

# VNA Test Cable Assemblies

- **High Performance --- SCAVNA Series**
- **Economic --- ECAVNA Series**

Saluki High Performance VNA Test Cable Assemblies are specially used in high reliability vector network analyzer (VNA) test applications. The cable assemblies include NMD connectors which is solid and light weight can mate directly with VNA ports.

The VNA cable assemblies ensure accurate and repeatable measurements because of their phase and amplitude stability guaranteed with flexure-tested for over 100,000 flex cycles and over 5,000 mating cycles.

Before shipment, we test all of our assemblies for return loss, insertion loss, phase stability and loss stability up to their maximum operating frequency. Saluki's VNA cable assemblies deliver the highest accuracy and greatest time interval between recalibrations of any test assembly on the market today.

## Key Features

- Frequency up to 67GHz
- Multiple end connector types
- Shielding effectivity >100dB
- Excellent phase and amplitude stability
- High performance and economic types
- Test data for each cable assembly
- Custom lengths and configurations available



**SCAVNA Series---High Performance**

## Typical Applications

- General VNA testing
- Semiconductor probe testing
- Lab and production testing
- Automated test systems



**ECAVNA Series--- Economic**

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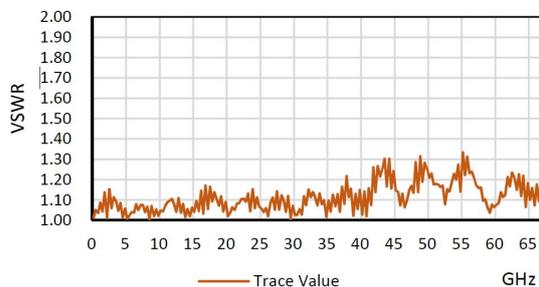
## ❖ High Performance VNA Test Assemblies

### SCAVNA Series

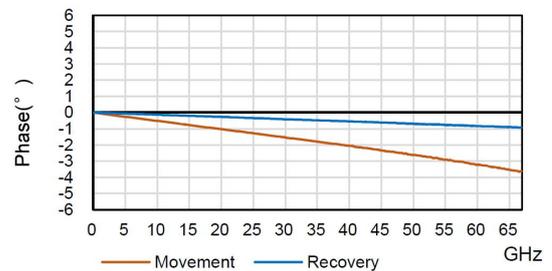


The SCAVNA series with excellent phase and amplitude stability can achieve high reliable test results with bend, crush and many other testing situations. The cable assemblies include NMD connectors which is solid and light weight can mate directly with VNA ports.

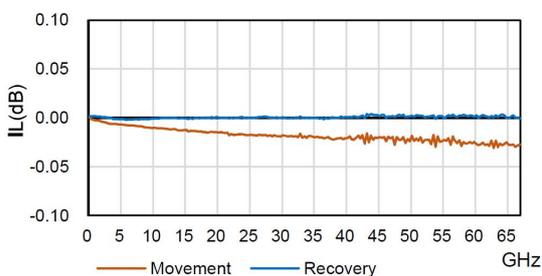
#### ➤ Typical VSWR performance



#### ➤ Typical phase stability performance



#### ➤ Typical insertion loss performance

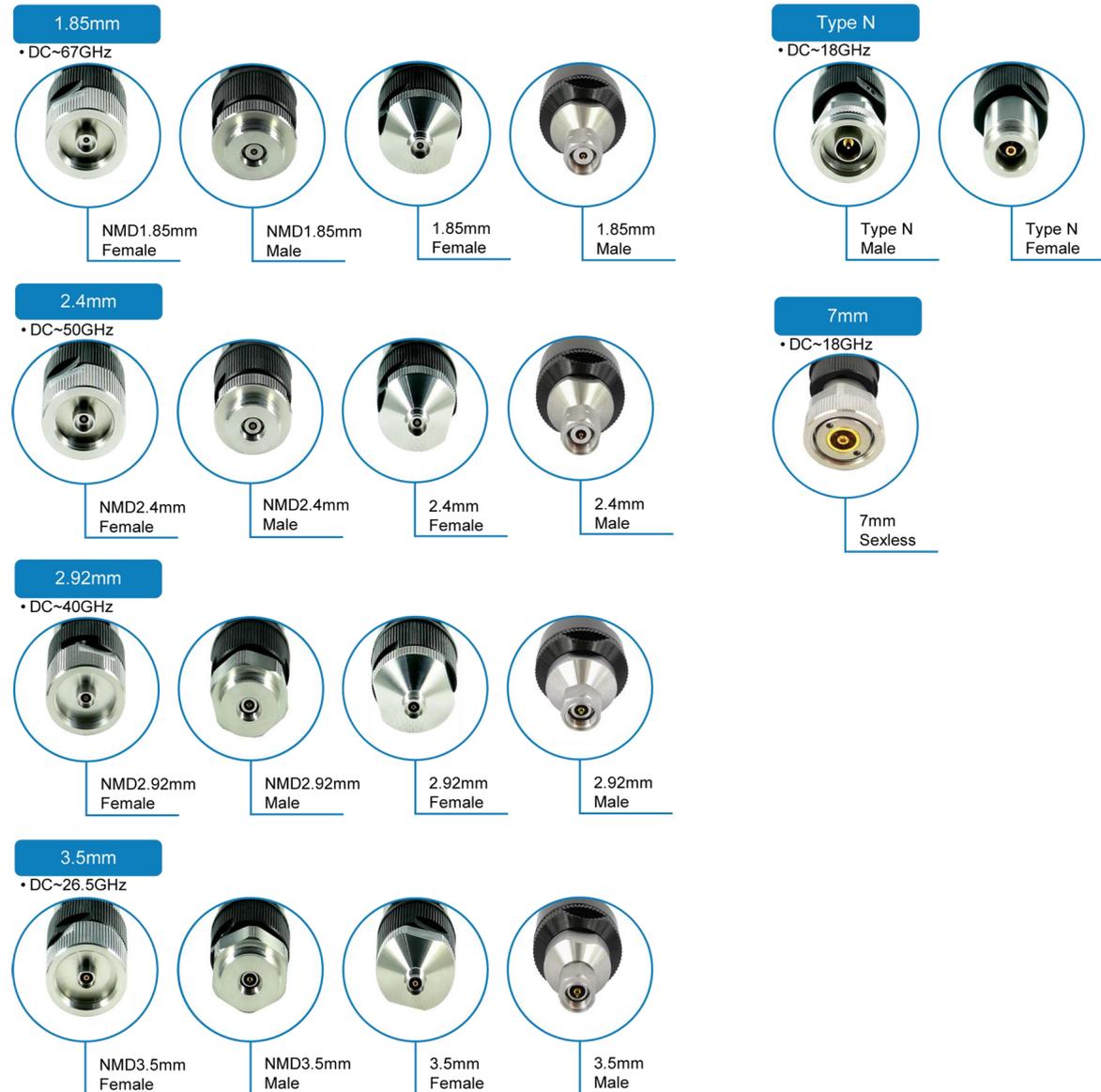


*\*Under condition: Data tested from 1.85mm SCAVNA test cable, at bent 360° with 10cm diameter.*

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## Multiple Ruggedized Connector Types



<b>Connector Materials</b>	Body	Stainless steel, Passivated
	Center Conductor	Au-plated beryllium Copper

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## SCAVNA Series - General Models

Type N Series								
P/N	VNA End	DUT End	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
SCAVNA18M M-(N/N)	N Male	N Male	63cm	DC-18GHz	1.2	<1.5dB	<±0.05dB	<±1.5°
SCAVNA18MF -(N/N)	N Male	N Female	63cm	DC-18GHz	1.2	<1.5dB	<±0.05dB	<±1.5°
SCAVNA18M M-(N/3.5)	N Male	NMD 3.5 mm Male	63cm	DC-18GHz	1.2	<1.5dB	<±0.05dB	<±1.5°
SCAVNA18MF -(N/3.5)	N Male	3.5mm Female	63cm	DC-18GHz	1.2	<1.5dB	<±0.05dB	<±1.5°
NMD 3.5mm Series								
P/N	VNA End	DUT End	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
SCAVNA26FM -(3.5/3.5)	NMD 3.5mm Female	NMD 3.5mm Male	63cm	DC-26.5GHz	1.25	<1.8dB	<±0.05dB	<±2°
SCAVNA26FF- (3.5/3.5)	NMD 3.5mm Female	3.5mm Female	63cm	DC-26.5GHz	1.25	<1.8dB	<±0.05dB	<±2°
SCAVNA18FM -(3.5/N)	NMD 3.5mm Female	Type N Male	63cm	DC-26.5GHz	1.2	<1.5dB	<±0.05dB	<±1.5°
SCAVNA18FF- (3.5/N)	NMD 3.5mm Female	Type N Female	63cm	DC-26.5GHz	1.2	<1.5dB	<±0.05dB	<±1.5°
SCAVNA26FF- (3.5/3.5)-0.97	NMD 3.5mm Female	3.5mm Female	97cm	DC-26.5GHz	1.25	<1.8dB	<±0.05dB	<±2°
SCAVNA26FM -(3.5/3.5)-0.97	NMD 3.5mm Female	NMD 3.5mm Male	97cm	DC-26.5GHz	1.25	<1.8dB	<±0.05dB	<±2°

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NMD 2.92mm Series								
P/N	VNA End	DUT End	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
SCAVNA40FM -(2.92/2.92)	NMD 2.92mm Female	NMD 2.92mm Male	63cm	DC-40GHz	1.3	<2.8dB	<±0.05dB	<±2.5°
SCAVNA40FF- (2.92/2.92)	NMD 2.92mm Female	2.92mm Female	63cm	DC-40GHz	1.3	<2.8dB	<±0.05dB	<±2.5°
SCAVNA40FM -(2.92/2.4)	NMD 2.92mm Female	NMD 2.4mm Male	63cm	DC-40GHz	1.3	<2.8dB	<±0.05dB	<±2.5°
SCAVNA40FF- (2.92/2.4)	NMD 2.92mm Female	2.4mm Female	63cm	DC-40GHz	1.3	<2.8dB	<±0.05dB	<±2.5°
NMD 2.4mm Series								
SCAVNA50FM -(2.4/2.4)	NMD 2.4mm Female	NMD 2.4mm Male	63cm	DC-50GHz	1.3	<3dB	<±0.05dB	<±3°
SCAVNA50FF- (2.4/2.4)	NMD 2.4mm Female	2.4mm Female	63cm	DC-26.5GHz	1.3	<3dB	<±0.05dB	<±3°
SCAVNA40FM -(2.4/2.92)	NMD 2.4mm Female	NMD 2.92mm Male	63cm	DC-40GHz	1.3	<2.8dB	<±0.05dB	<±2.5°
SCAVNA40FF- (2.4/2.92)	NMD 2.4mm Female	2.92mm Female	63cm	DC-40GHz	1.3	<2.8dB	<±0.05dB	<±2.5°
SCAVNA50FF- (2.4/2.4)-0.97	NMD 2.4mm Female	2.4mm Female	97cm	DC-50GHz	1.3	<3dB	<±0.05dB	<±3°
SCAVNA50FM -(2.4/2.4)-0.97	NMD 2.4mm Female	NMD 2.4mm Male	97cm	DC-50GHz	1.3	<3dB	<±0.05dB	<±3°

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NMD 1.85mm Series								
P/N	VNA End	DUT End	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
SCAVNA67FM -(1.85/1.85)	NMD 1.85mm Female	NMD 1.85mm Male	63cm	DC-67GHz	1.4	<5.2dB	<±0.05dB	<±4°
SCAVNA67FF- (1.85/1.85)	NMD 1.85mm Female	1.85mm Female	63cm	DC-67GHz	1.4	<5.2dB	<±0.05dB	<±4°

*Note: For other port combinations and length, please send email to [sales@salukitec.com](mailto:sales@salukitec.com) .*

## Cable Descriptions

Center Conductor	Au-plated copper
Dielectric	PTFE
Outer Conductor	Ag-plated copper tape
Inner Braid	Ag-plated copper braid
Outer Jacket	Multilayer armour
Outer Diameter	15.2mm
Minimum Bend Radius	50mm
Cruch Resistance	> 130kgf/cm

## Environmental Condition

Operating Temperature	0°C to +40°C
Storage Temperature	-40°C to +75°C

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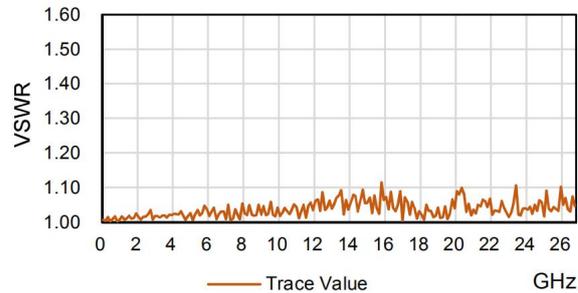
## ❖ Economic VNA Test Assemblies

### ECAVNA Series

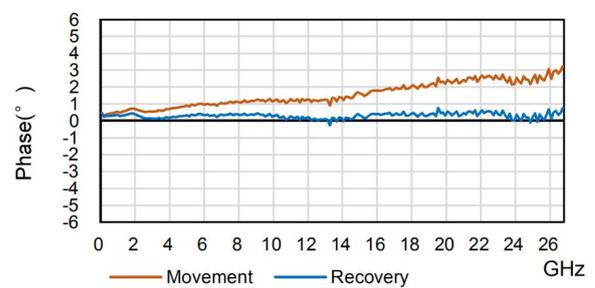


The ECAVNA series possess good microwave electrical performance and phase and amplitude stability. The flexible and lighter structure makes the testing more efficient. The patented design provides stable performance in lab and production applications.

#### ➤ Typical VSWR performance



#### ➤ Typical phase stability performance



#### ➤ Typical insertion loss performance

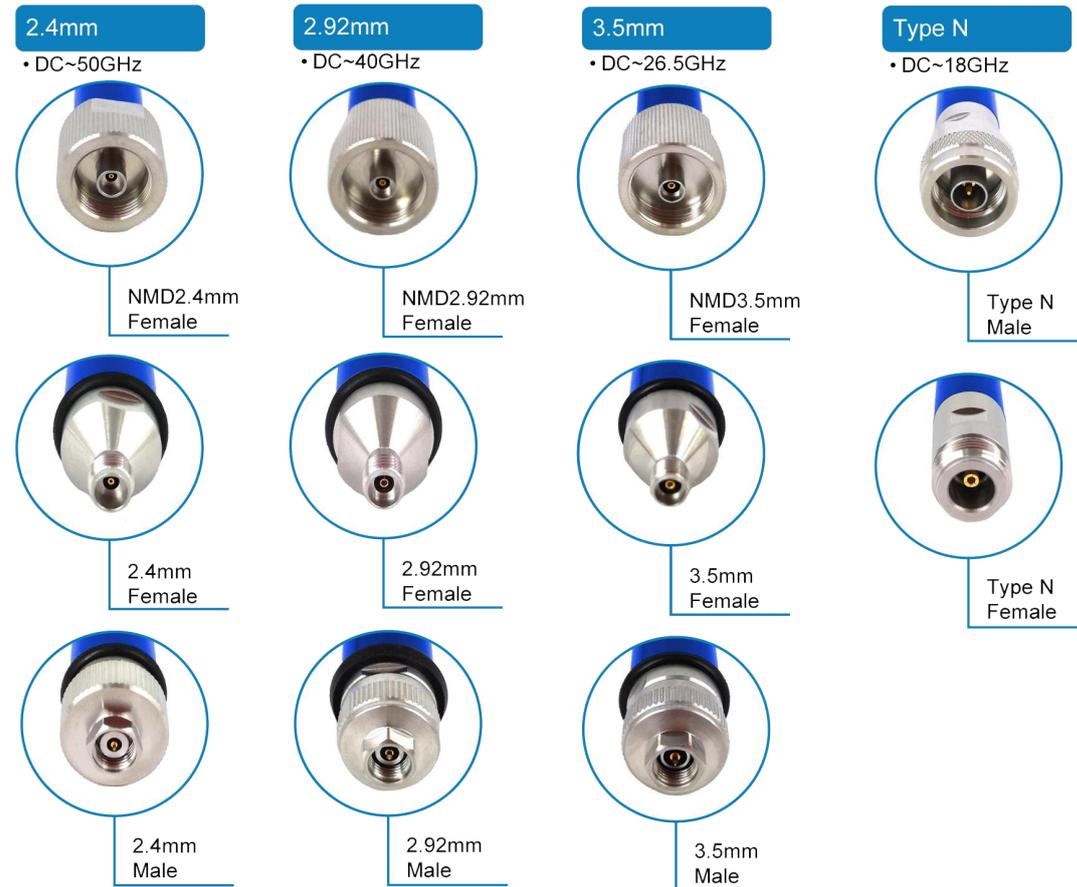


*\*Under condition: Data tested from 3.5mm ECAVNA test cable, at bent 360° with 10cm diameter.*

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## Multiple Ruggedized Connector Types



<b>Connector Materials</b>	Body	Stainless steel, Passivated
	Center Conductor	Au-plated beryllium Copper

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## ECAVNA Series - General Models

Type N Series								
P/N	VNA End	DUT End	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
ECAVNA18FM-(N/N)	N Female	N Male	63cm	DC-18GHz	1.2	<0.9dB	<±0.1dB	<±3.5°
ECAVNA18FF-(N/N)	N Female	N Female	63cm	DC-18GHz	1.2	<0.9dB	<±0.1dB	<±3.5°
NMD 3.5mm Series								
P/N	VNA End	DUT End	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
ECAVNA26FM-(3.5/3.5)	NMD 3.5mm Female	3.5mm Male	63cm	DC-26.5GHz	1.25	<1.1dB	<±0.1dB	<±4°
ECAVNA26FF-(3.5/3.5)	NMD 3.5mm Female	3.5mm Female	63cm	DC-26.5GHz	1.25	<1.1dB	<±0.1dB	<±4°
NMD 2.4mm Series								
P/N	VNA End	DUT End	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
ECAVNA50FM-(2.4/2.4)	NMD 2.4mm Female	2.4mm Male	63cm	DC-50GHz	1.35	<2.65dB	<±0.1dB	<±5.5°
ECAVNA50FF-(2.4/2.4)	NMD 2.4mm Female	2.4mm Female	63cm	DC-50GHz	1.35	<2.65dB	<±0.1dB	<±5.5°

*Note: For other port combinations and length, please send email to [sales@salukitec.com](mailto:sales@salukitec.com).*

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## **Cable Descriptions**

Center Conductor	Ag-plated copper
Dielectric	PTFE
Outer Conductor	Ag-plated copper tape
Inner Braid	Ag-plated copper braid
Outer Jacket	Multilayer armour
Outer Diameter	10.3mm
Minimum Bend Radius	50mm
Cruch Resistance	> 80kgf/cm

## **Environmental Condition**

Operating Temperature	0°C to +40°C
Storage Temperature	-40°C to +75°C

***Note:** Information will conduct the necessary updates, the contents of this document are subject to change without notice.*