

## High Performance VNA Test Assemblies

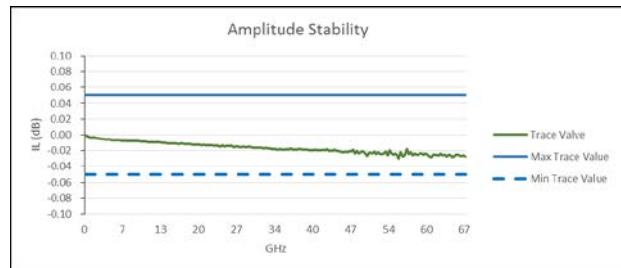
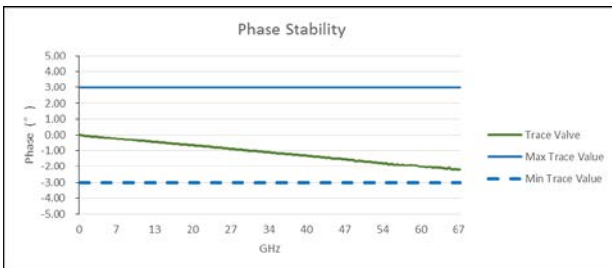
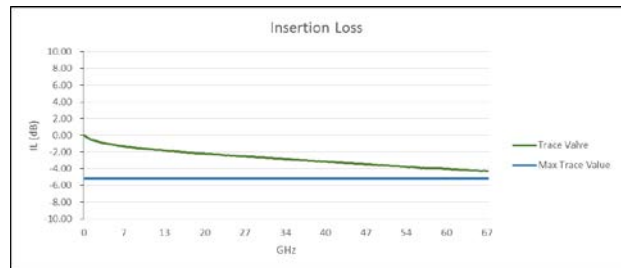
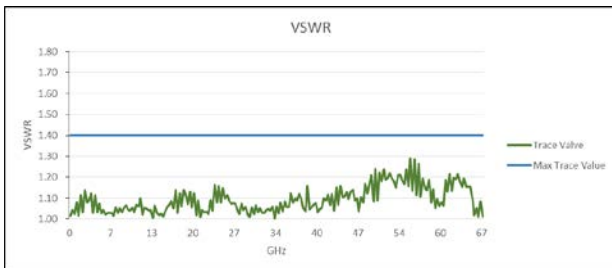
Arance's High Performance VNA Test Assemblies are specially used in high reliability vector network analyzer (VNA) test applications. The cable assemblies include NMD connectors which is solid and light weight can mate directly with VNA ports.



**NAC Series—Precision VNA Test Assemblies**



**NBC Series—Economy VNA Test Assemblies**



## NAC Series — Precision VNA Test Assemblies



The NAC cable assemblies with excellent phase and amplitude stability can achieve high reliable test results with bend, crush and many other testing situations.

Connector Materials	
Body	Stainless Steel, Passivated
Center Conductor	Au-plated Beryllium Copper
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
Minimum Bend Radius	50mm
Environmental data	
Operating Temperature	0°C~+40°C
Storage Temperature	-40°C~+75°C

### NAC Series Selection Matrix

Connector2 \ Connector1	NMD1.85mm	NMD2.4mm	NMD2.92mm	NMD3.5mm	N	7mm
NMD1.85mm	√					
NMD2.4mm		√				
NMD2.92mm		√	√			
NMD3.5mm				√		
N				√	√	
7mm				√	√	√
1.85mm	√					
2.4mm		√	√			
2.92mm		√	√			
3.5mm				√	√	√

## NAC Series — General Products

NMD1.85mm Series								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC7171L1	NMD1.85mm Female	NMD1.85mm Male	63cm	DC~67GHz	1.40:1(max)	<5.2dB	<±0.05dB	<±3.0°
NAC7161L1	NMD1.85mm Female	1.85mm Female	63cm	DC~67GHz	1.40:1(max)	<5.2dB	<±0.05dB	<±3.0°
NMD2.4mm Series								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC7878L1	NMD2.4mm Female	NMD2.4mm Male	63cm	DC~50GHz	1.30:1(max)	<3.0dB	<±0.05dB	<±3.0°
NAC7868L1	NMD2.4mm Female	2.4mm Female	63cm	DC~50GHz	1.30:1(max)	<3.0dB	<±0.05dB	<±3.0°
NAC7837L1	NMD2.4mm Female	NMD2.92mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC7867L1	NMD2.4mm Female	2.92mm Female	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NMD2.92mm Series								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC3778L1	NMD2.92mm Female	NMD2.4mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3768L1	NMD2.92mm Female	2.4mm Female	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3737L1	NMD2.92mm Female	NMD2.92mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3767L1	NMD2.92mm Female	2.92mm Female	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NMD3.5mm Series								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC7676L1	NMD3.5mm Female	NMD3.5mm Male	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.05dB	<±2.0°
NAC7666L1	NMD3.5mm Female	3.5mm Female	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.05dB	<±2.0°
N Type Series								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC6565AL1	N Male	N Male	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC6565CL1	N Male	N Female	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
7mm Series								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC3535L1	7mm Sexless	7mm Sexless	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°

\* Available with different lengths upon request.

## NAC Series— Expanding Products

<b>NMD1.85mm Series</b>								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC7171BL1	NMD1.85mm Female	NMD1.85mm Female	63cm	DC~67GHz	1.40:1(max)	<5.2dB	<±0.05dB	<±3.0°
NAC7161DL1	NMD1.85mm Female	1.85mm Male	63cm	DC~67GHz	1.40:1(max)	<5.2dB	<±0.05dB	<±3.0°
NAC7171AL1	NMD1.85mm Male	NMD1.85mm Male	63cm	DC~67GHz	1.40:1(max)	<5.2dB	<±0.05dB	<±3.0°
NAC7161CL1	NMD1.85mm Male	1.85mm Female	63cm	DC~67GHz	1.40:1(max)	<5.2dB	<±0.05dB	<±3.0°
NAC7161AL1	NMD1.85mm Male	1.85mm Male	63cm	DC~67GHz	1.40:1(max)	<5.2dB	<±0.05dB	<±3.0°
<b>NMD2.4mm Series</b>								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC7878BL1	NMD2.4mm Female	NMD2.4mm Female	63cm	DC~50GHz	1.30:1(max)	<3.0dB	<±0.05dB	<±3.0°
NAC7868DL1	NMD2.4mm Female	2.4mm Male	63cm	DC~50GHz	1.30:1(max)	<3.0dB	<±0.05dB	<±3.0°
NAC7837BL1	NMD2.4mm Female	NMD2.92mm Female	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC7867DL1	NMD2.4mm Female	2.92mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC7878AL1	NMD2.4mm Male	NMD2.4mm Male	63cm	DC~50GHz	1.30:1(max)	<3.0dB	<±0.05dB	<±3.0°
NAC7868CL1	NMD2.4mm Male	2.4mm Female	63cm	DC~50GHz	1.30:1(max)	<3.0dB	<±0.05dB	<±3.0°
NAC7868AL1	NMD2.4mm Male	2.4mm Male	63cm	DC~50GHz	1.30:1(max)	<3.0dB	<±0.05dB	<±3.0°
NAC7837AL1	NMD2.4mm Male	NMD2.92mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC7867CL1	NMD2.4mm Male	2.92mm Female	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC7867AL1	NMD2.4mm Male	2.92mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
<b>NMD2.92mm Series</b>								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC3768DL1	NMD2.92mm Female	2.4mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3737BL1	NMD2.92mm Female	NMD2.92mm Female	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3767DL1	NMD2.92mm Female	2.92mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3768CL1	NMD2.92mm Male	2.4mm Female	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3768AL1	NMD2.92mm Male	2.4mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3737AL1	NMD2.92mm Male	NMD2.92mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3767CL1	NMD2.92mm Male	2.92mm Female	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
NAC3767AL1	NMD2.92mm Male	2.92mm Male	63cm	DC~40GHz	1.30:1(max)	<2.8dB	<±0.05dB	<±2.5°
<b>NMD3.5mm Series</b>								
P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC7676BL1	NMD3.5mm Female	NMD3.5mm Female	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.05dB	<±2.0°
NAC7666DL1	NMD3.5mm Female	3.5mm Male	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.05dB	<±2.0°
NAC7665BL1	NMD3.5mm Female	N Female	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°

NAC7665DL1	NMD3.5mm Female	N Male	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC7635BL1	NMD3.5mm Female	7mm Sexless	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC7666CL1	NMD3.5mm Male	3.5mm Female	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.05dB	<±2.0°
NAC7666AL1	NMD3.5mm Male	3.5mm Male	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.05dB	<±2.0°
NAC7676AL1	NMD3.5mm Male	NMD3.5mm Male	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.05dB	<±2.0°
NAC7665CL1	NMD3.5mm Male	N Female	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC7665AL1	NMD3.5mm Male	N Male	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC7635AL1	NMD3.5mm Male	7mm Sexless	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°

**N Type Series**

P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC6566BL1	N Female	3.5mm Female	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC6566DL1	N Female	3.5mm Male	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC6565BL1	N Female	N Female	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC6535BL1	N Female	7mm Sexless	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC6566CL1	N Male	3.5mm Female	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC6566AL1	N Male	3.5mm Male	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC6535AL1	N Male	7mm Sexless	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°

**7mm Series**

P/N	Connector 1	Connector 2	Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NAC3566BL1	7mm Sexless	3.5mm Female	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°
NAC3566AL1	7mm Sexless	3.5mm Male	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.05dB	<±1.5°

\* Available with different lengths upon request.

## NBC Series — Economy VNA Test Assemblies



NBC series cable assemblies possess good microwave electrical performance and phase and amplitude stability. The flexible and lighter structure makes the testing more efficient. The patented design provide stable performance in laboratory and production applications.

Connector Materials	
Body	Stainless Steel, Passivated
Center Conductor	Au-plated Beryllium Copper
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
Environmental data	
Operating Temperature	0°C~+40°C
Storage Temperature	-40°C~+75°C

### NBC Series Selection Matrix

Connector1 Connector2	NMD2.4mm female	NMD2.92mm female	NMD3.5mm female
2.4mm	√	√	
2.92mm	√	√	
3.5mm			√
N			√
7mm			√

## NBC Series

NMD2.4mm Series										
P/N	Connector 1		Connector 2		Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NBC7868BL1	NMD2.4mm	Female	2.4mm	Female	63cm	DC~50GHz	1.35:1(max)	<2.65dB	<±0.1dB	<±5.5°
NBC7868DL1	NMD2.4mm	Female	2.4mm	Male	63cm	DC~50GHz	1.35:1(max)	<2.65dB	<±0.1dB	<±5.5°
NBC7868BL1-G7	NMD2.4mm	Female	2.4mm	Female	63cm	DC~40GHz	1.30:1(max)	<1.98dB	<±0.1dB	<±4.5°
NBC7868DL1-G7	NMD2.4mm	Female	2.4mm	Male	63cm	DC~40GHz	1.30:1(max)	<1.98dB	<±0.1dB	<±4.5°
NBC7867BL1	NMD2.4mm	Female	2.92mm	Female	63cm	DC~40GHz	1.30:1(max)	<1.98dB	<±0.1dB	<±4.5°
NBC7867DL1	NMD2.4mm	Female	2.92mm	Male	63cm	DC~40GHz	1.30:1(max)	<1.98dB	<±0.1dB	<±4.5°
NMD2.92mm Series										
P/N	Connector 1		Connector 2		Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NBC3768BL1	NDM2.92mm	Female	2.4mm	Female	63cm	DC~40GHz	1.30:1(max)	<1.98dB	<±0.1dB	<±4.5°
NBC3768DL1	NDM2.92mm	Female	2.4mm	Male	63cm	DC~40GHz	1.30:1(max)	<1.98dB	<±0.1dB	<±4.5°
NBC3767BL1	NDM2.92mm	Female	2.92mm	Female	63cm	DC~40GHz	1.30:1(max)	<1.98dB	<±0.1dB	<±4.5°
NBC3767DL1	NDM2.92mm	Female	2.92mm	Male	63cm	DC~40GHz	1.30:1(max)	<1.98dB	<±0.1dB	<±4.5°
NMD3.5mm Series										
P/N	Connector 1		Connector 2		Length	Frequency	VSWR	IL	Amplitude Stability	Phase Stability
NBC7666BL1	NMD3.5mm	Female	3.5mm	Female	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.1dB	<±4°
NBC7666DL1	NMD3.5mm	Female	3.5mm	Male	63cm	DC~26.5GHz	1.25:1(max)	<1.8dB	<±0.1dB	<±4°
NBC7665BL1	NMD3.5mm	Female	N	Female	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.1dB	<±3.5°
NBC7665DL1	NMD3.5mm	Female	N	Male	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.1dB	<±3.5°
NBC7635BL1	NMD3.5mm	Female	7mm	Sexless	63cm	DC~18GHz	1.20:1(max)	<1.5dB	<±0.1dB	<±3.5°

\* Available with different lengths upon request.