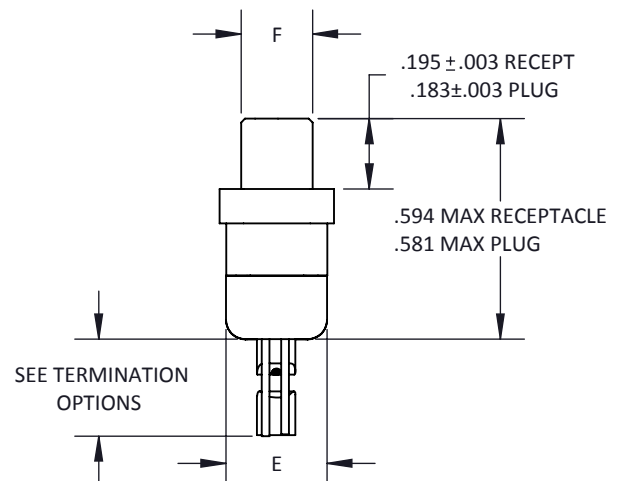
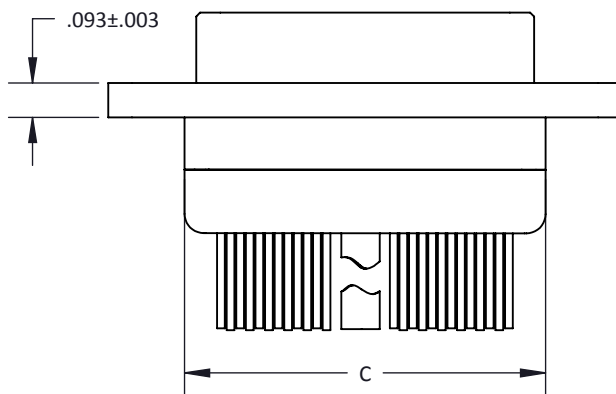
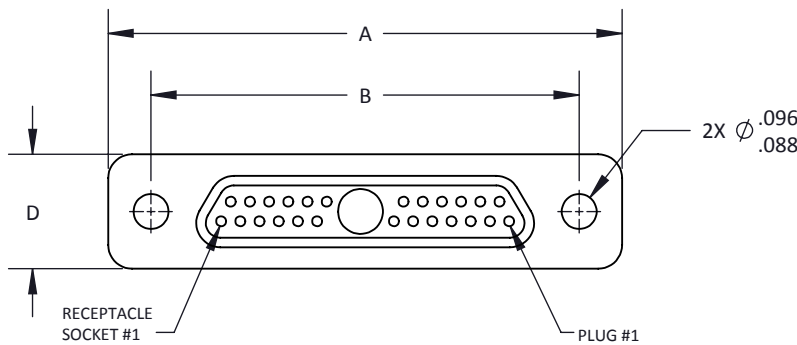


SHELL SIZE	A MAX	B BSC	C MAX	D MAX	E MAX	F RECEPT ONLY
9	.785	.565	.400	.308	.270	.239
15	.935	.715	.550	.308	.270	.239
21	1.085	.865	.700	.308	.270	.239
25	1.185	.965	.800	.308	.270	.239
31	1.335	1.115	.950	.308	.270	.239
37	1.485	1.265	1.100	.308	.270	.239
51	1.435	1.215	1.050	.351	.310	.281
69	1.737	1.515	1.350	.351	.310	.281
100	2.170	1.800	1.442	.394	.360	.394



TOLERANCE: .XXX ±.005  
.XX ±.01  
ANGLE ±1°

TITLE  
MICRO-D METAL SHELL  
HYBRID COAX

SHT 1 OF 4

DWG. NO.  
MHF

REV  
C

MHF-XXX-XXXXXX

SERIES

SHELL SIZE A-J

A = 09 F = 37  
B = 15 G = 51  
C = 21 H = 100  
D = 25 J = 69  
E = 31

CONTACT LAYOUT COMBO

PER SHELL SIZE (SEE SHEETS 3 AND 4)

GENDER

P = PLUG, PIN DC/SIGNAL CONTACTS  
S = RECEPTACLE, SOCKET DC/SIGNAL CONTACTS

HARDWARE

0 = NONE  
FACTORY INSTALLED (NON-REMOVABLE)  
F = FLOAT MOUNT  
J = HIGH PROFILE HEX DRIVE JACKSCREW  
K = HIGH PROFILE SLOT DRIVE JACKSCREW  
L = LOW PROFILE HEX DRIVE JACKSCREW \*  
T = THREADED INSERT  
M83513 HARDWARE - FACTORY INSTALLED  
2 = LOW PROFILE HEX DRIVE JACKSCREW \*  
3 = HIGH PROFILE HEX DRIVE JACKSCREW  
5 = LOW PROFILE SLOT DRIVE JACKSCREW \*  
6 = HIGH PROFILE SLOT DRIVE JACKSCREW  
7 = JACKPOST KIT \*  
(HARDWARE FOR SIZES 9 - 69 IS #2-56,  
HARDWARE FOR SIZE 100 IS #4-40)

SHELL FINISH

A = CADMIUM  
B = ELECTROLESS NICKEL  
C = ANODIZE  
D = CHEM FILM  
E = BLACK CADMIUM  
G = GOLD  
P = PASSIVATION (STAINLESS STEEL)

WIRE LENGTH

STRANDED (+ 1.00 / - 0.00)

1 = 6 INCHES  
2 = 12 INCHES  
3 = 18 INCHES  
4 = 24 INCHES  
5 = 36 INCHES  
6 = 72 INCHES

SOLID COPPER (+0.20 / - 0.00)

1 = 0.5 INCH  
2 = 1.0 INCH  
3 = 0.25 INCH  
4 = 0.125 INCH

WIRE SIZE (FOR LOW FREQ LINES)

STRANDED WIRE

0 = 26 AWG  
1 = 24 AWG  
2 = 28 AWG

SOLID WIRE

0 = 25 AWG  
1 = 24 AWG

WIRE COLOR/TYPE (FOR LOW FREQ LINES)

0 = WHITE STRANDED \*  
1 = YELLOW STRANDED  
2 = 10 SOLID COLORS REPEATED \*  
3 = FULL COLOR CODE STRANDED  
9 = SOLID COPPER \*

CABLE TYPE (FOR RF LINES)

01 = RD316 (M17/152-00001)  
02 = D-FLEX 105 (DACHSHUND)  
03 = L-FLEX 120 (LABRADOR)  
04 = S-FLEX 110 (GERMAN SHEPARD)  
05 = D-FLEX (DACHSHUND)

FOR OTHER OPTIONS CONTACT CRISTEK

TERMINATION (FOR LOW FREQ LINES)

0000 - SOLDER CUP \*  
0001 - EDGE CARD LEADS (25 AWG)  
N000 - NO LOW FREQUENCY LINES

WIRE TYPE

STRANDED

H = HARNESS (MIL-W-16878/4)  
S = SPACE (MIL-W-22759/33)  
M = MILITARY (MIL-W-22759/11) \*

SOLID

G = GOLD PLATED COPPER

T = TIN/LEAD PLATED COPPER

\* = MOST COMMONLY USED & STOCKED WIRE TYPES AND HARDWARE OPTIONS

MICRO-D MATERIALS AND FINISHES ARE IAW MIL-DTL-83513 WHERE APPLICABLE  
FOR DETAILS SEE MIL SPEC OR WWW.CRISTEK.COM

1. MATERIALS:

SHELL - ALUMINUM ALLOY OR STAINLESS STEEL  
INSULATOR - GLASS FILLED THERMOPLASTIC  
PIN/SOCKET CONTACT - COPPER ALLOY

2. FINISH:

SHELL - SEE OPTIONS ABOVE  
PIN/SOCKET CONTACT - GOLD OVER NICKEL

3. SPECIFICATIONS (SIGNAL CONTACTS):

CURRENT RATING ----- 3 AMPS MAX  
TEMPERATURE RATING ----- -55° C TO +125° C  
INSULATION RESISTANCE ----- 5000 MEGOHMS MIN  
DWV AT SEA LEVEL ----- 600 VAC  
DWV AT 70,000 FT ALTITUDE --- 150 VAC  
CONTACT RESISTANCE:  
26 AWG (STRANDED) = 28 MILLIOHMS MAX.  
24 & 25 AWG (SOLID) = 25 MILLIOHMS MAX.

CONTACT RETENTION ----- 5 lb MINIMUM AXIAL LOAD

ENGAGEMENT FORCE ----- 6 oz MAX  
SEPARATION FORCE ----- 0.5 oz MIN

4. ADDITIONAL INFORMATION:

DESIGN AND PERFORMANCE IN GENERAL  
ACCORDANCE WITH M83513 WHERE APPLICABLE.  
FOR OTHER TERMINATIONS, CONTACT CRISTEK.

MICROWAVE MATERIALS AND FINISHES

1. MATERIALS:

CONTACT - STAINLESS STEEL PER ASTM A484 TYPE 303  
INSULATOR - PTFE PER ASTM D 1710

2. FINISH:

GOLD PER MIL-G-45024, TYPE II, GRADE C, CLASS I  
(.000050/.00010 THICK) OVER NICKEL PLATING PER  
SAE-AMS-QQ-N-290, CLASS 1.25 (.000050/.00010  
THICK)

3. ELECTRICAL REQUIREMENTS:

NOMINAL IMPEDANCE ----- 50 OHMS  
FREQUENCY RANGE ----- 26.5 GHz  
VOLTAGE RATING ----- 325 VRMS MAX  
VSWR ----- 1.05 + .008 X FGHz  
INSERTION LOSS ----- 0.07 X SQRT FGHz  
DWV ----- 500 VRMS MAX  
INSULATION RESISTANCE ----- 1000 MEGOHMS

4. MECHANICAL:

CONNECTOR DURABILITY ----- 500 CYCLES

5. ENVIRONMENTAL

TEMPERATURE RATING: -65° C TO +125° C  
VIBRATION: MIL-STD-202, METHOD 204, COND D (20Gs)  
SHOCK: MIL-STD-202, METHOD 213, COND I (100Gs)  
CORROSION: MIL-STD-202, METHOD 101, COND B, (5% SALT)  
RANDOM VIBRATION: MIL-STD-202, METHOD 214, COND B (15 MIN/AXIS)  
THERMAL SHOCK: MIL-STD-202, METHOD 107, COND B (+165 HI TEMP)

TOLERANCE: .XXX ±.005  
.XX ±.01  
ANGLE ±1°

TITLE

MICRO-D METAL SHELL  
HYBRID COAX

SHT 2 OF 4

DWG. NO.

MHF

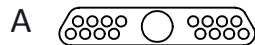
REV

C

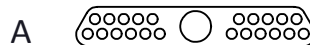
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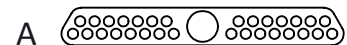
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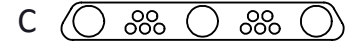
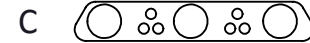
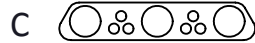
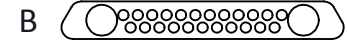
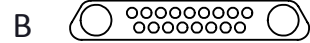
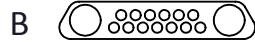
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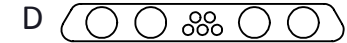
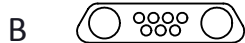
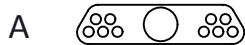
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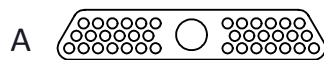
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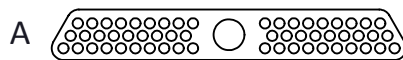
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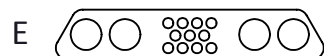
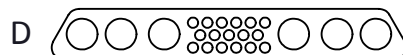
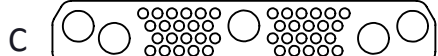
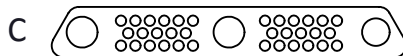
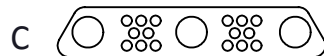
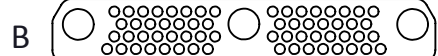
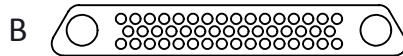
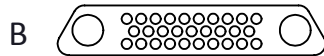
SIZE G = 51



SIZE J = 69



SIZE H = 100



TOLERANCE: .XXX ±.005  
.XX ±.01  
ANGLE ±1°

TITLE  
MICRO-D METAL SHELL  
HYBRID COAX

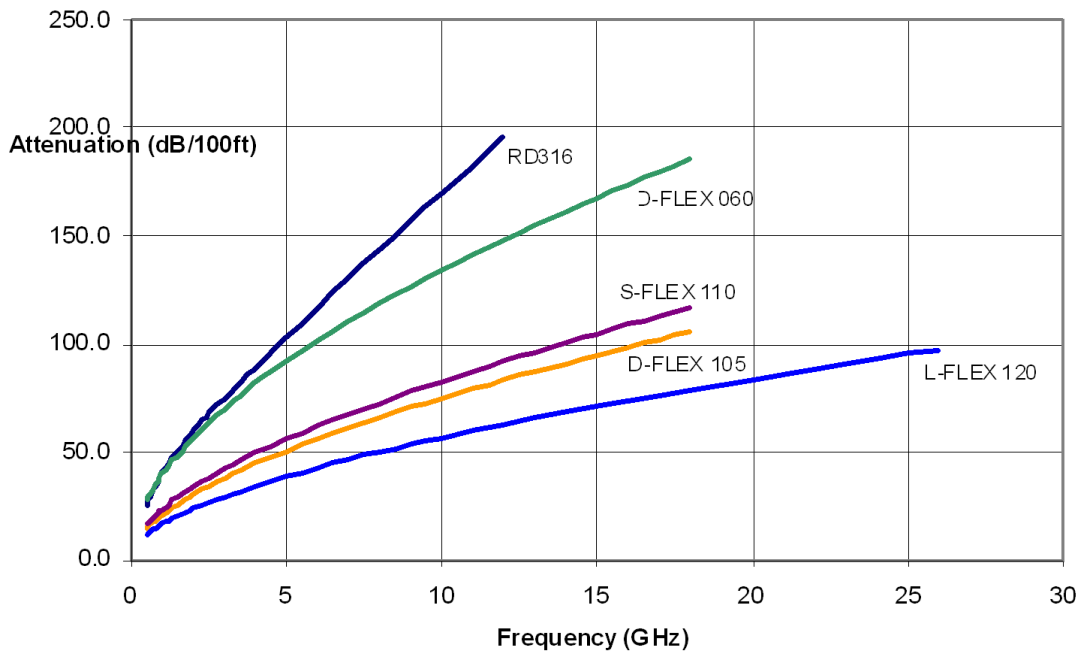
SHT 3 OF 4

DWG. NO.  
MHF

REV  
C

CABLE ATTENUATION (Db/100ft) VS. FREQUENCY					
FREQ. (GHz)	L-Flex 120	D-Flex 105	S-Flex 110	D-Flex 060	RD316
0.5	11.6	14.6	16.4	27.8	26.0
1	16.6	21.1	23.6	39.6	40.0
2	23.8	30.5	34.1	56.8	60.2
3	29.5	38.0	42.4	70.3	75.3
4	34.4	44.5	49.6	81.8	88.9
5	38.8	50.4	56.1	92.1	102.7
6	42.8	55.9	62.0	101.6	116.9
7	46.6	61.0	67.6	110.4	130.7
8	50.1	65.8	72.9	118.6	144.1
9	53.5	70.4	78.0	126.5	157.2
10	56.7	74.9	82.8	134.0	170.0
11	59.8	79.1	87.5	141.2	182.6
12	62.7	83.3	92.0	148.1	195.1
13	65.6	87.3	96.3	154.8	-
14	68.4	91.2	100.6	161.3	-
15	71.1	95.0	104.7	167.6	-
16	73.8	98.8	108.8	173.7	-
17	76.3	102.4	112.7	179.7	-
18	78.9	106.0	116.6	185.5	-
19	81.3	-	-	-	-
20	83.8	-	-	-	-
21	86.2	-	-	-	-
22	88.5	-	-	-	-
23	90.8	-	-	-	-
24	93.1	-	-	-	-
25	95.3	-	-	-	-
26	97.5	-	-	-	-

**Attenuation vs. Frequency**



TOLERANCE: .XXX ±.005  
.XX ±.01  
ANGLE ±1°

TITLE  
MICRO-D METAL SHELL  
HYBRID COAX

SHT 4 OF 4

DWG. NO.  
MHF

REV  
C