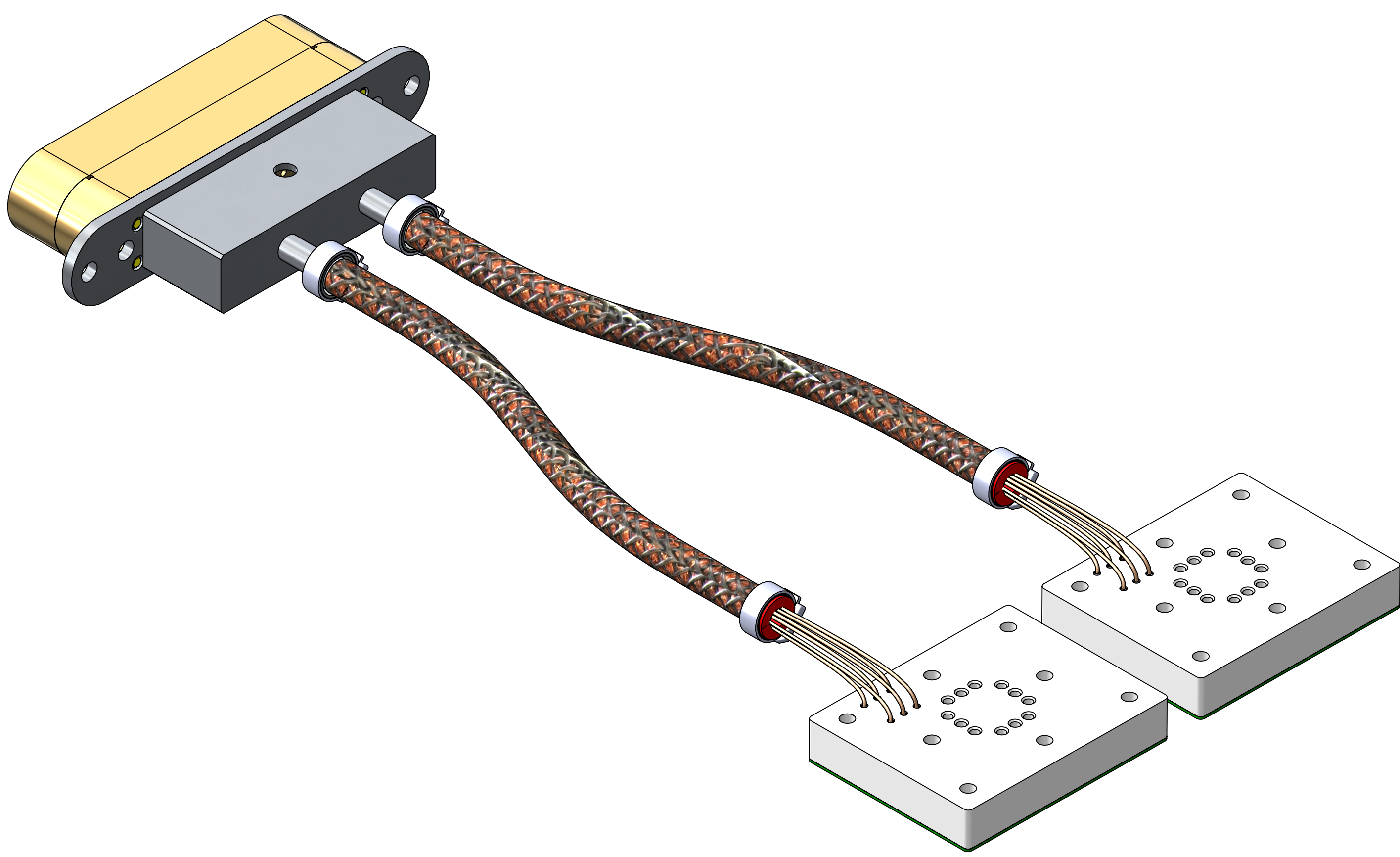
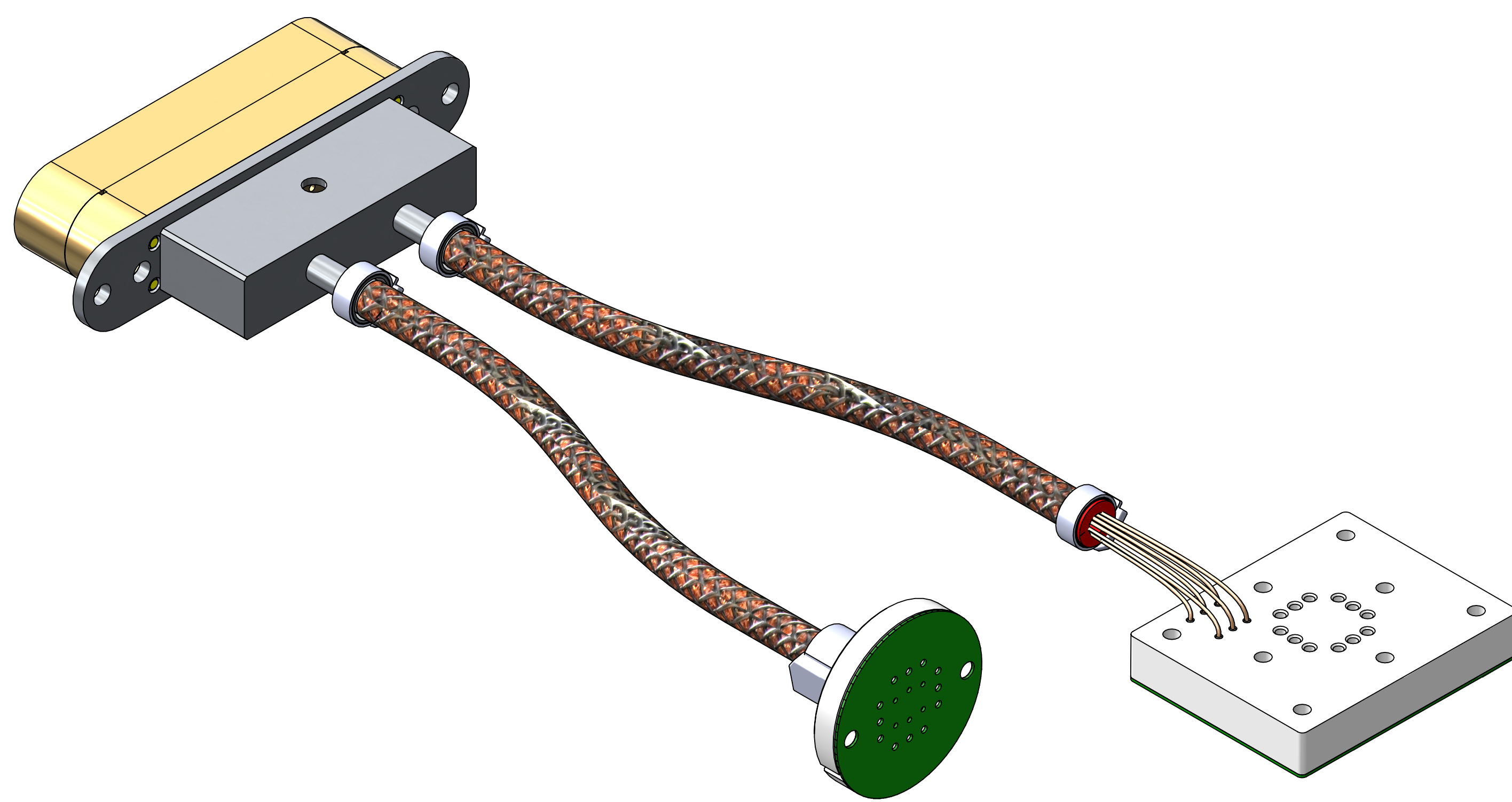


- NOTES CONTINUED:
- CABLE IDENTIFICATION: IDENTIFY PER STATEMENT OF WORK.
 - ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC2000, REV 4
 - ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL AFTER DELIVERY OF FINISHED PARTS. USE NITRONIC 60 THREADED INSERTS.
- Ⓢ MATERIAL:
- J1 CONNECTOR SHELL - GOLD OVER ELECTRO-LESS NICKEL SELECTIVELY METALIZED PEEK VICTREX 450GL30.
 - J2 CONNECTOR SHELL - PEEK VICTREX 450GL30.
 - J3 CONNECTOR SHELL - PEEK VICTREX 450GL30.
 - BACKSHELL - STAINLESS STEEL WITH VENT HOLE.
 - CONTACTS - BERYLLIUM COPPER ALLOY C17300, 0.000050 MIN. GOLD OVER NICKEL.
 - HARDWARE - STAINLESS STEEL PASSIVATED.
 - PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED.
- CABLE: 6 COND. 28 AWG. (65/46) WITH PFA INSULATION (COONER WIRE C21105) OVERALL 40AWG COPPER BRAID 90% COVERAGE. OVERALL PEEK BRAID MIN. 50% COVERAGE. OVERALL CABLE O.D. WILL BE APPROX. 0.240 IN.
 - CONNECTORS WILL BE SUPPLIED WITH HARDWARE. LENGTH OF SCREWS SHOULD BE THE PROPER LENGTH FOR MATING.
 - INDICATED LENGTH IS FROM CONNECTOR END TO CONNECTOR END. USE APPROPRIATE LENGTH TO COMPENSATE FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH.
 - INDICATED DIMENSIONS SHOWN FOR REFERENCE ONLY.
 - FILL UNUSED CONTACT POSITIONS WITH UNCRIMPED CONTACTS.
 - PART NO. SHOWN CORRESPONDS TO UNPLATED PARTS. MATERIALS/FINISH AS SPECIFIED ON NOTE 8. SHALL TAKE PRECEDENCE AT ALL TIMES.
 - CONNECTOR-LESS CABLE: IF CABLE IS TO BE MADE WITHOUT INDICATED QPD CONNECTORS, LEAVE PIGTAILS OF APPROX. 6.0 IN. PAST THE CLAMP AND TUBE INSERT



STANDARD CONFIG.



PSL PD ARRAY CONFIG.

REV.	DATE	DCN #	DRAWING TREE #
v1	22 AUG 2011	-	-
v6	03 OCT 2013	E1300743-x0	-
-	-	-	-

TEST LIST		TEST LIST	
FROM	TO	FROM	TO
'J1'	'J2'	'J1'	'J3'
J1 - 1, SHELL	NOT CONNECTED	J1 - 1, SHELL	NOT CONNECTED
J1-13	J2-A4	J1-10	J3-A4
J1-25	J2-A3	J1-22	J3-A3
J1-12	J2-A2	J1-9	J3-A2
J1-24	J2-A1	J1-21	J3-A1
J1-11	J2-S	J1-8	J3-S
J1-23	J2-CAT	J1-20	J3-CAT

V25T CABLE ASSEMBLY CIRCUIT SUMMARY						
FROM			TO			PCB CONNECTION
'J1'			'J2'			
PIN	WIRE NAME	TWISTED PAIR	PIN	WIRE NAME	SIGNAL	
1,SHELL	SHIELD (BRAID)		CONNECTED ONLY TO BRAID CLAMP	SHIELD (BRAID)	SHIELD	N/C
13	(CABLE 1) WIRE 13	TP-1	A4	(CABLE 1) WIRE 13	QPD 1 ANODE 4	A4
25	(CABLE 1) WIRE 25		A3	(CABLE 1) WIRE 25	QPD 1 ANODE 3	A3
12	(CABLE 1) WIRE 12	TP-2	A2	(CABLE 1) WIRE 12	QPD 1 ANODE 2	A2
24	(CABLE 1) WIRE 24		A1	(CABLE 1) WIRE 24	QPD 1 ANODE 1	A1
11	(CABLE 1) WIRE 11	TP-3	S	(CABLE 1) WIRE 11	QPD 1 SENSE	S
23	(CABLE 1) WIRE 23		CAT	(CABLE 1) WIRE 23	QPD 1 CATHODE	CAT
			'J3'			PCB CONNECTION
PIN	WIRE NAME	TWISTED PAIR	PIN	WIRE NAME	SIGNAL	
1,SHELL	SHIELD (BRAID)		CONNECTED ONLY TO BRAID CLAMP	SHIELD (BRAID)	SHIELD	N/C
10	(CABLE 2) WIRE 10	TP-4	A4	(CABLE 2) WIRE 10	QPD 2 ANODE 4	A4
22	(CABLE 2) WIRE 22		A3	(CABLE 2) WIRE 22	QPD 2 ANODE 3	A3
9	(CABLE 2) WIRE 9	TP-5	A2	(CABLE 2) WIRE 9	QPD 2 ANODE 2	A2
21	(CABLE 2) WIRE 21		A1	(CABLE 2) WIRE 21	QPD 2 ANODE 1	A1
8	(CABLE 2) WIRE 8	TP-6	S	(CABLE 2) WIRE 8	QPD 2 SENSE	S
20	(CABLE 2) WIRE 20		CAT	(CABLE 2) WIRE 20	QPD 2 CATHODE	CAT

V-DB25 M/S1-40, 40-2_QPD		
STANDARD USE FOR THIS CABLE		
SUBSYSTEM	AIR/VAC	STANDARD USE
ISC	IN-VAC	QPD'S
IO	IN-VAC	

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	QTY.
14	D1002106	ISC QPD Mount Assembly	N/A	2	1
13	D1300222	ALIGO, IO, PSL ISS QPD CONNECTOR ASSEMBLY	N/A	-	1
12	4 T1Z.188-SS PARKER OR EQ.	1/4 OD X 1/4' LG .188 ID FLANGED TUBE	304, 316 OR 302 SSTL	2	1
11	6759	PEEK OVERBRAID, 50% COVERAGE MIN.	ZEUS .016 BLK PEEK DRAWN MONOFILAMENT	A/R	A/R
10	24X3X40BC CONTINENTAL CORDAGE	1/8 DIA. COPPER BRAID	COPPER	A/R	A/R
9	C21105 COONER WIRE	WIRE, 28 AWG (65/46), .024 DIA.	SEE NOTE 9	A/R	A/R
8	1185-04EN-336	HELICOIL, 4-40 X .336 LG., NITRONIC60	NITRONIC 60	2	2
7	600-052 GLENAIR OR EQ.	BRAID CLAMPING BAND, .24 WIDE	SSTL	-	1
6	600-057 GLENAIR OR EQ.	BRAID CLAMPING BAND, .120 WIDE	SSTL	4	3
5	013-2701-0001 TICOR OR EQ.	SCREW, FILLISTER HEAD, 1-72 X .450 LG., SLOTTED		4	4
4	037-5001-2022 TICOR OR EQ.	SIZE 20 PIN CONTACT, 22D CRIMP BARREL		25	25
3	040-2725-2502-1 TICOR OR EQ.	CONNECTOR BACKSHELL, DSUB25, UHV, 2 PORT	SEE NOTE 8	1	1
2	034-1002-2520 TICOR OR EQ.	CONTACT RETAINER, DSUB25, UHV, SHIELDED		1	1
1	034-1006-2520 TICOR OR EQ.	CONNECTOR INTERFACE, DSUB25, UHV, SHIELDED (MALE)		1	1

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

- INTERPRET DRAWING PER ASME Y14.5-1994
- REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS.
- DO NOT SCALE FROM DRAWING.
- ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN INCHES

TOLERANCES:
 .XX ± .01
 .XXX ± .005
 ANGULAR ± 0.5°

MATERIAL: N/A

FINISH: N/A μinch

SYSTEM: ADVANCED LIGO

SUB-SYSTEM: ISC

PART NAME: CUSTOM CABLE SPECIFICATION V25T-40

DESIGNER: E.ABOTT 01 FEB 2010

DRAFTER: E.BROWN 22 AUG 2011

CHECKER: SEE DCC

APPROVAL: SEE DCC

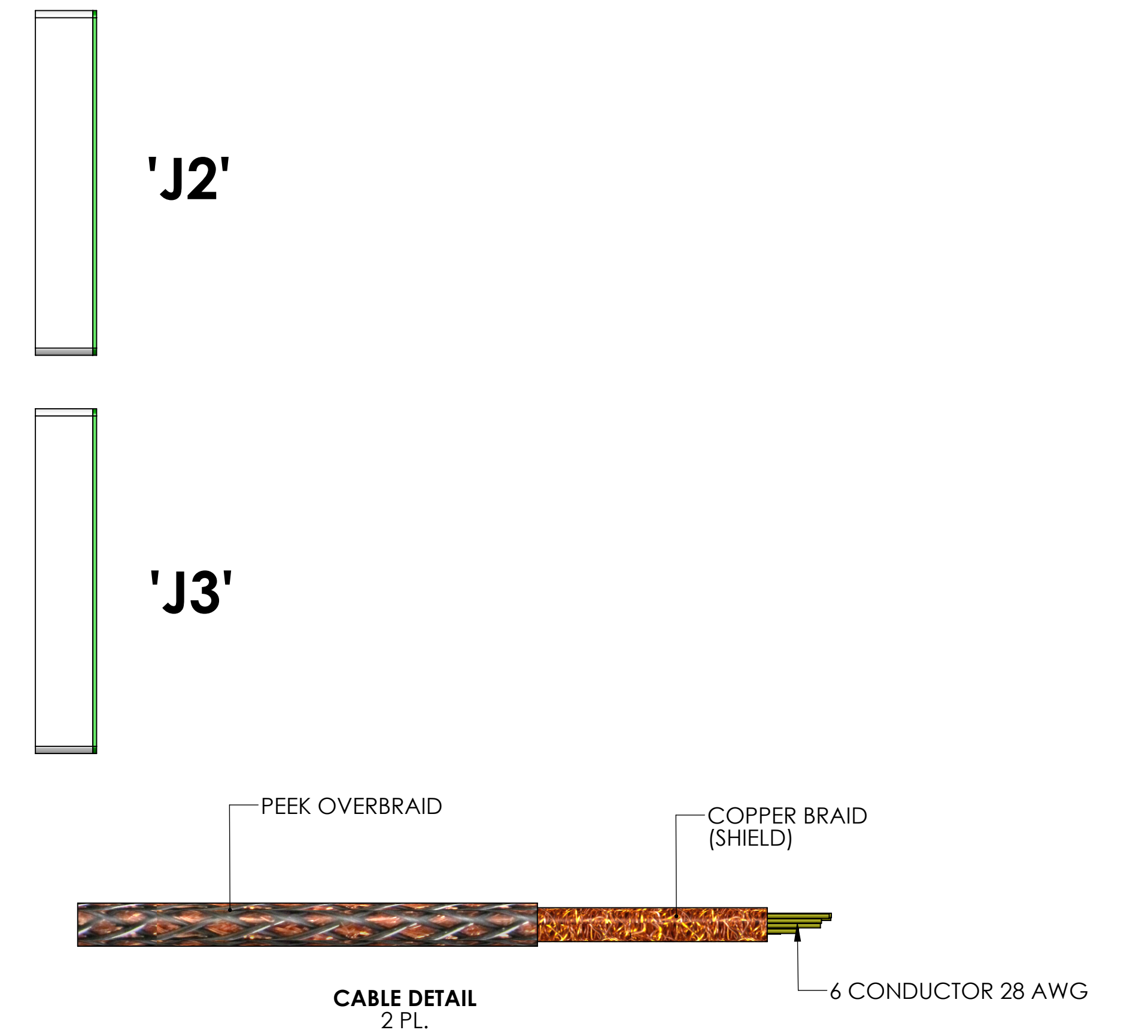
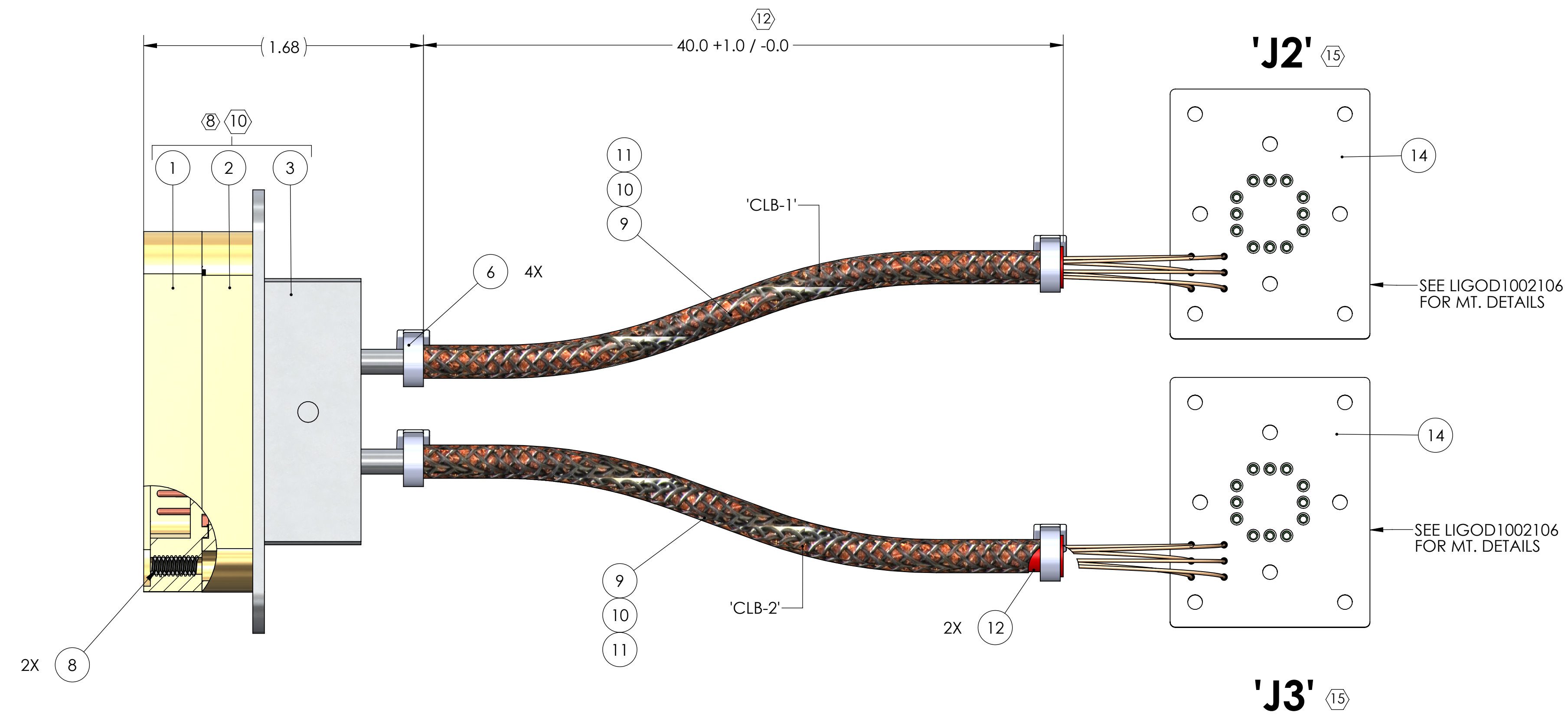
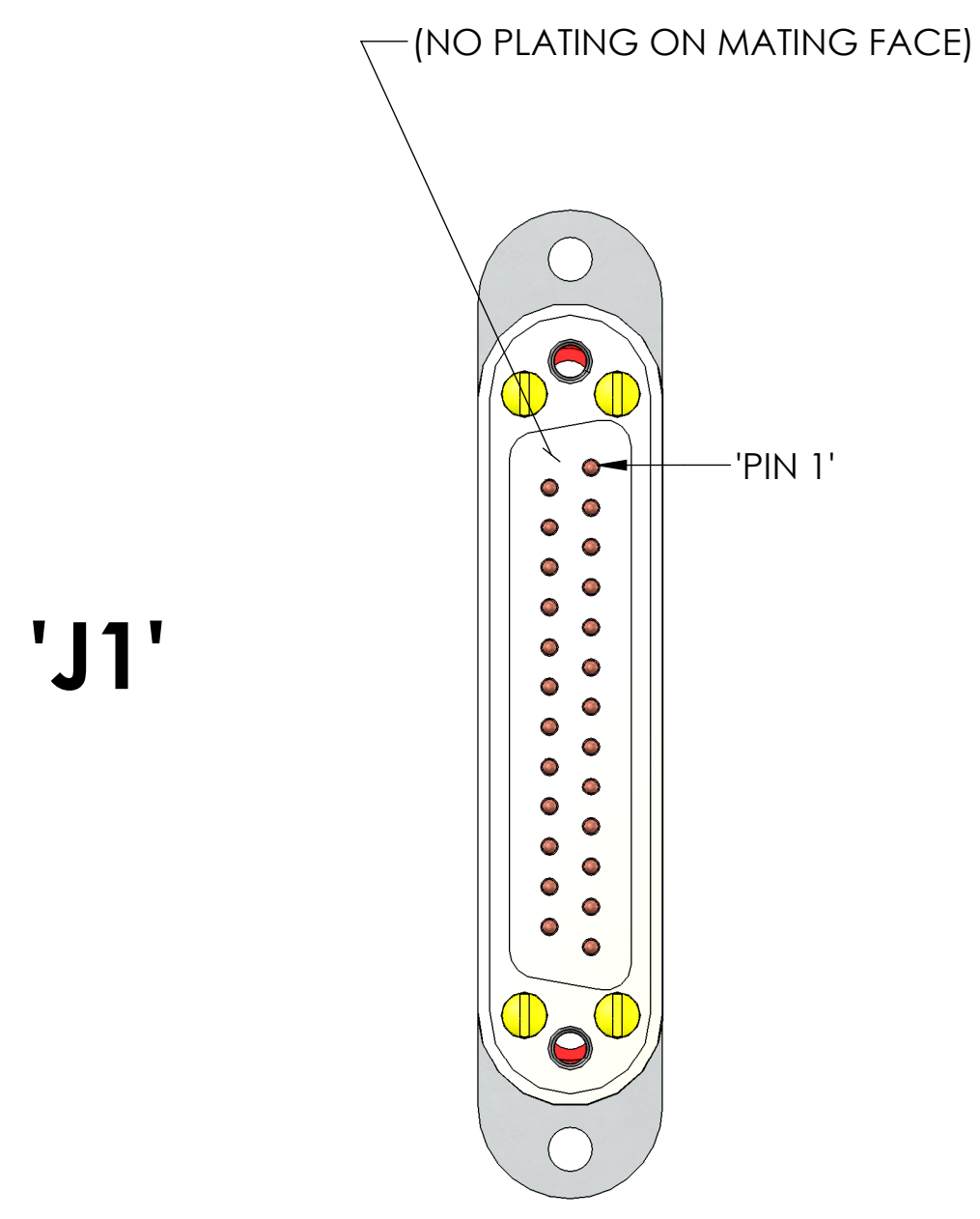
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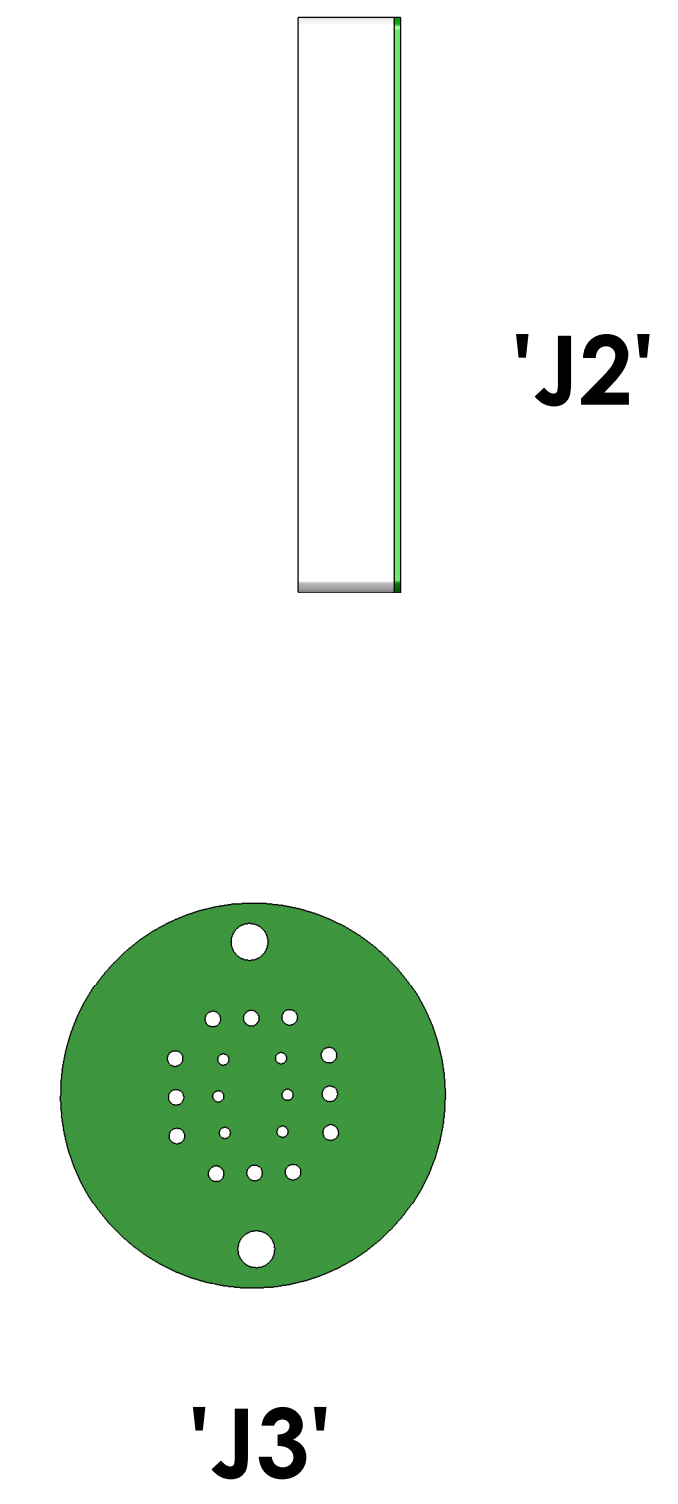
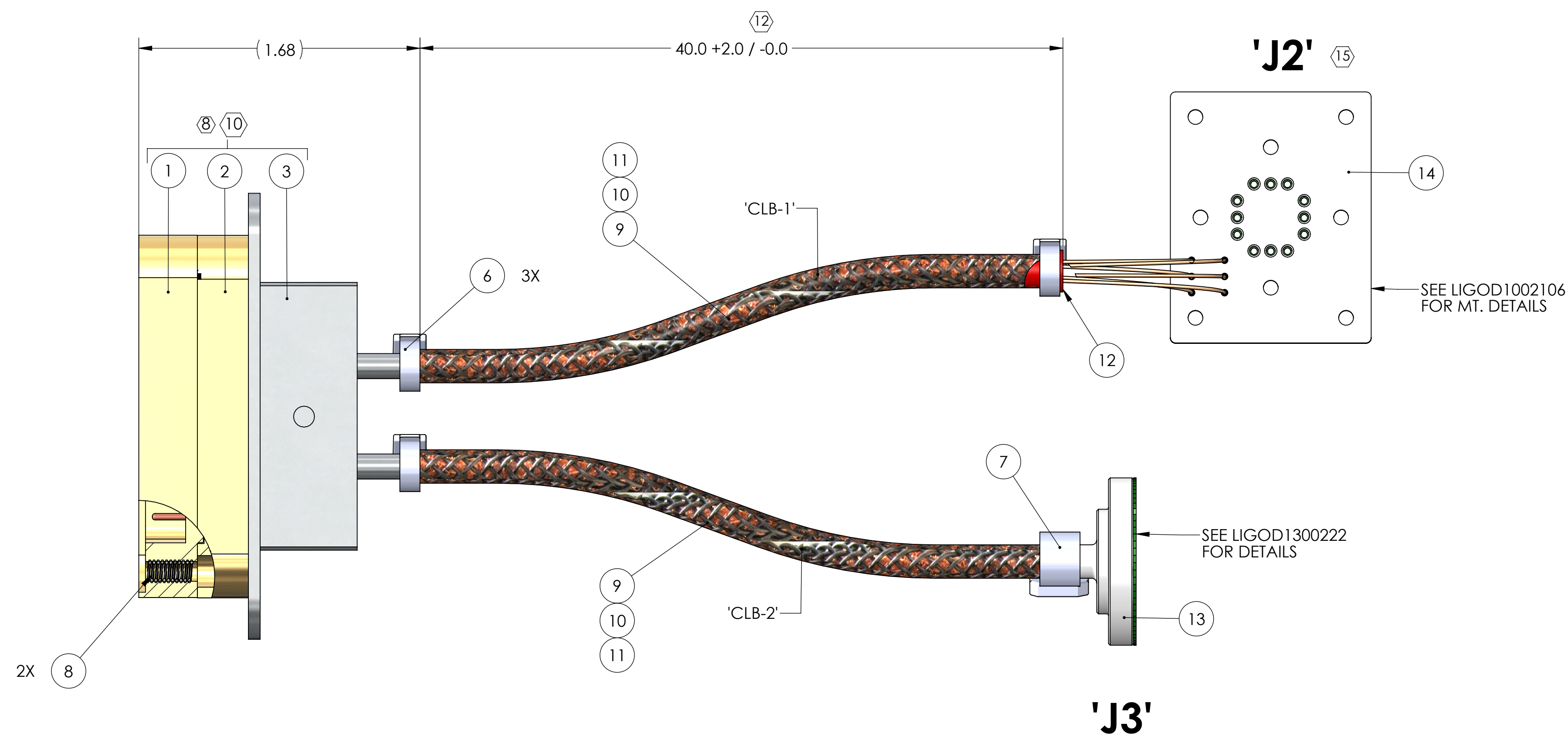
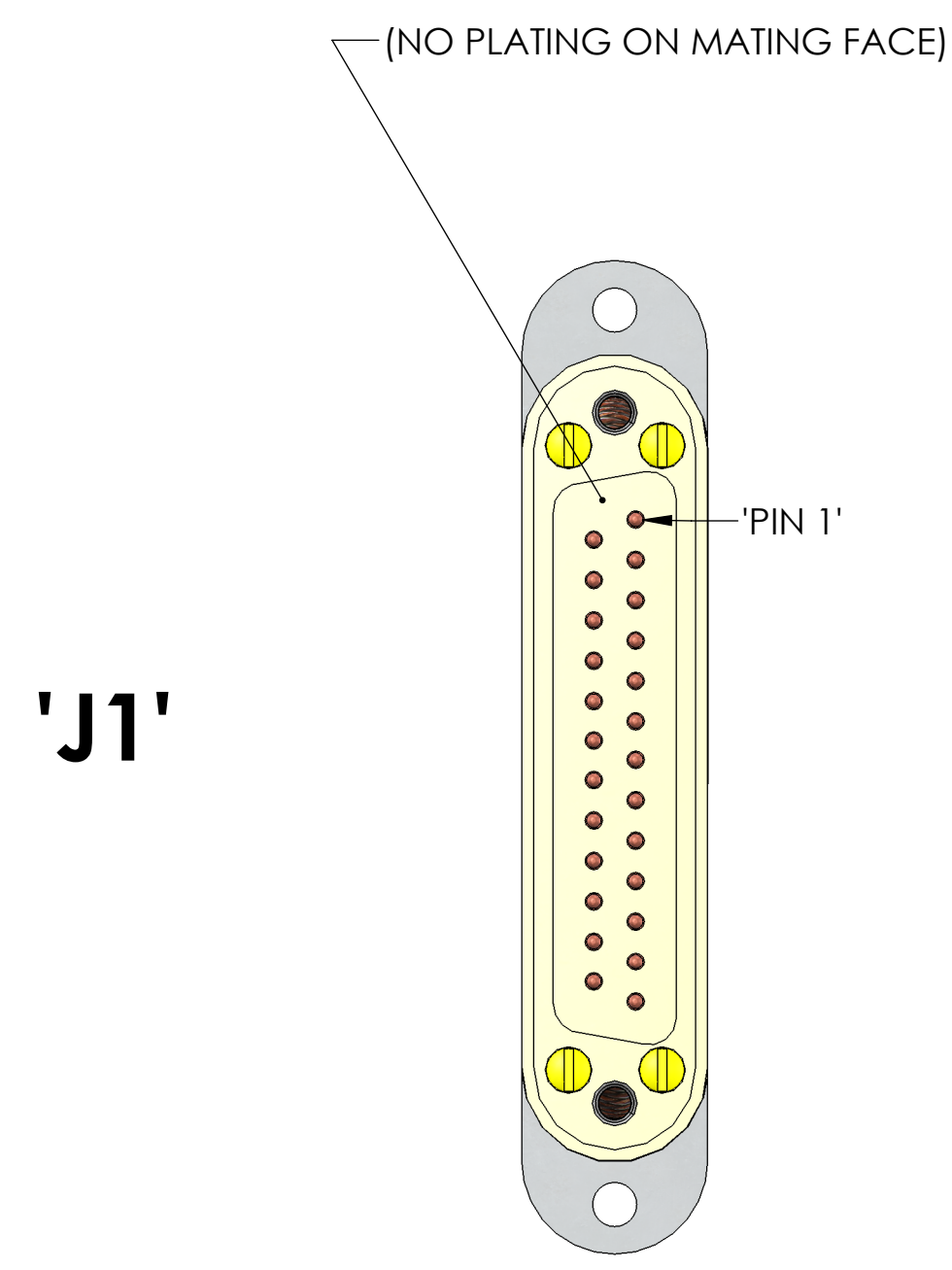
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REV. v6

SHEET 1 OF 2

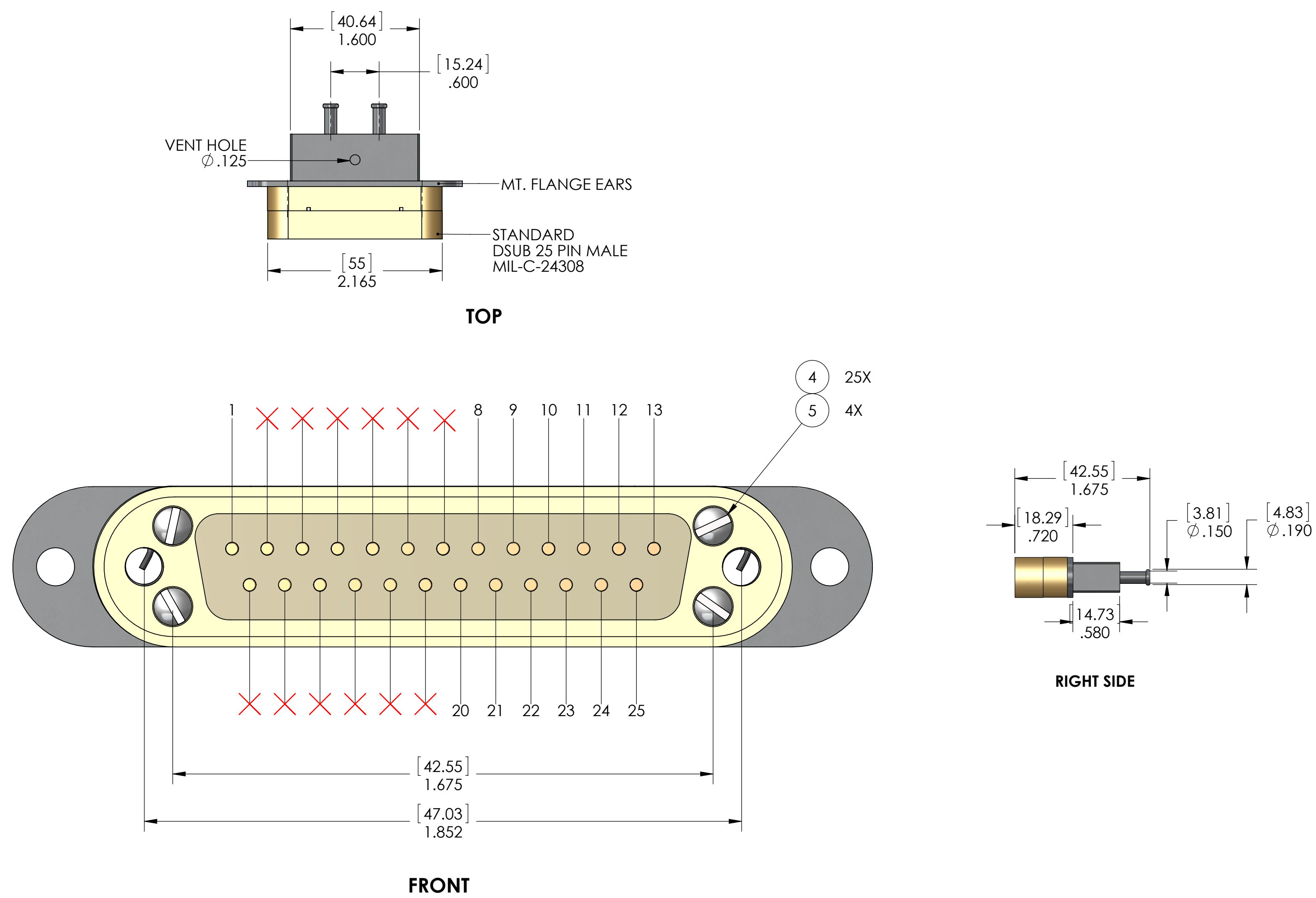


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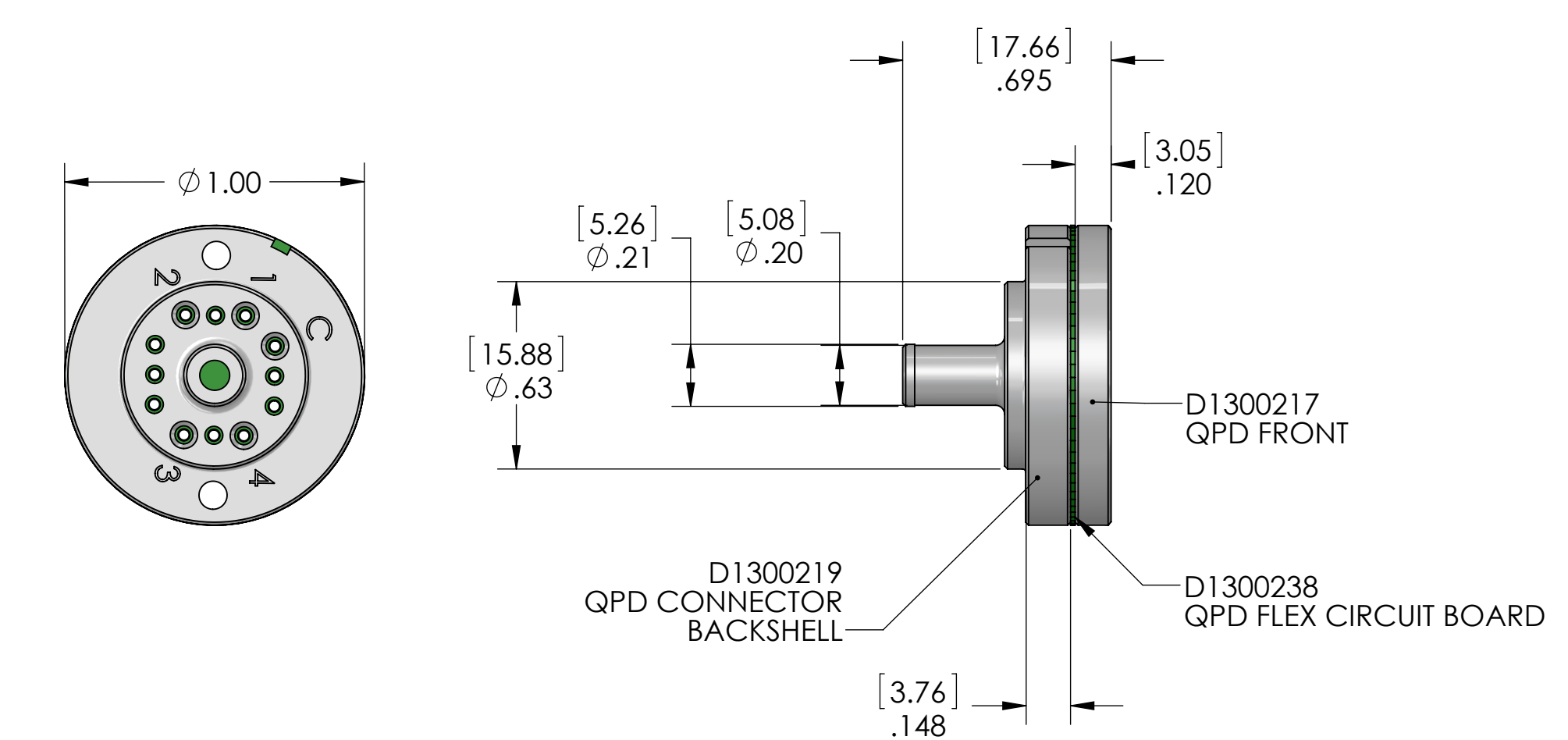
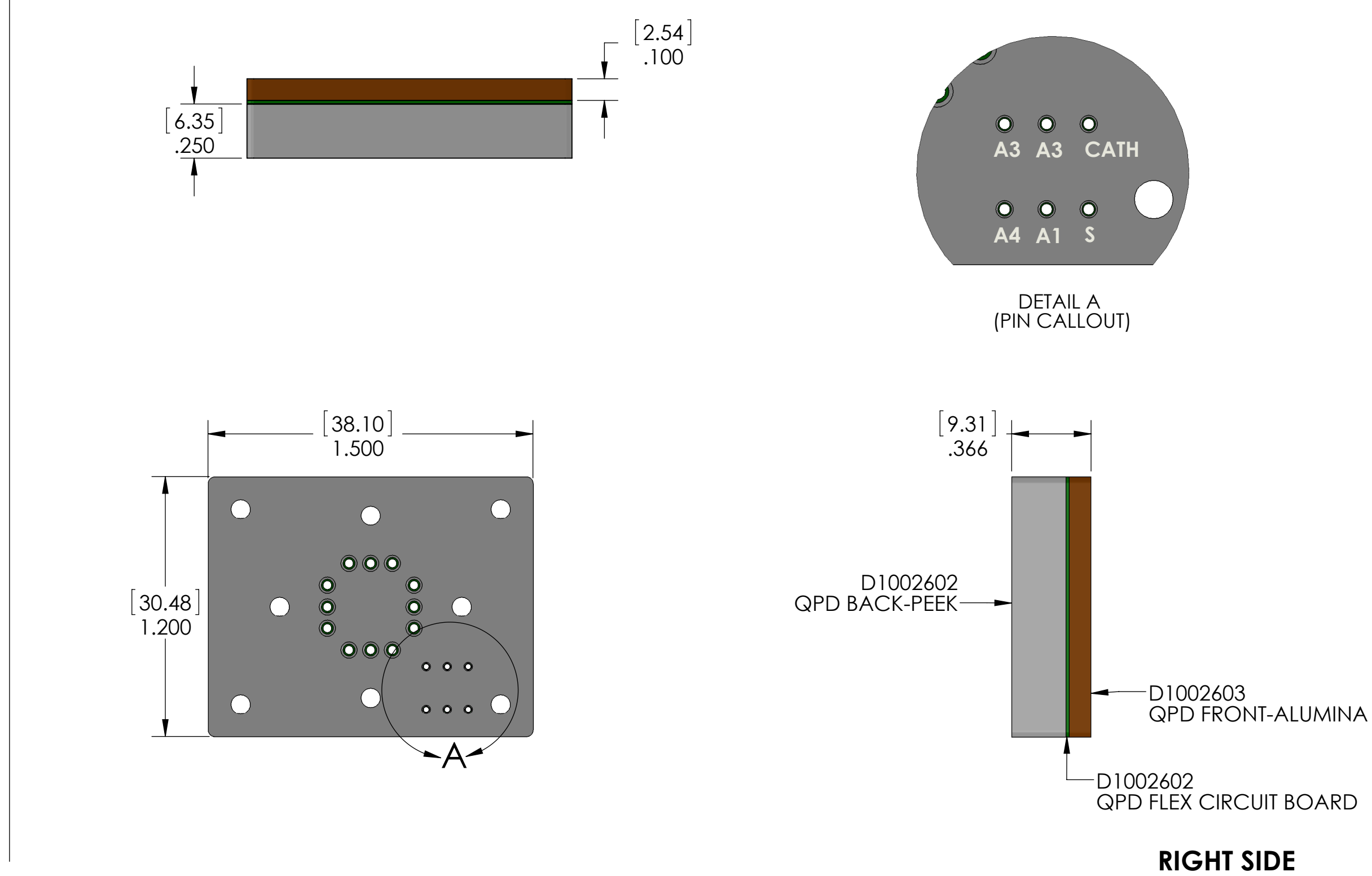


PSL PD ARRAY CONFIG.

CONNECTOR J1 ⑧ ⑩ ⑫ ⑬



CONNECTOR J2 & J3 ⑧ ⑩ ⑫ ⑭



CONNECTOR J3 (FOR PSL PD ARRAY CONFIG. ONLY)