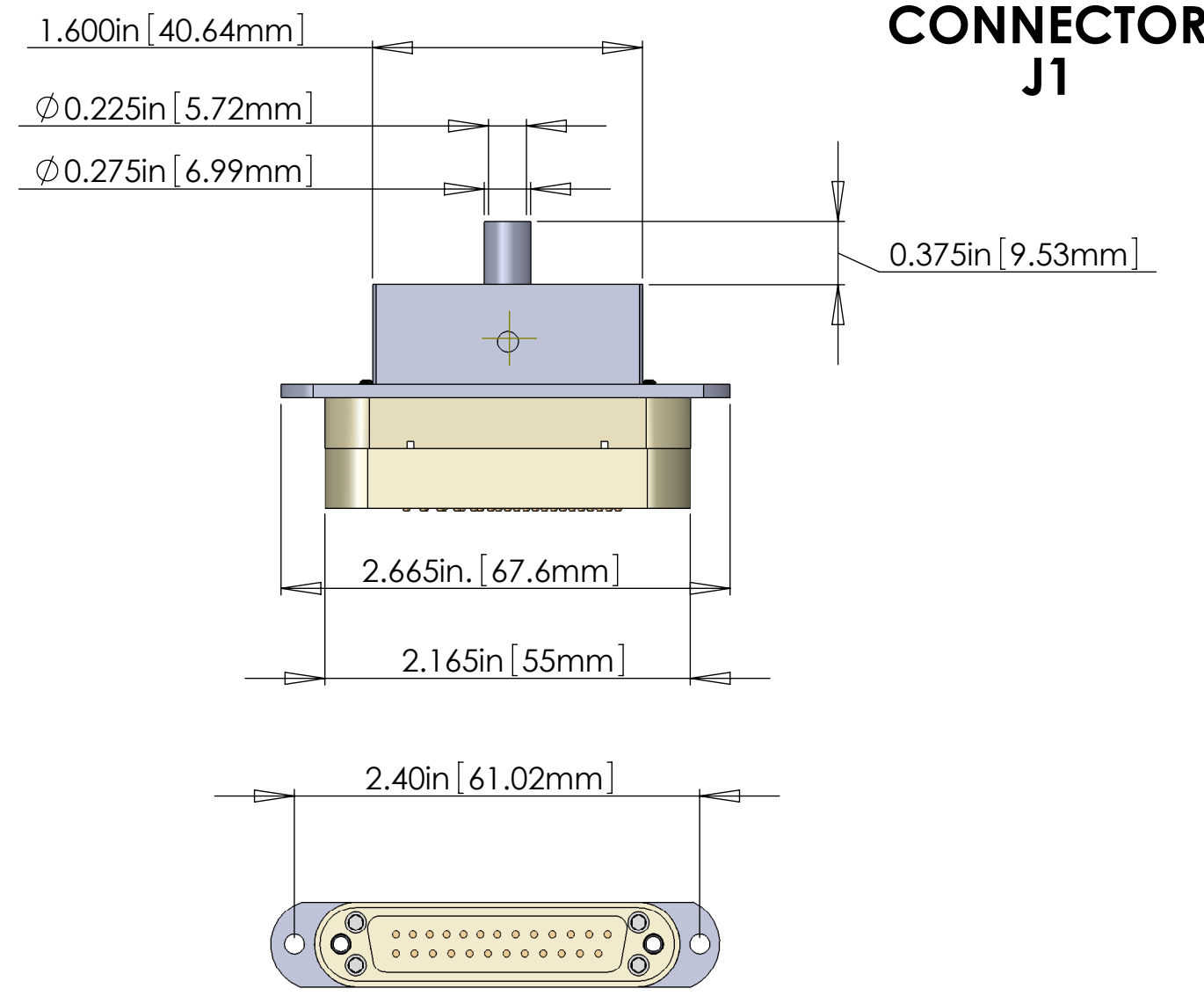
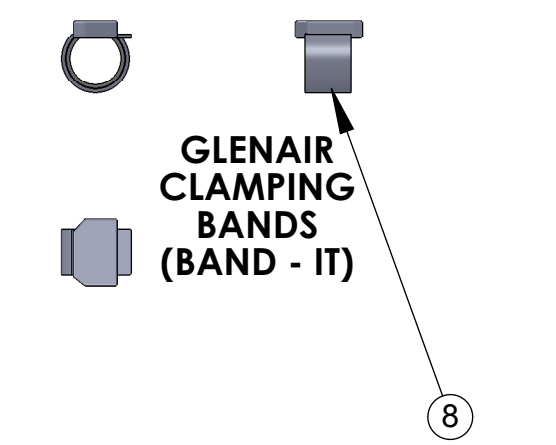


NOTES CONTINUED:
 ⑤ SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS.
 DXXXXXX-VY, S/N 001.
 VIBRATORY TOOL MAY BE USED.

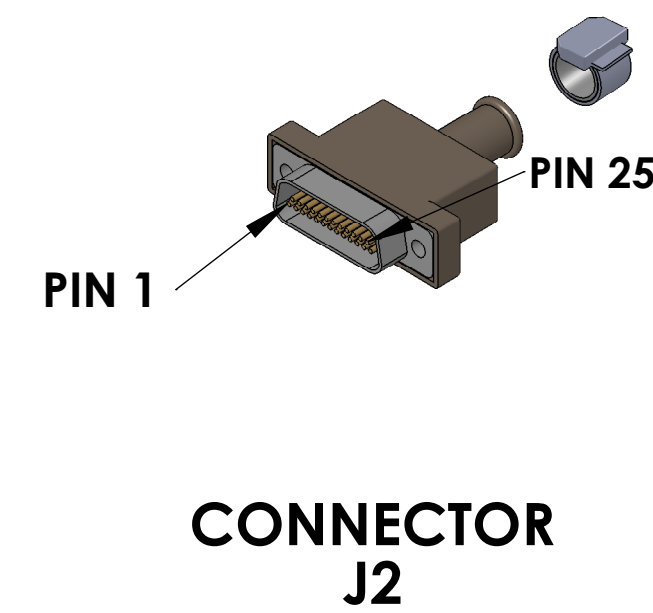
6. APPROXIMATE WEIGHT = X.XXX LB.
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-ED900364
8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
9. ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC2000, REV 4
10. ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL. AFTER DELIVERY OF FINISHED PARTS, USE NITRONIC 60 THREADED INSERTS.
11. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS, PLUGS OR RECYCLED MATERIAL), NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. REFER TO LIGO-ED900364.
12. SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.
13. PART WILL BE PORCELAIN COATED PER LIGO SPECIFICATION E1000083 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.
14. DIMENSIONS APPLY BEFORE PORCELAIN COATING UNLESS SPECIFIED.
15. 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.



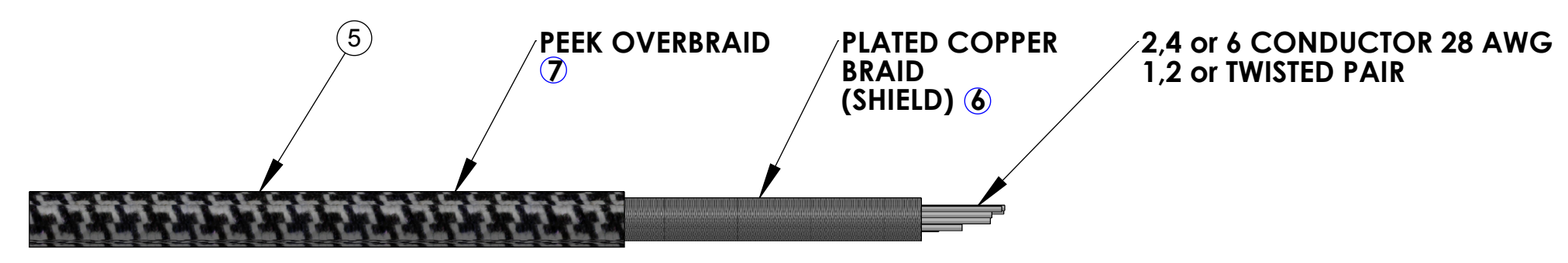
CONNECTOR J1



GLENAIR CLAMPING BANDS (BAND - IT)



CONNECTOR J2



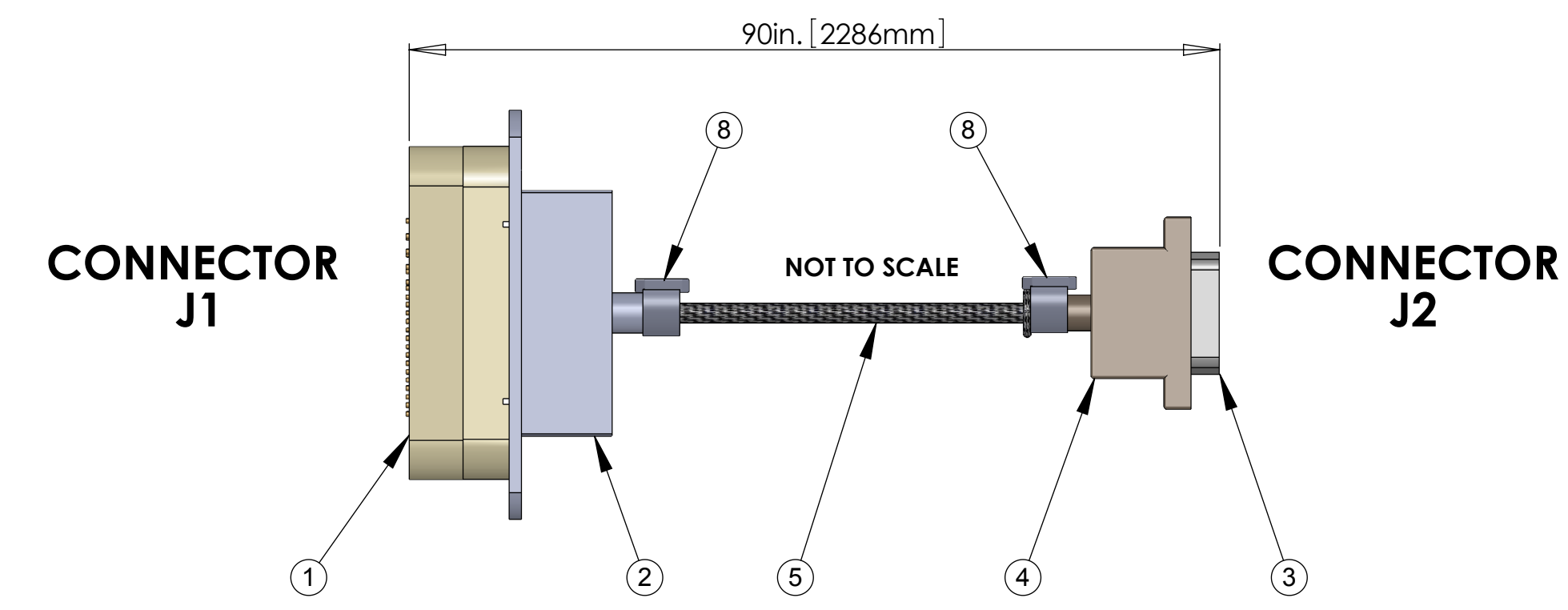
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
①	TICOR PART # TS0086-1	DB25 MALE CONNECTOR (J1) FOR UHV (PEEK)	1	
②	TICOR PART # TS-0143-1	DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS)	1	
③	TICOR PART # TS-0143-1	MicroD25 FEMALE CONNECTOR (J2) FOR UHV	1	
④	BACKSHELL (included in PART # TS-0143-1)	MicroD25 CONNECTOR BACKSHELL FOR UHV	1	
⑤	C1	25 COND. (12 TW PAIR + 1 WIRE + SHIELD) CABLE WITH COPPER BRAID (SHIELD) ⑥ AND PEEK OVERBRAID ⑦	1	90in *
⑥	CONTINENTAL PART #24x4x40BC	COPPER BRAID - CONTINENTAL CORDAGE PART #24x4x40BC	1	
⑦	PART #6759	PEEK BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK PEEK DRAWN MONOFILAMENT	1	
⑧	GLENAIR 600-052	GLENAIR 600-052 STANDARD BRAID CLAMP (BAND - IT)	2	

* NOTE: THE OVERALL LENGTH IS MEASURED FROM PIN TIP (25 PIN D-SUB) TO PIN TIP (25 PIN μD) OF THE CABLE. Use whatever length is necessary for the internal wiring of the connectors and strip length to achieve the correct overall length.

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. MATERIAL:
 - a. CONNECTOR SHELL - PEEK - VICTREX 450GL30.
 - b. BACKSHELL - STAINLESS STEEL WITH VENT HOLE.
 - c. CONTACTS - BERYLLIUM COPPER ALLOY C17300 0.000050 MIN. GOLD OVER NICKEL
 - d. HARDWARE: CORROSION RESISTANCE STEEL, PASSIVATED
 - e. PEEK BRAID - PEEK CARBON LOADED
2. CABLE 25 COND. 28 AWG (65/46), WITH PFA INSULATION COONER WIRE #CZ1105
 12 TWISTED PAIRS (4 TO 5 TWISTS PER INCH) + 1 WIRE
 OVERALL 40AWG SILVER PLATED COPPER BRAID 90% COVERAGE
 OVERALL PEEK BRAID MIN. 50% COVERAGE
 OVERALL CABLE O.D. WILL BE 0.240 IN.

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN	1. INTERPRET DRAWING PER ASME Y14.5-1994.
TOLERANCES:	2. REMOVE ALL SHARP EDGES, R.02 MIN.
.XX ±	3. DO NOT SCALE FROM DRAWING.
.XXX ±	4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.
ANGULAR ± °	



V25G-90 CABLE ASSEMBLY CIRCUIT SUMMARY V-DB25 M/S1-90-μD25 F/S1

CABLE NAME	COND.- WIRE ID	TWISTED PAIR	LENGTH *	FROM	TO
V25G-90	25 COND. CABLE	(12 TOTAL)	90 in.	Conn. J1	Conn. J2
C1	SHIELD (COPPER BRAID)		90 in.	PIN 1, SHIELD & SHELL	PIN 1, SHIELD & SHELL
	W1	SINGLE WIRE	90 in.	PIN 1, SHIELD & SHELL	PIN 1, SHIELD & SHELL
	W2	TP-1	90 in.	PIN 2	PIN 2
	W14		90 in.	PIN 14	PIN 14
	W3	TP-2	90 in.	PIN 3	PIN 3
	W15		90 in.	PIN 15	PIN 15
	W4	TP-3	90 in.	PIN 4	PIN 4
	W16		90 in.	PIN 16	PIN 16
	W5	TP-4	90 in.	PIN 5	PIN 5
	W17		90 in.	PIN 17	PIN 17
	W6	TP-5	90 in.	PIN 6	PIN 6
	W18		90 in.	PIN 18	PIN 18
W7	TP-6	90 in.	PIN 7	PIN 7	
W19		90 in.	PIN 19	PIN 19	
W8	TP-7	90 in.	PIN 8	PIN 8	
W20		90 in.	PIN 20	PIN 20	
W9	TP-8	90 in.	PIN 9	PIN 9	
W21		90 in.	PIN 21	PIN 21	
W10	TP-9	90 in.	PIN 10	PIN 10	
W22		90 in.	PIN 22	PIN 22	
W11	TP-10	90 in.	PIN 11	PIN 11	
W23		90 in.	PIN 23	PIN 23	
W12	TP-11	90 in.	PIN 12	PIN 12	
W24		90 in.	PIN 24	PIN 24	
W13	TP-12	90 in.	PIN 13	PIN 13	
W25		90 in.	PIN 25	PIN 25	

* The length shown in this list is the overall length of the cable from connector end to connector end. Change length as necessary to compensate for the internal wiring of the connectors and strip length.

V-DB25 M/S1-90-μD25 F/S1		
STANDARD USE FOR THIS CABLE		
SUBSYSTEM	AIR/VAC	STANDARD USE
SUS	IN-VAC	QUAD SUSPENSION UIM

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME CUSTOM CABLE SPECIFICATION V25G-90 V-DB25 M/S1-90-μD25 F/S1	
DESIGNER	E. BROWN	SEP/26/2011	SIZE DWG. NO.
DRAFTER			D
CHECKER			LIGO-D1002521-
APPROVAL			REV. v3
SCALE: NONE		PROJECTION:	SHEET 1 OF 1