

**3 Series** Cable Assemblies for Equipment Wiring

# 322

**Features**

- Phase Stability: Temperature Change
- Maximum Operating Frequency: 26.5 GHz
- Temperature Range: -65 to 125°C
- Low Insertion Loss
- Equipment Wiring
- Days to Ship: 11 Business Days
- RoHS Compliant



## Property

Electrical Properties		Mechanical Properties		Standard Type	Armored Type	Lightweight Armored Type (for Fixed Wiring)
Maximum Operating Frequency	26.5 GHz	Cable Outer Diameter	5.2 mm	5.2 mm	12.5 mm	11.0 mm
Characteristic Impedance (Typical)	50±1 Ω	Minimum Bending Radius (Inner Side)	25 mm	25 mm	25 mm	25 mm
Capacitance (Typical)	88 pF/m	Maximum Tensile Strength	98 N (10 kgf)	98 N (10 kgf)	98 N (10 kgf)	98 N (10kgf)
Propagation Delay (Typical)	4.38 ns/m	Cable Mass (Typical)	60 g/m	60 g/m	208 g/m	155 g/m
Velocity of Propagation (Typical)	76 %	Continuous Operating Temperature Range	-65~+125 °C	-65~+125 °C	-30~+85 °C	-30~+85 °C
Higher Mode Frequency (Typical)	27.5 GHz	Armored Side Pressure	-	-	196 N/cm	196 N/cm
VSWR (Typical)	1.33	Assembly Length	200~20,000 mm	200~20,000 mm	700~5,000 mm	500~20,000 mm
Maximum Frequency Insertion Loss (26.5 GHz)	1.3 dB/m					

## Order Form Example

Please provide the following information when placing an order.

\* See P.3-4 "Connector Codes"

**Example 1**  
**MWX322**

Assembly Length: 1000 mm  
Connector I : SMA (m) Straight  
Connector II : N (m) Straight

Catalog No.  
**MWX322-01000AMS NMS**



**Example 2**  
**MWX322 Armored Type**

Assembly Length: 1000 mm  
Connector I : 3.5mm (f) Straight  
Connector II : 3.5mm (m) Straight

Catalog No.  
**MWX322-01000DFSDMS/B**



**Example 3**  
**MWX322 Lightweight Armored Type**

Assembly Length: 1000mm  
Connector I : SMA (m) Straight  
Connector II : SMA (m) Straight

Catalog No.  
**MWX321-01000AMSAMS/A**

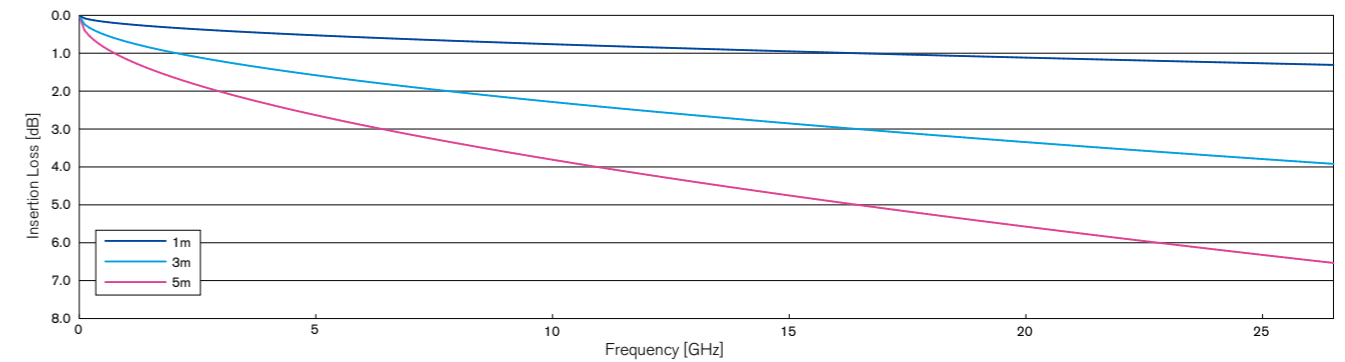


- a. Cable
- b. Assembly Length
- c. Connector
- d. Armored

**Option** • We can deliver products with matched phases for customers who require this characteristic.

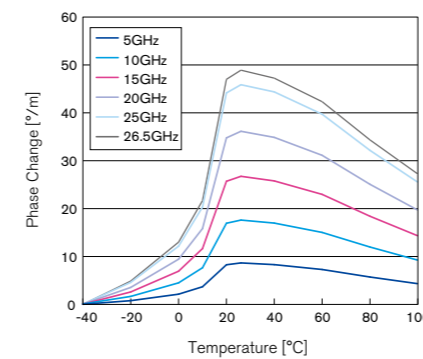
## Technical Data

### Cable Typical Insertion Loss



**Typical Insertion Loss**  $(0.214 \times \sqrt{f} [\text{GHz}] + 0.007 \times f [\text{GHz}] + 0.01) \times L [\text{m}]$  **Maximum Insertion Loss**  $(0.214 \times \sqrt{f} [\text{GHz}] + 0.007 \times f [\text{GHz}] + 0.01) \times 1.12 \times L [\text{m}]$

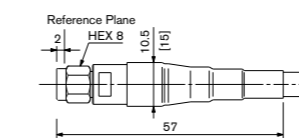
### 322 Phase Change vs. Temperature



The cable was measured in chamber every 20 °C from -40 °C, 1 hour after the temperature changed.

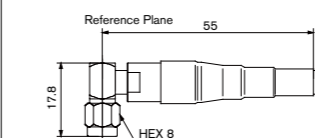
## Connector

### SMA (m) Straight (Code : AMS)



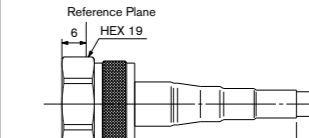
Maximum Operating Frequency : 18.5 GHz / Mass : 10g

### SMA (m) Right Angle (Code : AMH)<sup>(1)</sup><sub>(2)</sub>



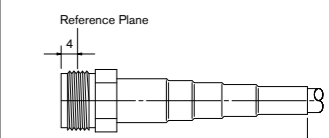
Maximum Operating Frequency : 18.0 GHz / Mass : 10g

### N (m) Straight (Code : NMS)



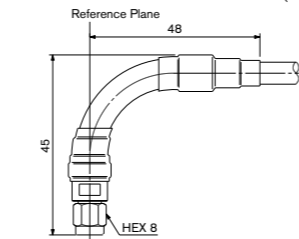
Maximum Operating Frequency : 18.0 GHz / Mass : 38g

### N (f) Straight (Code : NFS)



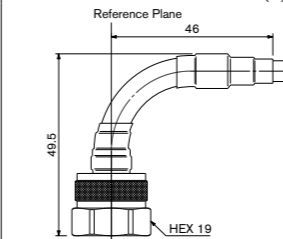
Maximum Operating Frequency : 18.0 GHz / Mass : 26g

### SMA (m) Swept (Code : AMW)<sup>(1)</sup><sub>(2)</sub>



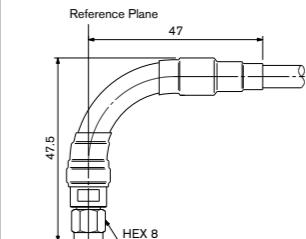
Maximum Operating Frequency : 18.5 GHz / Mass : 17g

### N (m) Swept (Code : NMW)<sup>(1)</sup><sub>(2)</sub>



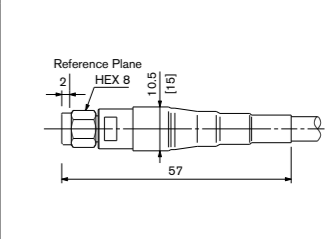
Maximum Operating Frequency : 18.0 GHz / Mass : 46g

### 3.5mm (m) Swept (Code : DMW)



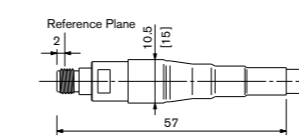
Maximum Operating Frequency : 26.5 GHz / Mass : 18g

### 3.5mm (m) Straight (Code : DMS)



Maximum Operating Frequency : 26.5 GHz / Mass : 11g

### 3.5mm (f) Straight (Code : DFS)



Maximum Operating Frequency : 26.5 GHz / Mass : 10g

\* Please see P3-23 about "customer-specified swept and right angle connectors".  
\* [ ] : Armored type size.

\*Refer to P0-4 Connector Code Table for other applicable connectors.

\* The above figures are measured values for reference only. 3-18