

SF526V/35VF/35VM/38in Microwave Cable Assembly

Description

SUCOFLEX 526V microwave cable assemblies set a new measurement standard for vector network analyzers (VNAs) through 26.5 GHz.

- Extremely flexible and ease of handling
- Best-in-class phase and amplitude stability with flexure, movement, temperature and tensile stress
- Robust and precise center positioning of 3.5mm center conductors
- Accurate and repeatable measurements
- Increased test efficiency and measurement saving costs due to reduced calibration intervals



Product Configuration

| | |
|--------------------|--------------------------------------|
| Description | SF526V/35VF/35VM/38in |
| Item no | 85070046 |
| Cable type | SUCOFLEX 526V |
| Length of assembly | 38" (965 mm) |
| Connector A | 35VF (3.5 mm ruggedized PORT female) |
| Connector B | 35 VM (3.5 mm ruggedized DUT male) |

Technical Data

Mechanical Data

| | |
|------------------------|----------------|
| Nominal outer diameter | 13.0 mm |
| Min. bending radius | 50 mm |
| Crush resistance | 80 kN/m |
| Nominal weight | 345 g |
| Flex life | 100'000 cycles |

Environmental Data

| | |
|-----------------------|---|
| Operating temperature | Laboratory conditions, analyzer specific (+15°C to +30°C) |
| RoHS, REACH | Compliant |

Electrical Data

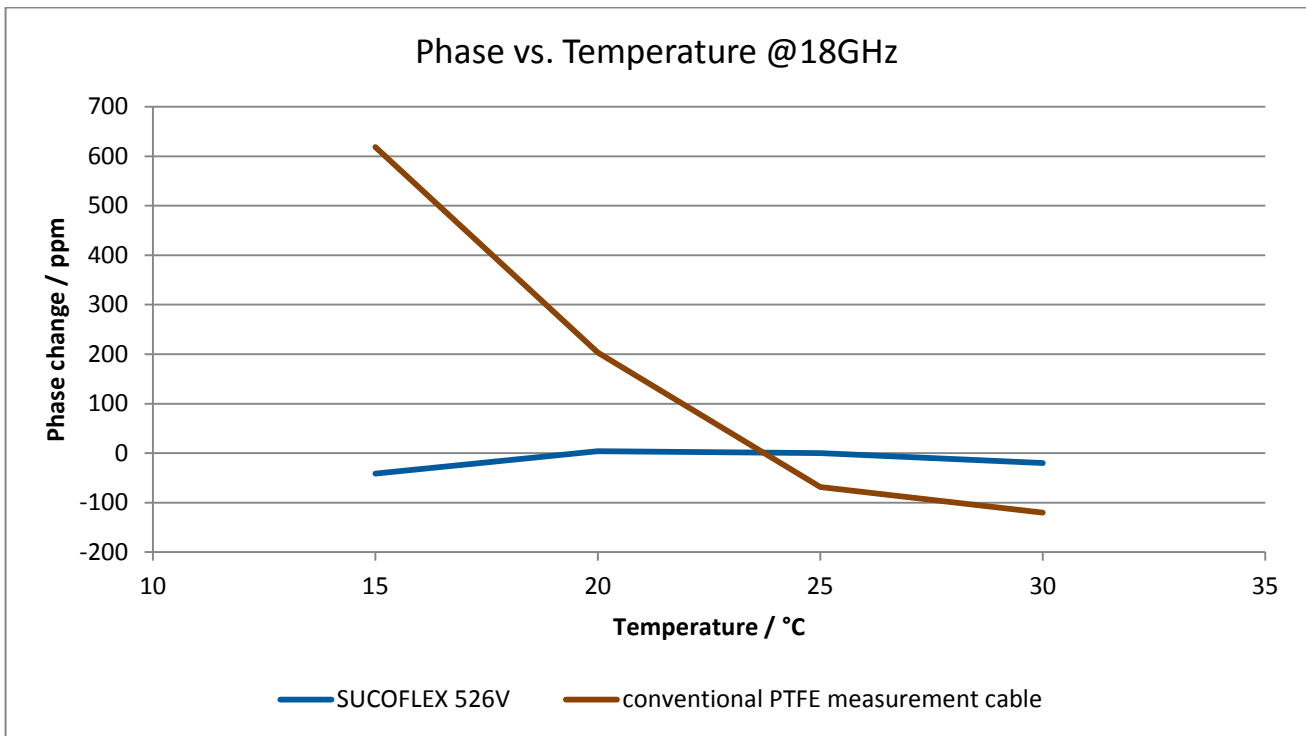
| | | |
|--------------------------------------|-----------------|-----------------------------|
| Impedance | 50 Ω | |
| Operating frequency | up to 26.5 GHz | |
| Velocity of propagation | 80 % | |
| Time delay | 4.17 ns / m | |
| Return loss | min. 20 dB | up to 26.5 GHz |
| Return loss stability | > 40 dB | up to 26.5 GHz |
| Insertion loss (assembly) | max. 3.6 dB | 26.5 GHz, 25°C |
| Screening effectiveness | > 90 dB | up to 26.5 GHz |
| Amplitude stability vs. movement (*) | max. 0.05 dB | up to 26.5 GHz |
| Amplitude stability vs. flexure (**) | max. 0.08 dB | up to 26.5 GHz |
| Phase stability vs. flexure (**) | max. 7.4° | up to 26.5 GHz |
| Phase stability vs. tensile stress | max. 0.1° / GHz | 100 N, up to 26.5 GHz |
| Phase stability vs. temperature | max. 50 ppm | 15°C to 30°C, up to 26.5GHz |

(*) Stability test vs. movement 30s, displacement: 100 mm

(**) Stability test vs. flexure 180°, diameter 115 mm

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Phase vs. temperature performance



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) |
| 38 (965) | 18 | 1.4 | 17.3 |
| 38 (965) | 26.5 | 2.0 | 25.4 |

*Other frequencies on request

Connector configuration

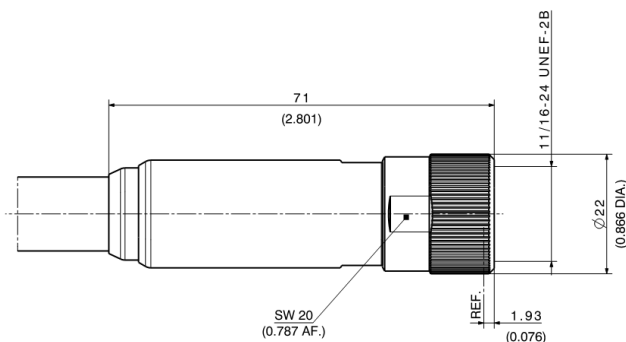


Figure 1: 35 VM (3.5 mm ruggedized PORT female)

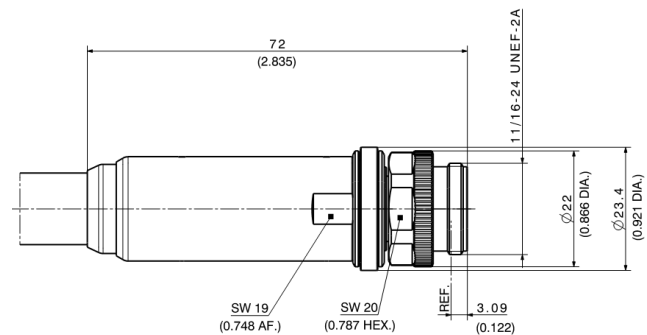


Figure 2: 35 VM (3.5 mm ruggedized DUT male)