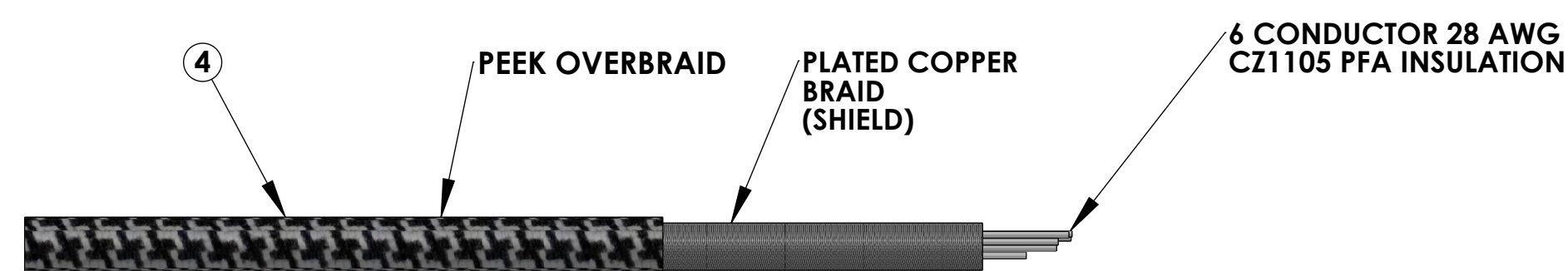
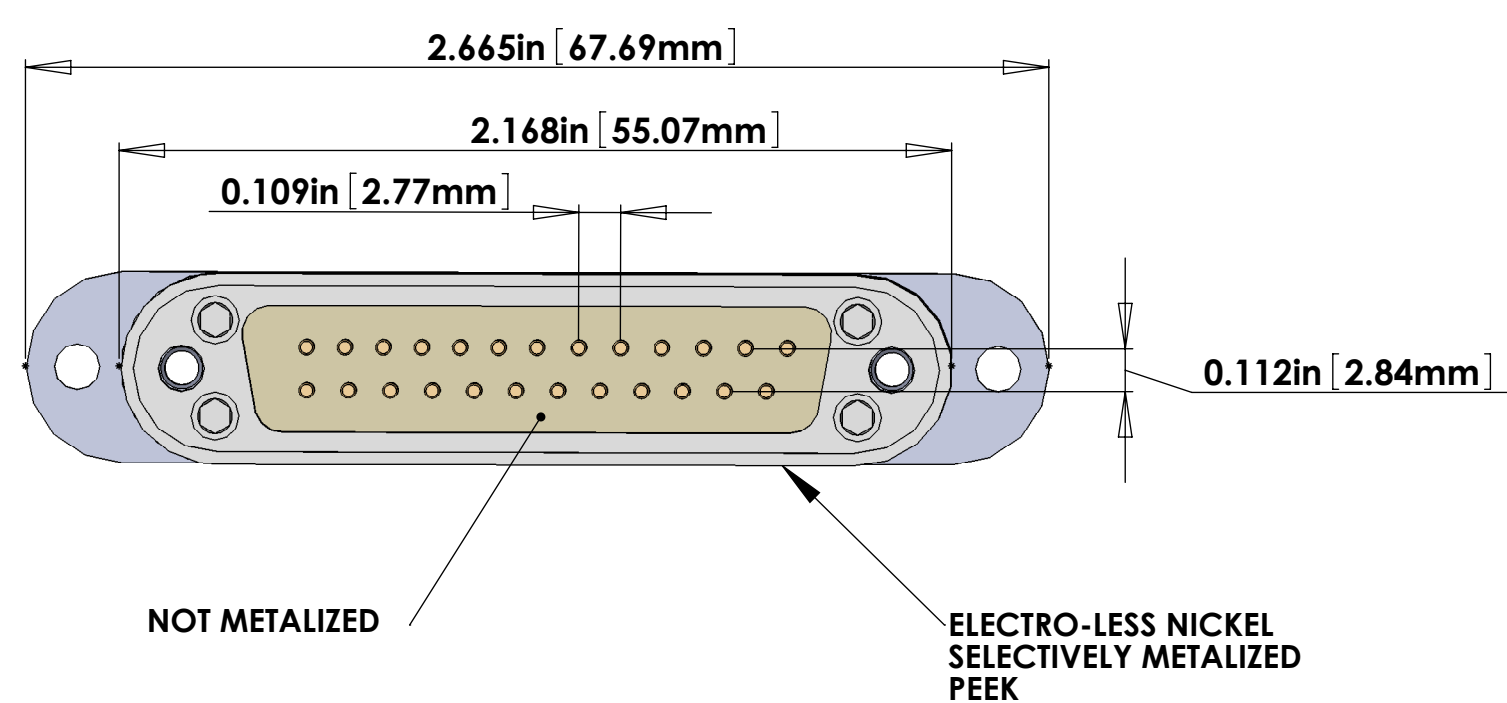
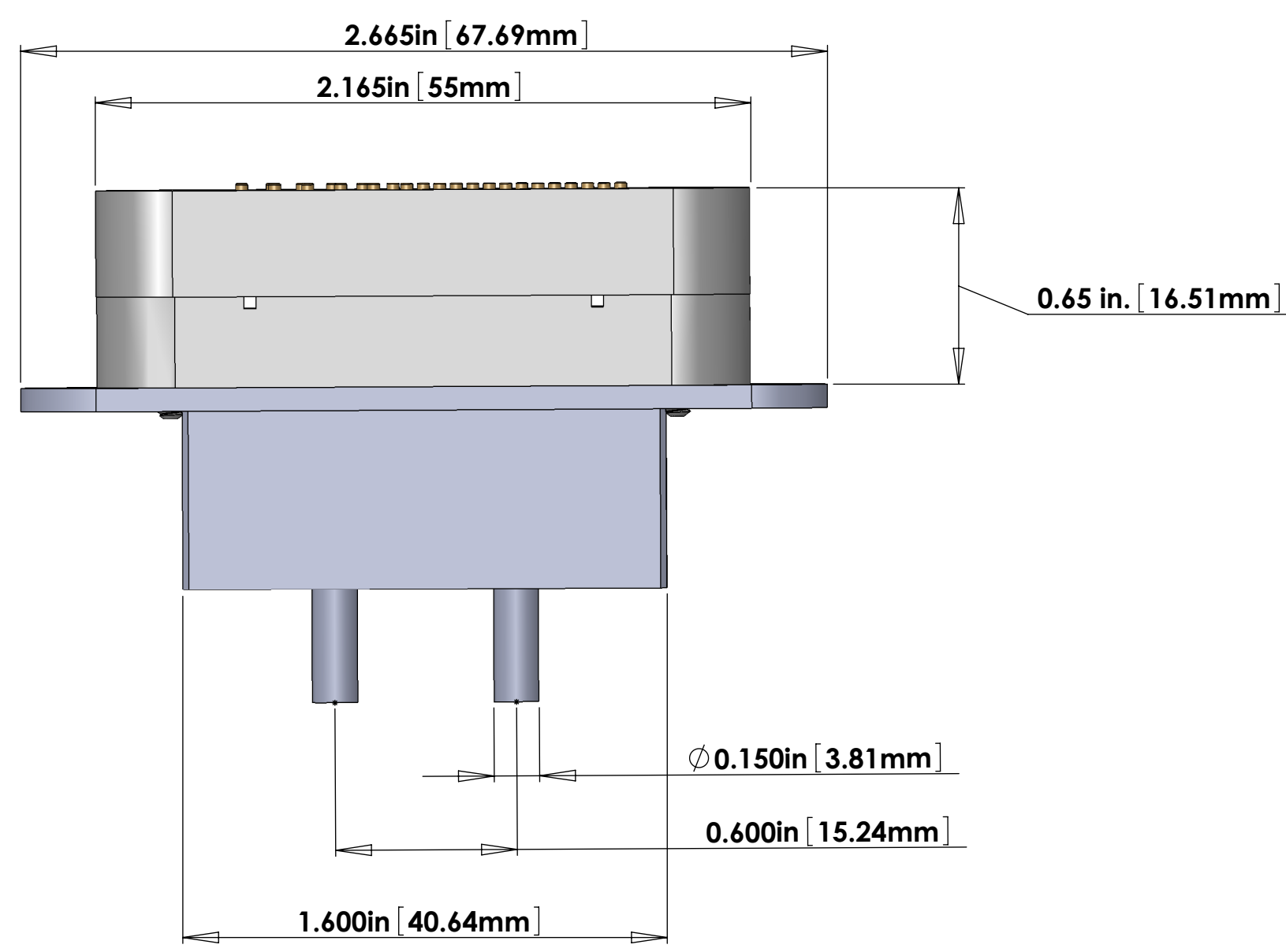


- NOTES CONTINUED:
- SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE 07" HIGH CHARACTERS. EXAMPLE: DXXXXXXVY, S/N 001. VIBRATORY TOOL MAY BE USED.
  - APPROXIMATE WEIGHT = X.XXXX LB.
  - MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-ED900364
  - ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION ED900364.
  - 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 40 THREADED INSERTS.
  - ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS, PLUGS OR RECYCLED MATERIAL). NO REPAIRS SHALL BE MADE UNLESS APPROVED BY ADVANCE, AND IN WRITING, BY LIGO LABORATORY. REFER TO LIGO-ED900364.
  - SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.
  - PART WILL BE PORCELAIN COATED PER LIGO SPECIFICATION E100083 AFTER FABRICATION. THE INDICATED HOLES WILL BE MASKED PRIOR TO PORCELAIN COATING TO APPROXIMATELY 2.5-3X HOLE DIAMETER CENTERED ON BOTH SIDES OF THE HOLE.
  - DIMENSIONS APPLY BEFORE PORCELAIN COATING UNLESS SPECIFIED.
  - BEND RADIUS: UNLESS OTHERWISE NOTED, THE BEND RADIUS SHOULD BE THE MINIMUM REQUIRED TO FORM WITHOUT CRACKING OR REQUIRING ADDITIONAL WORK WHEN FORMING. IN PARTICULAR IF SHEET METAL IS TO BE PORCELAIN COATED, THE BEND RADIUS SHALL BE A MINIMUM OF .12" OUTSIDE RADIUS OF BEND UNLESS OTHERWISE NOTED.

**25 PIN D CONNECTOR MALE J1**

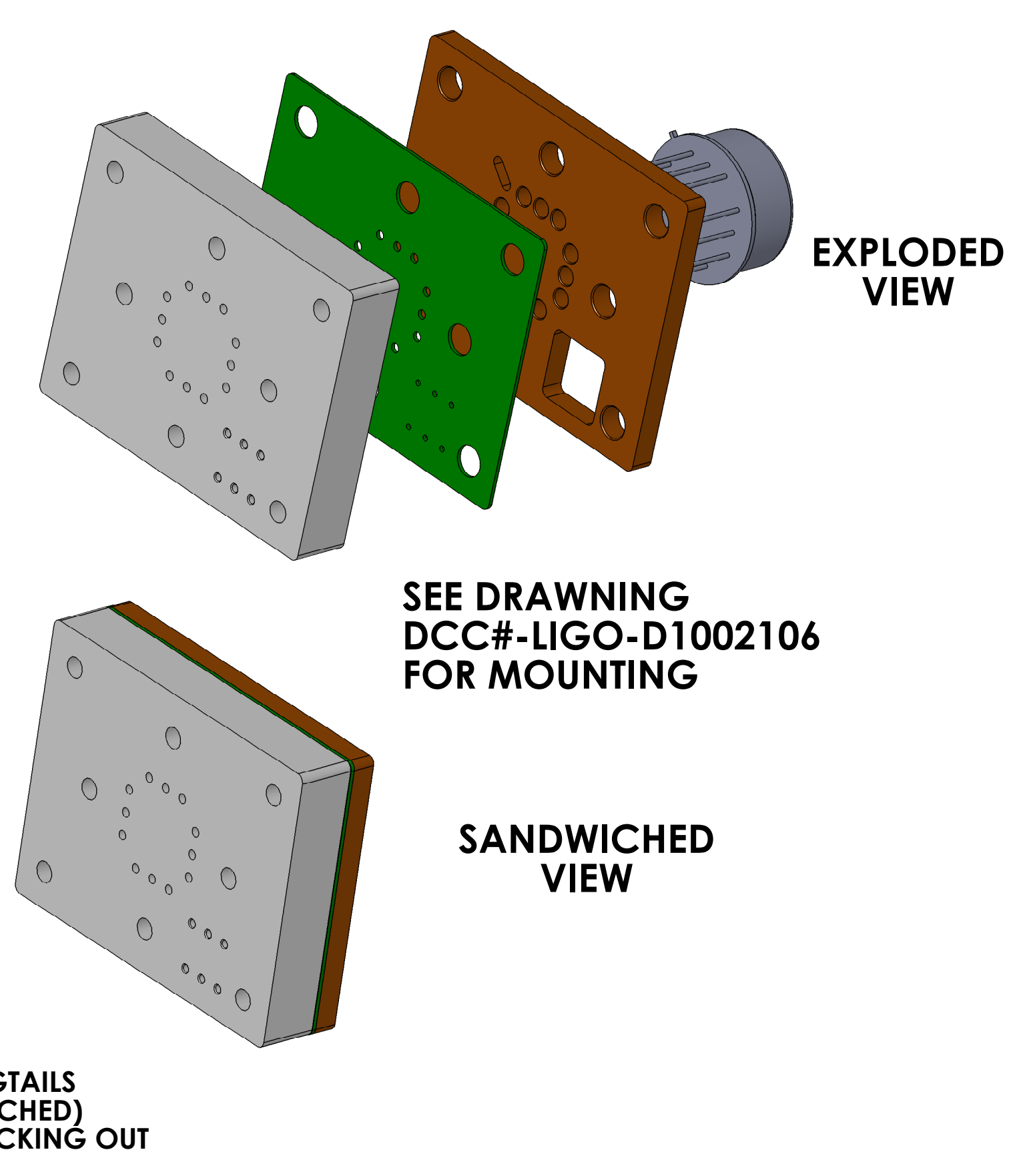
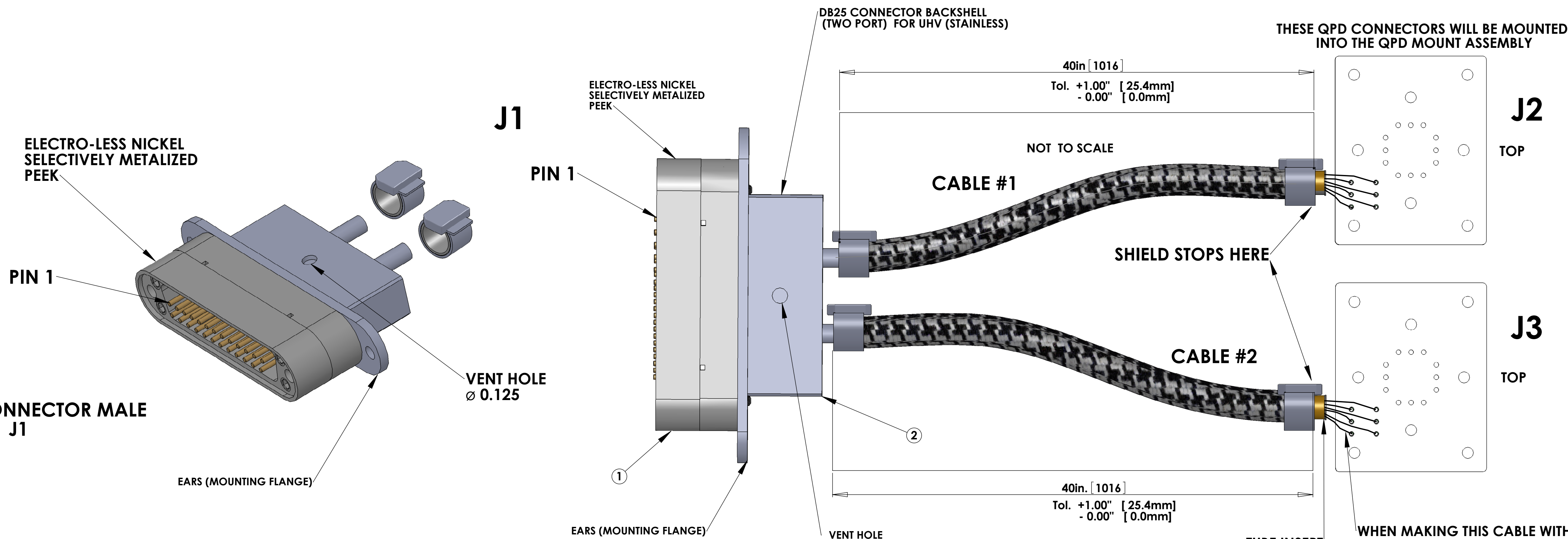


BILL OF MATERIALS				
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
1	CUSTOM DB25 MALE TICOR# TS0145-1 INCLUDING TICOR #S 034-1206-2520 (1ea.), 034-1202-2520 (1ea.), 1185-04CN336 (2ea.), 013-2701-0001 (4ea) and M39029/58-363 (25ea)	DB25 MALE CONNECTOR (J1) FOR UHV - ELECTRO-LESS NICKEL SELECTIVELY METALIZED (PEEK) (COMPLETE CONNECTOR)	1	
2	TICOR #040-2725-2502	DB25 CONNECTOR BACKSHELL (TWO PORT) FOR UHV (STAINLESS)	1	
3		QPD FEMALE CONNECTOR (J2,J3) FOR UHV (PEEK)	2	
4	C1	6 COND. CABLE WITH COPPER BRAID (SHIELD) AND PEEK OVERBRAID INCLUDING 6 28GA. WIRES WITH CZ1105 PFA INSULATION	2	40in., * 40in., *
5	PARKER# 4 TIZ-188-SS	1/4" TUBE INSERT 1/4" LENGTH 0.188" o.d.	2	
6	GLENNAIR 600-052	GLENNAIR 600-052 STANDARD BRAID CLAMP	4	

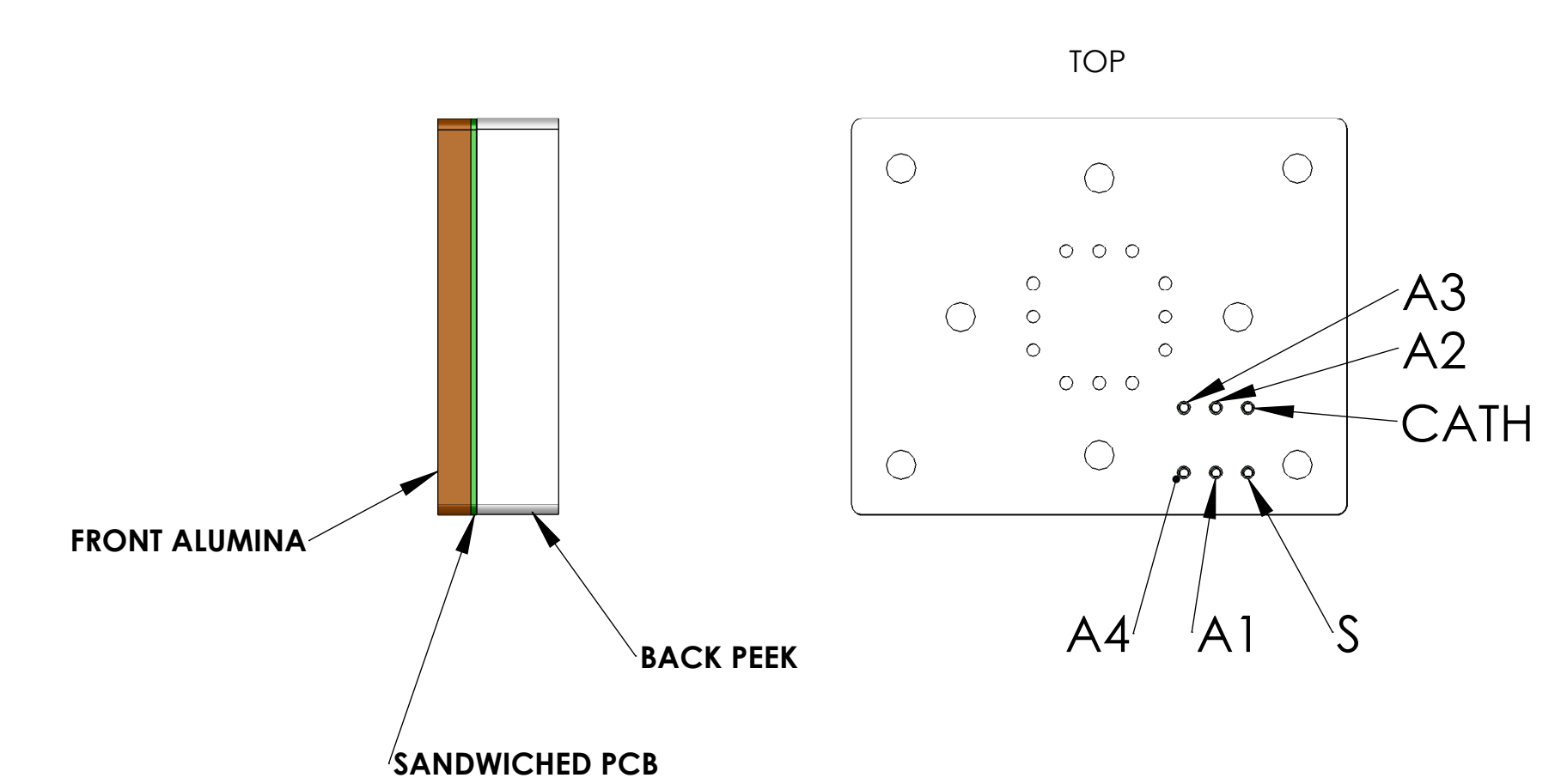
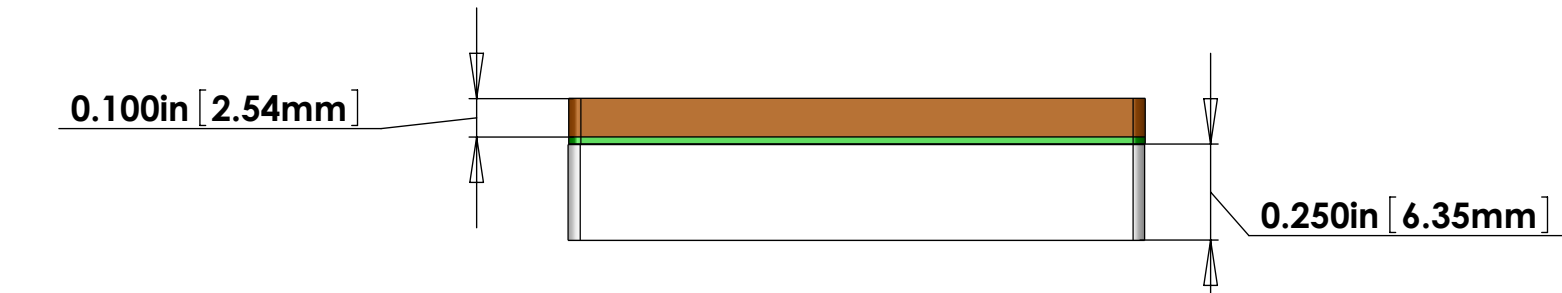
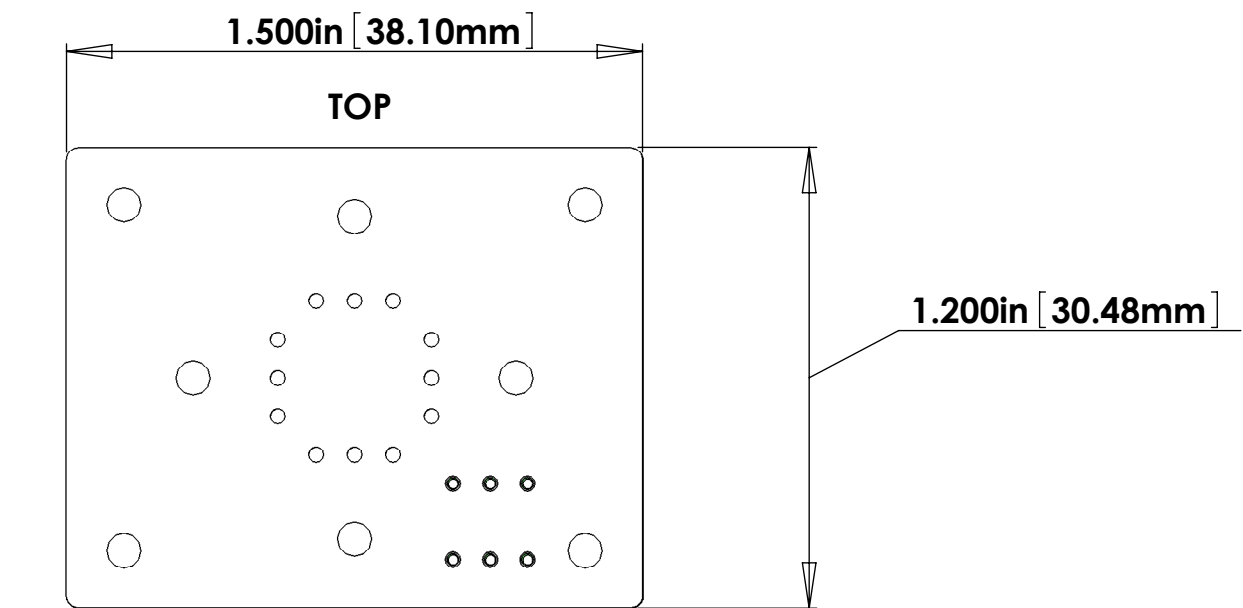
\* NOTE: USE WHATEVER LENGTH IS NECESSARY FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH TO ACHIEVE THE CORRECT OVERALL LENGTHS.

NOTES: ( UNLESS OTHERWISE SPECIFIED )

- MATERIAL: a. J1 CONNECTOR SHELL - SELECTIVELY METALIZED OVER PEEK VICTREX 450GL30  
b. BACKSHELL - STAINLESS STEEL WITH VENT HOLE  
c. CONTACTS - BERYLLIUM COPPER ALLOY C17300 0.00050 MIN. GOLD OVER NICKEL  
d. HARDWARE: CORROSION RESISTANCE STEEL PASSIVATED  
e. PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED - SUPPLIED BY LIGO
- CABLE 6 COND. 28 AWG. ( 40 STRD 44 AWG ) WITH CZ1105 PFA INSULATION OVERALL 40AWG COPPER BRAID 90% COVERAGE - SUPPLIED BY LIGO OVERALL PEEK BRAID MIN. 50% COVERAGE - SUPPLIED BY LIGO OVERALL CABLE O.D. WILL BE APPROX. 0.240 IN.
- CONNECTORS WILL BE SUPPLIED WITH HARDWARE ( LENGTH OF SCREWS AS SHOWN ARE APPROXIMATE SCREWS SHOULD BE THE PROPER LENGTH FOR PROPER MATING )



**QPD CONNECTOR J2, J3**



V25T CABLE ASSEMBLY CIRCUIT SUMMARY							
V-DB25 M/S1-40,40-2_QPD							
FROM				TO			
CONNECTOR J1 - 25 PIN SUBMINI D MALE CONNECTOR SELECTIVELY METALIZED (PEEK)				CONNECTOR J2 - QPD FEMALE CONNECTOR (PEEK)		PCB CONNECTION	
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR	PIN	WIRE NAME	SIGNAL
1, SHELL	SHIELD (BRAID)		40 in.*		CONNECTED ONLY TO BRAID CLAMP	SHIELD (BRAID)	SHIELD
13	(CABLE 1) WIRE 13	White	40 in.*	TP-1	A4	(CABLE 1) WIRE 13	QPD 1 ANODE 4
25	(CABLE 1) WIRE 25	White	40 in.*		A3	(CABLE 1) WIRE 25	QPD 1 ANODE 3
12	(CABLE 1) WIRE 12	White	40 in.*	TP-2	A2	(CABLE 1) WIRE 12	QPD 1 ANODE 2
24	(CABLE 1) WIRE 24	White	40 in.*		A1	(CABLE 1) WIRE 24	QPD 1 ANODE 1
11	(CABLE 1) WIRE 11	White	40 in.*	TP-3	S	(CABLE 1) WIRE 11	QPD 1 SENSE
23	(CABLE 1) WIRE 23	White	40 in.*		CAT	(CABLE 1) WIRE 23	QPD 1 CATHODE
CONNECTOR J3 - QPD FEMALE CONNECTOR (PEEK)				CONNECTOR J3 - QPD FEMALE CONNECTOR (PEEK)		PCB CONNECTION	
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR	PIN	WIRE NAME	SIGNAL
1, SHELL	SHIELD (BRAID)		40 in.*		CONNECTED ONLY TO BRAID CLAMP	SHIELD (BRAID)	SHIELD
10	(CABLE 2) WIRE 10	White	40 in.*	TP-4	A4	(CABLE 2) WIRE 10	QPD 2 ANODE 4
22	(CABLE 2) WIRE 22	White	40 in.*		A3	(CABLE 2) WIRE 22	QPD 2 ANODE 3
9	(CABLE 2) WIRE 9	White	40 in.*	TP-5	A2	(CABLE 2) WIRE 9	QPD 2 ANODE 2
21	(CABLE 2) WIRE 21	White	40 in.*		A1	(CABLE 2) WIRE 21	QPD 2 ANODE 1
8	(CABLE 2) WIRE 8	White	40 in.*	TP-6	S	(CABLE 2) WIRE 8	QPD 2 SENSE
20	(CABLE 2) WIRE 20	White	40 in.*		CAT	(CABLE 2) WIRE 20	QPD 2 CATHODE
PIN 14,2,15,3,16,4,17,5,18,6,19,7 N/C (NOT CONNECTED)							

\* USE WHATEVER LENGTH IS NECESSARY FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH TO ACHIEVE THE CORRECT OVERALL LENGTHS. : INCLUDE NOM. 40in. LENGTH + STRIP LENGTH + INTERNAL SERVICE LOOPS + 6in. FOR PIGTAILS.

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

DIMENSIONS ARE IN INCHES		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME			
TOLERANCES: .XX ± .XXX ±		1. INTERPRET DRAWING PER ASME Y14.5-1994 2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO		SYSTEM		SUB-SYSTEM	
ANGULAR ± °		MATERIAL: Material <not specified>		FINISH: μinch		NEXT ASSY			
DESIGNER: R. ABBOTT		DRAFTER: E. BROWN		CHECKER:		APPROVAL:			
DATE: AUG/22/2011		DATE: AUG/22/2011		DATE: AUG/22/2011		DATE: AUG/22/2011			
DWG. NO. D1101654		SCALE: 2:1		PROJECTION:		SHEET 1 OF 1			
REV. v1									