# SUCOFLEX®126

## The low loss, phase stable assembly up to 26.5 GHz

Edition 2016

### Advantages of SUCOFLEX 126 versus SUCOFLEX 104 P

- 30 % lower loss
- 20 % higher power
- Improved return loss
- Same phase/loss stability
- Same flexibility
- Same connectors
- Same price

HUBER+SUHNER
Excellence in Connectivity Solutions

# SUCOFLEX® 126

## The high performance microwave cable assembly working up to 26.5 GHz

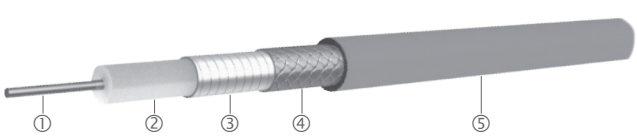
### Product features

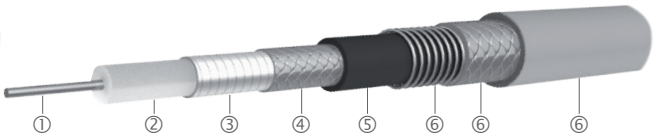
- Optimised inner conductor construction
- Extremely precise measurements with highest phase stability combined with low loss and excellent return loss up to 26.5 GHz
- Excellent reliability with A-ruggedisation, that withstand flexure and crushing
- Reduced downtime because of increased intervals between calibrations
- Comprehensive connector portfolio
- Available from stock

### Recommended connectors

| | |
|---|---|
| SF126 | BNC, DV, N, PC3.5; PC7, SMA, TNC, 7/16 |
| | Other connectors available on request |

### Construction




| Cable | Inner conductor ① | Dielectric ② | Outer conductor ③④ | Jacket ⑤ | Ruggedisation ⑥ | Outer diameter mm |
|---|---|---|---|---|---|---|
| SUCOFLEX_126 | CuAg strand | LD-PTFE | CuAg tape/braid | FEP, blue | no | 5.5 |
| SUCOFLEX_126_E | CuAg strand | LD-PTFE | CuAg tape/braid | PUR, blue | no | 5.5 |
| SUCOFLEX_126_EA | CuAg strand | LD-PTFE | CuAg tape/braid | PUR | stainless steel/PUR, blue | 10.3 |

### Available connectors

| Connector | Series, pattern | HUBER+SUHNER connector type | SF126 SF126E | SF126EA | Operating frequency (GHz) | VSWR per connector | Remarks |
|---|---|---|---|---|---|---|---|
| BNC | Straight cable plug | 11_BNC-452 | • | • | 4.0 | 1.14 | |
| DV | Straight cable plug | 11_DV-41 | • | • | 26.5 | 1.16 | 3.5 mm connector for Agilent Technologies instrument |
| N | Straight cable plug | 11_N-47 | • | • | 15.0 | 1.12 | |
| | Straight cable plug | 11_N-452 | • | • | 18.0 | 1.12 | |
| | Straight cable plug | 11_N-454 | • | • | 15.0 | 1.12 | Hexagonal nut w. safety holes |
| | Right angle cable plug | 16_N-457 | • | • | 12.4 | 1.14 | |
| | Straight cable jack | 21_N-452 | • | • | 18 | 1.12 | |
| | Straight panel bulkhead cable jack | 24_N-452 | • | • | 18 | 1.12 | Mounting hole size 12 |
| PC 3.5 | Straight cable plug | 11_PC3.5-43 | • | • | 18<br>26.5 | 1.12<br>1.16 | |
| | Straight cable jack | 21_PC3.5-43 | • | • | 18<br>26.5 | 1.12<br>1.16 | |
| PC 7 | Straight cable plug | 11_PC7-42 | • | • | 18 | 1.10 | |
| SMA | Straight cable plug | 11_SMA-451 | • | • | 18 | 1.12 | |
| | Straight cable plug | 11_SMA-452 | • | • | 18 | 1.16 | Phase matching connector |
| | Straight cable plug | 11_SMA-456 | • | • | 18 | 1.12 | Hexagonal nut w. safety holes |
| | Straight cable plug | 11_SMA-468 | • | • | 18 | 1.12 | Quick lock nut |
| | Right angle cable plug | 16_SMA-452 | • | • | 18 | 1.12 | |
| | Straight cable jack | 21_SMA-451 | • | • | 18 | 1.12 | |
| | Straight panel bulkhead cable jack | 24_SMA-451 | • | • | 18 | 1.12 | Mounting hole size 35 |
| TNC | Straight cable plug | 11_TNC-456 | • | • | 18 | 1.12 | |
| | Straight panel bulkhead cable jack | 24_TNC-456 | • | • | 18 | 1.12 | Mounting hole size 4 |
| 7/16 | Straight cable plug | 11_716-402 | • | • | 7.5 | 1.12 | |
| | Straight cable jack | 21_716-402 | • | | 7.5 | 1.12 | |

# SUCOFLEX® 126

## Assembly types

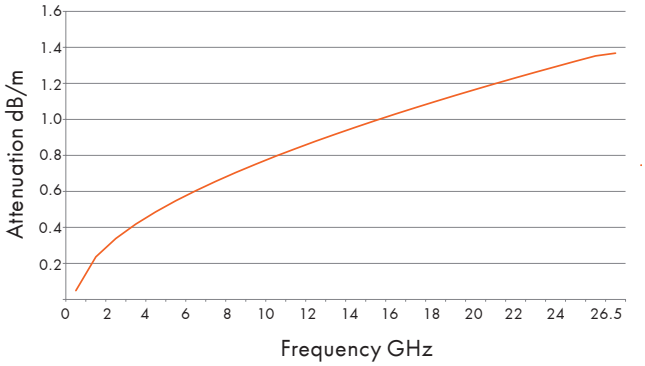
| | | SUCOFLEX 126 | SUCOFLEX 126E | SUCOFLEX 126EA |
|---|---|---|---|---|
| Max. operating frequency | GHz | 26.5 | 26.5 | 26.5 |
| Application | | dynamic | dynamic | dynamic |
| Velocity of propagation | % | 77 | 77 | 77 |
| Weight | g/m | 70 | 66 | 171 |
| Min. bending radius static | mm | 16 | 16 | 30 |
| Min. bending radius repeated | mm | 25 | 25 | 50 |
| Temperature range | °C | –55 to +125 | –40 to +85 | –40 to +85 |
| Crush resistance | kN/m | 8 | 8 | 80 |
| Tensile load | N | 250 | 250 | 500 |
| Inner conductor | | stranded | stranded | stranded |
| Dielectric | | LD-PTFE | LD-PTFE | LD-PTFE |
| Outer conductor | | tape/braid | tape/braid | tape/braid |
| Jacket | | FEP | PUR | PUR |
| Ruggedisation | | no | no | stainless steel/PUR |
| Outer diameter | mm | 5.5 | 5.5 | 10.3 |
| Screening effectiveness (up to 18 GHz) | dB | > 90 | > 90 | > 90 |
| Phase stability vs. flexure (360°, diameter 55 mm) | °el/GHz | < 0.9 | < 0.9 | < 0.9 |
| Phase stability vs. temperature (–40 to +85 °C ) | ppm | < 1500 | < 1500 | < 1500 |
| Assembly phase matching tolerances | °el/GHz | ± 0.5 | ± 0.5 | ± 0.5 |
| Cable attenuation at 25 °C | dB/m | see graph | see graph | see graph |
| Insertion loss stability vs. bending | dB | ± 0.2 | ± 0.2 | ± 0.2 |
| Insertion loss stability vs. temperature | %/°C | < 0.2 | < 0.2 | < 0.2 |
| Insertion loss stability vs. shaking | dB | ± 0.1 | ± 0.1 | ± 0.1 |
| Power handling | watt | see graph | see graph | see graph |

## Stock assemblies

| Item no. | Type | Length | Frequency | Max. insertion loss at 25 °C | Max. VSWR | RoHS compliant |
|---|---|---|---|---|---|---|
| | | mm | GHz | dB | | |
| SUCOFLEX_126_E | | | | | | |
| 85072824 | SF126E/SMAm/SMAm/500mm | 500 | 18.0 | 0.82 | 1.25 | yes |
| 85072825 | SF126E/SMAm/SMAm/1000mm | 1000 | 18.0 | 1.43 | 1.25 | yes |
| 85072826 | SF126E/PC35m/PC35m/1000mm | 1000 | 26.5 | 1.77 | 1.35 | yes |
| SUCOFLEX_126_EA (armoured) | | | | | | |
| 85072828 | SF126EA/Nm/Nm/1000mm | 1000 | 18.0 | 1.43 | 1.25 | yes |
| 85072827 | SF126EA/SMAm/SMAm/1000mm | 1000 | 18.0 | 1.43 | 1.25 | yes |
| 85072829 | SF126EA/Nm/Nf/1500mm | 1500 | 18.0 | 2.03 | 1.25 | yes |
| 85072830 | SF126EA/Nm/Nm/1500mm | 1500 | 18.0 | 2.03 | 1.25 | yes |

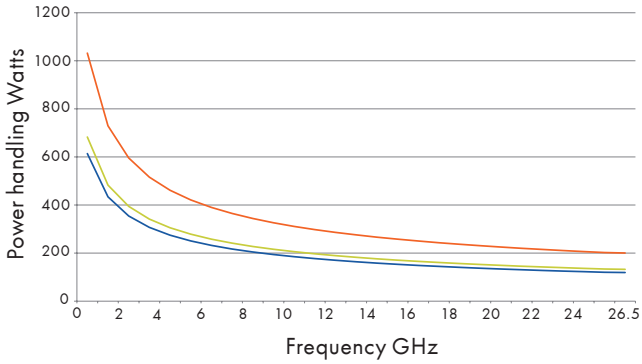
# SUCOFLEX® 126

## Attenuation
(nominal values at +25 °C ambient temperature)




SF 126 / SF 126 E /SF 126 EA

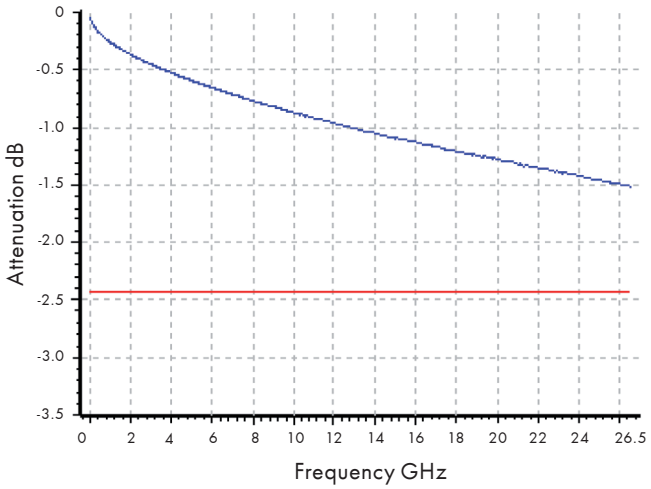
## Power handling
(maximum values at +25 °C ambient temperature and sea level)




SF 126
SF 126 E
SF 126 EA

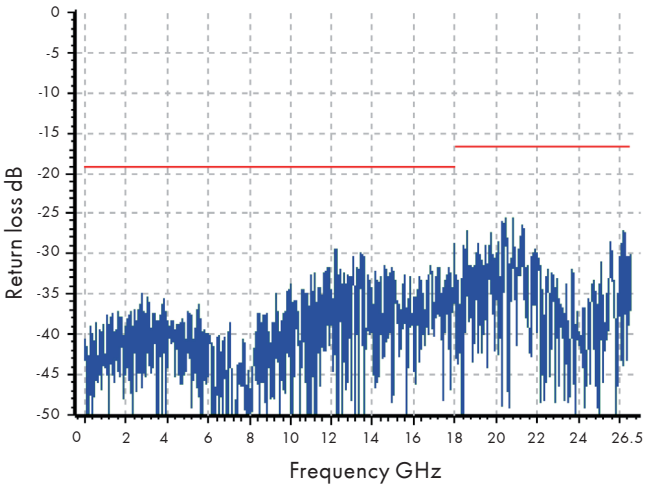
## Example
Test report SUCOFLEX126/PC35m/PC35m/1000mm

## Attenuation
(nominal values at +25 °C ambient temperature)




SF 10 4 P Specification
SF 126 E Test result

## Return loss
(maximum values at +25 °C ambient temperature and sea level)




SF 10 4 P Specification
SF 126 E Test result

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4353/4346/03.2016

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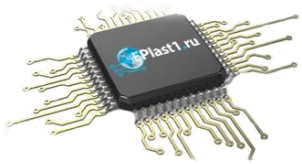
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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