VC SERIES

MECHANC

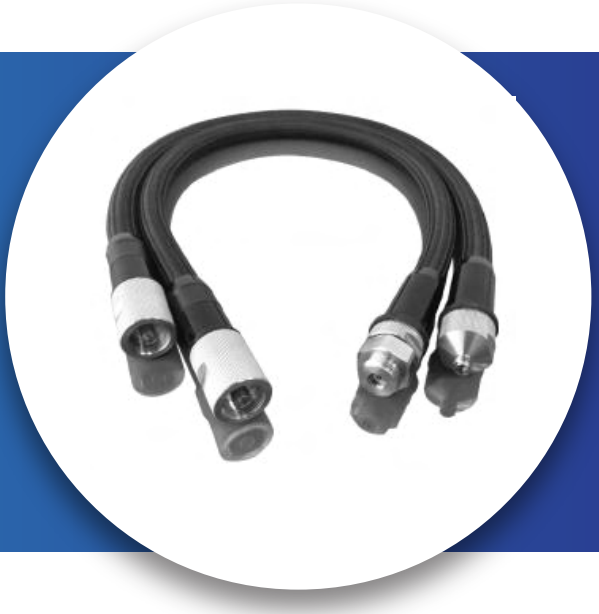
High Performance VNA Test & Measurement NMD Cable Assemblies

FEATURES

- Excellent VSWR and Insertion Loss
- Excellent Amplitude and Phase stability with flexure
- Ruggedized armor provides excellent crush resistance
- Extremely long service life
- Reinforced connector
- Customized length and configuration

MAIN APPLICATIONS

- Vector Network Analyzer Test port
- Lab and Production testing
- Precise Bench top testing



CABLE SPECIFICATION

CABLE ASSEMBLY SERIES	VC185	VC24	VC292	VC35
Maximum Frequency (GHz)	67	50	40	26.5
Impedance (Ohms)	50	50	50	50
VSWR (Typical)	1.25	1.2	1.15	1.15
VSWR (Maximum)	1.35	1.3	1.25	1.2
Insertion Loss*	5.93*L+0.6	3.29*L+0.5	2.92*L+0.4	2.35*L+0.35
Phase Stability (°, Typical)	±4	±3	±3	±2
Amplitude Stability (dB, Typical)	±0.08	±0.05	±0.05	±0.05
Velocity of Propagation	81%	75%	75%	75%
Shielding Effectiveness (dB)	>100	>100	>100	>100
Mating Cycles (Typical)	5000	10000	20000	50000
Cable Bending Life (Typical)	20000	100000	100000	100000
Crush Resistance	145 kgf/cm	145 kgf/cm	145 kgf/cm	145 kgf/cm
Cable Outer Diameter (mm)	15.5	15.5	15.5	15.5
Dynamic Bending Radius (mm)	55	55	55	55
Operating Temperature (°C)	0～+28	0～+28	0～+28	0～+28

NOTES

- The electrical specifications provided above are based on tests conducted at the maximum frequency using cable assemblies paired with straight connectors.
- *Insertion Loss depends on the length of the cable assembly (L stands for the length of the cable assembly using meter as a unit).
- Cable assemblis are available in standard lengths of 25 in (0.64 m), 36 in (0.92 m) , 48 in (1.22 m) or customized.

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TC SERIES

MECHANC

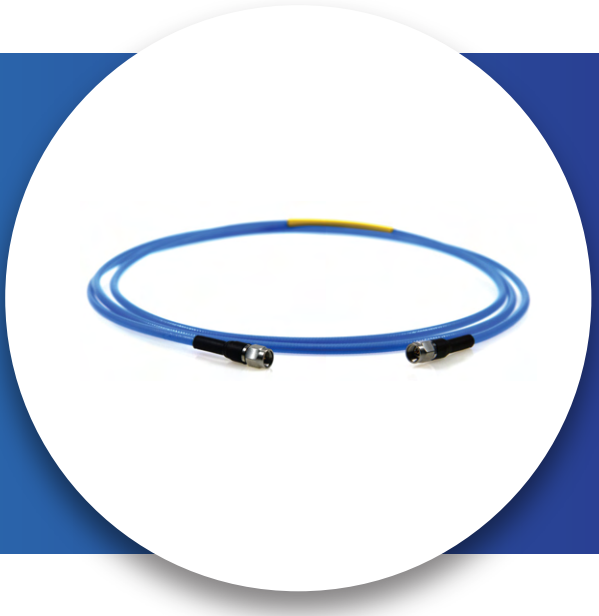
Standard Phase & Amplitude Stable Test & Measurement Cable Assemblies

FEATURES

- Excellent VSWR and Insertion Loss
- Excellent Amplitude and Phase stability
- Competitive price
- Excellent flexibility
- Multiple connector choice
- Customized length and configuration

MAIN APPLICATIONS

- Lab and Production testing
- System interconnection



CABLE SPECIFICATION

CABLE ASSEMBLY SERIES		TC185	TC24	TCA292	TCB292	TCA35	TCB35	TCN
Maximum Frequency (GHz)		67	67	67	67	67	67	67
Impedance (Ohms)		50						
VSWR		1.25	1.2	1.15	1.15	1.15	1.15	1.15
Insertion Loss*	3 GHz	1.12*L+0.1	0.77*L+0.1	0.69*L+0.1	0.77*L+0.1	0.48*L+0.1	0.77*L+0.1	0.48*L+0.1
	10 GHz	2.1*L+0.2	1.42*L+0.2	1.28*L+0.2	1.42*L+0.2	0.92*L+0.2	1.42*L+0.2	0.92*L+0.2
	18 GHz	2.88*L+0.25	1.92*L+0.25	1.74*L+0.25	1.92*L+0.25	1.28*L+0.25	1.92*L+0.25	1.28*L+0.25
	26.5 GHz	3.54*L+0.35	2.35*L+0.35	2.13*L+0.35	2.35*L+0.35	1.59*L+0.35	2.35*L+0.35	
	40 GHz	4.44*L+0.4	2.92*L+0.4	2.65*L+0.4	2.92*L+0.4			
	50 GHz	5.03*L+0.5	3.29*L+0.5					
	67 GHz	5.93*L+0.6						
Phase Stability (°, Typical)		±10	±7	±5	±5	±4	±3	±3
Amplitude Stability (dB, Typical)		±0.1	±0.1	±0.1	±0.1	±0.07	±0.05	±0.05
Velocity of Propagation		81%	75%	81%	75%	81%	75%	81%
Shielding Effectiveness (dB)		>90						
Cable Outer Diameter (mm)		2.4	3.6	4.2	3.6	5.1	3.6	5.1
Static Bending Radius (mm)		12	18	21	18	25	18	25
Dynamic Bending Radius (mm)		24	36	42	36	50	36	50
Operating Temperature (℃)		-55~+165						

NOTES

- The electrical specifications provided above are based on tests conducted at the maximum frequency using cable assemblies paired with straight connectors.
- *Insertion Loss depends on the length of the cable assembly (L is the length of the cable assembly, Unit：m (Meter)).
- Cable assemblies can be matched in phase, delay, and amplitude.

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PC SERIES

MECHANC

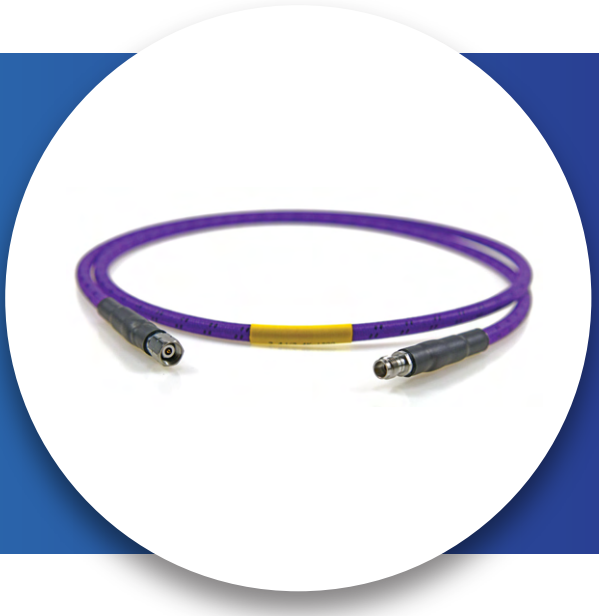
High Performance Phase & Amplitude Stable Test & Measurement Cable Assemblies

FEATURES

- Excellent VSWR and Insertion Loss
- Excellent Amplitude and Phase stability
- Ruggedized armor provides excellent crush resistance
- Extremely long service life
- Reinforced connectors
- Customized length and configuration

MAIN APPLICATIONS

- Vector Network Analyzer test port
- Lab and Production testing
- Precise Bench top testing



CABLE SPECIFICATION

CABLE ASSEMBLY SERIES	PC10	PC185	PC24	PCA292	PCB292	PCA35	PCB35	PCN
Maximum Frequency (GHz)	110	67	50	40	40	26.5	26.5	18
Impedance (Ohms)	50							
VSWR (Typical)	1.3	1.25	1.2	1.2	1.15	1.2	1.15	1.15
VSWR (Maximum)	1.5	1.35	1.3	1.3	1.25	1.25	1.2	1.2
Insertion Loss*	15.96*L+1.0	5.93*L+0.6	3.29*L+0.5	2.71*L+0.4	2.92*L+0.4	1.59*L+0.35	2.35*L+0.35	1.28*L+0.2
Phase Stability (°, Typical)	±10	±7	±5	±4	±3	±3	±3	±2
Amplitude Stability (dB, Typical)	±0.1	±0.08	±0.05	±0.05	±0.05	±0.05	±0.05	±0.03
Velocity of Propagation	80%	81%	74%	81%	74%	82%	74%	82%
Shielding Effectiveness (dB)	>100							
Mating Cycles (Typical)	1000	5000	10000	20000	20000	50000	50000	50000
Cable Outer Diameter (mm)	3000	20000	100000	100000	100000	100000	100000	100000
Crush Resistance	45 kgf/cm							
Cable Outer Diameter (mm)	4.3	6.1	6.1	6.7	6.1	8.3	6.1	8.3
Dynamic Bending Radius (mm)	30	36	36	60	36	80	36	80
Operating Temperature (℃)	-55～+125	-55～+165						

NOTES

- The electrical specifications provided above are based on tests conducted at the maximum frequency using cable assemblies paired with straight connectors.
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- Cable assemblies can be matched in phase, delay, and amplitude.

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IFC SERIES

MECHANC

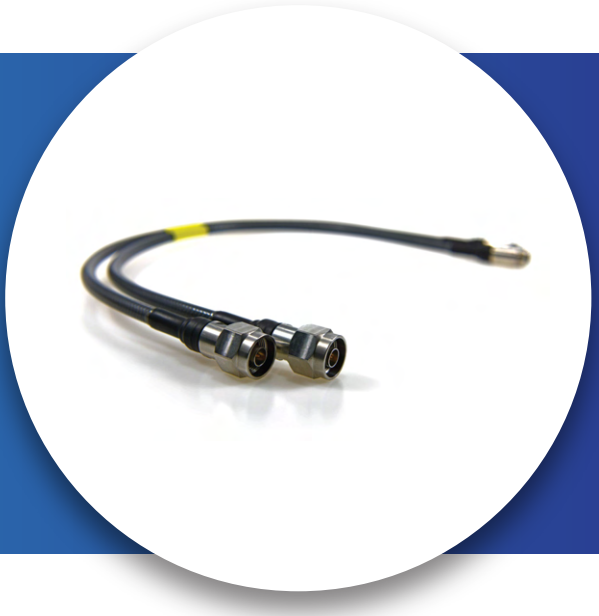
Ultra-low loss Phase & Amplitude Stable Installation & Interconnection Cable Assemblies

FEATURES

- Low VSWR
- Ultra-low Insertion Loss
- Phase and Amplitude stable
- Wide range of Cable and Connector options
- Customized length and configuration

MAIN APPLICATIONS

- System Interconnections
- Communication Systems
- Avionics
- Radars



CABLE SPECIFICATION

CABLE ASSEMBLY SERIES		IFC10	IFC185	IFC24	IFCA292	IFCB292	IFCC292	IFC35	IFCSMA	IFCAN	IFCBN	IFCCN
Maximum Frequency (GHz)		110	67	50	40	40	40	32	26.5	18	18	18
Impedance (Ohms)		50										
VSWR		1.4	1.3	1.25	1.25	1.25	1.2	1.2	1.15	1.2	1.15	1.2
Insertion Loss*	3 GHz	1.99*L+0.2	1.12*L+0.1	0.82*L+0.1	0.53*L+0.1	0.58*L+0.1	0.66*L+0.1	0.421*L+0.1	0.41*L+0.1	0.24*L+0.1	0.26*L+0.1	0.39*L+0.1
	10 GHz	3.73*L+0.3	2.1*L+0.2	1.53*L+0.2	0.98*L+0.2	1.07*L+0.2	1.23*L+0.2	0.783*L+0.2	0.77*L+0.2	0.44*L+0.2	0.49*L+0.2	0.71*L+0.2
	18 GHz	4.99*L+0.35	2.88*L+0.25	2.08*L+0.25	1.34*L+0.25	1.45*L+0.25	1.67*L+0.25	1.066*L+0.25	1.04*L+0.25	0.61*L+0.25	0.67*L+0.25	0.96*L+0.25
	26.5 GHz	6.12*L+0.45	3.54*L+0.35	2.56*L+0.35	1.65*L+0.35	1.77*L+0.35	2.05*L+0.35	1.308*L+0.35	1.28*L+0.35			
	40 GHz	7.61*L+0.55	4.44*L+0.4	3.19*L+0.4	2.07*L+0.4	2.18*L+0.4	2.56*L+0.4					
	50 GHz	8.57*L+0.65	5.03*L+0.4	3.6*L+0.5								
	67 GHz	10.03*L+0.8	5.93*L+0.4									
	75 GHz	10.66*L+0.9										
	110 GHz	13.14*L+1.1										
Phase Stability (°, Typical)		±13	±10	±8	±6	±6	±6	±4	±4	±2	±2	±3
Amplitude Stability (dB, Typical)		±0.2	±0.15	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.07	±0.07	±0.1
Velocity of Propagation		80%	82%	82%	82%	82%	82%	83%	83%	83%	83%	83%
Velocity of Propagation (dB)		>90										
Cable Outer Diameter (mm)		1.85	2.2	3.1	3.9	4.0	3.6	4.8	5.2	8.3	7.9	5.6
Static Bending Radius (mm)		10	11	15	20	20	18	24	26	41	39	28
Dynamic Bending Radius (mm)		20	22	31	40	40	36	48	52	83	79	56
Operating Temperature (℃)		-55～+125	-55～+165									

NOTES

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