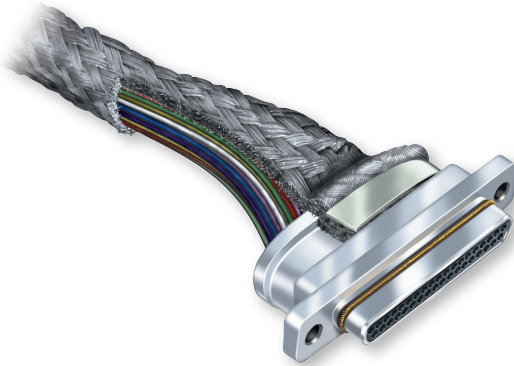




## MWDM Micro-D Shielded Cable Assembly



**Single-Ended or Double-Ended**—These easy-to-order cable assemblies eliminate the need for expensive assembly labor. 100% tested and ready for use.

**Now With Twisted Pairs**—No need to create a procurement specification for Micro-D cables with twisted pairs. Glenair 177-740 cables are furnished with a full complement of white/blue twisted pair wires.

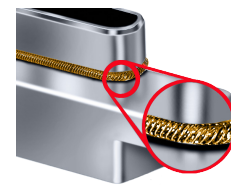
**Integral Shield Termination**—The connector shell has a platform to accept Band-It shield termination bands. The cable shield braid is attached directly to the connector.

## Save Labor, Reduce Weight and Improve EMI Shielding with Glenair's Micro-D Shielded Cable Assemblies

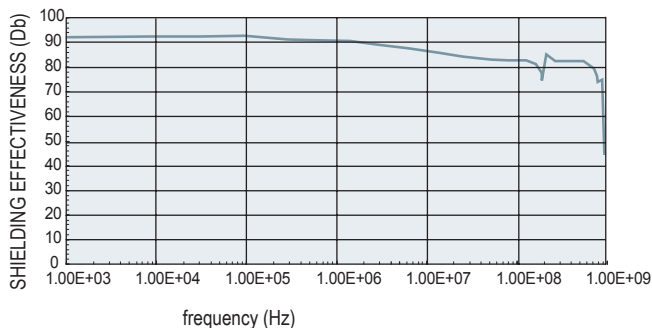
Aerospace electronics systems require higher and higher levels of protection from radiated emissions. Glenair's fully shielded Micro-D cable assemblies meet this need. The cable shield is attached directly onto the one-piece connector shell and secured with a stainless steel Band-Master™ ATS clamp. These pre-wired, 100% tested assemblies meet the requirements of MIL-DTL-83513. An optional ground spring on the pin connector assures low shell-to-shell resistance. Available with a variety of wire types and shields, Micro-D shielded assemblies can be ordered in any length, either single-ended or "back-to-back".

### Ground Spring and EMI Shielding Effectiveness

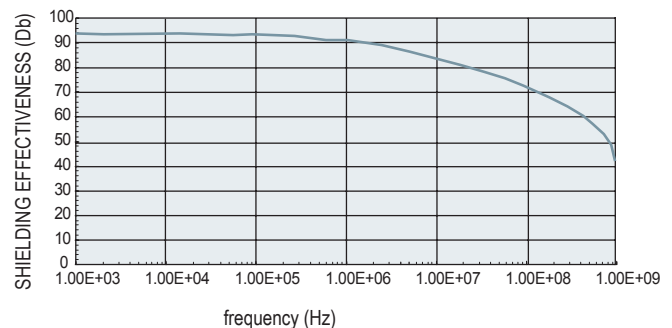
A gold-plated stainless steel ground spring on the pin connector mating face offers substantial improvement in EMI protection. The graphs compare identical connectors tested with and without ground springs.



EMI Performance with Ground Spring



EMI Performance without Ground Spring



# MWDM Micro-D Shielded Cable Assembly

177-710 (Untwisted Wire) and 177-740 (Twisted Wire Pairs)



### How To Order Shielded Micro-D Cable Assemblies

<b>Sample Part Number</b>	<b>177-710</b> -2 -25 P 4 K 1 -18 M A G
<b>Series</b>	<b>177-710</b> - Untwisted Wire <b>177-740</b> - Twisted Pair Wire
<b>Shell Material and Finish</b>	Aluminum Shell 1 - Cadmium 2 - Electroless Nickel 5 - Gold 33 - Nickel-PTFE
<b>Contact Layout</b>	9, 15, 21, 25, 31, 37, 51, 51-2, 67, 69, 75, 100, 130
<b>Contact Type</b>	P - Pin (Single End Plug) S - Socket (Single End Receptacle) GP - Double End Cable, Pin Connectors Both Ends GS - Double End Cable, Socket connectors Both Ends CS - Double End Cable, Pin and Socket
<b>Wire Gage (AWG)</b>	4 - #24 6 - #26 8 - #28 0 - #30 (J wire type only)
<b>Wire Type</b>	K - Fluoropolymer Wire Per MIL-W-22759/11 (Not available in #30 gage) J - Cross-Linked Tefzel® Wire Per MIL-W-22759/33
<b>Wire Color</b>	1 - White (177-710 only) or White/Blue Twisted Pairs (177-740 Only) 5 - Color-Coded Per MIL-STD-681, #24 and #26 gage only with up to 51 colors (177-710 only) White/Blue Twisted Pairs (177-740 only) 7 - Ten Color Repeating (177-710 only)
<b>Overall Length (In.)</b>	Example "18" = 18 inches 6 Inch (152 mm.) Minimum
<b>Mounting Hardware</b>	B - No Mounting Hardware Installed F - Float Mount, for Front Panel L - Male Jackscrew, Allen Head, Non-Removable M - Male Jackscrew, Allen Head, Low Profile Mounting P - Female Jackpost R - Float Mount, for Rear Panel Mounting S - Male Jackscrew, Slot Head, Low Profile
<b>Shield and Jacket Option</b>	N - No Shield, No Jacket A - Braided Shield Installed (Nickel over Copper) C - Braided Shield Installed (Nickel over Copper) With E-CTFE Halar "Expando" Jacket (+150° C.) D - No Shield, With E-CTFE Halar "Expando" Jacket Installed (+150° C.) S - 100% Braided AmberStrand® Shield Installed T - 100% Braided AmberStrand® Shield Installed with E-CTFE Halar "Expando" Jacket (+150° C.) V - 75% Braided AmberStrand® Shield Installed Z - 75% Braided AmberStrand® Shield Installed with E-CTFE Halar "Expando" Jacket (+150° C.) W - ArmorLite™ Braided Microfilament Stainless Steel Shield Installed X - ArmorLite™ Braided Microfilament Stainless Steel Shield Installed with E-CTFE Halar "Expando" Jacket (+150° C.)
<b>Ground Spring Option*</b>	N - No Ground Spring G - Ground Spring Installed (Pin Connectors Only)

\*Ground spring cannot be used with cadmium plating

Table I: Mounting Hardware

B	P	M	S	L	F	R
Through-Hole, No Mounting Hardware	Female Jackpost	Hex Head Jackscrew	Slot Head Jackscrew	Hex Head Jackscrew Non-Removable	Float Mount for Front Panel Mounting	Float Mount for Rear Panel Mounting



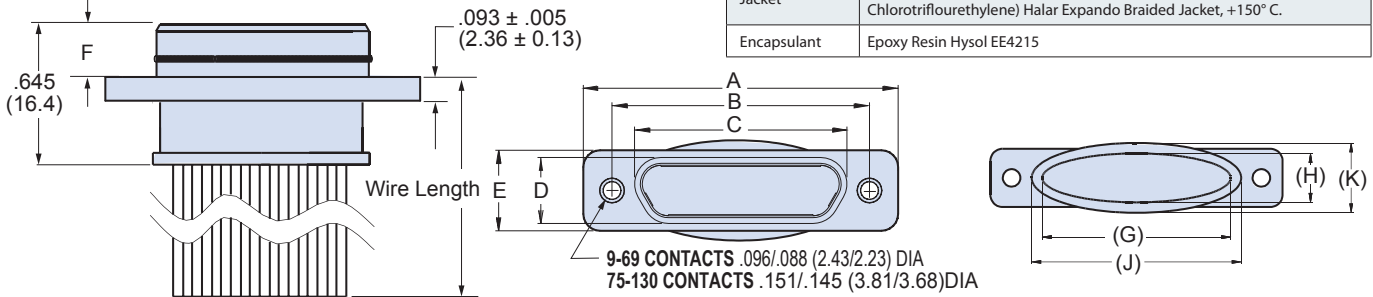
# MWDM Micro-D Shielded Cable Assembly

177-710 (Untwisted Wire) and 177-740 (Twisted Wire Pairs)

B

Performance Specifications	
Current Rating	3 AMP
Dielectric Withstanding Voltage	600 VAC Sea Level
Voltage	150 VAC 70,000 Feet
Insulation Resistance	5000 Megohms Minimum
Contact Resistance	8 Milliohms Maximum
Low Level Contact Resistance	32 Milliohms Maximum
Magnetic Permeability	2 μ Maximum
Operating Temperature	-55° C. to +150° C.
Shock	50 g.
Vibration	20 g.
Outgassing	Meets NASA Outgassing Requirements
Mating Force	(10 Ounces) X (# of Contacts)
EMI Shielding Effectiveness	50 dB Attenuation, 100 MHz to 1000 MHz

For additional performance requirements, please refer to MIL-DTL-83513



Materials and Finishes	
Connector Shell	Plating Code 1: Cadmium With Yellow Chromate Plating Code 2: Electroless Nickel, Plating Code 5: Gold
Insulator	Liquid Crystal Polymer (LCP)/Polyphenylene Sulfide (PPS)
Interfacial Seal	Fluorosilicone Rubber, Blue
Pin Contact	Copper Alloy With 50 Microinches Gold over Nickel Plating
Socket Contact	Copper Alloy With 50 Microinches Gold Over Nickel Plating
Shield Braid	#36 AWG Nickel-Coated Copper per ASTM B355 Class 4 OFHC 100% AmberStrand® EMI/RFI Conductive Composite Thermoplastic Braided Shielding 75% AmberStrand® Conductive Composite Thermoplastic EMI/RFI Shielding Blended with 25% NiCu EMI/RFI Braided Shielding ArmorLite™ Lightweight Stainless Steel EMI/RFI Shielding
Wire	Type K: per MIL-W-22759/11. Silver-Plated Copper Conductor, Extruded TFE fluoropolymer Insulation Type J: per MIL-W-22759/33. Silver-Plated Copper Conductor, Extruded Crosslinked Tefzel® Insulation
Hardware	.300 Series Stainless Steel
Jacket	Type B: PET Expando Braided Jacket, +125° C. Type C: E-CTFE (Ethylene-Chlorotrifluorethylene) Halar Expando Braided Jacket, +150° C.
Encapsulant	Epoxy Resin Hysol EE4215

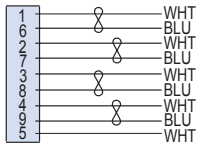
Table II: Dimensions

Layout	A Max.		B		C Max.		D Max.		E Max.		F		(G)		(H)		(J)		(K)	
	In.	mm.	In. ±.003	mm. ±0.08	In.	mm.	In.	mm.	In.	mm.	In. ±.003	mm. ±0.08	In.	mm.	In.	mm.	In.	mm.	In.	mm.
9P	.785	19.93	.565	14.35	.333	8.46	.184	4.67	.310	7.87	.183	4.65	.340	8.64	.214	5.44	.450	11.43	.324	8.23
9S	.785	19.93	.565	14.35	.400	10.16	.250	6.35	.310	7.87	.195	4.95	.340	8.64	.214	5.44	.450	11.43	.324	8.23
15P	.935	23.70	.715	18.16	.483	12.27	.184	4.67	.310	7.87	.183	4.65	.490	12.45	.214	5.44	.600	15.24	.324	8.23
15S	.935	23.70	.715	18.16	.551	14.00	.250	6.35	.310	7.87	.195	4.95	.490	12.45	.214	5.44	.600	15.24	.324	8.23
21P	1.085	27.56	.865	21.97	.633	16.08	.184	4.67	.310	7.87	.183	4.65	.640	16.26	.214	5.44	.750	19.05	.324	8.23
21S	1.085	27.56	.865	21.97	.701	17.81	.250	6.35	.310	7.87	.195	4.95	.640	16.26	.214	5.44	.750	19.05	.324	8.23
25P	1.185	30.10	.965	24.51	.733	18.62	.184	4.67	.310	7.87	.183	4.65	.740	18.80	.214	5.44	.850	21.59	.324	8.23
25S	1.185	30.10	.965	24.51	.801	20.35	.250	6.35	.310	7.87	.195	4.95	.740	18.80	.214	5.44	.850	21.59	.324	8.23
31P	1.335	33.91	1.115	28.32	.883	22.43	.184	4.67	.310	7.87	.183	4.65	.890	22.61	.214	5.44	1.000	25.40	.324	8.23
31S	1.335	33.91	1.115	28.32	.951	24.16	.250	6.35	.310	7.87	.195	4.95	.890	22.61	.214	5.44	1.000	25.40	.324	8.23
37P	1.485	37.72	1.265	32.13	1.033	26.24	.184	4.67	.310	7.87	.183	4.65	1.040	26.42	.214	5.44	1.150	29.21	.324	8.23
37S	1.485	37.72	1.265	32.13	1.101	27.97	.250	6.35	.310	7.87	.195	4.95	1.040	26.42	.214	5.44	1.150	29.21	.324	8.23
51P	1.435	36.45	1.215	30.86	.983	24.97	.228	5.79	.351	8.92	.183	4.65	.990	25.15	.257	6.53	1.100	27.94	.367	9.32
51S	1.435	36.45	1.215	30.86	1.051	26.70	.296	7.52	.351	8.92	.195	4.95	.990	25.15	.257	6.53	1.100	27.94	.367	9.32
51-2P	1.835	46.61	1.615	41.02	1.384	35.15	.184	4.67	.310	7.87	.183	4.65	1.390	35.31	.214	5.44	1.460	37.08	.324	8.23
51-2S	1.835	46.61	1.615	41.02	1.450	36.83	.250	6.35	.310	7.87	.195	4.95	1.390	35.31	.214	5.44	1.460	37.08	.324	8.23
67P	2.235	56.77	2.015	51.18	1.784	45.31	.184	4.67	.310	7.87	.183	4.65	1.790	45.47	.214	5.44	1.900	48.26	.324	8.23
67S	2.235	56.77	2.015	51.18	1.850	46.99	.250	6.35	.310	7.87	.195	4.95	1.790	45.47	.214	5.44	1.900	48.26	.324	8.23
69P	1.735	44.07	1.515	38.48	1.284	32.61	.228	5.79	.351	8.92	.183	4.65	1.290	32.77	.257	6.53	1.400	35.56	.367	9.32
69S	1.735	44.07	1.515	38.48	1.350	34.29	.296	7.52	.351	8.92	.195	4.95	1.290	32.77	.257	6.53	1.400	35.56	.367	9.32
75P	2.080	52.83	1.705	43.30	1.384	35.15	.224	5.69	.351	8.92	.183	4.65	1.390	35.31	.257	6.53	1.500	38.10	.367	9.32
75S	2.080	52.83	1.705	43.30	1.450	36.83	.293	7.44	.351	8.92	.195	4.95	1.390	35.31	.257	6.53	1.500	38.10	.367	9.32
100P	2.170	54.86	1.800	45.72	1.383	35.13	.270	6.86	.394	10.01	.183	4.65	1.385	35.18	.307	7.80	1.495	38.00	.417	10.59
100S	2.170	54.86	1.800	45.72	1.451	36.86	.333	8.46	.394	10.01	.195	4.95	1.385	35.18	.307	7.80	1.495	38.00	.417	10.59
130P	2.520	64.00	2.160	54.86	1.735	45.59	.270	6.86	.394	10.00	.183	4.65	1.712	43.48	.307	7.80	1.822	46.28	.417	10.59
130S	2.520	64.00	2.160	54.86	1.795	45.59	.333	8.46	.394	10.00	.195	4.95	1.712	43.48	.307	7.80	1.822	46.28	.417	10.59

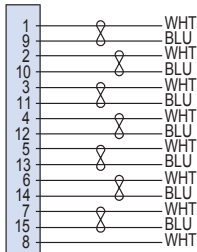
MWDM Micro-D  
Shielded Cable Assembly  
177-710 (Untwisted Wire) and 177-740 (Twisted Wire Pairs)



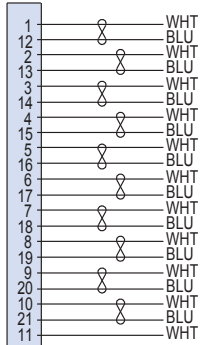
177-740 9 THRU 51 CONTACT TWISTED PAIR WIRING DIAGRAM



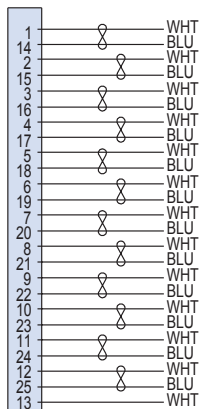
9 Contacts



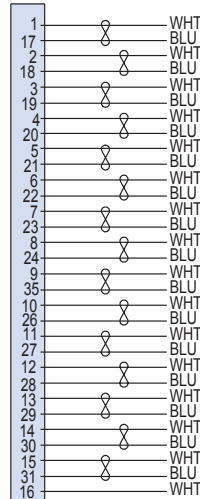
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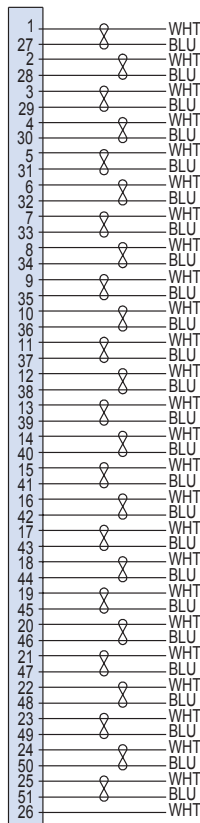
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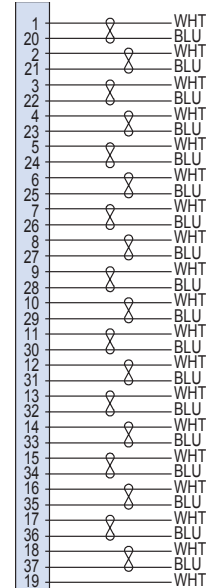
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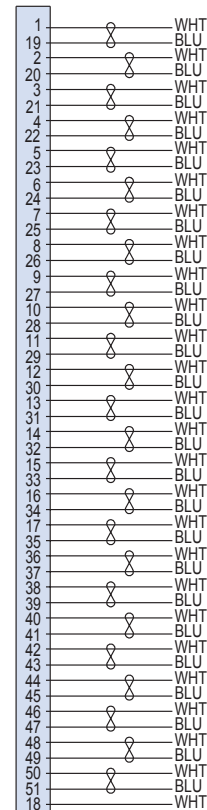
31 Contacts



51 Contacts  
2 Row special



37 Contacts



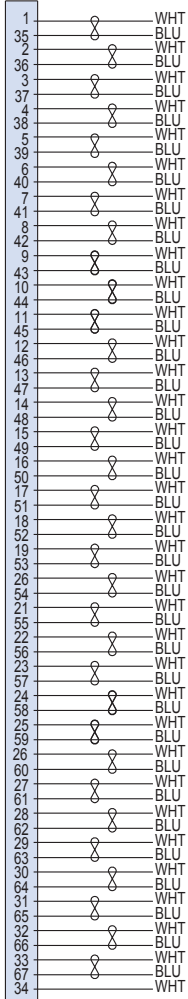
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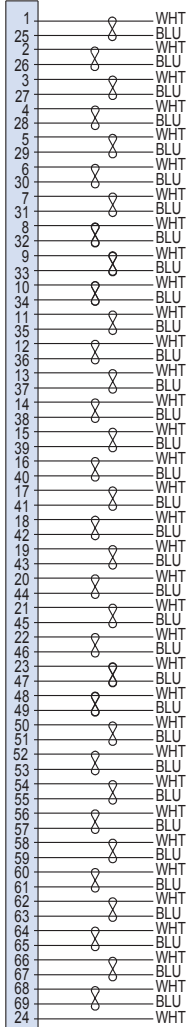
MWDM Micro-D Shielded Cable Assembly 177-710 (Untwisted Wire) and 177-740 (Twisted Wire Pairs)

177-740 67 THRU 130 CONTACT TWISTED PAIR WIRING DIAGRAM

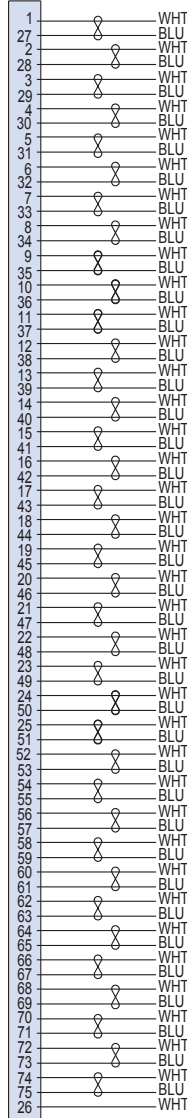
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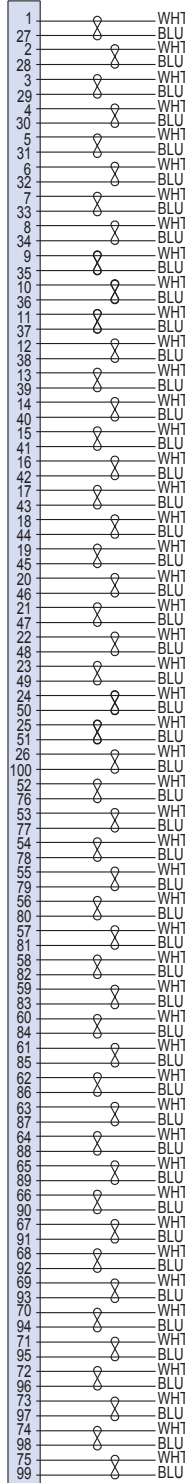
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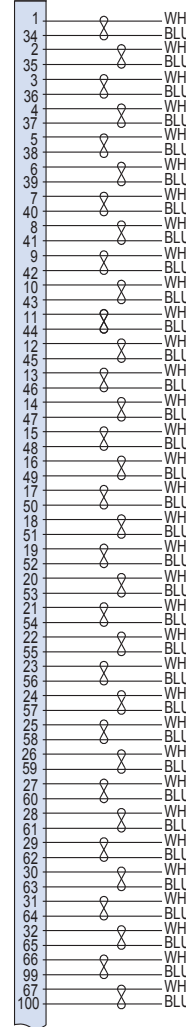
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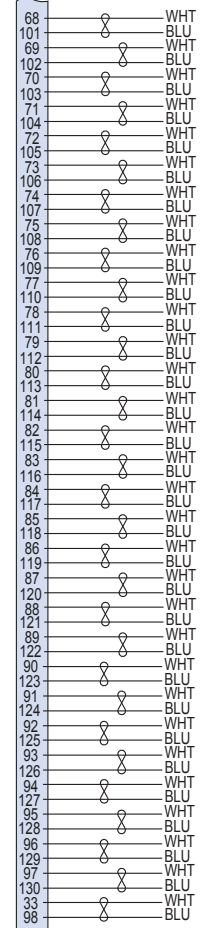
75 Contacts



100 Contacts



130 Contacts



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