

**W2 Series** are complete line of high performance flexible microwave cable assemblies. Specially, **W204 Series** have low density PTFE structure to achieve velocity propagation of 76 % and **good phase and amplitude stability performance**. **W204 series** have excellent RF performance up to 18, 26.5, 34, 40 & 50 GHz with N, SMA, 3.5mm, 2.92 mm & 2.4 mm connectors, respectively.

■ **Features**

- Center Conductor : Silver Plated Copper
- Insulator : Low Density PTFE
- Outer Conductor 1 : Silver Plated Copper Ribbon
- Inner layer : PCA/PTFE
- Outer Conductor 2 : Silver Plated Copper
- Jacket : FEP/PUR (Blue)



■ **Specification**

Scope	Specification	W204 (18, 26.5, 34, 40 & 50 GHz)
Physical	Center Conductor (mm)	0.72
	Insulator (mm)	2.21
	Outer Conductor 1 (mm)	2.40
	Buffer layer (mm)	2.80
	Outer Conductor 2 (mm)	3.15
	Jacket (mm)	3.60
Electrical	Characteristic Impedance (Ohm)	50 ± 1 Ohm
	Velocity of Propagation (%)	Typical 76
	Shielding Effectiveness(dB)	-90
	VSWR (Max)	< 1.3
	Amplitude Stability (dB) *	<± 0.03 (up to 40 GHz) <± 0.05 (up to 50 GHz)
	Phase Stability (degree) *	<±3 (up to 40 GHz) <± 5 (up to 50 GHz)
	Attenuation (at 25 °C)	1.92 dB/m @ 18.0 GHz 2.35 dB/m @ 26.5 GHz 2.80 dB/m @ 34.0 GHz 2.92 dB/m @ 40.0 GHz 3.35 dB/m @ 50.0 GHz
Mechanical & Environmental	Weight (g/M)	34
	Min. bending radius (mm)	18 (Installation) 36 (Repeated)
	Operating Temperature	-40 ~+85 °C **

\* Cable (length : 1 meter) was wrapped 360 degree around Φ 40 mm mandrel

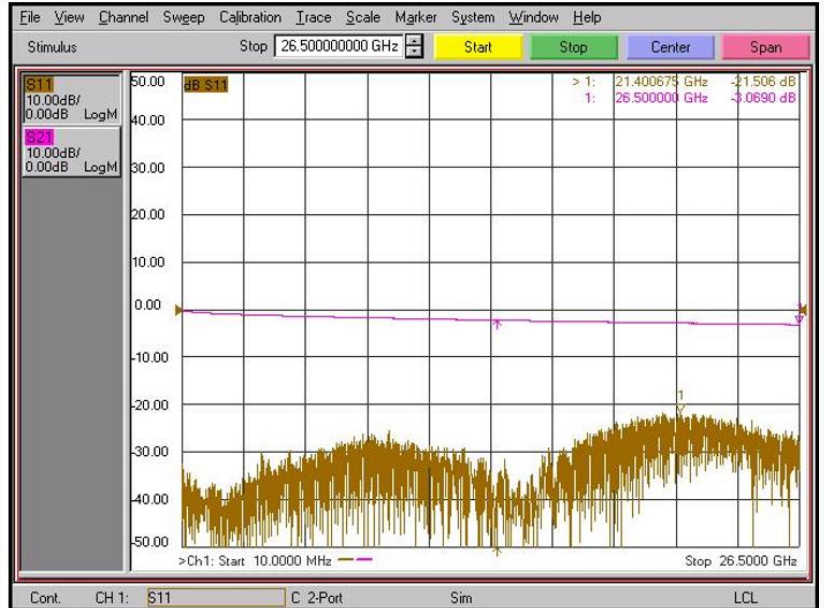
\*\* Adhesive type shrinkable tube: -40 ~+85 °C / Non-adhesive type shrinkable tube: -40 ~ +125 °C

■ **Test Result**

**W204 cable assembly**

**Part No. : W204-SM1SM1-48inch**

- Frequency : 10 MHz to 26.5 GHz
- Connector : SMA (Male)
- Cable Length : 48 inch

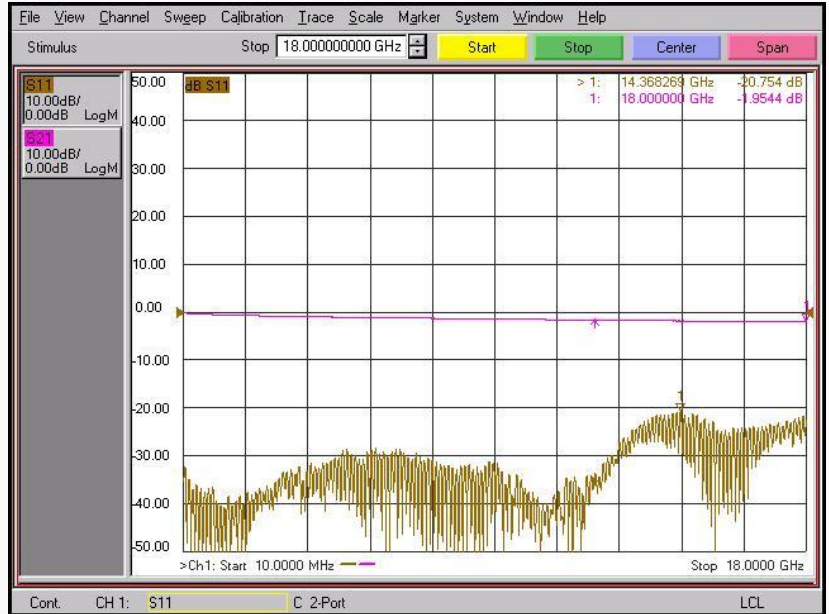


■ **Test Result**

**W204 cable assembly**

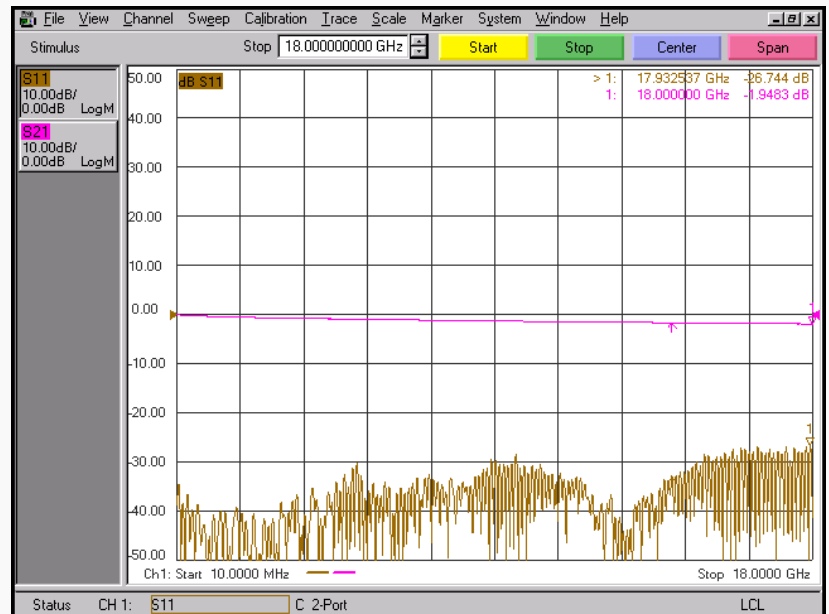
**Part No. : W204-NM1NM1-1M**

- Frequency : 10 MHz to 18 GHz
- Connector : N-type (Male)
- Cable Length : 1 meter



**Part No. : W204-NF1NF1-1M**

- Frequency : 10 MHz to 18 GHz
- Connector : N-type (Female)
- Cable Length : 1 meter

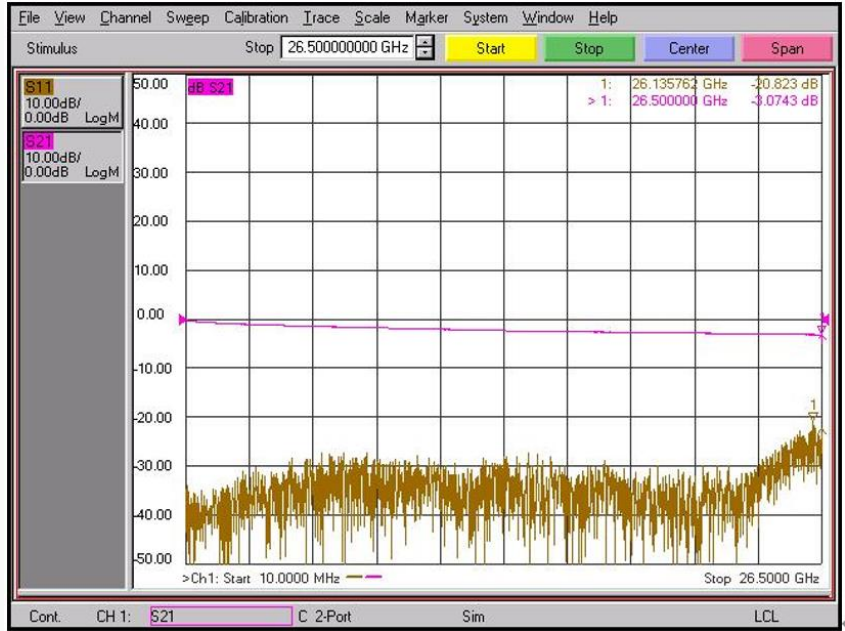


■ **Test Result**

**W204 cable assembly**

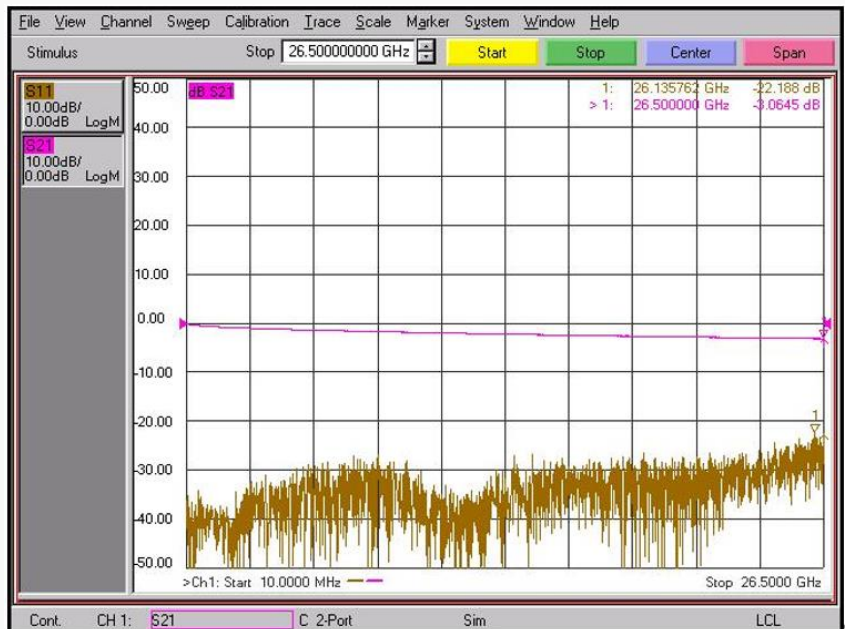
**Part No. : W204-VM1SM1-48inch**

- Frequency : 10 MHz to 26.5 GHz
- Connector : 1.85 mm(M), SMA(M)
- Cable Length : 48 inch



**Part No. : W204-VF1SM1-48inch**

- Frequency : 10 MHz to 26.5 GHz
- Connector : 1.85 mm(F), SMA(M)
- Cable Length : 48 inch

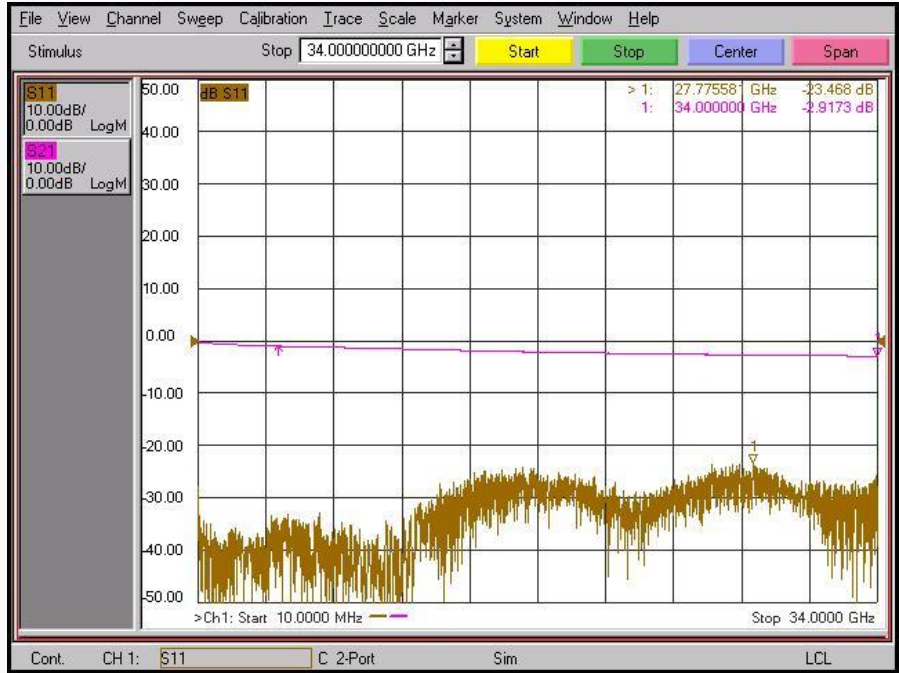


■ **Test Result**

**W204 cable assembly**

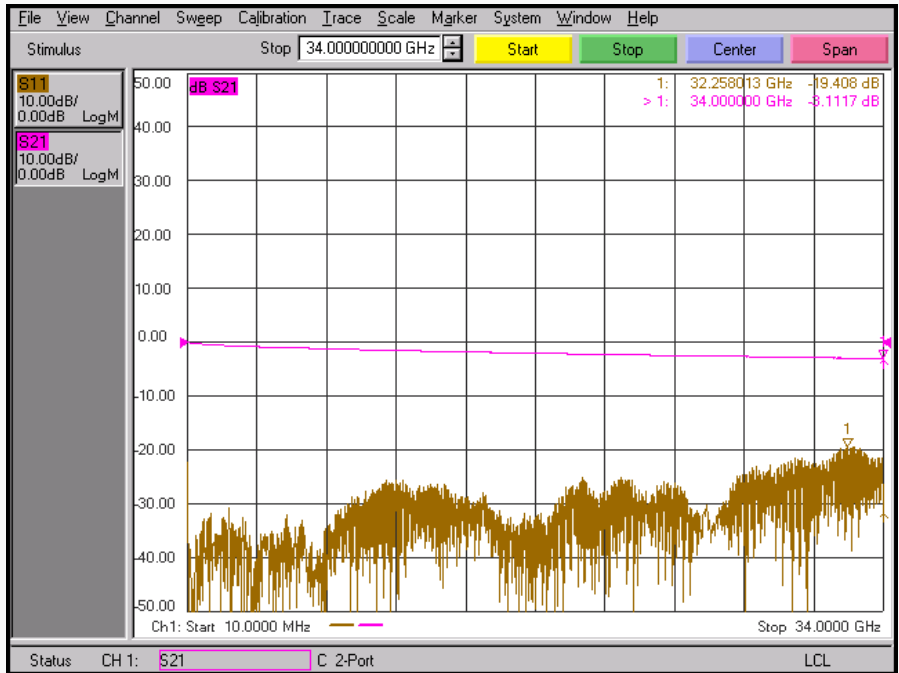
**Part No. : W204-3M13M1-1M**

- Frequency : 10 MHz to 34 GHz
- Connector : 3.5 mm (Male)
- Cable Length : 1 meter



**Part No. : W204-3F13F1-1M**

- Frequency : 10 MHz to 34 GHz
- Connector : 3.5 mm (Female)
- Cable Length : 1 meter





■ **Test Result**

**W204 cable assembly**

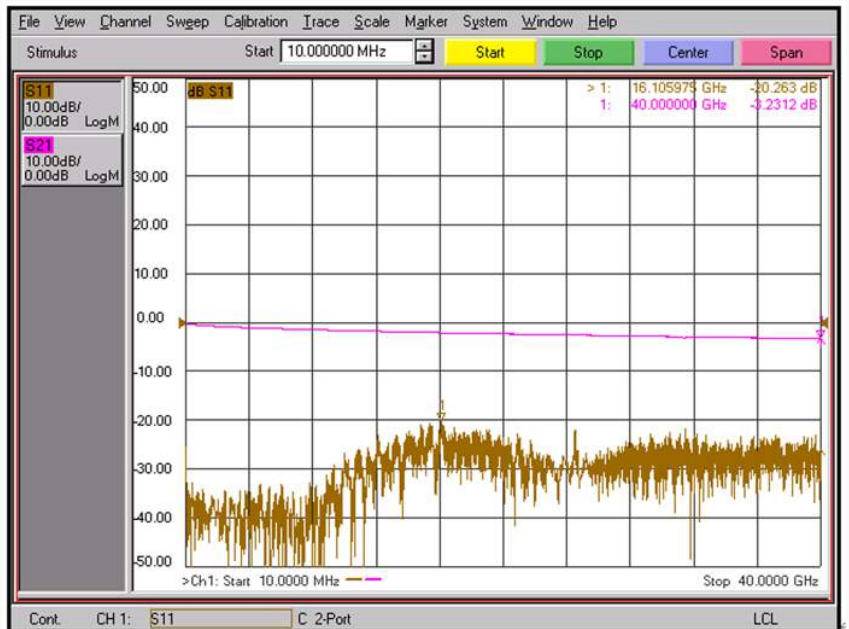
**Part No. : W204-KM1KM1-1M**

- Frequency : 10 MHz to 40 GHz
- Connector : 2.92 mm (Male)
- Cable Length : 1 meter



**Part No. : W204-KF1KF1-1M**

- Frequency : 10 MHz to 40 GHz
- Connector : 2.92 mm (Female)
- Cable Length : 1 meter

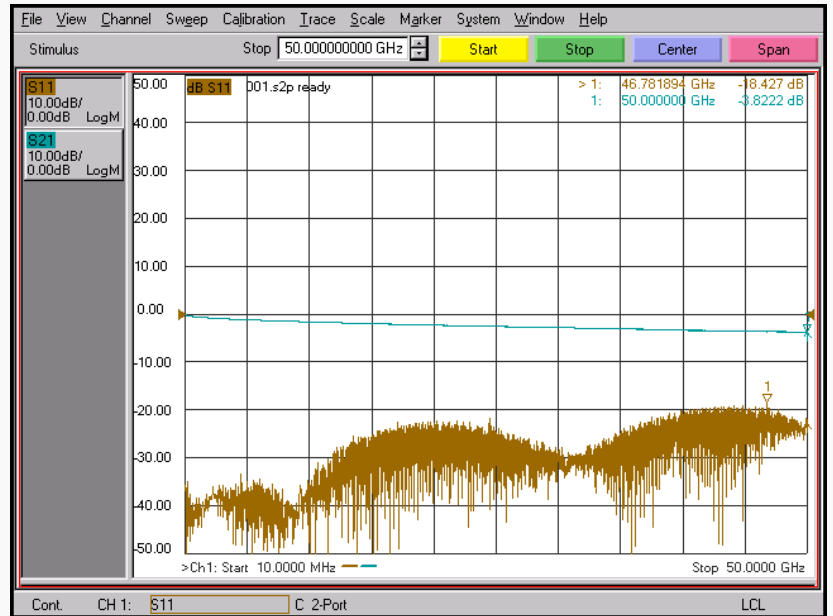


■ **Test Result**

**W204 cable assembly**

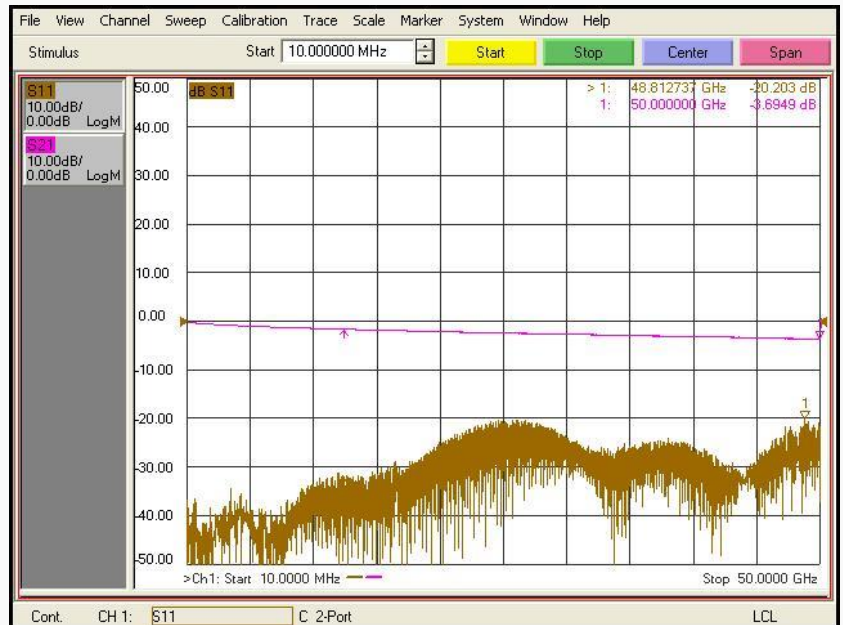
**Part No. : W204-2M12M1-1M**

- Frequency : 10 MHz to 50 GHz
- Connector : 2.4 mm (Male)
- Cable Length : 1 meter



**Part No. : W204-2F12F1-1M**

- Frequency : 10 MHz to 50 GHz
- Connector : 2.4 mm (Female)
- Cable Length : 1 meter



■ **Selection Guide**

**W204- KM1KM1 - 1M - T**

**Non-Adhesive  
Shrinkable Tube**

T: -40 ~ + 125 °C

**Cable Type**

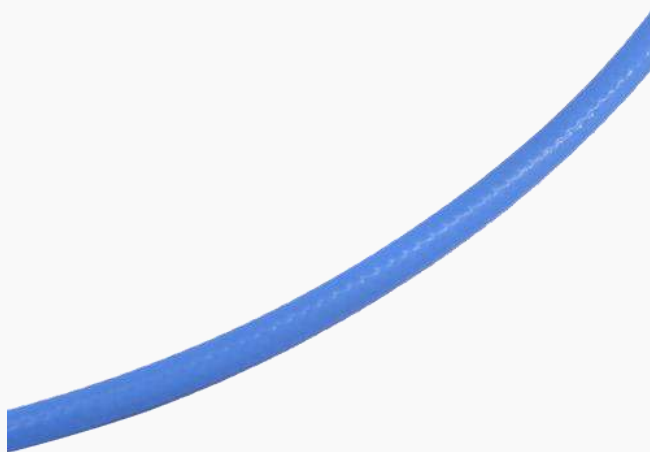
W204

**Connector Type**

SM1: SMA Male  
SF1 : SMA Female  
NM1 : N-type Male  
3M1 : 3.5 mm Male  
KM1: 2.92 mm Male  
KF1: 2.92 mm Female  
2M1: 2.4 mm Male  
2F1 : 2.4 mm Female

**Cable Length**

Unit : Meter





■ **Revision History**

<b>Revision</b>	<b>Date</b>	<b>Changes</b>
Ver 1.0	2019-08-01	Released W204 Series Cable Assembly
Ver 1.1	2020-02-03	Add test results
Ver 1.2	2020-04-01	Add Cable Attenuation
Ver 1.3	2020-07-02	Add N-type(M), 3.5 mm(M), 2.4 mm types
Ver 1.4	2022-04-22	Updated Temperature Spec. according to tube
Ver 1.5	2023-01-06	Add N-type(F), 3.5 mm(F) types