Cable Assemblies

DynaTest®

Repeatable Precision Measurements

Capablities

- Broadband performance up to 40 GHz
- Repeatable, phase stable performance
- Low insertion loss
- VSWR 100% RF tested
- Stainless steel connectors
- Hex/knurl coupling nuts facilitate quick mating
- Excellent strain relief at cable-connector junction

DynaTest® series cable assemblies are designed to deliver repeatable, precise measurements while lowering your overall total cost. These assemblies offer exceptionally low VSWR and insertion loss characteristics across a broad frequency range. This allows a single cable assembly to be used for the maximum number of measurement requirements.

These assemblies are highly flexible yet maintain phase stability to ensure repeatability without recalibration. DynaTest® assemblies provide unique, high-value features not commonly found on other production test cables. The ruggedized mechanical design and high flexibility of these assemblies offer greater ease of use for test technicians and ensure long service life for your test application.

Whether you seek a standard solution or custom-designed innovation, all products undergo functional performance verification through our fully automated, software-controlled, and networked test stations.

Winchester Interconnect

www.winconn.com

STANDARD DYNATEST ASSEMBLIES

DynaTest cable assemblies are available in four standard connector combinations and lengths for rapid availability and ease of ordering.

Winchester Interconnect

STANDARD

SPECIFICATIONS

Impedance	50 Ohms
Temperature Range	-45°C to +80°C
Velocity of Propagation	76-80%
Outer Cable Diameter (incl. sleeve)	0.24 inch (6.10 mm)
Minimum Bend Radius	1.25 inch (31.70 mm)
Flexure Life (5x min. bend radius)	> 25,000
Recommended Mating Torque SMA/2.92 mm N	 9 in-lbs (1.0 Nm) 23 in-lbs (2.6 Nm)

MATERIAL AND FINISH

Cable Jacket	Polyurethane
Outer Cable Abrasion Sleeve	Polyester
Cable Dielectric	Fluoroplastic
Cable Center Conductor	Copper, Silver-plated
Taper Sleeves	PVC, black
Connector Housing	Stainless steel, electro-polished
Connector Dielectric	PTFE
Connector Contacts	BeCu, gold-plated

PHASE STABILITY V. FLEXURE

1 GHz	1.0°
3 GHz	1.2°
6 GHz	1.4°
12 GHz	1.9°
18 GHz	2.3°
26.5 GHz	3.0°
40 GHz	5.2°

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VSWR AND INSERTION LOSS SPECIFICATIONS

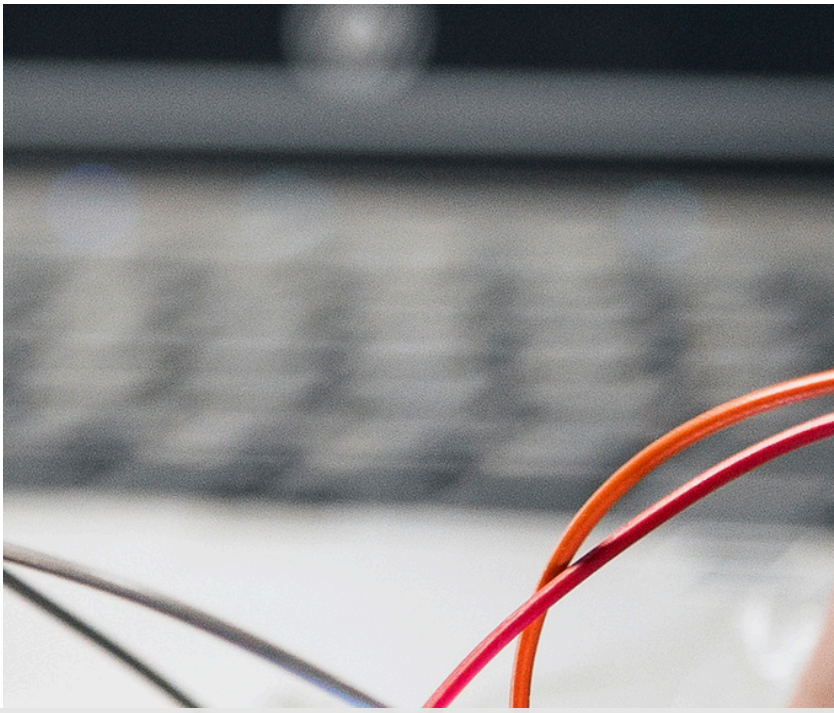
	N (m) to N (m)			N (m) to SMA (m)		
	DT-NN-024	*DT-NN-036*	*DT-NN-048*	*DT-NN-024*	*DT-NN-036*	*DT-NN-048*
Operating Frequency	18 GHz	18 GHz	18 GHz	18 GHz	18 GHz	18 GHz
VSWR (max)						
DC–18 GHz	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1
18–26.5 GHz	–	–	–	–	–	–
26.5–40 GHz	–	–	–	–	–	–
Intersection Loss (max @ 25°C)						
1 GHz	0.40 dB	0.50 dB	0.60 dB	0.40 dB	0.50 dB	0.60 dB
3 GHz	0.60 dB	0.80 dB	1.00 dB	0.60 dB	0.80 dB	1.00 dB
6 GHz	0.80 dB	1.10 dB	1.40 dB	0.80 dB	1.10 dB	1.40 dB
12 GHz	1.20 dB	1.60 dB	2.00 dB	1.20 dB	1.60 dB	2.00 dB
18 GHz	1.50 dB	2.00 dB	2.60 dB	1.50 dB	2.00 dB	2.60 dB
26.5 GHz	–	–	–	–	–	–
40 GHz	–	–	–	–	–	–

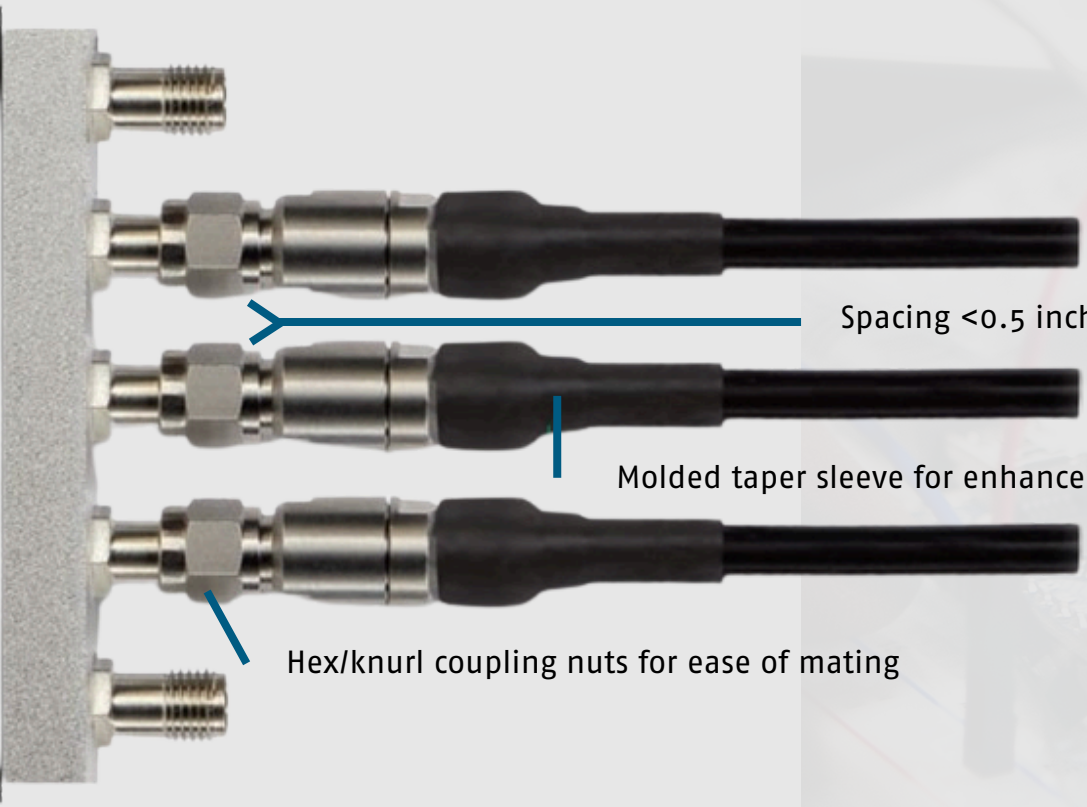
	SMA (m) to SMA (m)			2.92 mm (m) to 2.92 mm (m)		
	DT-SS-024	*DT-SS-036*	*DT-SS-048*	*DT-KK-024*	*DT-KK-036*	*DT-KK-048*
Operating Frequency	26.5 GHz	26.5 GHz	26.5 GHz	40 GHz	40 GHz	40 GHz
VSWR (max)						
DC–18 GHz	1.25:1	1.25:1	1.25:1	–	–	–
18–26.5 GHz	1.30:1	1.30:1	1.30:1	–	–	–
26.5–40 GHz	–	–	–	1.50:1	1.50:1	1.50:1
Intersection Loss (max @ 25°C)						
1 GHz	0.40 dB	0.50 dB	0.60 dB	0.63 dB	0.82 dB	1.01 dB
3 GHz	0.60 dB	0.80 dB	1.00 dB	0.94 dB	1.28 dB	1.61 dB
6 GHz	0.80 dB	1.10 dB	1.40 dB	1.27 dB	1.75 dB	2.24 dB
12 GHz	1.20 dB	1.60 dB	2.00 dB	1.77 dB	2.48 dB	3.20 dB
18 GHz	1.50 dB	2.00 dB	2.60 dB	2.18 dB	3.08 dB	3.98 dB
26.5 GHz	2.00 dB	2.70 dB	3.40 dB	2.70 dB	3.82 dB	4.94 dB
40 GHz	–	–	–	3.42 dB	4.85 dB	6.27 dB

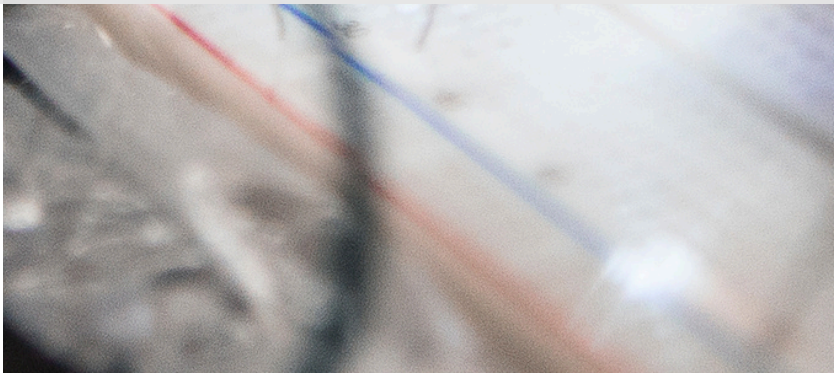
Winchester Interconnect

DYNATEST HD ASSEMBLIES

DynaTest HD Cable assemblies are available in two standard connector combinations and lengths for rapid availability and ease of ordering.







Winchester Interconnect

SPECIFICATIONS

Impedance	50 Ohms
Temperature Range	-45°C to +85°C
Velocity of Propagation	76-80%
Outer Cable Diameter (incl. sleeve)	0.24 inch (6.10 mm)
Minimum Bend Radius	1.25 inch (31.70 mm)
Flexure Life (5x min. bend radius)	> 25,000
Recommended Mating Torque SMA/2.92 mm N	 9 in-lbs (1.0 Nm) 23 in-lbs (2.6 Nm)

MATERIAL AND FINISH

Cable Jacket	Polyurethane
Cable Dielectric	Fluoroplastic
Cable Center Conductor	Copper, Silver-plated
Sleeves	Polyolefin, black
Connector Housing	Stainless steel, electro-polished
Connector Dielectric	PTFE
Connector Contacts	BeCu, gold-plated

PHASE STABILITY V. FLEXURE

1 GHz	1.0°
3 GHz	1.2°
6 GHz	1.4°
12 GHz	1.9°
18 GHz	2.3°
26.5 GHz	3.0°
40 GHz	5.2°

Winchester Interconnect

VSWR AND INSERTION LOSS SPECIFICATIONS

	SMA (m) to SMA (m)			2.92 mm (m) to 2.92 mm (m)		
	DTHD-SS-024	*DTHD-SS-036*	*DTHD-SS-048*	*DTHD-KK-024*	*DTHD-KK-036*	*DTHD-KK-048*
Operating Frequency	26.5 GHz	26.5 GHz	26.5 GHz	40 GHz	40 GHz	40 GHz
VSWR (max)						
DC–18 GHz	1.25:1	1.25:1	1.25:1	1.25:1	1.25:1	1.25:1
18–26.5 GHz	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1
26.5–40 GHz	–	–	–	1.50:1	1.50:1	1.50:1
Intersection Loss (max @ 25°C)						
1 GHz	0.51 dB	0.70 dB	0.89 dB	0.51 dB	0.70 dB	0.89 dB
3 GHz	0.82 dB	1.16 dB	1.50 dB	0.82 dB	1.16 dB	1.50 dB
6 GHz	1.15 dB	1.64 dB	2.13 dB	1.15 dB	1.64 dB	2.13 dB
12 GHz	1.65 dB	2.37 dB	3.08 dB	1.65 dB	2.37 dB	3.08 dB
18 GHz	2.07 dB	2.97 dB	3.86 dB	2.07 dB	2.97 dB	3.86 dB
26.5 GHz	2.58 dB	3.70 dB	4.82 dB	2.58 dB	3.70 dB	4.82 dB
40 GHz	–	–	–	3.42 dB	4.85 dB	6.27 dB

About Winchester Interconnect

Winchester Interconnect is a US-based manufacturer of high-precision connectors, cable assemblies, and cable. Our products are ideal for military and aerospace, industrial, medical, and space applications where expertise and reliability are critical to your success.

Our 30,000+ connectivity solutions include standard and custom RF and microwave interconnects, hermetic connectors and packaging, micro-miniature connectors and assemblies, fiber optic connectors, industrial cable, and undersea cable

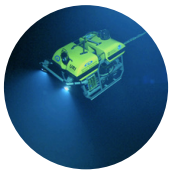
We work in the toughest industries where failure is not an option.For connectivity applications requiring high performance in harsh environments, life-saving systems, and the latest connected technologies, our industry-leading knowledge and engineering capabilities will ensure reliable, cutting-edge interconnect solutions that won't fail when it matters most.

Our Industries & Market Solutions

Robotics
AMRs

Entertainment

Oil & Gas



Marine
Subsea

Aerospace
Defense

Rail Mass
Transit

Medical

Custom

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