# SUCOFLEX 500

## Twist and bend it as you wish

When it comes to test and measurement, SUCOFLEX® 526V and SUCOFLEX® 526S assemblies guarantee the highest level of satisfaction. Thanks to their unique cable and connector design, they deliver best-inclass phase and amplitude stability with flexure, movement, temperature and tensile stress in combination with outstanding return and insertion loss up to 26.5 GHz.

HUBER+SUHNER
Excellence in Connectivity Solutions

# Sucoflex 526 product comparison

| | Sucoflex_526V | Sucoflex_526S |
|---|---|---|
| Applications | Vector network analysers (VNAs)<br>Critical laboratory conditions | Bench top testing, RF production testing,<br>Automated test equipment |
| Features and benefits | Best-in-class phase and amplitude stability with flexure, movement, temperature and tensile stress<br><br>Excellent return loss<br><br>Extremely flexible and ease of handling | Excellent return- and insertion loss<br><br>Phase and amplitude stability with flexure and movement<br><br>Abrasion, moisture and dust resistance |
| | Torque, crush and kink resistance<br>Robust and precise center positioning of 3.5 mm center conductors<br><br>Precise and repeatable measurements<br><br>Long service life<br><br>Reduce total cost of test with durable, reliable performance<br><br>Increased test efficiency and measurement saving costs due to reduced calibration intervals | |
| Diameter | 13 mm | 7.7 mm |
| Min. bending radius | 50 mm | 25.4 mm |
| Available connectors | PC 3.5 | PC 3.5, SMA, N |
| Crush resistance | 80 kN/m | 26 kN/m |
| Typ. flex cycles | 100.000<br>2.0 Mio. for slight movements | 100.000 |
| Operating temperature | laboratory conditions,<br>analyzer specific (+15 to +30 °C) | -55 to +125°C |
| RoHS, REACH | Compliant | Compliant |
| Operating frequency | up to 26.5 GHz | up to 26.5 GHz |
| Velocity of propagation | 80 % | 77 % |
| Return loss | typ. 25 dB<br>min. 20 dB | typ. 25.0 dB<br>min. 19 dB |
| Insertion loss (25 / 38 / 48 in)<br>@ 26.5 GHz | max. 2.5 / 3.6 / 4.4 dB | typ. 1.63 dB/m incl. connectors<br>max 1.77 dB/m incl. connectors |
| Screening effectiveness | > 90 dB | > 90 dB |
| Amplitude stab. vs. movement | max. 0.05 dB | max. ± 0.05 dB |
| Amplitude stab. vs. flexure | max. 0.08 dB | max. ± 0.05 dB |
| Phase stability vs. flexure<br>(25 / 38 / 48 in) | max. 3.9 / 7.4 / 10° | typ. ± 3.0° |
| Phase stab. vs. tensile stress | max. 0.1°/GHz<br>100 N up to 26.5 GHz | N/A |
| Phase stab. vs. temperature | typ. 50 ppm<br>+15 °C to +30 °C, 26.5 GHz | typ. 1500 ppm<br>-55°C to + 125°C |
| Phase matched assemblies available | No | Yes, upon request |
| New optimised PC3.5 interface supports S-parameter measurements with the highest accuracy | Yes | Yes |
| Stock assemblies available | Yes | Yes |

# SUCOFLEX® 526V

The only VNA microwave cable worldwide with a typical 50 ppm phase variation vs. temperature between +15 and +30 °C only. No "PTFE phase knee" at +19 °C as on conventional VNA test cable assemblies which cause phase variations and unstable measurements in critical laboratory conditions.

## Available connectors

| Product configuration | 85069744 | 85081169 | 85070046 | 85081172 | 85070047 | 85081177 |
|---|---|---|---|---|---|---|
| Cable type | SUCOFLEX 526V | | | | | |
| Length | 25" (635 mm) | 25" (635 mm) | 38" (965 mm) | 38" (695 mm) | 48" (1219 mm) | 48" (1219 mm) |
| Connector A | 3.5 mm ruggedised PORT female | | | | | |
| Connector B | 3.5 mm ruggedised DUT male (35VM) | 3.5 mm DUT female (35F) | 3.5 mm ruggedised DUT male (35VM) | 3.5 mm DUT female (35F) | 3.5 mm ruggedised DUT male (35VM) | 3.5 mm DUT female (35F) |
| **Mechanical data** | | | | | | |
| Diameter | 13 mm | | | | | |
| Min. bending | 50 mm | | | | | |
| Crush resistance | 80 kN/m | | | | | |
| Flex life | 100 000 cycles | | | | | |
| **Environmental data** | | | | | | |
| Operating temperature | laboratory conditions, analyser specific (+15 to +30 °C) | | | | | |
| RoHS, REACH | compliant | | | | | |
| **Electrical data** | | | | | | |
| Impedance | 50 Ω | | | | | |
| Operating frequency | up to 26.5 GHz | | | | | |
| Velocity of propagation | 80 % | | | | | |
| Time delay | 4.15 ns/m | | | | | |
| Return loss | min. 20 dB | | | | | |
| Insertion loss | max. 2.5 dB | | max. 3.6 dB | | max. 4.4 dB | |
| Screening effectiveness | > 90 dB | | | | | |
| Amplitude stability vs. movement | max. 0.05 dB | | | | | |
| Amplitude stability vs. flexure | max. 0.08 dB | | | | | |
| Phase stability vs. flexure | max. 3.9° | | max. 7.4° | | max. 10° | |
| Phase stability vs. tensile stress | max. 0.1°/GHz (100 N) | | | | | |
| Phase stability vs. temperature | typ. 50 ppm (+15 to +30 °C) | | | | | |

## Ordering information

| Item no. | Description |
|---|---|
| 85069744 | SF526V/35VF/35VM/25in |
| 85081169 | SF526V/35VF/35F/25in |
| 85070046 | SF526V/35VF/35VM/38in |
| 85081172 | SF526V/35VF/35F/38in |
| 85070047 | SF526V/35VF/35VM/48in |
| 85081177 | SF526V/35VF/35F/48in |

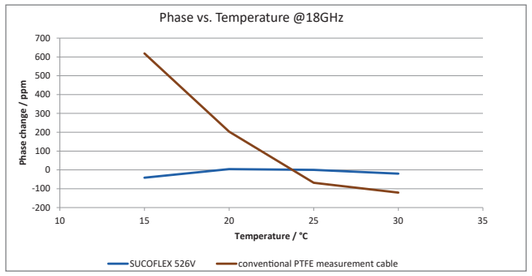
# SUCOFLEX® 526V

Phase shift vs. temperature (+15°C to + 30°C)

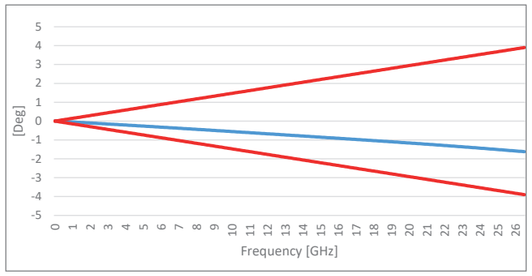
| | | SUCOFLEX 526V | Conventional VNA test lead |
|---|---|---|---|
| Assembly length (in (mm)) | Frequency (GHz)* | Phase shift /° (for 50 ppm, 80% VOP) | Phase shift /° (for 700 ppm, 84% VOP) |
| 25 (635) | 18 | 0.9 | 11.4 |
| 25 (635) | 26.5 | 1.3 | 16.7 |

*Other frequencies on request

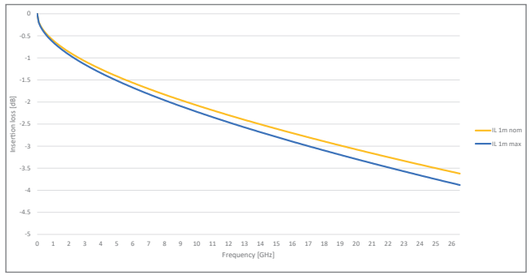
## Phase stability vs. temperature perfomance



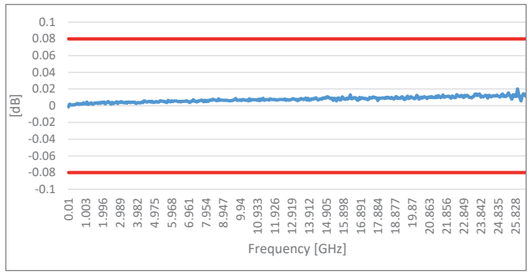

## Phase stability vs. flexure



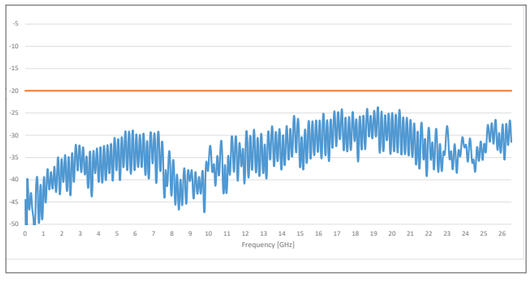

## Insertion Loss




## Loss stability vs. flexure

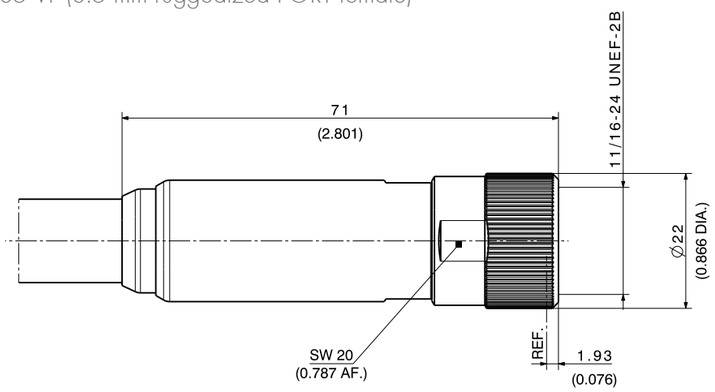



## Return Loss SUOFLEX 526V with two straigth PC3.5 connectors

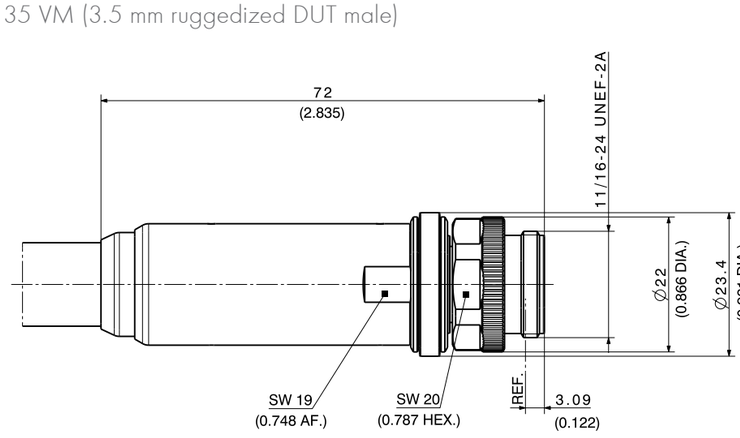



# Connector configuration

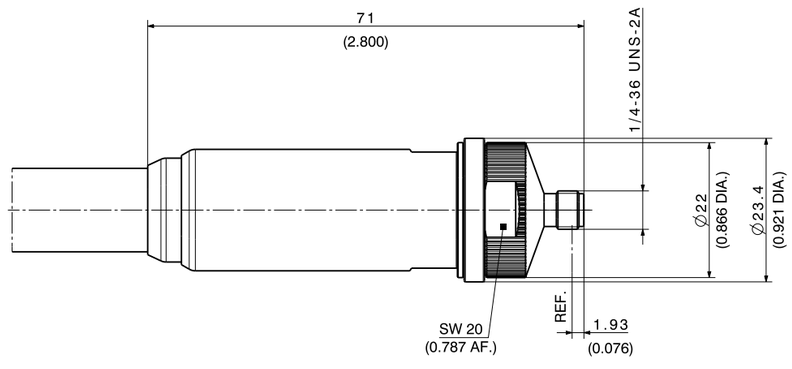
## 35 VF (3.5 mm ruggedized PORT female)




## 35 VM (3.5 mm ruggedized DUT male)



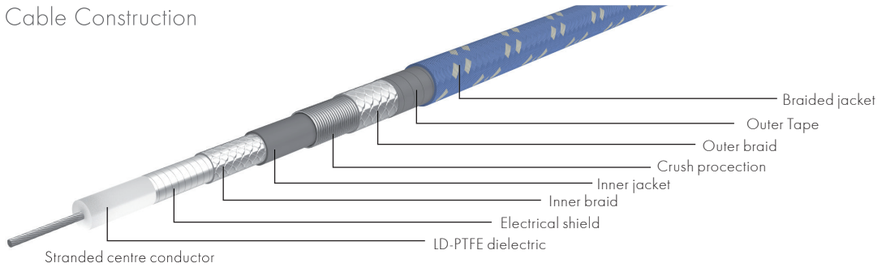

## 35F (3.5mm DUT female)



# SUCOFLEX® 526S

The SUCOFLEX 526S is the top performance cable assembly for various applications in test laboratories. When it comes to test and measurement, SUCOFLEX 526S assemblies guarantee the highest level of satisfaction. Thanks to their unique cable and connector design, they deliver best-inclass phase and amplitude stability with flexure in combination with outstanding return and insertion loss up to 26.5 GHz.

## Cable Construction




| Mechanical data | |
|---|---|
| Diameter | 7.7 mm |
| Min. bending | 25.4 mm |
| Crush resistance | 26 kN/m |
| Flex life | 100 000 cycles |
| **Environmental data** | |
| Operating temperature | -55 to +125°C |
| RoHS, REACH | compliant |
| **Electrical data** | |
| Impedance | 50 Ω |
| Operating frequency | up to 26.5 GHz |
| Velocity of propagation | 77 % |
| Time delay | 4.15 ns/m |
| Return loss | min. 19 dB |
| Insertion loss | typ. 1.63 dB/m incl. connectors, max 1.77 dB/m incl. connectors |
| Screening effectiveness | > 90 dB |
| Amplitude stability vs. movement | max. ± 0.05 dB |
| Amplitude stability vs. flexure | max. ± 0.05 dB |
| Phase stability vs. flexure | typ. ± 3° |
| Phase stability vs. temperature | typically 1500 ppm (-55 to +125 °C) |

## Ordering information

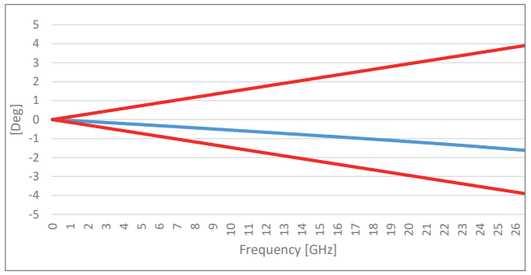
| Item no. | Stock assembly type | |
|---|---|---|
| 85090623 | SF526S/11PC35/11PC35/500mm | PC3.5 male/ PC3.5 male |
| 85088164 | SF526S/11PC35/11PC35/36inch | PC3.5 male/ PC3.5 male |
| 85090624 | SF526S/11PC35/11PC35/1000mm | PC3.5 male/ PC3.5 male |
| 85090625 | SF526S/11PC35/11PC35/2000mm | PC3.5 male/ PC3.5 male |
| 85090626 | SF526S/11PC35/11PC35/3000mm | PC3.5 male/ PC3.5 male |
| 85090629 | SF526S/11PC35/21PC35/36inch | PC3.5 male/ PC3.5 female |
| 85091104 | SF526S/11PC35/21PC35/48inch | PC3.5 male/ PC3.5 female |
| 85089172 | SF526S/11N/11N/1000mm | N male/ N male |
| 85089173 | SF526S/11SMA/11SMA/1000mm | SMA male/ SMA male |


# SUCOFLEX® 526S

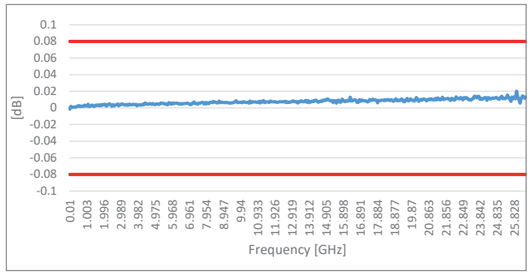

## Available connectors

| Connector | Series, pattern | HUBER+SUHNER connector type | Operating frequency (GHz) |
|---|---|---|---|
| PC 3.5 | Straight cable plug | 11_PC-3.5 | 26.5 |
| | Straight cable jack | 21_PC-3.5 | |
| N | Straight cable plug | 11_N | 18 |
| | Straight cable jack | 21_N | |
| SMA | Straight cable plug | 11_SMA | 18 |

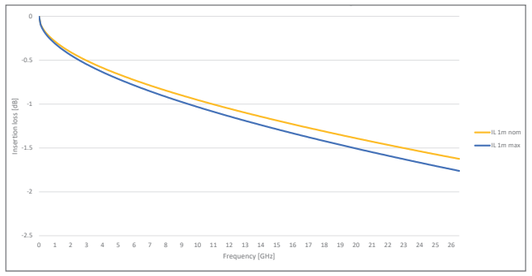
## Phase vs. stability vs flexure



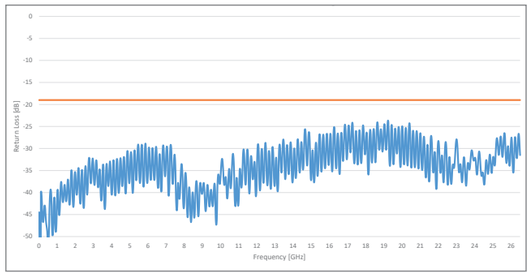

## Loss stability vs. flexure




## Insertion Loss

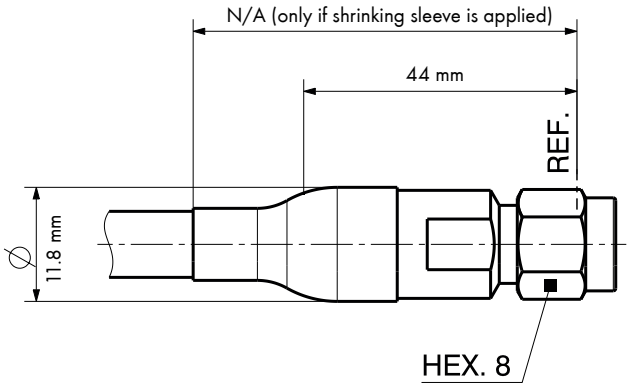



## Return Loss SUOFLEX 526S with two straigth PC3.5 connectors

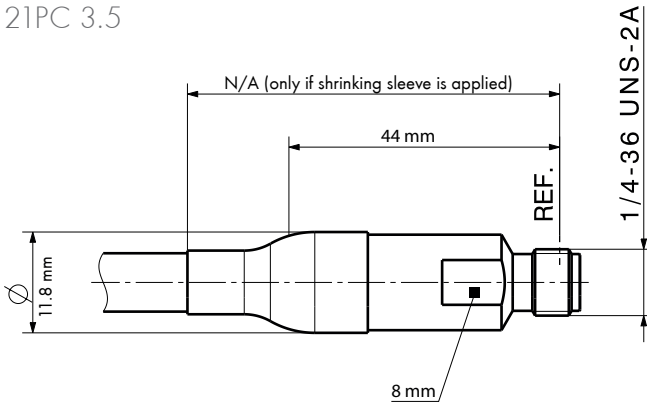


# Connector configuration

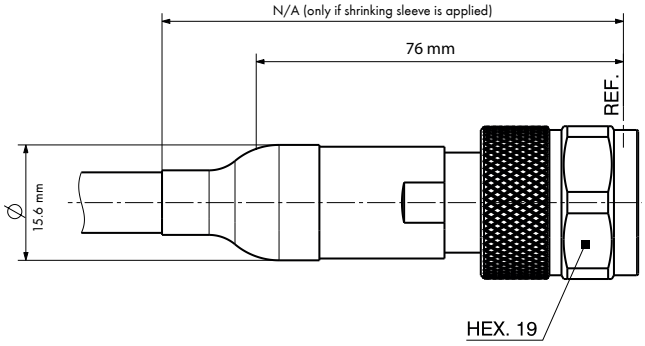
## 11PC 3.5



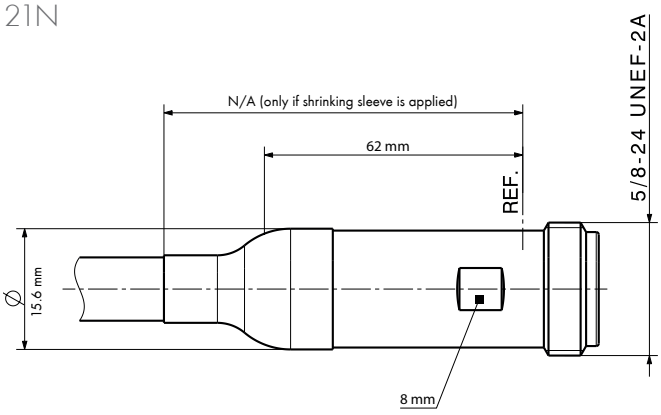

## 21PC 3.5



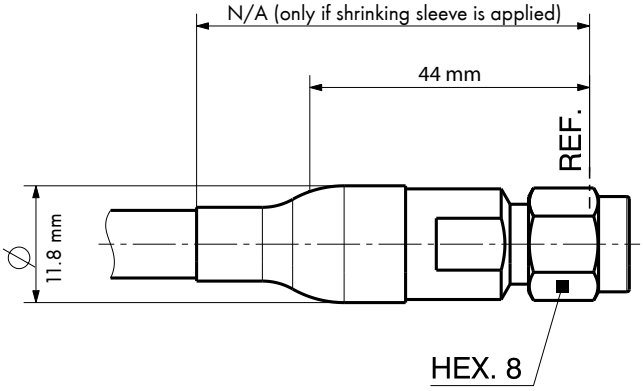

## 11N




## 21N




## 11SMA

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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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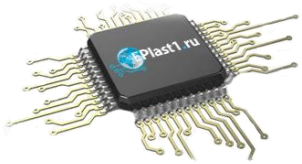
- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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