We make your RF the BEST

Microwave Cable & Connector

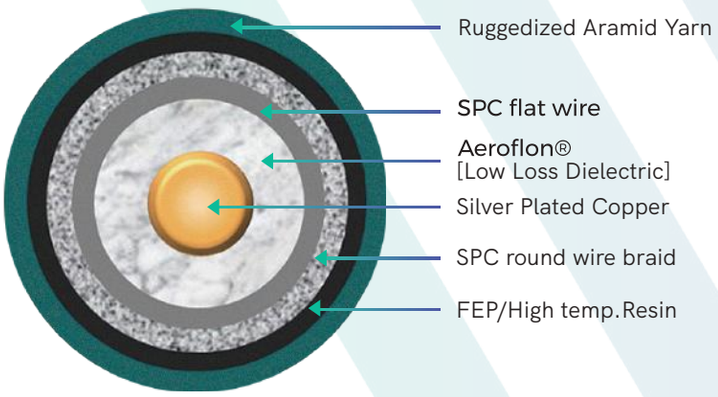
Relative matching

Relative matching matches phase between two (which is one pair) or more cable assemblies which belongs to one another. Therefore, it is manufactured as sets with relative phase tolerance.
Sensorview's default phase matching tolerance is ±0.3°/GHz. (e.g. an 18GHz cable can be phase matched to ± 5.4°)

Absolute matching

Absolute matching provides the matches in its assemblies to be at an absolute electrical length (Group delay).
Any cable of a set can be replaced and manufactured in different location using any test equipment brand.

Structures



Ruggedized Flexible Low Loss Cable series

- Aramid Yarn Jacket / High Abrasion Resistance
- High temperature strength / High durability
- High operating frequency / Phase and I/L stability

Typical Applications

- Bench-top testing
- High throughput RF production testing
- Portable analyzers
- Test rack systems
- Vector Network Analyzers
- Scalar Network Analyzers
- Antenna ranges
- Anechoic chambers
- Thermal vacuum chambers
- Nearfield scanners
- Wireless telecommunication module testing
- ElectroMagnetic Compliance Testing
- Automated Test Equipment
- High speed digital test
- 5G test and interconnection

FlexStable® Microwave Cable

SENSORVIEW FlexStable® microwave cable assembly series offer excellent performance providing various benefits to your specific needs.

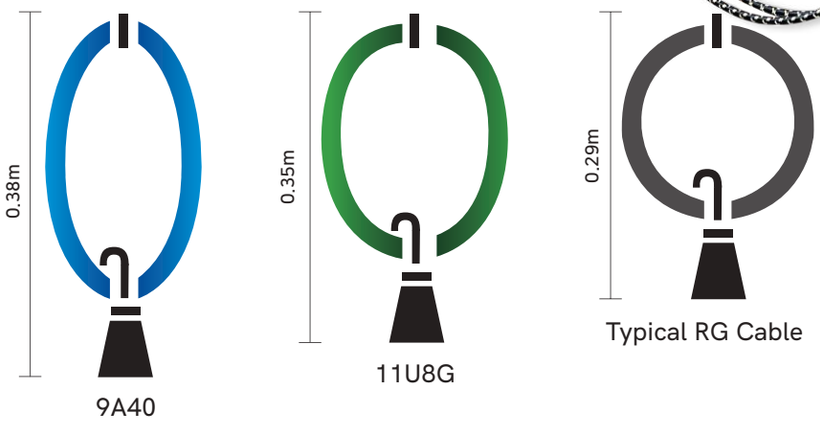
SUPER FLEXIBLE

DUT and condition

Tested cable : FlexStable(9A40), UltraRG(11U8G), Typical RG cable

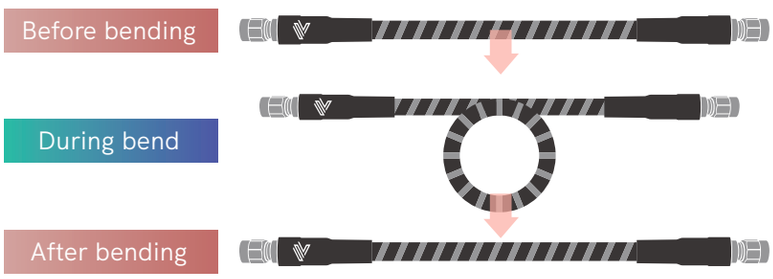
Test results

Test condition : 1meter, Weight 520gram, 25°C



More drooped the weights are, more flexible cable is. FlexStable shows the longest droop, which means it affects little force to connector and DUT, accordingly more stable and easy to use in a lab and bench, also convenient to install in a chamber.

PHASE STABILITY (VS. BENDING)



'Insertion loss' and 'phase change' are measured under a bended condition using a 'Minimum Bend Radius' mandrel.

We make your RF the BEST

Microwave Cable & Connector

The Immortal Knight of The Cable World

Microwave Cable
Armor
18GHz~

Excellent Flexibility

Excellent High Flexibility

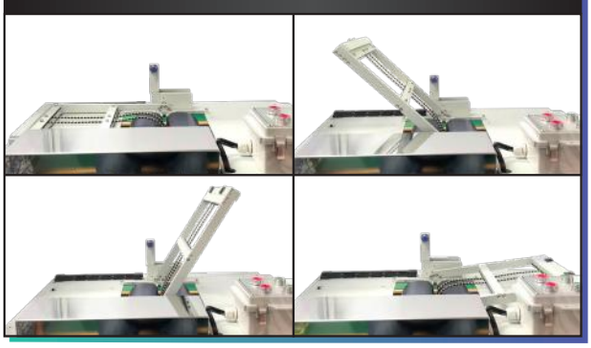
High Screening Effectiveness
>100dB @18GHz

High Crush Resistance :
81.6kgf/cm (457lbf/in)

Available Connector :
1.85mm(M),
1.85mm(F)

Impact Shock (Crush Resistance Test)

Flexure Test (Tick-tock Test)



DC ~ 8GHz Series

Spec.

- **Impedance (Nominal) :** 50 ± 1 Ohm
- **Velocity Propagation :** 77% (Nominal)
- **RF Leakage :** -85dB
- **Minimum Bend Radius [mm] :** 25
- **Phase Stability vs Flexture (Typical) :** Max. 2° @ 8GHz
- **Loss Stability vs Flexture (Typical) :** ±0.05 dB

Type	Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
							8GHz	8GHz
■ Low Loss ■ Super Flex ■ Aramid Jacket		11A8G	Stranded	5.8 ± 0.1	53	-50 ~ 135	-1.07	223
■ Low Loss ■ Super Flex ■ Resin Jacket		11S8G		5.2 ± 0.1	49.9			
■ Low Loss ■ Flex ■ FEP Jacket		11F8G		4.9 ± 0.1	49.3	-50 ~ 125		190
■ Low Loss ■ Super Flex ■ PUR Jacket		11U8G		5.2 ± 0.1	53.3	-50 ~ 85		69
■ Low Loss ■ Flex ■ Aramid Jacket		11A8GD	Solid	5.8 ± 0.1	54	-50 ~ 135	-1.03	266
■ Low Loss ■ Flex ■ PUR Jacket		11S8GD		5.2 ± 0.1	50.6			

Available Connector : SMA(ST, RA), N(ST,RA)

SMA Male Straight	SMA Female Straight	SMA Male Right Angle	N Male Straight	N Male Right Angle
				

DC ~ 18GHz Series

Spec.

- Impedance (Nominal) : 50 ± 1 Ohm
- Velocity Propagation : 77% (Nominal, 13x26, 9S18G, 9F18GD) | 84% (Nominal, 23F18WD)
- RF Leakage : -100dB (13x26) | -85dB (9S18G, 9F18GD)
- Minimum Bend Radius [mm] : 30 (13x26) | 15 (9S18G) | 20 (9F18GD)
- Phase Stability vs Flexture (Typical) : Max. 10° @ 18GHz (13x26, 9S18GD, 23F18WD) | Max. 18° @ 18GHz (9F18GD)
- Loss Stability vs Flexture (Typical) : ±0.1 dB

Type	Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
							18GHz	18GHz
■ Low Loss ■ Super Flex ■ Aramid Jacket		13R26	Stranded	9.7 ± 0.3	192	-50 ~ 135	-1.23	184
■ Low Loss ■ Super Flex ■ Aramid Jacket		13A26		6.7 ± 0.1	81	-50 ~ 135		
■ Low Loss ■ Super Flex ■ FEP Jacket		13S26		6.2 ± 0.1	73			
■ Low Loss ■ Flex ■ FEP Jacket		13F26		5.7 ± 0.1	56.2	-50 ~ 125		149
■ Low Loss ■ Super Flex ■ Resin Jacket		9S18G		4.2 ± 0.1	34.4	-50 ~ 135	-1.75	130
■ Low Loss ■ Flex ■ FEP Jacket		9F18GD	Solid	3.8 ± 0.1	33	-50 ~ 125	-1.72	155
■ Low Loss ■ Flex ■ FEP Jacket		23F18WD		7.68 ± 0.1	130	-50 ~ 135	-0.75	377

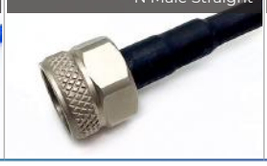
Available Connector : SMA(ST), N(ST), TNC(ST)

SMA Male Straight

SMA Female Straight

SMA Male Short

N Male Straight



TNC Male Straight

DC ~ 26.5GHz Series

Spec.

- **Impedance (Nominal)** : 50 ± 1 Ohm
- **Velocity Propagation** : 77% (Nominal)
- **RF Leakage** : -100dB
- **Minimum Bend Radius [mm]** : 30
- **Phase Stability vs Flexture (Typical)** : Max. 10° @ 26.5GHz
- **Loss Stability vs Flexture (Typical)** : ±0.1 dB

Type	Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
							26.5GHz	26.5GHz
■ Low Loss ■ Super Flex ■ Aramid Jacket		13R26	Stranded	9.7 ± 0.3	192	-50 ~ 135	-1.55	155
■ Low Loss ■ Super Flex ■ Aramid Jacket		13A26		6.7 ± 0.1	81			
■ Low Loss ■ Super Flex ■ Resin Jacket		13S26		6.2 ± 0.1	73			
■ Low Loss ■ Flex ■ FEP Jacket		13F26		5.7 ± 0.1	56.2	-50 ~ 125		149
■ Low Loss ■ Super Flex ■ Armor Jacket		13R26D	Solid	9.7 ± 0.3	193	-50 ~ 135		183
■ Low Loss ■ Super Flex ■ Armor Jacket		13A26D		6.7 ± 0.1	82			
■ Low Loss ■ Super Flex ■ Resin Jacket		13S26D		6.2 ± 0.1	74			
■ Low Loss ■ Flex ■ FEP Jacket		13F26D		5.7 ± 0.1	57.2	-50 ~ 125		151

Available Connector : HFSMA(ST), 3.5mm(ST)

HFSMA Male Straight

3.5mm Male Straight

3.5mm Female Straight

DC ~ 33GHz Series

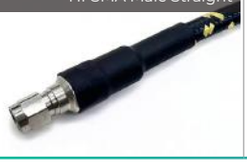
Spec.

- **Impedance (Nominal)** : 50 ± 1 Ohm
- **Velocity Propagation** : 77% (Nominal)
- **RF Leakage** : -100dB
- **Minimum Bend Radius [mm]** : 25
- **Phase Stability vs Flexture (Typical)** : Max. 10° @ 33GHz
- **Loss Stability vs Flexture (Typical)** : ±0.1 dB

Type	Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [℃]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25℃ at Sea Level
							33GHz	33GHz
■ Low Loss ■ Super Flex ■ Armor Jacket		11R33	Stranded	9.7 ± 0.3	172	-40 ~ 125	-2.03	121
■ Low Loss ■ Super Flex ■ Aramid Jacket		11A33		5.7 ± 0.1	59			
■ Low Loss ■ Super Flex ■ Resin Jacket		11S33		5.3 ± 0.1	53			
■ Low Loss ■ Super Flex ■ Armor Jacket		11R33D	Solid	9.7 ± 0.3	173			143
■ Low Loss ■ Super Flex ■ Aramid Jacket		11A33D		5.7 ± 0.1	59.2			
■ Low Loss ■ Super Flex ■ Resin Jacket		11S33D		5.3 ± 0.1	53.2			

Available Connector : HFSMA(ST)

HFSMA Male Straight



DC ~ 40GHz Series

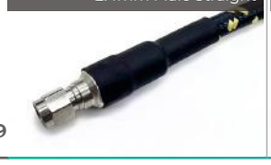
Spec.

- **Impedance (Nominal) :** 50 ± 1 Ohm
- **Velocity Propagation :** 77% (Nominal)
- **RF Leakage :** -100dB
- **Minimum Bend Radius [mm] :** 25
- **Phase Stability vs Flexture (Typical) :** Max. 14° @ 40GHz
- **Loss Stability vs Flexture (Typical) :** ± 0.1 dB

Type	Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
							40GHz	40GHz
■ Low Loss ■ Super Flex ■ Armor Jacket		9R40	Solid	8.4 ± 0.3	183	-40 ~ 125	-2.60	102
■ Low Loss ■ Super Flex ■ Aramid Jacket		9A40		5.4 ± 0.1	49			
■ Low Loss ■ Super Flex ■ Resin Jacket		9S40		5.0 ± 0.1	44			

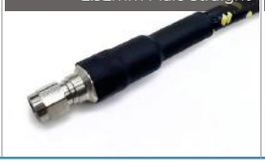
Available Connector : 2.4mm, 2.92mm(ST, SH)

2.4mm Male Straight



2.4mm Female Straight

2.92mm Male Straight



2.92mm Female Straight

2.92mm Male Short

DC ~ 50GHz Series

Spec.

- **Impedance (Nominal) :** 50 ± 1 Ohm
- **Velocity Propagation :** 77% (Nominal)
- **RF Leakage :** -100dB
- **Minimum Bend Radius [mm] :** 25
- **Phase Stability vs Flexture (Typical) :** Max. 15° @ 50GHz
- **Loss Stability vs Flexture (Typical) :** ±0.1 dB

Type	Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
							50GHz	50GHz
■ Low Loss ■ Super Flex ■ Armor Jacket		7R50D	Solid	8.4 ± 0.3	173	-40 ~ 125	-3.87	88
■ Low Loss ■ Super Flex ■ Aramid Jacket		7A50D		4.5 ± 0.1	34			

Dynamic Application

Static Application

Available Connector : 2.4mm(ST)

2.4mm Male Straight

2.4mm Female Straight

DC ~ 67GHz Series

Spec.

- **Impedance (Nominal) :** 50 ± 1 Ohm
- **Velocity Propagation :** 77% (Nominal)
- **RF Leakage :** -100dB (5R67D, 5A67D)
- **Minimum Bend Radius [mm] :** 20 (5R67D, 5A67D)
- **Phase Stability vs Flexture (Typical) :** Max. 19° @ 67GHz (5A67D) | Max. 14° @ 67GHz (5R67D)
- **Loss Stability vs Flexture (Typical) :** ± 0.1 dB

Type	Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
							67GHz	67GHz
■ Low Loss ■ Super Flex ■ Armor Jacket		5R67D	Solid	6.6 ± 0.3	63	-40 ~ 85	-6.32	64
■ Low Loss ■ Super Flex ■ Aramid Jacket		5A67D		3.6 ± 0.1	25			

Dynamic Application

Static Application

Available Connector : 1.85mm(ST)

Zenild®

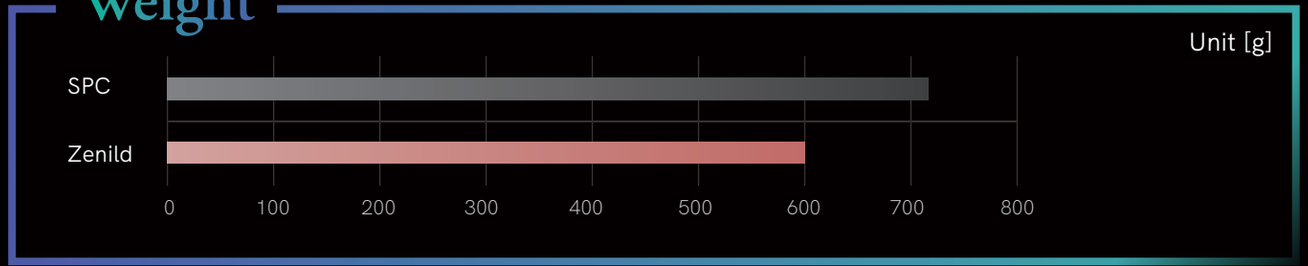
Ultra light weight solution

Spec.

Our unique braiding technology, "Zenild®" provides superior shielding effectiveness VS copper wire and offers significant weight savings. Silver Plated Fiber delivers over 60% weight savings VS copper wire at equal volumes.

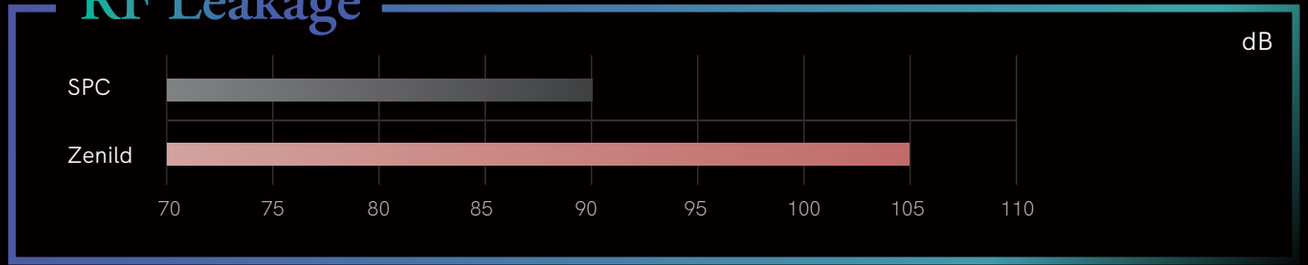
Zenild® vs Silver Plated Copper

Weight

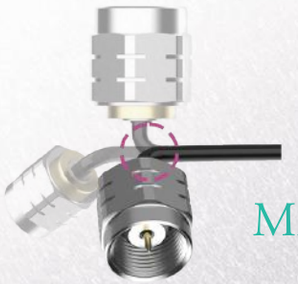


For 10M Cable

RF Leakage

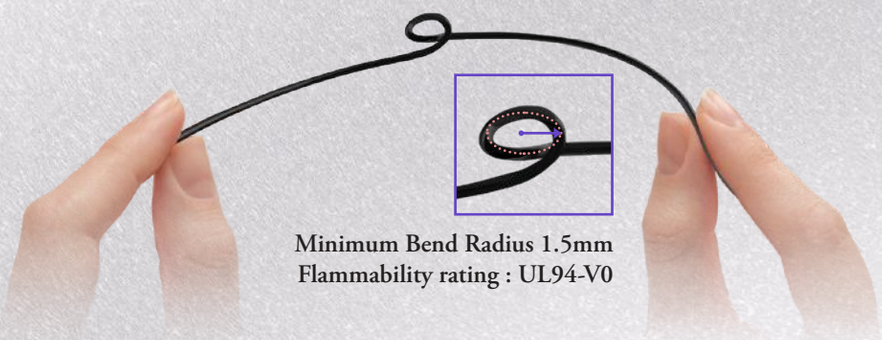


FlexiBe®



Bend Form to Function

Minimum Bend Radius 1.5mm Cable Assembly



Minimum Bend Radius 1.5mm
Flammability rating : UL94-V0

High Shielding Effectiveness using a Triple-Shielded Structure : -110dB(min)

Freq. DC to 67GHz	Low-loss EMI shielding	MIL-STD satisfactory	MBR 1.5mm Outer diameter 2mm

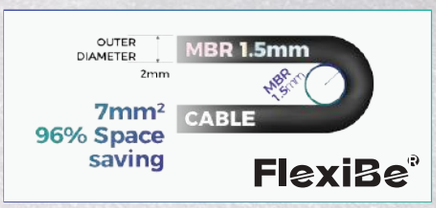
MBR : Minimum Bend Radius

90° Angle Bends Directly Behind the Connector with a Small MBR

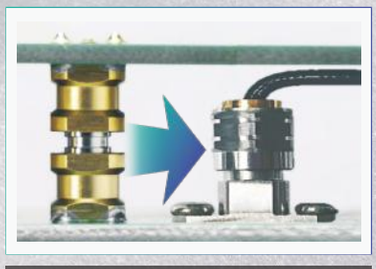
Limitation of Legacy Microwave Cables

- Space waste due to large MBR (Minimum Bend Radius)
- Vulnerable to vibration of SR (Semi-rigid) cable and difficult routing and assembly

SENSORVIEW Solution



- DC to 67GHz
- Low-loss, EMI shielding
- MIL-STD satisfactory
- MBR1.5mm, Outer diameter 2mm



- Saves system space by having a MBR of 1.5mm (Minimum Bend Radius 1.5mm)
- Because there are no soldered sections on the connector, FlexiBe reduces attenuation by more than 50% than typical cables.

FlexiBe®

- **Impedance (Nominal) :** 50 ±1 Ohm
- **Velocity Propagation :** 70% (Nominal)
- **RF Leakage :** -110dB
- **Minimum Bend Radius [mm] :** 1.5 (SFPS27D1) | 5.0 (SFPS24D1)
- **Loss Stability vs Flexture (Typical) :** 0.1 dB

Spec.

DC ~ 67GHz

Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
						67GHz	67GHz
	FlexiBe 67	Solid	2 ± 0.1	12.6	-40 ~ 125	-11	27

Spec.

DC ~ 50GHz

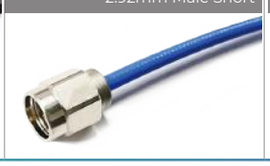
Figure	Product Part Name	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
						50GHz	50GHz
	FlexiBe 50	Solid	2.5 ± 0.1	19.4	-40 ~ 125	-6.7	52

Available Connector : 1.85mm, 2.92mm, SMA

2.92mm Male Short

1.85mm Male Short

2.92mm Male Short



SMA Male Short

SENSORVIEW

Micro Coaxial Cable for W-Band

Spec.

- **Impedance :** 50 ± 2 Ohm
- **Velocity Propagation :** 70% (Normal)
- **RF Leakage :** -70dB
- **Minimum Bend Radius [mm] :** 4.5
- **Loss Stability vs Flexture (Typical) :** 0.1 dB

DC ~ 110GHz

Figure	Product Part Name	vCenter Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [℃]	Typical Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25℃ at Sea Level
						110GHz	110GHz
	FXPS29D1	Solid	1.42 ± 0.1	5.3	-40 ~ 85	16.7	15

Available Connector : 1.0mm, 1.85mm, SMA

1.0mm Male Straight