8 dB/m

Mechanical properties	Standard type	Non-armored type custom-made
Cable outer diameter	9.5 mm	3.7 mm
Minimum bending radius (inner side)	20 mm	6 mm
Cable mass (typ.)	129 g/m	29 g/m
Continuous operating temperature range	−30～+85 ℃	−30～+85 ℃
Armored side pressure	196N/cm	—
Assembly length	700～1,500 mm	200～1,500 mm

＊Take care when handling the non-armored type product because its outer diameter of the cable is thin.

Order form example

Please provide the following information when placing an order.

＊ See P.45"Connector combination codes"

Example 1
251 Armored type (standard)
Assembly length：1000mm
Connector Ⅰ：2.4mm (m) straight
Connector Ⅱ：2.4mm (m) straight

Catalog No.
MWX251-01000LMSLMS/B
a b c d

Example 2
251 Non-armored type

＊The individual specification is required.

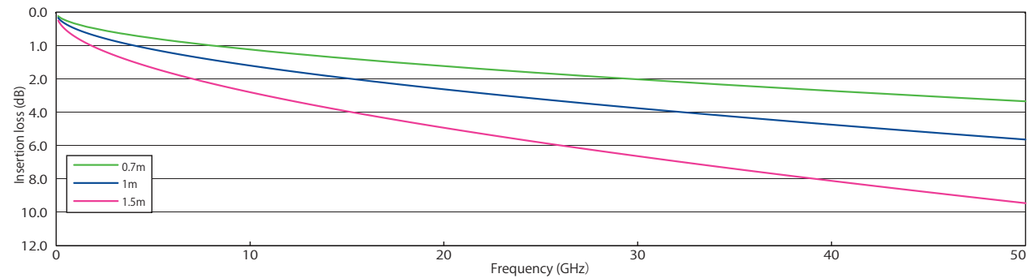
a:Cable
b：Assembly length
c：Connector
d:Armored

We have the capacity to deliver products with matched phases for customers who require this characteristic.

Option

Technical Data

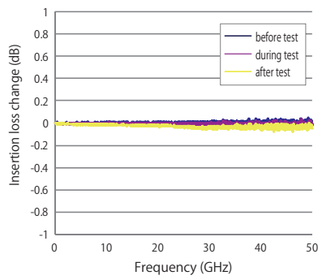
Cable typical insertion loss

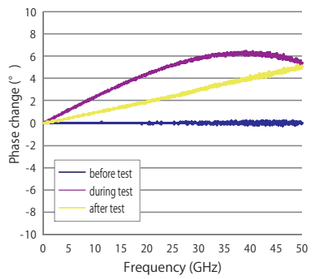


● Typical insertion loss (0.0095×f(GHz)+0.47×√f(GHz)+0.02)×L(m) ● Maximum insertion loss (0.0095×f(GHz)+0.47×√f(GHz)+0.02)×1.12×L(m)

Static bending data (insertion loss, phase)

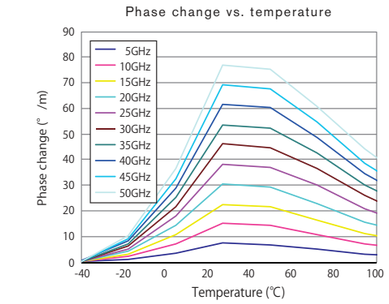
Bending radius: 20 mm





＊The cable was wrapped 360° around φ40mm mandrel.

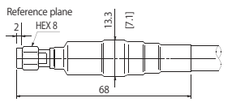
Phase change vs. temperature



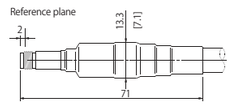
＊The cable was measured in chamber every 20 ℃ from -40 to 90 ℃, 1 hour after the temperature changed.

Connector

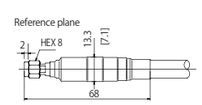
2.4mm (m) straight (Code：LMS)
Maximum operating frequency：50.0 GHz／Mass:13g



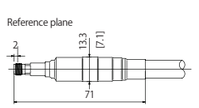
2.4mm (f) straight (Code：LFS)
Maximum operating frequency：50.0 GHz／Mass:13g



2.92mm (m) straight (Code：KMS)
Maximum operating frequency：40.0 GHz／Mass:13g



2.92mm (f) straight (Code：KFS)
Maximum operating frequency：40.0 GHz／Mass:13g



・[ ] : Non - armored type size.

＊The above figures are measured values for reference only.

2 SERIES

261

Static bending | Flexibility | Frequency 67.0 GHz | Temperature range -30~+85℃ | Minimum bending radius 6~20 mm | RoHS compliant | Measurement | Armored | Delivery time 5 days | Listed in the catalogue; manufactured to order | Custom support

Property

Electrical properties

Maximum operating frequency	67.0 GHz
Characteristic impedance	50±1 Ω
Capacitance (typ.)	90 pF/m
Propagation delay (typ.)	4.38 ns/m
Velocity of Propagation(typ.)	76 %
Higher mode frequency (typ.)	67.0 GHz
VSWR (per connector/ both ends of assy.)	1.197/1.43
Maximum frequency insertion loss (67.0 GHz)	5.6 dB/m

Mechanical properties	Standard type	Non-armored type custom-made
Cable outer diameter	7.7 mm	2.6 mm
Minimum bending radius (inner side)	20 mm	6 mm
Cable mass (typ.)	90 g/m	17 g/m
Continuous operating temperature range	−30～+85 ℃	−30～+85 ℃
Armored side pressure	196N/cm	−
Assembly length	700～1,500 mm	200～1,500 mm

＊Take care when handling the non-armored type product because its outer diameter of the cable is thin.

Order form example

Please provide the following information when placing an order.

＊ See P.45"Connector combination codes"

26.5 GHz

Example 1
261 Armored type (standard)
Assembly length：1000 mm
Connector Ⅰ：1.85 mm (m) straight
Connector Ⅱ：1.85 mm (m) straight

Catalog No.
MWX261-01000VMSVMS/B
a b c d

Example 2
261 Non-armored type

＊ The individual specification is required.

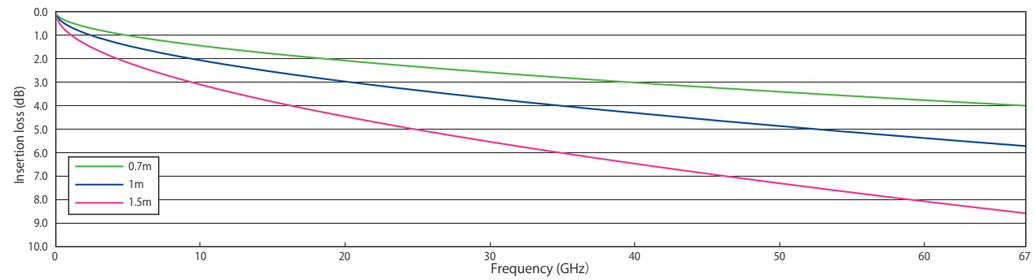
a:Cable
b：Assembly length
c：Connector
d:Armored

We have the capacity to deliver products with matched phases for customers who require this characteristic.

Option

Technical Data

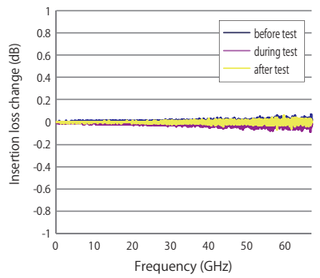
Cable typical insertion loss

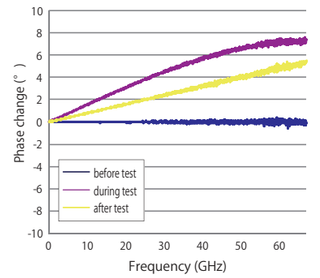


● Typical insertion loss (0.0095×f(GHz)+0.6148×√f(GHz)+0.02)×L(m) ● Maximum insertion loss (0.0095×f(GHz)+0.6148×√f(GHz)+0.02)×1.12×L(m)

Static bending data (insertion loss, phase)

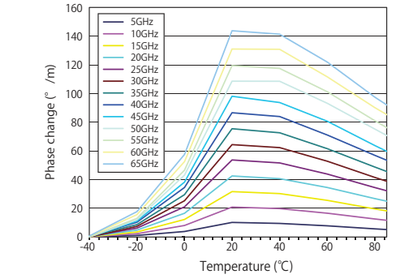
Bending radius: 20 mm





＊The cable was wrapped 360° around φ40mm mandrel.

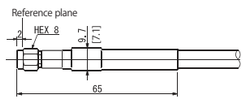
Phase change vs. temperature



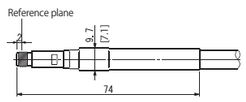
＊The cable was measured in chamber every 20 ℃ from -40 to 90 ℃, 1 hour after the temperature changed.

Connector

1.85mm (m) straight (Code：VMS)
Maximum operating frequency：67.0 GHz／Mass:8g



1.85mm (f) straight (Code：VFS)
Maximum operating frequency：67.0 GHz／Mass:8g



・[ ] : Non - armored type size.

＊The above figures are measured values for reference only.