



DURALINE

Durable Test Cable Assembly



Typical Applications

- Mass production test
- OEM port test line
- RF test platform
- Lab and R&D test
- Environmental test chamber
- Field test

Features

- Superior mechanical phase & amplitude stability
- Durable and reliable
- Tri-shielding cable
- A variety of armors to meet different application needs
- Spiral tailpipe & Three-layer heat shrink sleeve protection

Reliability is top-ranked character when comes to choose RF test cable assemblies. Cable assemblies must be durable enough to withstand continuous movement and bending, and maintaining reliable electrical performance while exposure to test environmental conditions.

Its robust structure ensures reliability when frequent bending, and offers the better shielding effectiveness and stability.

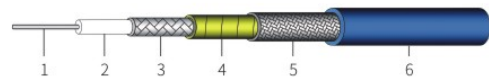
Meanwhile, Focusimple utilizes the most advanced design for the connectors which match with Duraline. The precise type N connector combines Be-Cu center conductor with gold plating, stainless steel shell and high-strength PEI dielectric which is 100 times of stronger than the PTFE dielectric. That is how Focusimple makes Duraline the wise choice of long-term reliable applications.





Duraline			
Physical & Mechanical Specification			
Dimension	mm		Inch
Center Conductor	0.94		0.037
Dielectric	2.98		0.117
Outer Conductor	3.30		0.130
Jacket	4.85		0.191
Minimum Bending Radius:Installation	25		0.984
Minimum Bending Radius:Repeated	50		1.969
Weight	58g/m		
Cycle Times	>5000		
Temperature Range	-55~+125°C(-67~+257°F)		
Electrical Specification			
Frequency	26.5GHz		
VSWR	1.30		
Impedance	50Ω		
Velocity of Propagation	70%		
Shielding Effectiveness	> 90 dB		
Typical Mechanical Phase	±5°@DC-26.5GHz		
Typical Mechanical Amplitude	±0.1dB@DC-26.5GHz		
Attenuation & Power Handling	Attenuation (+25°C Ambient) & Power Handling (+40°C Ambient; Sea Level; cable only)		
Frequency (GHz)	dB/100 m	dB/100 Ft	kW
1	40.03	12.20	0.522
2	58.92	17.96	0.355
3	74.33	22.66	0.281
6	112.03	34.16	0.187
8	133.58	40.73	0.156
12	172.27	52.52	0.121
18	223.99	68.29	0.093
26.5	290.12	88.45	0.072
Attenuation at Frequency	dB/100 m=K1×sqrt(FMHz)+K2×FMHz		
K1	1.1414400		
K2	0.0039360		

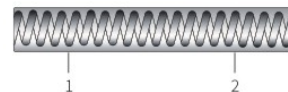
Cable Structure



- | | | |
|---|------------------|---------------------------------|
| 1 | Center conductor | Silver Plated Copper Clad Steel |
| 2 | Dielectric | Solid PTFE |
| 3 | Outer conductor | Flat wire silver plated |
| 4 | Innerlayer | Aluminum Laminate |
| 5 | Outer shield | Silver Plated Copper |
| 6 | Jacket | Blue FEP |

Armor Structure

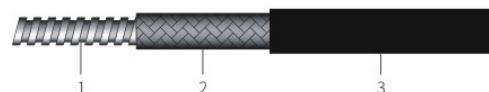
PVC Armor



- | | | |
|---|---------------------|-----------------------|
| 1 | Strengthening layer | Galvanized steel wire |
| 2 | Jacket | Transparent Soft PVC |

Diameter	Minimum Bending Radius: Installation	Weight	Temperature Range
10mm	50mm	90g/m	-40~+85°C

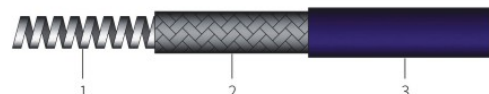
Stainless Steel Armor



- | | | |
|---|-------------------|-----------------------------|
| 1 | Armored Spring | Stainless Steel Double Tube |
| 2 | Strengthening Net | Tin Plated Copper Wire |
| 3 | Jacket | Black Nylon Sleeve |

Diameter	Minimum Bending Radius: Installation	Weight	Temperature Range
10mm	50mm	138g/m	-55~+125°C

PURArmor

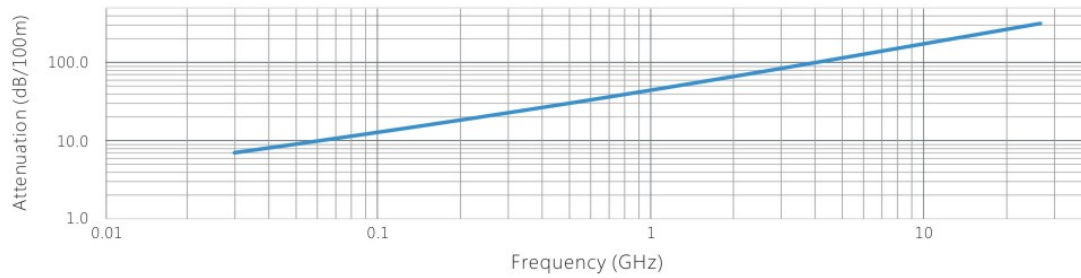


- | | | |
|---|-------------------|------------------------|
| 1 | Armored spring | Stainless Steel Strips |
| 2 | Strengthening Net | Tin plated copper wire |
| 3 | Jacket | Blue PUR |

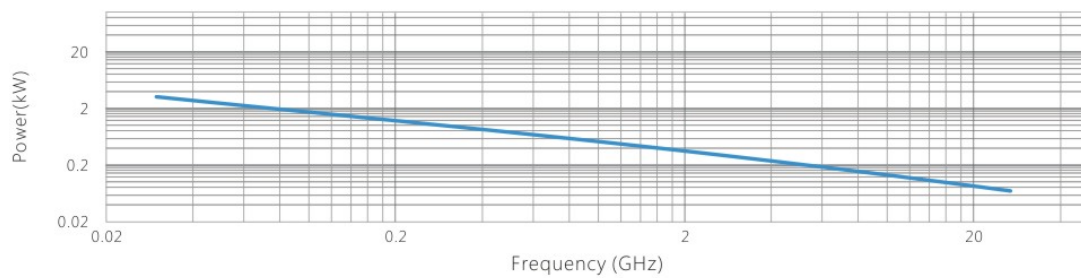
Diameter	Minimum Bending Radius: Installation	Weight	Temperature Range
10mm	50mm	138g/m	-40~+85°C



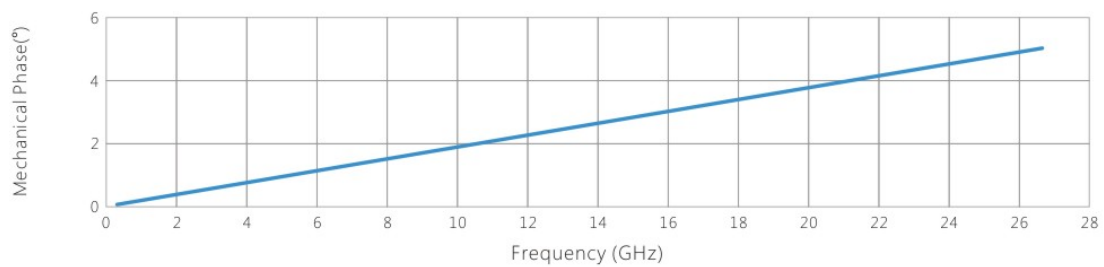
Frequency & Attenuation



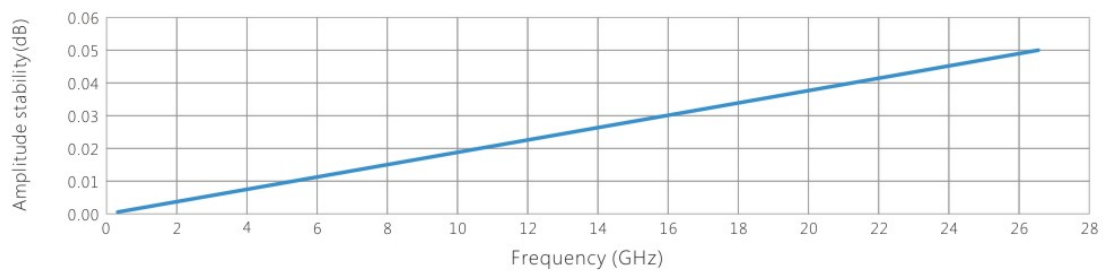
Frequency & Power



Typical Value Of Mechanical Phase Stability Rotate for one cycle along the minimum repeated bending diameter



Typical Value Of Mechanical Amplitude Stability Rotate for one cycle along the minimum repeated bending diameter





DURALINE Connector and Assembly

Assembly Selection Information

1	2	3	4	5	-	6	7	8	9	10	11	-	12	13	14	15	16	17
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Digit 1-2: Fixed letter "DL", which stands for Duraline for short

Digit 3: P-PVC Armor; S-Stainless Steel Armor; R-PUR Armor; non-Armored, without digit

Digit 4-5: Fixed number 18, which does not represent frequency

Digit 6-8: Left connector, code as follows, three digits maximum, less than three digits are indented according to the actual code

Digit 9-11: Right connector, code as follows, three digits maximum, less than three digits are indented according to the actual code

Digit 12-15: Customized length. e.g.: 1-"01.00"

Digit 16-17: Unit: M-meter/IN-inch/F-feet, less than two digits, indent by one

For example: FLN18-SMSM-01.00M

Note: For other armored, please consult Focusimple sales team

Optional Connectors

Connector Code	Connector Type	Operating Frequency	DLN18	DLP18/DLS18/DLR18	Typical VSWR	Maximum VSWR
35M	3.5mm Male	26.5GHz	●		1.25	1.3
SM	SMA Male	26.5GHz	●	●	1.25	1.3
SF	SMA Female	18GHz	●	●	1.25	1.3
NM	N Male	18GHz	●	●	1.25	1.3
TM	TNC Male	11GHz	●		1.25	1.3

Note: For other connectors, please consult Focusimple sales team



N Male Connector Structure
Center Pin: Beryllium Copper With Gold Plating
Dielectric: Solid PTEE
Solder Cup: Split Optimized Solder Cup
Outer Conductor: Stainless Steel Passivated
Nut: Stainless Steel Passivated

Contact us

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Android



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