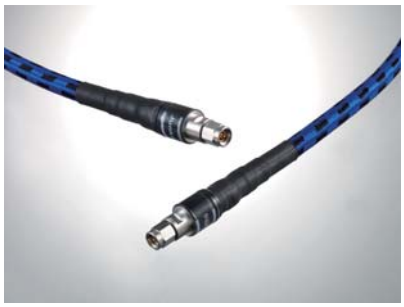
Junkosha

Creating Unsurpassed Value

JUNFLON® MWX SERIES

JUNFLON® Microwave Coaxial Cable Assemblies

MWX 0 Series ～Phase Stability～



The MWX0 series offers excellent phase stability against temperature fluctuations from -30 to +85°C and bending. They are suitable for vector network analyzers use in precision measurements. The cables in this cables are offered in a wide range of frequencies of 26.5, 50, 67, 70, 110 and 120 GHz with various connectors.

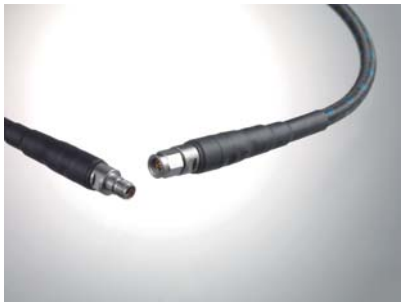
Shipment: 5 days after receipt of PO

Major applications

- Vector network analyzers
- RF and high-speed digital testers

Frequency	Cable type	Typical insertion loss (dB/m)		VSWR		Cable outer diameter (mm)	Weight (g/m)	Minimum bending radius (mm)	Continuous operating temperature(°C)	Assembly length (mm)	
		18.5 GHz	Maximum frequency	Per connector	Both ends of assy.					Min	Max
26.5GHz	MWX021	1.6	2.0	1.153	1.33	8.5	122	30	-30～+85	700	1500
50.0GHz	MWX051	2.7	4.6	1.21	1.46	6.6	76	30		700	1500
67.0GHz	MWX061	3.5	7.3	1.21	1.46	6.6	73	30		700	1500
70.0GHz	MWX071	3.5	7.5	1.21	1.46	6.6	73	30		700	1500
110.0GHz	MWX001	5.0	11.8	1.197	1.43	4.0	50	15		100	200
120.0GHz	MWX002	5.0	14.5	1.197	1.43	4.0	50	15		100	200

MWX 1 Series ～Wide Temperature & High Durability～



MWX121 Heat-resistant for measurement

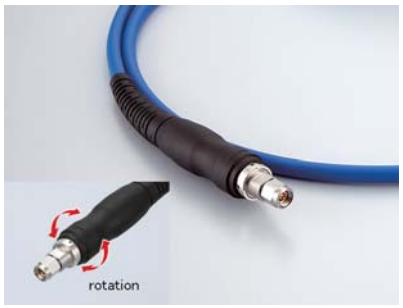
The MWX121 offers excellent durability of connector and cable bending in a wide temperature range from -65 to +125°C for microwave measurements.

Shipment: 5 days after receipt of PO

Major applications

- Microwave measurements requiring compatibility with a broad temperature range for applications, such as device evaluations
- Inspections requiring high durability

Frequency	Cable type	Typical insertion loss (dB/m)		VSWR		Cable outer diameter (mm)	Weight (g/m)	Minimum bending radius (mm)	Continuous operating temperature(°C)	Assembly length (mm)	
		18.5 GHz	Maximum frequency	Per connector	Both ends of assy.					Min	Max
26.5GHz	MWX121	1.2	1.3	1.153	1.33	6.6	80	30	-65～+125	200	5000



MWX122 High-durability for measurement

This high performance microwave cable assembly is the most suitable for vector network analyzers. Its extraordinary durability in use of measurement testing eventually leads to total cost reduction. New cable structure and strain relief with a torque canceller were developed by simulation of actual measurement motion.

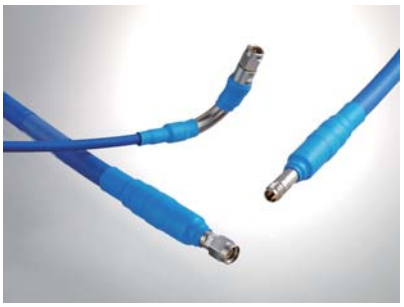
Shipment: 5 days after receipt of PO

Major applications

- Inspections requiring high durability
- Vector network analyzers

Frequency	Cable type	Typical insertion loss (dB/m)		VSWR		Cable outer diameter (mm)	Weight (g/m)	Minimum bending radius (mm)	Continuous operating temperature (°C)	Assembly length (mm)	
		18.5 GHz	Maximum frequency	Per connector	Both ends of assy.					Min	Max
26.5GHz	MWX122	1.5	1.9	1.153	1.33	6.5	79	30	-30～+85	300	3000

MWX 2 Series ～Flexible～



The MWX2 series offers flexibility and low repulsion to reduce stress loads to measured objects with excellent phase stability against bending in intensive use of microwave measurement.
The cables in this series are offered in a wide range of frequencies from 26.5, 40, 50 to 67 GHz with various connectors.
Shipment: 5 days after receipt of PO

Major applications

- Microwave/millimeter-wave measurements
- Micro-device measurements requiring high flexibility

Frequency	Cable type	Typical insertion loss (dB/m)		VSWR		Cable outer diameter (mm)	Weight (g/m)	Minimum bending radius (mm)	Continuous operating temperature (°C)	Assembly length (mm)	
		18.5 GHz	Maximum frequency	Per connector	Both ends of assy.					Min	Max
26.5GHz	MWX221	1.2	1.4	1.153	1.33	6	64	20	-30～+85	200	5000
	MWX221 (armored type)					12.5	212	20		700	5000
40.0GHz	MWX241 (armored type)	1.8	2.8	1.197	1.43	9.5	137	20		700	5000
	MWX241 (non-armored type, custom-made)					4.1	35	20		200	5000
50.0GHz	MWX251 (armored type)	2.1	3.7	1.197	1.43	9.5	129	20		700	1500
	MWX251 (non-armored type, custom-made)					3.7	29	6		200	1500
67.0GHz	MWX261 (armored type)	2.9	5.6	1.197	1.43	7.7	90	20		700	1500
	MWX261 (non-armored type, custom-made)					2.6	17	6		200	1500

Connector Compatibility and Maximum Operating Frequency

	18.0GHz				18.5GHz			26.5GHz			40.0GHz			50.0GHz		67 ~ 70GHz		110 ~ 120GHz	
	N (m)	N (f)	N (m) Swept	SMA (m) Rightangle	SMA (m)	SMA (f)	SMA (m) Swept	3.5mm (m)	3.5mm (f)	3.5mm (m) Swept	2.92mm (m)	2.92mm (f)	2.92mm (m) Swept	2.4mm (m)	2.4mm (f)	1.85mm (m)	1.85mm (f)	1.0mm (m)	1.0mm (f)
MWX021	●				●	●		●	●										
MWX051											●	●		●	●				
MWX061																67GHz ●	67GHz ●		
MWX071																70GHz ●	70GHz ●		
MWX001																		110GHz ●	110GHz ●
MWX002																		120GHz ●	120GHz ●
MWX121	●				●			●	●										
MWX122	●				●			●	●										
MWX221	●	●	●	●	●		●	●	●	●									
MWX241	●				●						●	●	●						
MWX251											●	●		●	●				
MWX261																67GHz ●	67GHz ●		

● Compatible connector

MWX 3 Series ～Equipment Wiring～

The MWX3 series offers excellent phase stability against temperature fluctuations from -65 to +125°C with porous PTFE dielectric material.
There are nine types of cables in this series with maximum frequencies of 18.5, 26.5, and 40 GHz and insertion loss values.

Major applications

- Electronic equipment for communication satellites and ground stations, aircraft, air traffic control towers
- Electronic equipment for ships; equipment highly susceptible to signal leaks and interference

Frequency	Cable type	Typical insertion loss (dB/m)		VSWR		Cable outer diameter (mm)	Weight (g/m)	Minimum bending radius (mm)	Continuous operating temperature (°C)	Assembly length (mm)	
		18.5 GHz	Maximum frequency	Per connector	Both ends of assy.					Min	Max
18.5GHz	MWX311	3.4	—	1.182	1.40	2.7	18.5	10	-65～+125	100	10000
	MWX312	2.2	—	1.182	1.40	4.1	42	20		100	20000
	MWX313	1.9	—	1.182	1.40	4.7	52	30		100	20000
	MWX314	0.8	—	1.182	1.40	7.7	125	40		200	20000
18.0GHz	MWX315	—	0.76	1.182	1.40	8.6	155	30	-30～+85	500	5000
26.5GHz	MWX321	1.8	2.4	1.202	1.44	4.7	52	30	-65～+125	100	20000
	MWX322	1.1	1.3	1.153	1.33	5.2	60	25		200	20000
40.0GHz	MWX341	2.1	3.3	1.197	1.44	4.0	40	20		100	10000
	MWX342	1.5	2.4	1.197	1.43	3.9	35	20		200	10000

Connector Compatibility and Maximum Operating Frequency

	10.0GHz	15.0GHz	18.0GHz				18.5GHz					26.5GHz			40.0GHz				
	SMA (m) Right angle	TNC (m)	SMA (m)	N (m)	N (f)	SMA (m) Right angle	SMA (m)	SMA (f)	SSMA (m)	N (m)	TNC (m)	SMA (m)	3.5mm (m)	3.5mm (f)	SMA (m)	2.92mm (m)	2.92mm (f)	2.4mm (m)	2.4mm (f)
MWX311	●						●	●	●										
MWX312	●	●				●	●	●		●									
MWX313	●	●					●	●		●									
MWX314							●			●	●								
MWX315			●	●															
MWX321												●	●						
MWX322				●	●	●	●						●	●					
MWX341															●				
MWX342																●	●	●	●

● Compatible connector

MWX 4,5 Series Formable～ for fixed wiring ～

The MWX4 and 5 series offer formability of easy wiring, ideal for internal and external wiring applications which require high frequencies up to 67 GHz, with lower insertion loss than semi-rigid cables.
A broad range of connectors are also available to meet various customers' needs.

Major applications

- Fixed wiring for communication devices
- Fixed wiring for R&D circuit boards

Frequency	Cable type	Typical insertion loss (dB/m)		VSWR		Cable outer diameter (mm)	Remark	Minimum bending radius (mm)	Continuous operating temperature (°C)	Assembly length (mm)	
		18.0 GHz	Maximum frequency	Per connector	Both ends of assy.					Min	Max
18.0 GHz	MWX411	2.2	-	1.182	1.40	2.5	Semi-rigid cable Φ2.2 equivalent	15	-30～+85	100	5000
	MWX412	1.4	-	1.182	1.40	4.0	Semi-rigid cable Φ3.6 equivalent	20		100	5000
40.0 GHz	MWX441	2.9	4.3	1.224	1.50	2.4	Semi-rigid cable Φ2.2 equivalent	15		100	5000
67.0 GHz	MWX461	5.5	12	1.732	3	1.33	Semi-rigid cable Φ1.2 equivalent	5	-65～+125	40	2000
18.0 GHz	MWX511	3.1	-	1.182	1.40	3.0	Semi-flexible cable Φ2.1 equivalent	10	-30～+85	100	5000
	MWX512	2.0	-	1.182	1.40	4.4	Semi-flexible cable Φ3.45 equivalent	15		100	5000

MWX 6 Series ～ Precise skew match type ～

The MWX6 Series highly precise skew match cable assemblies offer less than 1psec skew between any two measurements of digital transmission. (Continuous operating temperature range of -30 to +85 °C)
With low insertion loss, suitable for measurement of high-precision differential transmission signals.There are 4 types of cables vailable for the maximum frequencies of 26.5GHz, 40GHz, 50GHz and 67GHz.

Major applications

- Measurement and evaluation of USB, HDMI, etc.
- BERT measurement, Jitter measurement

Frequency	Cable type	Typical insertion loss (dB/m)		VSWR		Cable outer diameter (mm)	Weight (g/m)	Minimum bending radius (mm)	Continuous operating temperature (°C)	Assembly length (mm)	
		18.5 GHz	Maximum frequency	Per connector	Both ends of assy.					Min	Max
26.5 GHz	MWX621	1.2	1.4	1.153	1.33	6.0	64	-	-30～+85	200	1500
40.0 GHz	MWX641	1.8	3.0	1.197	1.43	4.1	35	-		200	1500
50.0 GHz	MWX651	2.1	3.8	1.197	1.43	3.7	29	-		200	1500
67.0 GHz	MWX661	2.9	5.6	1.197	1.43	2.6	17	-		200	1500

Connector Compatibility and Maximum Operating Frequency

	18.5GHz	26.5GHz		40.0GHz		50.0GHz		67.0GHz	
	SMA (m)	3.5mm (m)	3.5mm (f)	2.92mm (m)	2.92mm (f)	2.4mm (m)	2.4mm (f)	1.85mm (m)	1.85mm (f)
MWX621	●	●	●						
MWX641				●	●				
MWX651				●	●	●	●		
MWX661								●	●

● Compatible connector

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