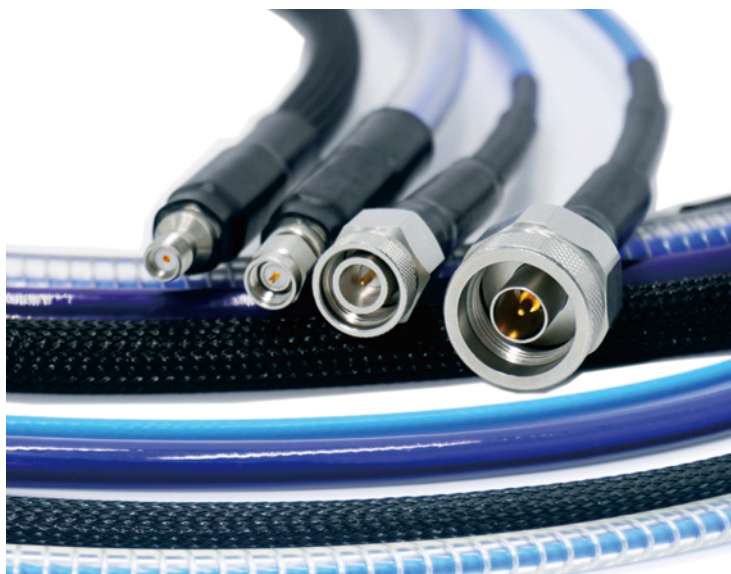




# DURALINE

## Durable Test Cable Assembly



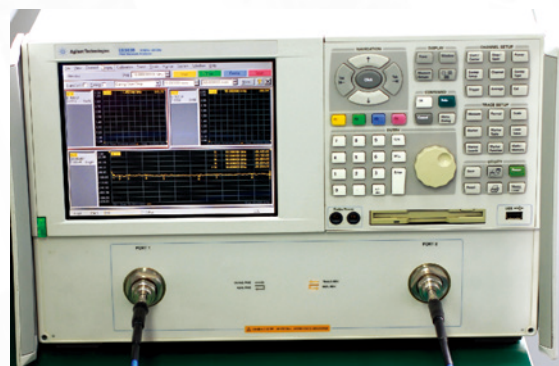
### Typical Applications

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

### Features

- Superior Phase Stability & 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

Duraline series robust structure ensures long life when repeatedly flexed, and offers the better shielding effectiveness and more stability. Meanwhile, Focusimple utilizes the industry's most advanced design for the connectors of this test cable. 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.

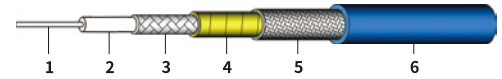




# DURALINE Cable Specifications

	Duraline		
Physical & Mechanical Specification			
Dinmension	mm		Inch
Center Conductor	0.94		0.037
Dielectric	2.98		0.117
Outer Conductor	3.30		0.130
Jacket	4.85		0.191
MinBendingRadius:Installation	25		0.984
MinBendingRadius:Repeated	50		1.969
Weight	58g/m		
Cycle Times	>5000		
Temperature Range	-55~+125℃(-67~+257°F)		
Electrical Specification			
Frequency	26.5GHz		
VSWR	1.30		
Impedance	50Ω		
Velocity of Propagation	70%		
Shielding Effectiveness	> 90 dB		
Typical Phase Stability	±5°@DC-26.5GHz		
Typical Amplitude Stability	±0.1dB@DC-26.5GHz		
Attenuation&PowerHandling	Attenuation (+25℃ Ambient) & Power Handling (+40℃ Ambient; Sea Level; cable only)		
Frequency ( GHz )	dB/100 m	dB/100 Ft	kW
1	40.03	12.20	0.52
2	58.92	17.96	0.35
3	74.33	22.66	0.28
6	112.03	34.16	0.19
12	133.58	40.73	0.16
18	172.27	52.52	0.12
26. 5	223.99	68.29	0.09
K1	290.12	88.45	0.07
K2	dB/100 m=K1×sqrt(FMHz)+K2×FMHz		
Attenuation at Frequency	1.1414400		
	0.0039360		

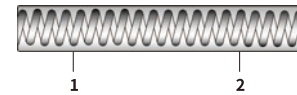
## Cable Structure



- |   |                  |                                 |
|---|------------------|---------------------------------|
| 1 | Center Conductor | Silver-Plated Copper Clad Steel |
| 2 | Dielectric       | Solid PTFE                      |
| 3 | Outer Conductor  | SPC Ribbon Braiding             |
| 4 | Interlayer       | Aluminum Foil                   |
| 5 | Outer Shield     | SPC Braid                       |
| 6 | Jacket           | Blue FEP                        |
| 7 | Armor (optional) |                                 |

## Armor Structure

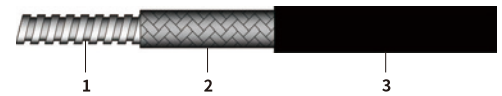
### PVC Armor



- |   |                     |                       |
|---|---------------------|-----------------------|
| 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

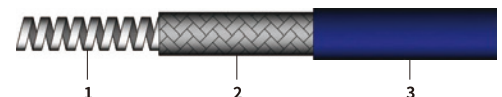
### Stainless Steel Armor



- |   |                   |                             |
|---|-------------------|-----------------------------|
| 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

### PUR Armor

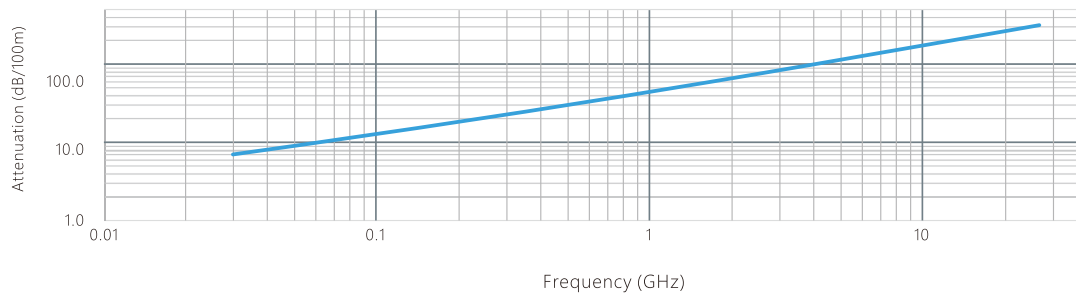


- |   |                   |                            |
|---|-------------------|----------------------------|
| 1 | Armored spring    | Stainless Steel Double Tub |
| 2 | Strengthening Net | Tin Plated Copper Wire     |
| 3 | Jacket            | BLUE Polyurethane          |

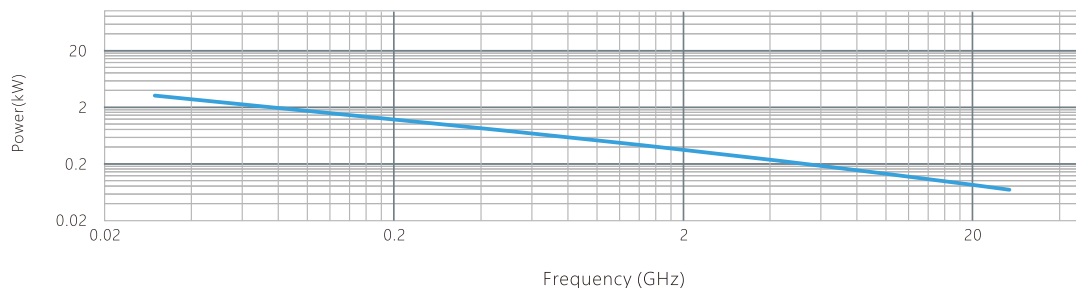
Diameter	Minimum Bending radius: Installation	Weight	Temperature Range
10mm	50mm	138g/m	-40~+85°C



## Frequency & Attenuation

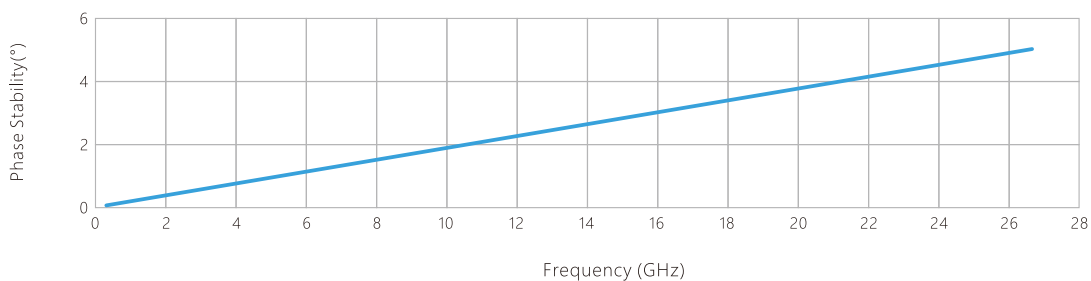


## Frequency & Power



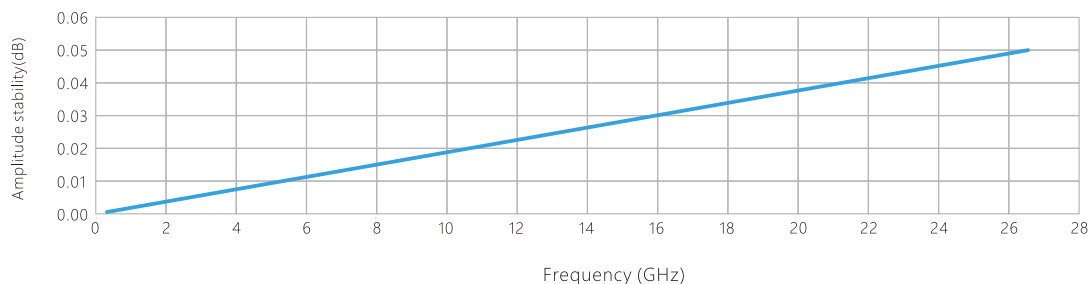
## Typical Value Of Phase Stability

Rotate for one cycle along the minimum repeated bending diameter



## Typical Value Of Amplitude Stability

Rotate for one cycle along the minimum repeated bending diameter





## Assembly Selection Information

1	2	3	4	5	-	6	7	8	9	10	11	-	12	13	14	15	16	17
---	---	---	---	---	---	---	---	---	---	----	----	---	----	----	----	----	----	----

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	Connection 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 contact Focusimple.



### N Male connector structure

Center Pin: Beryllium Copper With Gold Plating

Dielectric: Solid PTFE

Solder Cup: Split Optimized Solder Cup

Outer Conductor: Stainless Steel Passivated

Nut: Stainless Steel Passivated

## Contact us



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