

***FULL SPECTRUM SYSTEM
2200-M (6000m) ADDENDUM***

ADDENDUM TO TECHNICAL & USER'S MANUAL

DELIVERY SPECIFIC DOCUMENT

Customer: *WHOI*

Ship Date: *January, 2010*

Document No: *990-F094028-1000*

Product ID: *2672-ABCF*

Sales Order: *F094028*



An Affiliate Company of ORE Offshore

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1. System Hardware Block Diagram

The System block diagram attached (DWG: 900-F094028-0101) shows the system major hardware components and their connectivity. Refer to this drawing for a quick overview of the overall system layout and for drawings and parts index.

2. Processor Electronics Block Diagram

The Processor block diagram attached (DWG: 800- F094028-0101) shows the processor electronic components and connectivity specific to the system purchased. Please refer to this when considering system specific replacement parts and cabling.

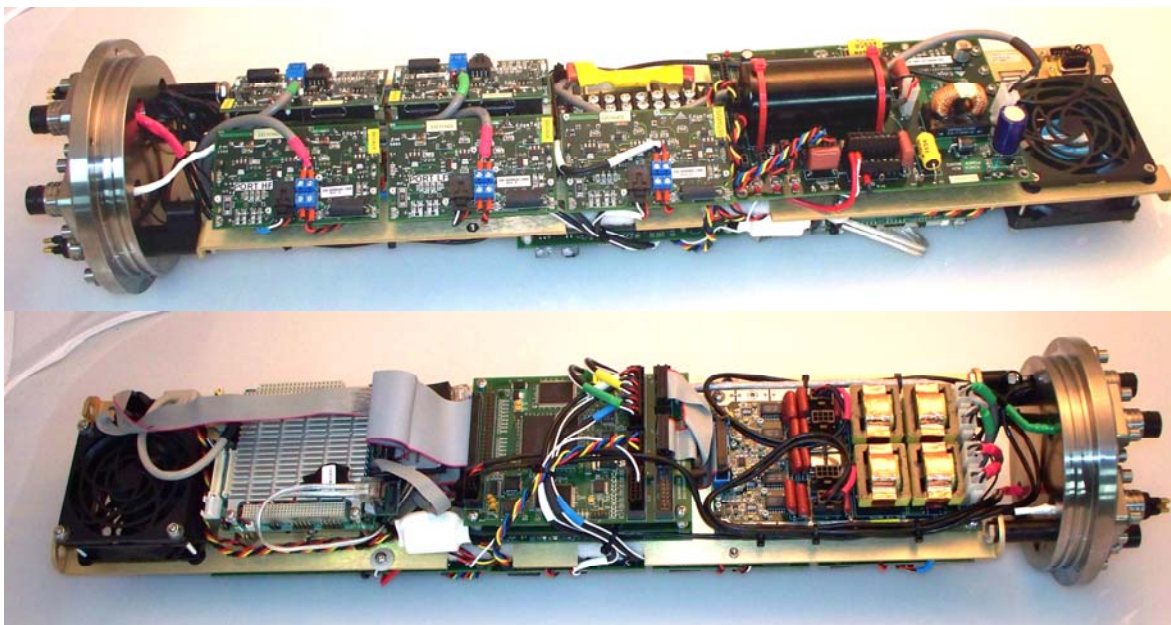


Figure 1: Processor Electronics

3. Cabling

The full system block diagram (DWG: 900- F094028-0101) and the processor block diagram (DWG: 800- F094028-0101) show the drawing numbers of all the systems cabling schematics. The end cap configuration can be seen in drawing 300-0000755-0105.

3.1 J1 Connector

J1 provides connection for 48VDC input, Ethernet telemetry and Trigger A. Refer to end cap drawing (DWG: 300-0000755-0105) and User Connection wiring diagram (DWG: 300-0000522-0105) for wiring configuration.

3.2 Side Scan and Sub-Bottom Cables

The pin outs and connections for the side scan arrays can be seen in drawing 300-0000238-0105, to be connected to J2 (Port) and J5 (Starboard) of the end cap.

The sub-bottom transmit cable (DWG: 300-0000450-0105) should be connected to J3 and the sub-bottom receive cable (DWG: 503-0000025-0105) connected to J4 of the end cap.

3.3 J6 Connector

J6 connector provides access to a serial port (COM 1) and Trigger B. Refer end cap drawing with (DWG: 300-0000755-0105) and User Connection wiring diagram (DWG: 300-0000498-0105) for wiring configuration. This connector is not used but Com 1 RS232 port can be configured and used for future interfacing as required (Note: Com 2 is not connected).

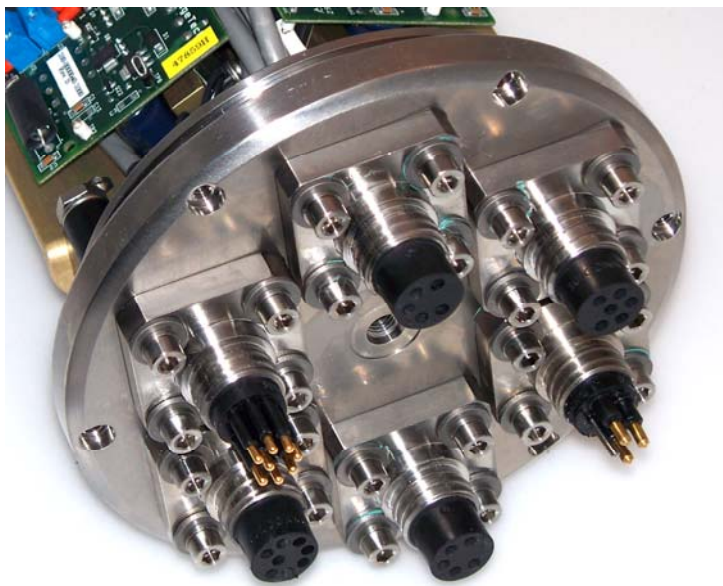


Figure 2: End Cap

4. Sonar.ini Setting

[Main]

Config=ATAPI_SBSS

CompressNet=1

=====

[SUB0]

TriggerMask=1 ; Trig A INput

TriggerOutLength=30000

[SUB1]

TriggerMask=1

;AutoPulseMode=1

[SUB1IO0]

;PROCESSING_PAKDELAY=-1

[SUB1IO1]

;PROCESSING_PAKDELAY=-1

[SUB2]

TriggerMask=1

TriggerOutLength=30000

;AutoPulseMode=1

[SUB2IO0]

;PROCESSING_PAKDELAY=-1

[SUB2IO1]

;PROCESSING_PAKDELAY=-1

[DSP0]

;TimeSyncMask=2

[File] - Store and Forward

PrimaryDrive=E:

BaseName=\DATA\DATA

MaxFileSize=50

MaxFileTime=600

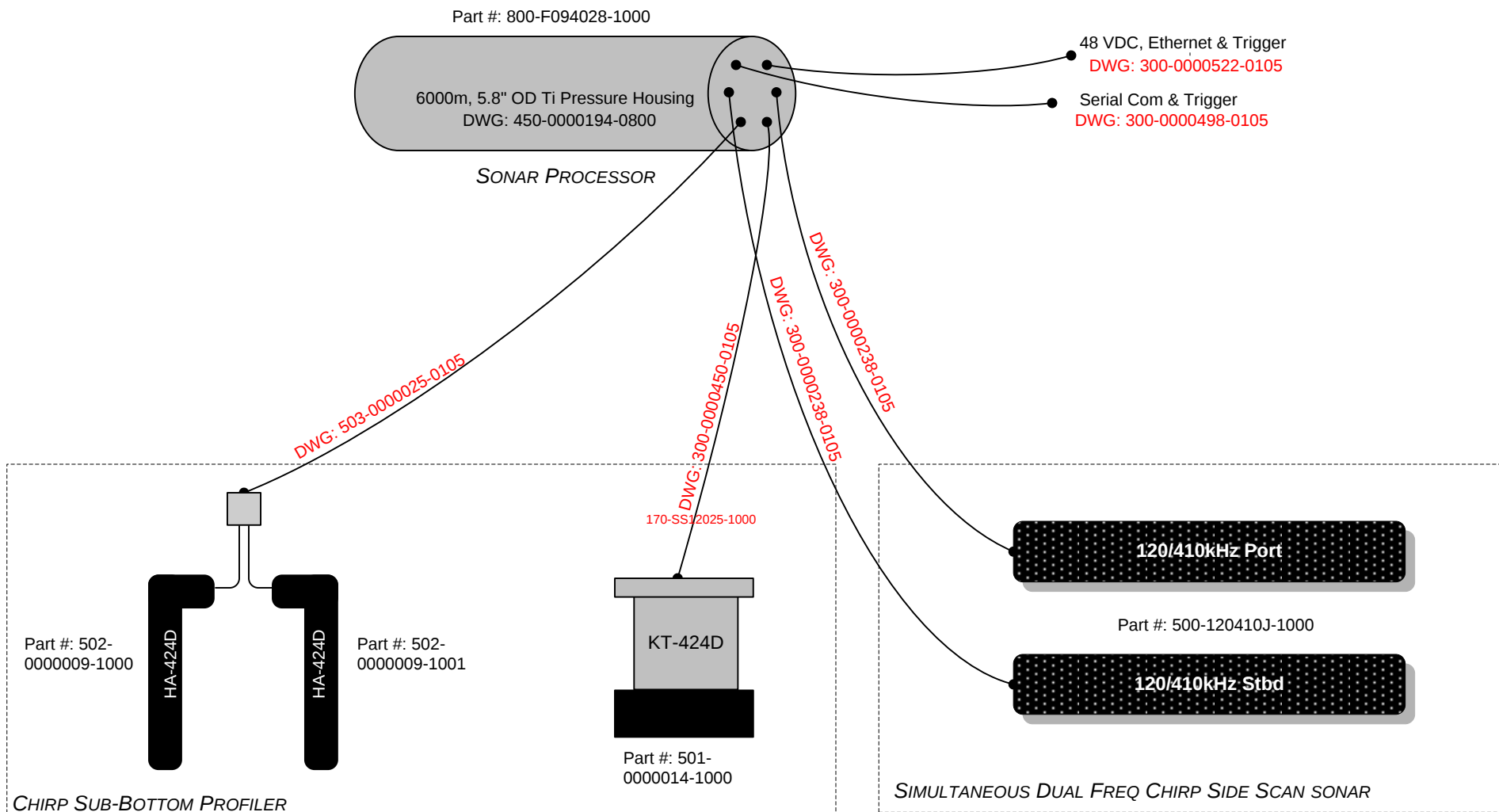
FileQueueSize=2000

5. SonarSerial.ini Setting

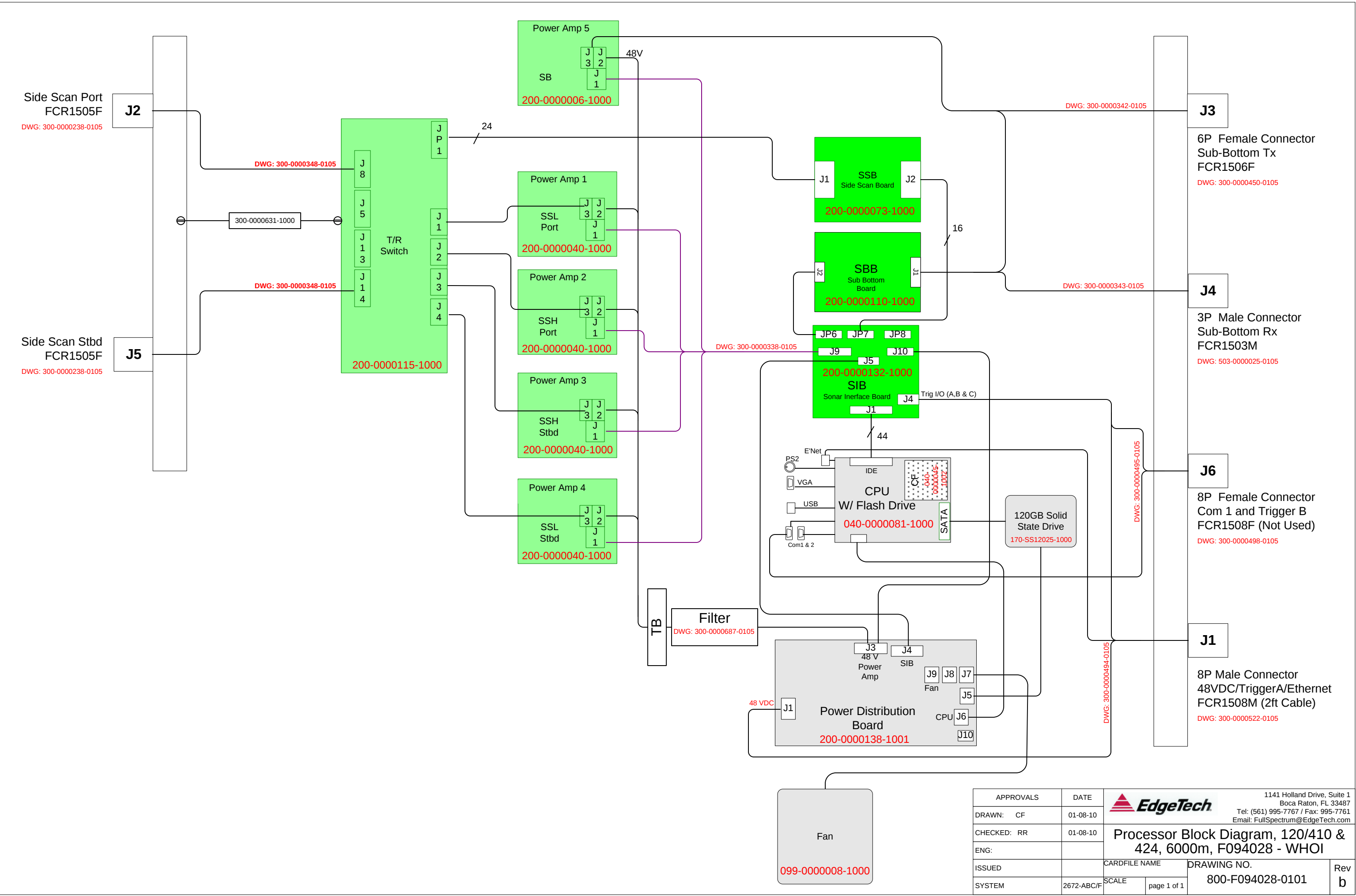
```
;-----  
; User Available 1  
;-----  
[Serial1]      ; Logical Port  
Port=1         ; Physical Port  
Create=1  
Parser=0  
Baud=9600  
NetworkRaw=1  
  
-----  
; User Available 2  
;-----  
[Serial2]      ; Logical Port  
Port=2         ; Physical Port  
Create=1  
Parser=0  
Baud=9600  
NetworkRaw=1  
;-----
```

6. Attached Documents:

Title	Drawing Number	Rev No.
System Block Diagram	900- F094028-0101	A
Processor Block Diagram	800- F094028-0101	B
End Cap Connectors Arrangement	300-0000755-0105	A
48V Power Connection Wiring (J1)	300-0000522-0105	B
User Port Wiring Configuration (J6)	300-0000498-0105	B
Side Scan Array Cables (J2/J5)	300-0000238-0105	5
Sub-Bottom Tx-Cable (J3)	300-0000450-0105	D
Sub-Bottom Rx-Cable (J4)	503-0000025-0105	B
6000m Pressure Housing Mechanical Drawing	450-0000194-0800	A
Side Scan 120/410 kHz Array Mechanical Drawing	500-120410J-0800	B
KT-424D Transducer Mechanical Drawing	450-0000150-0800	A
HA-424D Hydrophone Array Mechanical Drawings	450-0000149-0800	A

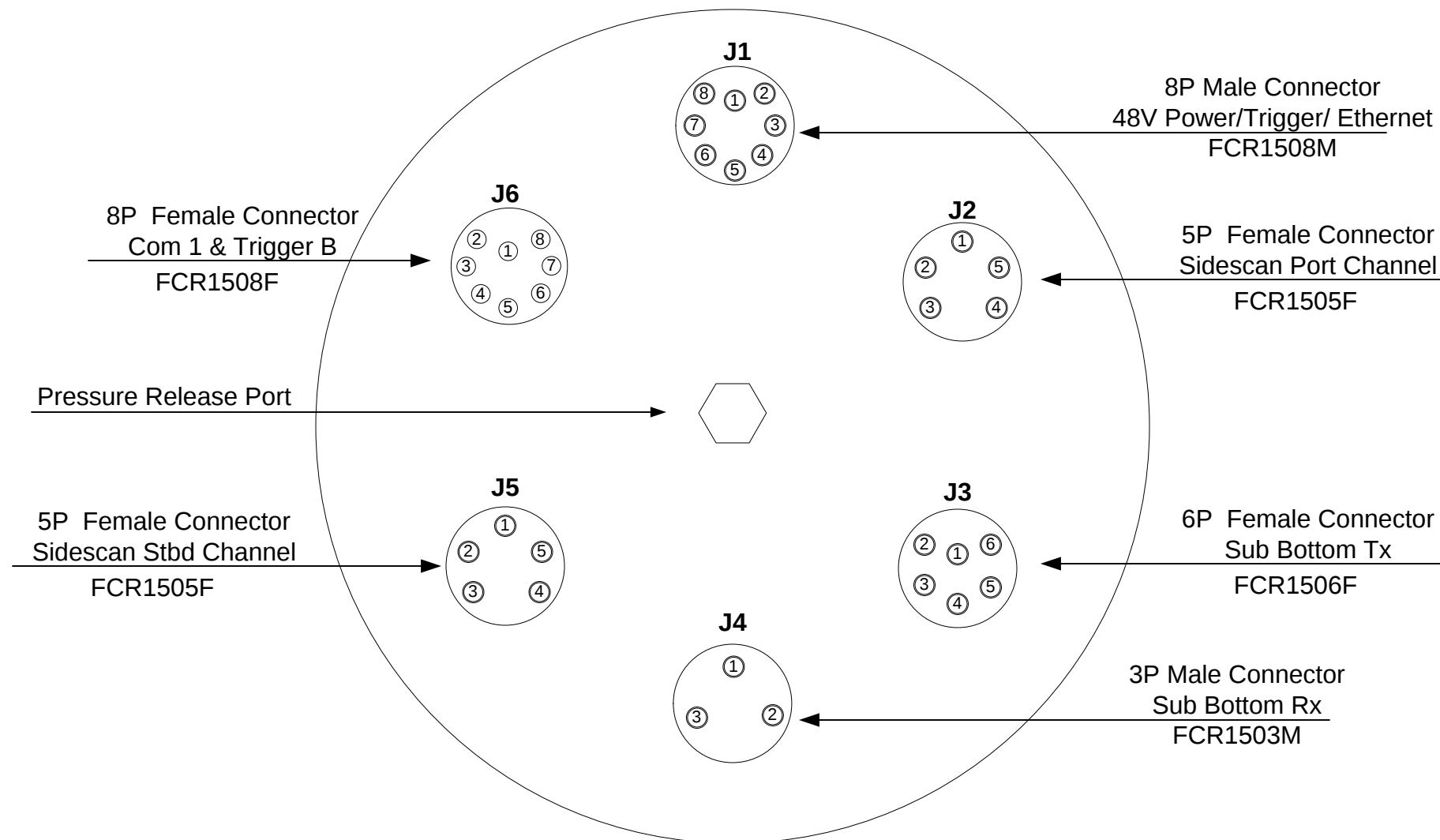


APPROVALS		DATE		 1141 Holland Drive, Suite 1 Boca Raton, FL 33487 Tel: (561) 995-7767 / Fax: 995-7761 Email: FullSpectrum@EdgeTech.com			
DRAWN: CF		01-08-10					
CHECKED: RR		01-08-10		System Block Diagram, 120/410 & 424 6000m, F094028 - WHOI			
ENG:							
ISSUED				CARDFILE NAME	DRAWING NO.	REV	
SYSTEM		2672-ABC/F		SCALE	page 1 of 1	900-F094028-0101	a



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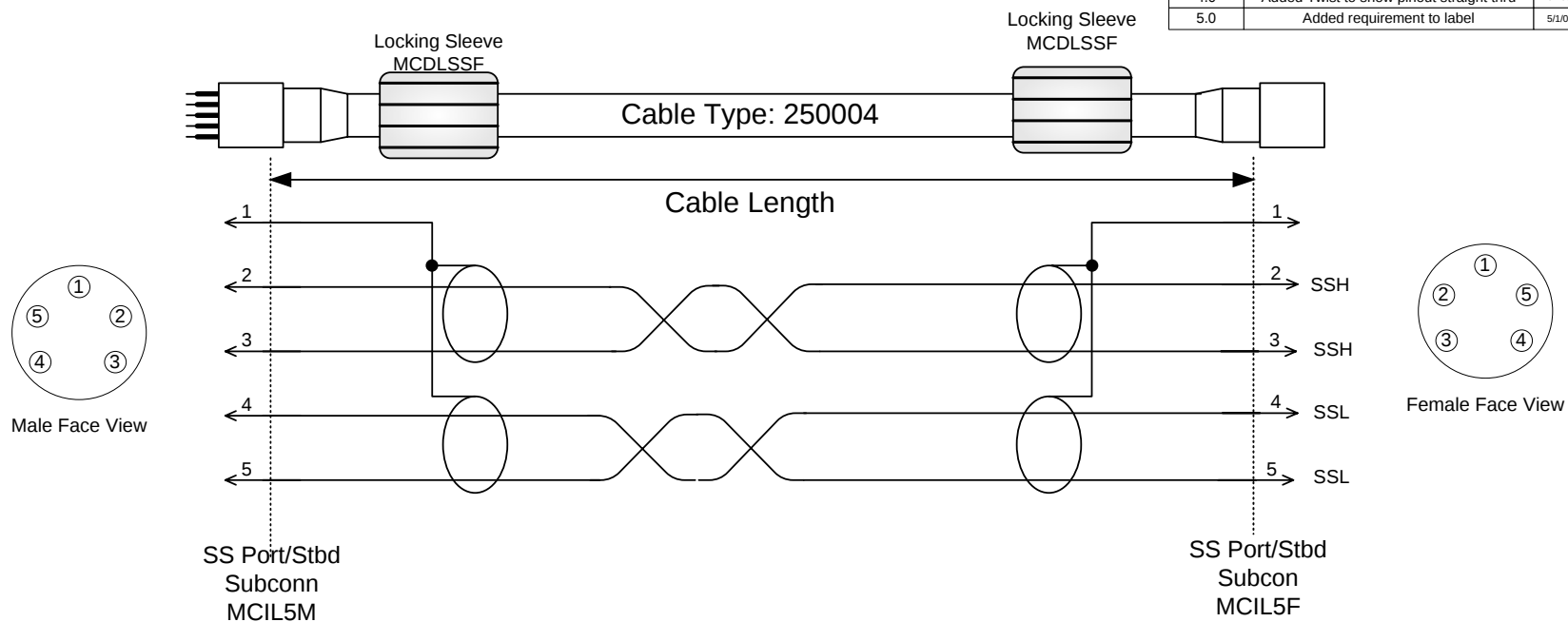
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Initial Release	1/14/10	



APPROVALS		DATE	 1141 Holland Drive, Suite 1 Boca Raton, FL 33487 Tel: (561) 995-7767 / Fax: 995-7761 Email: FullSpectrum@EdgeTech.com	
DRAWN: CF		01-14-10		
CHECKED:			End Cap Connector Arrangement FE094028, 6000M, 5" ID Housing,	
ENG:				
ISSUED			CARDFILE NAME	DRAWING NO.
SYSTEM		2672-ABC/F	SCALE	300-0000755-0105
			page 1 of 1	REV A

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
1.0	Init Release	3-12-07	MS
2.0	Added Cable Length Table	1/28/08	CF
3.0	Removed cable wire colors	3/18/08	CF
3.1	Added cable length to table	4/15/08	CF
3.2	Change naming in table	5/28/08	CF
4.0	Added Twist to show pinout straight thru	2/22/09	RR
5.0	Added requirement to label	5/1/09	RR



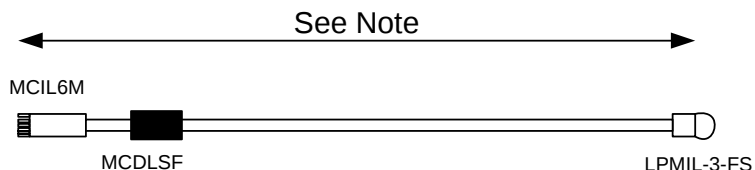
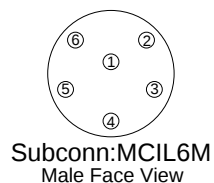
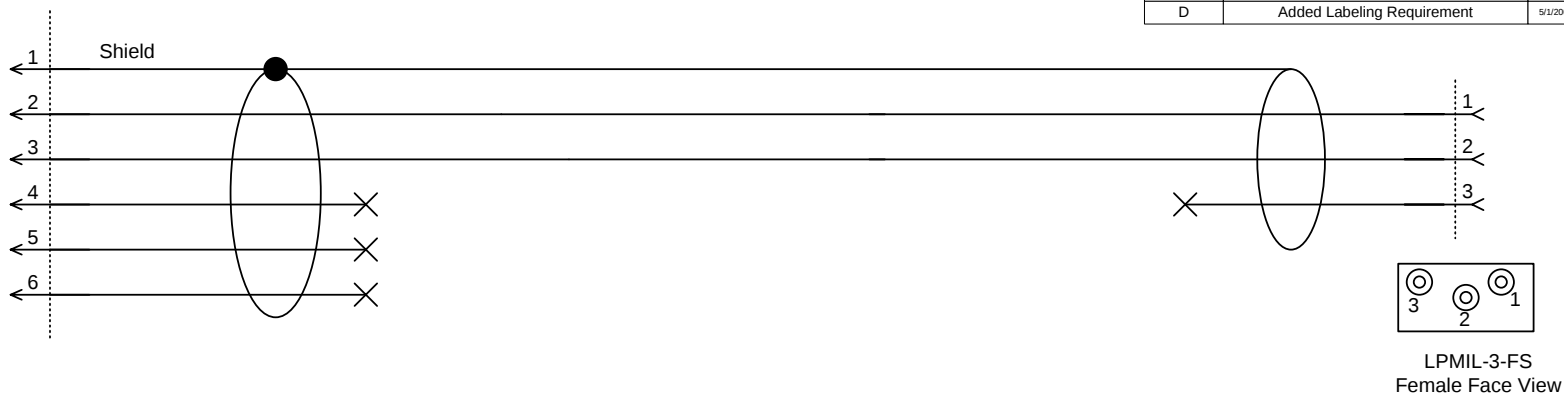
PART #	Cable Length
300-0000238-1000 (Standard)	8 Feet +1", -0.0"
300-0000314-1000	40 Feet +1", -0.0"
300-0000315-1000	30 Feet +1", -0.0"
300-0000316-1000	20 Feet +1", -0.0"
300-0000323-1000	5 Meter +20/-0mm
300-0000358-1000	12 Feet +1", -0.0"
300-0000369-1000	50 Feet +1", -0.0"
300-0000449-1000	38" +0.5", -0.0"
300-0000463-1000	10 Feet +1", -0.0"
300-0000464-1000	15 Feet +1", -0.0"
300-0000524-1000	1500mm +20/-0mm
300-0000562-1000	4 Meter +20/-0mm
300-0000585-1000 (R6000-75/410: Waitt)	60" +1", -0.0"

Note: Label final assembly with part number. Label must be suitable for marine and subsea environment. Affix label in the center of each assembly.

APPROVALS		DATE		 1141 Holland Drive, Suite 1 Boca Raton, FL 33487 Tel: (561) 995-7767 / Fax: 995-7761 Email: FullSpectrum@EdgeTech.com	
DRAWN: MS		03-12-07			
CHECKED:				Sidescan Array Interconnect / Extension Cable	
ENG:					
ISSUED		CARDFILE NAME		DRAWING NO.	
SYSTEM		SCALE		300-0000238-0105	
		page 1 of 1		REV 5.0	

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REVISIONS			
A	Release	8-30-06	RR
B	Added Note for Length	6-04-07	RR
C	Added Note for Length for KS	6-13-07	RR
C.1	Added Metric and Spelling	12-12-07	RR
C.2	Added Part # and length	4/15/08	CF
C.3	350>300 in Part Number	4/15/08	RR
C.4	Added Part # and length	5/29/08	CF
D	Added Labeling Requirement	5/1/2009	RR

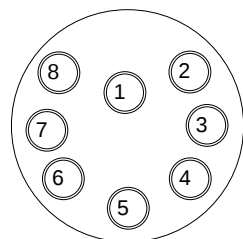
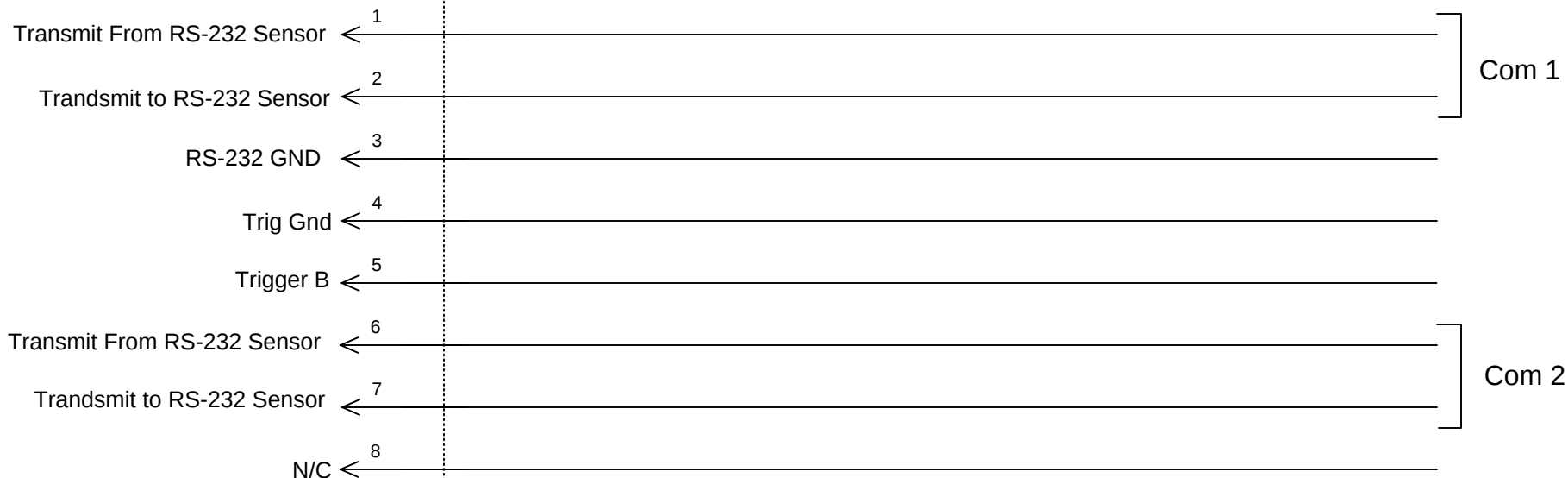
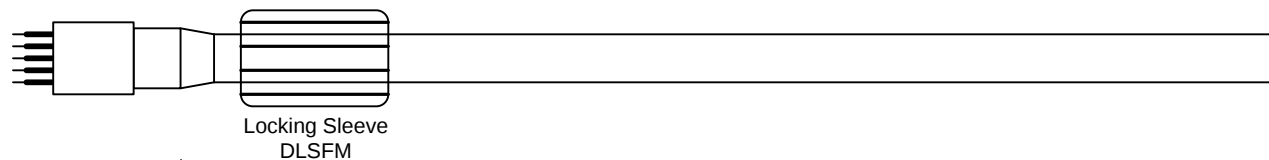


Note: Poly Urethane Jacketed Cable, 600V
 PN#300-0000450-1000= 66" (1676mm/+20mm-0mm)) Length
 PN#300-0000520-1000=120" (3048mm/+20mm-0mm)) Length
 PN#300-0000525-1000=39.4" (1000mm /+20mm-0mm))Length
 PN#300-0000610-1000=104" +/- 0.5" Length
 PN#300-0000614-1000=20" +/- 0.5" Length (Hydroid R600)

APPROVALS	DATE	1141 Holland Drive, Suite 1 Boca Raton, FL 33487 Tel: (561) 995-7767 / Fax: 995-7761 Email: FullSpectrum@EdgeTech.com		
DRAWN: RR	08-30-06	Cable Assembly, Deep, Tx Only MCIL6M/MCDLSF>LPMIL-3-FS/Strap, PolyUrethane		
CHECKED:				
ENG:		CARDFILE NAME DRAWING NO. 300-0000450-0105		
ISSUED				
SYSTEM	SBP	SCALE	page 1 of 1	REV D

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Initial release	04-06-07	RR
B	Remove Connector Reference	08-26-08	CF

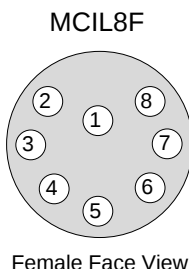
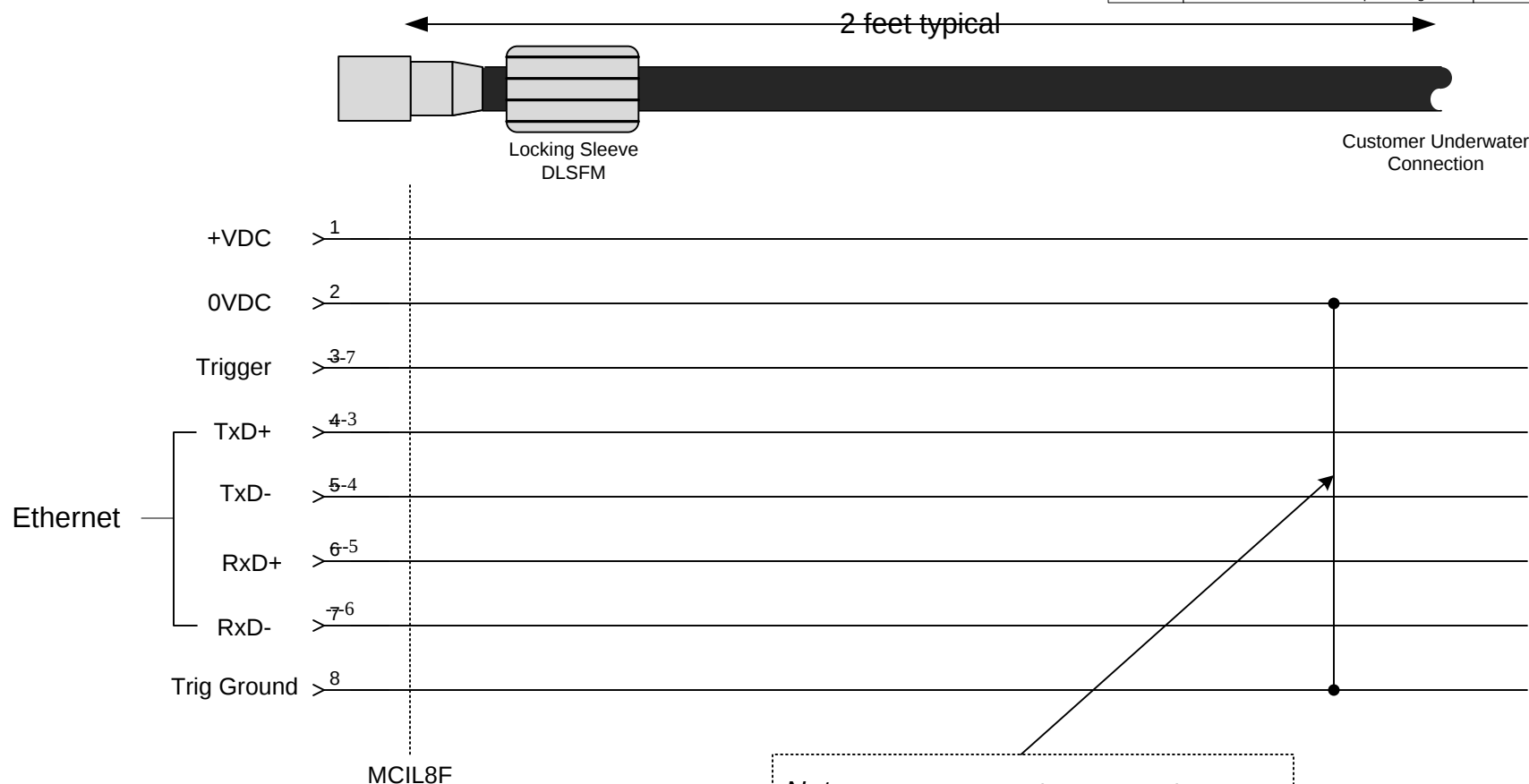


Male Face View
MCIL8M Connector

APPROVALS	DATE	 EdgeTech 1141 Holland Drive, Suite 1 Boca Raton, FL 33487 Tel: (561) 995-7767 / Fax: 995-7761 Email: FullSpectrum@EdgeTech.com				
DRAWN: CC	02/07/08	User Connection Com 2 & 3, Trigger B				
CHECKED: MS	02/07/08					
ENG:						
ISSUED		CARDFILE NAME		DRAWING NO.		REV
SYSTEM		SCALE	page 1 of 1	300-0000498-0105		B

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Initial release	04-06-07	CC
A.1	Remove letter from Trigger label	09-26-08	RR
B	Remove value from input voltage	02-05-09	CF



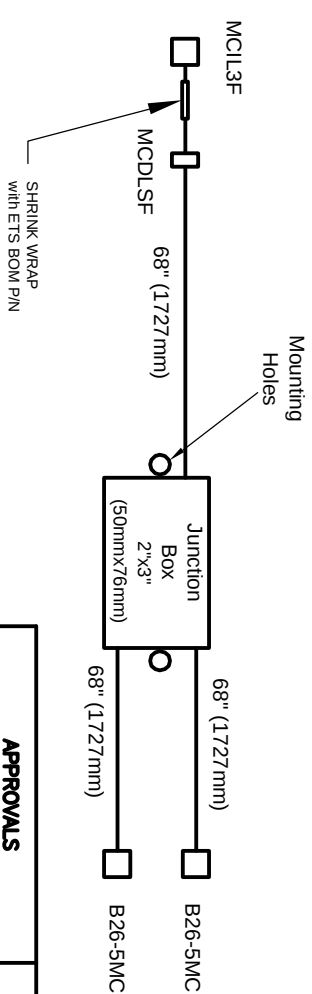
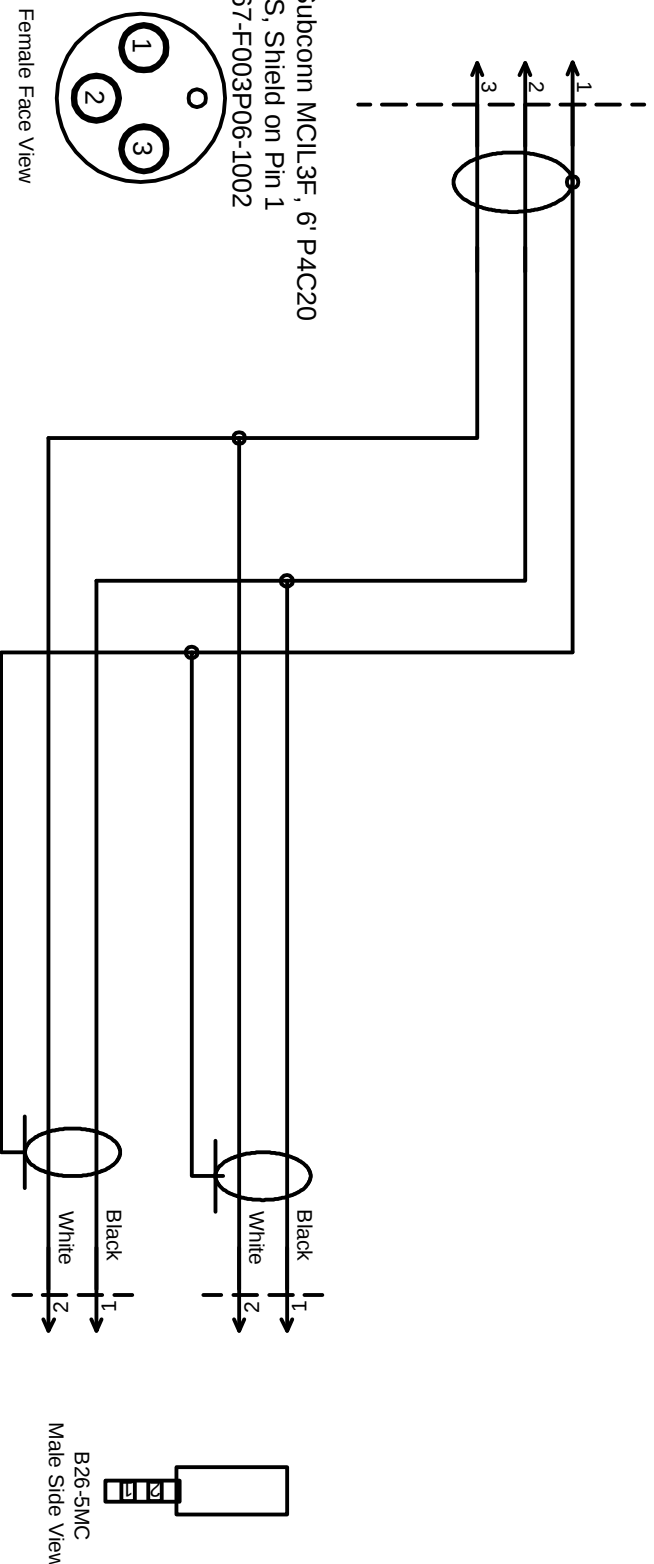
Note:

If the finished cable is longer than 1m, the Ethernet signal pairs should be run through 2 x twisted pairs.

APPROVALS	DATE	 1141 Holland Drive, Suite 1 Boca Raton, FL 33487 Tel: (561) 995-7767 / Fax: 995-7761 Email: FullSpectrum@EdgeTech.com	
DRAWN: CC	06-06-07		
CHECKED: MS	06-06-07	J1: User Connection 1 Power, Trigger and Ethernet	
ENG:			
ISSUED		CARDFILE NAME	DRAWING NO.
SYSTEM		SCALE	300-0000522-0105
		page 1 of 1	REV
			B

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REVISIONS				
ECR #	REV	DESCRIPTION	DATE	APPROVED
	A	Release	08/20/03	RR
	A1	Added Metric and Spell Check	12/12/07	RR
1360	B	Added Shrink Wrap Location	9-8-09	



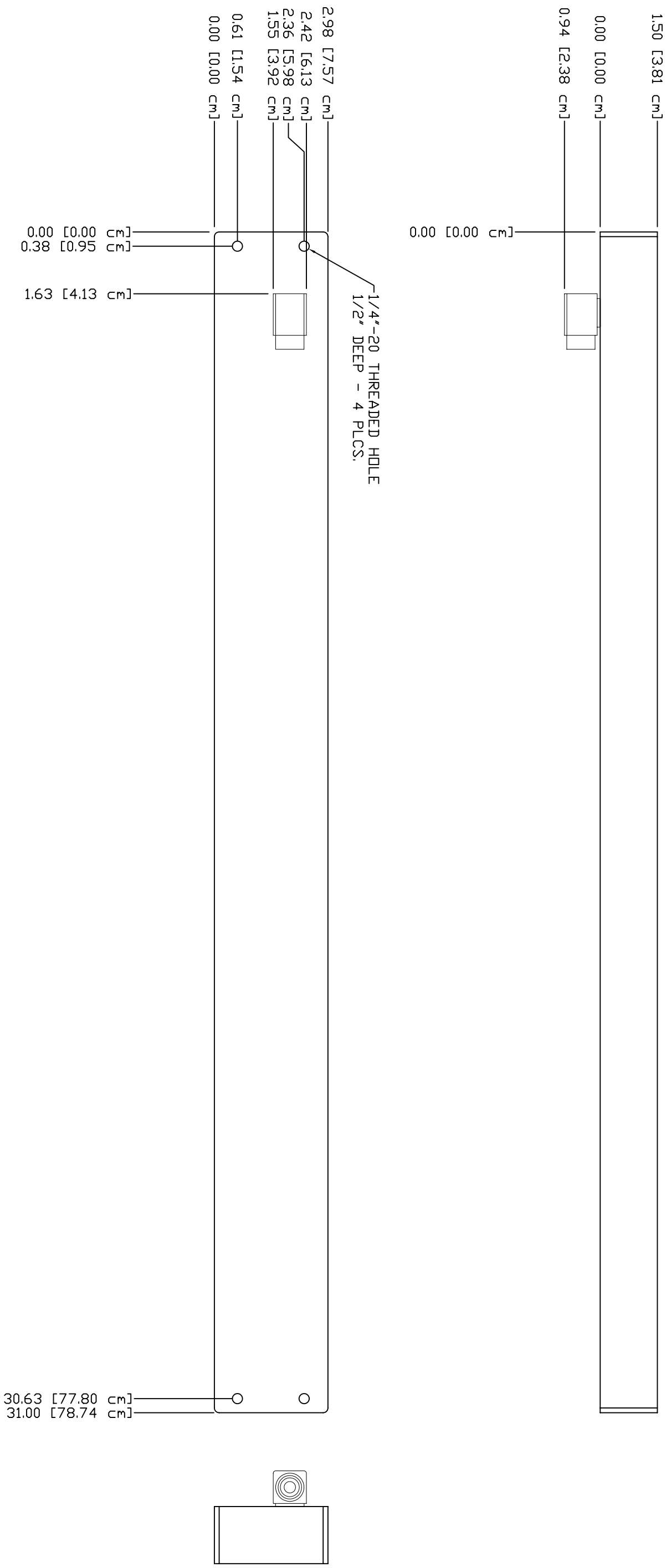
Note: Spliced connections must be soldered, individually coated with Scotchkote (3M 054007-14853) or equivalent, and then covered in heat shrink tubing prior to encapsulation.

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DRAWN:	RR	07-28-05		
CHECKED				
ENG				
ISSUED				
SYSTEM		F.S-DW	TITLE Spider, Deep, Rx Only 3 Pin Subconn CAD FILE NAME: SCALE DRAWING NO. 503-0000025-0105 REV B	

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SH	RV	REVISIONS		
REV		DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE	8/11/03	
B		UPDATED NOTES	3/3/08	



NOTES:

- A. ARRAYS SHOULD HAVE A CLEAR VIEW OF SEAFLOOR.
- B. ARRAYS SHOULD BE MOUNTED WITH A 20° DEPRESSION ANGLE.
- C. PORT SIDE, CABLE END POINTS FORWARD.
- D. STARBOARD SIDE, CABLE END POINTS AFT.
- E. ARRAY BULK HEAD CONNECTOR = MCBHRA5M.

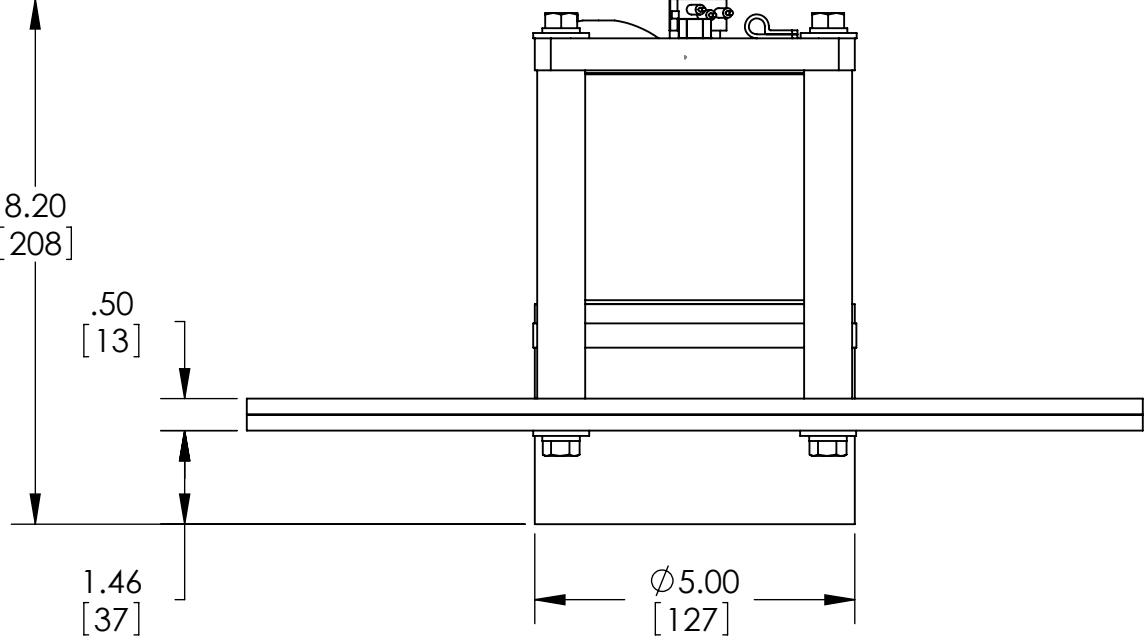
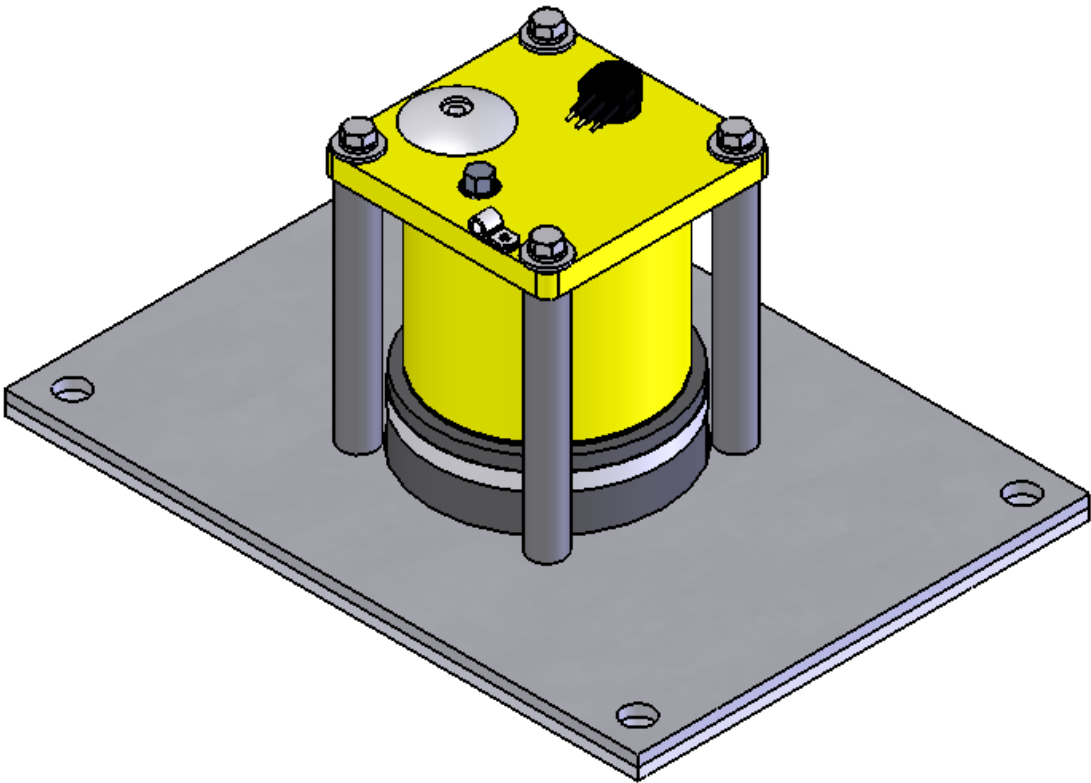
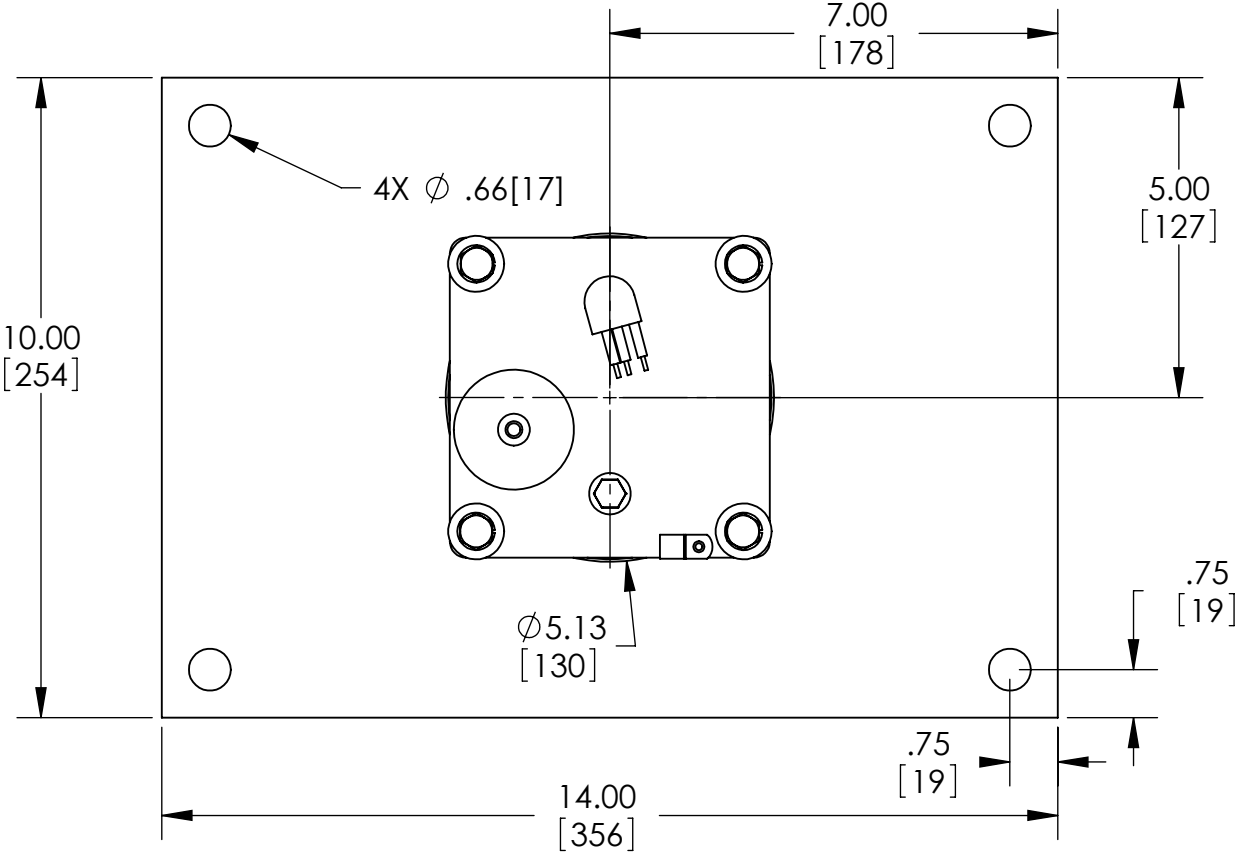
WEIGHT

AIR: 7.26 KG (16.00 LBS)
SW: 4.99 KG (11.00 LBS)

MATERIAL		UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES RESISTORS ARE IN OHMS CAPACITORS ARE IN MICROFARADS		DRAWN BY: P.F.G. AUGUST 11, 2003		 1141 HOLLAND DRIVE, BAY 1 BOCA RATON FL, 33487	
6061-T6 AL				DRAWN			
				CHECKED			
				MECH			
				ELECT			
FINISH		TOLERANCES				TITLE	
		DECIMALS				SS ARRAY 120/410 KHZ, 60000M	
		FRACTIONS				CARD FILE NAME	
		ANGLES				DRAWING NO.	
2 PLACES 3 PLACES				SYSTEM		SCALE	
±.005 ±.001-.01				2200 & 2400		500-120410J-0800	
BLACK MARINE						REV	
HARD C/PAT				REMOVE BURRS BREAK SHARP EDGES		D/D NOT SCALE	
						B	

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REVISIONS				
ECR#	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE	11/27/07	

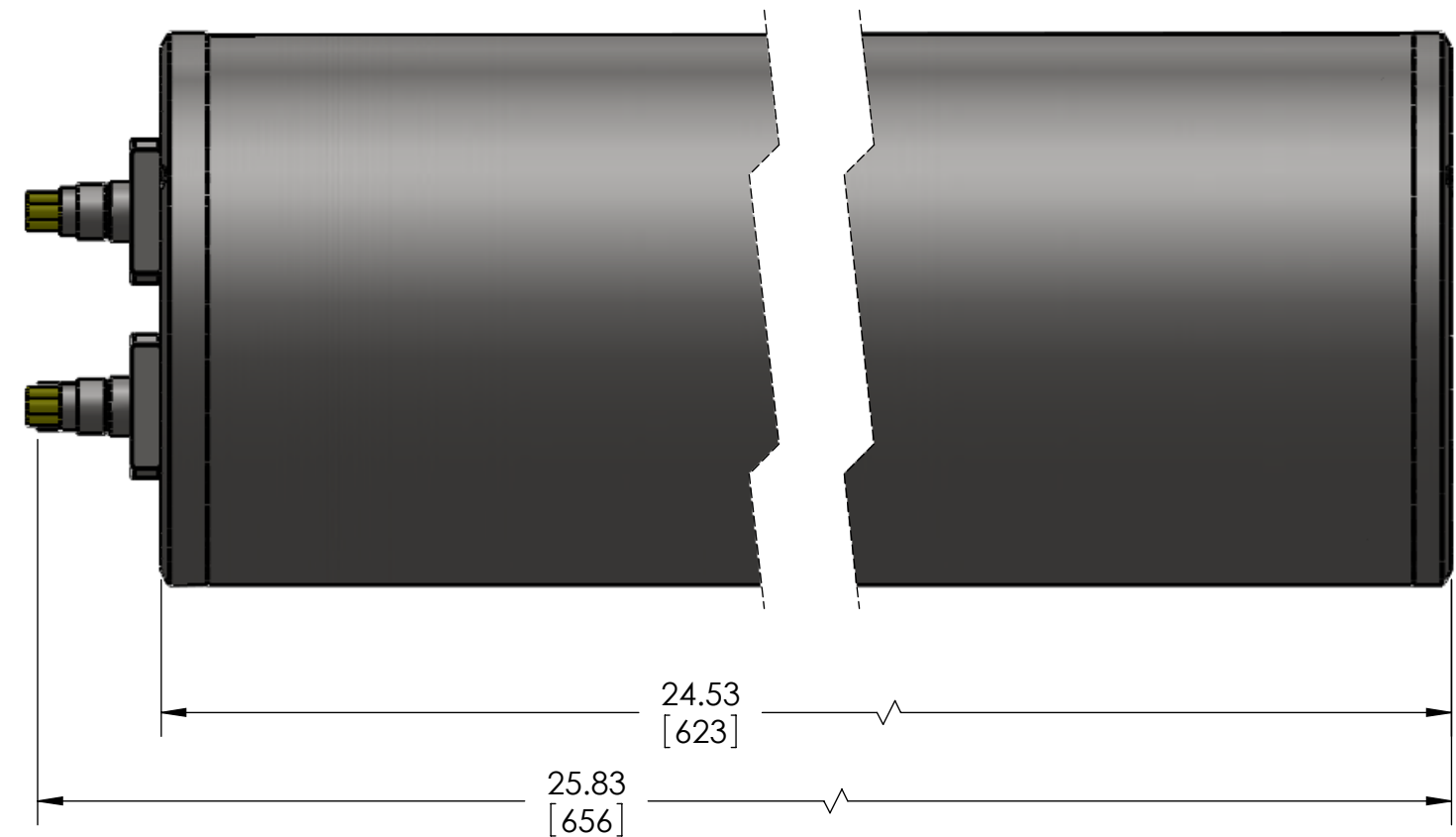
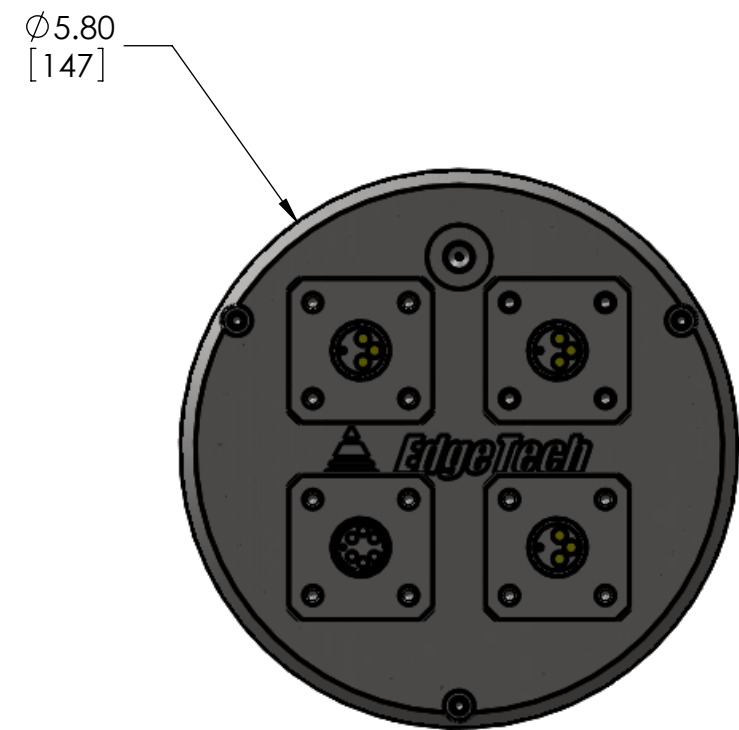


UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES RESISTORS ARE IN OHMS CAPACITORS ARE IN MICROFARADS	APPROVALS		SIGNATURE & DATE	
	DRAWN	WJM	11/27/07	
	CHECKED			
	MECH			
TOLERANCES				ELECT SYSTEM DW-424
DECIMALS		FRACTIONS	ANGLES	
2 PLACES	3 PLACES			
+/- .010	+/- .005	+/- 1/64	+/- 0.5°	
DO NOT SCALE PRINT				REMOVE BURRS, BREAK SHARP EDGES

		1141 HOLLAND DRIVE, BAY 1 BOCA RATON, FL 33487	
		TITLE 424 TRANSDUCER W/ PLATE	
CADFILENAME:	B	DRAWING NO.	450-0000150-0800
SCALE		REV	A

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REVISIONS				
ECR#	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE	12/9/09	



WEIGHTS:

AIR: 41.2 LBS [18.7 KG]
SW: 17.7 LBS [8.0 KG]

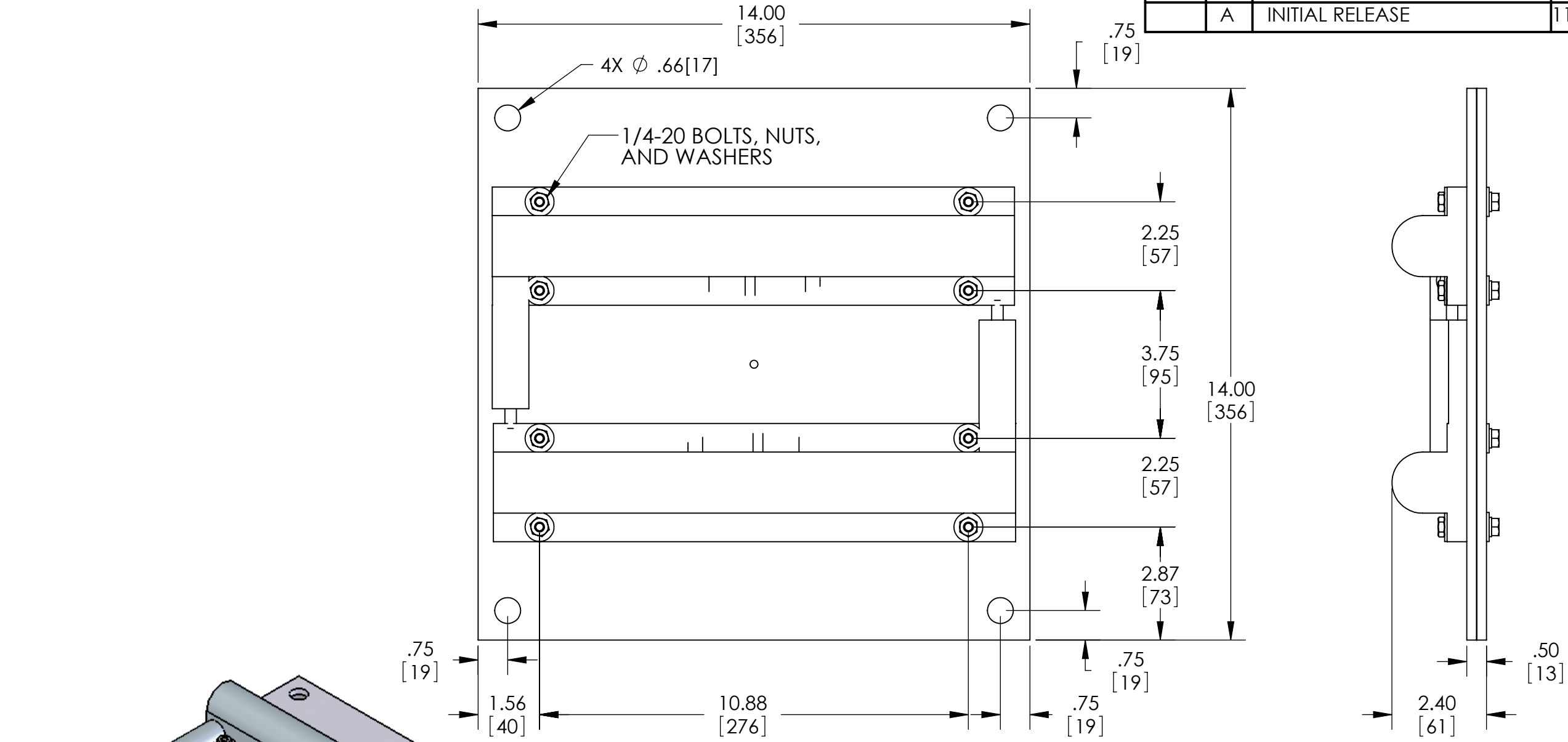
NOTES:

1. DIMENSIONS IN BRACKETS ARE IN MM.

UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES RESISTORS ARE IN OHMS CAPACITORS ARE IN MICROFARADS				APPROVALS		SIGNATURE & DATE		 1141 HOLLAND DRIVE, BAY 1 BOCA RATON, FL 33487											
				DRAWN		WJM						12/9/09							
				CHECKED															
TOLERANCES				MECH				TITLE 5" CHASSIS, 6000 M, TITANIUM, 23" W.L.											
DECIMALS		FRACTIONS		ANGLES		ELECT													
2 PLACES		3 PLACES						SYSTEM				CADFILENAME:				DRAWING NO.		REV	
+/- .010		+/- .005		+/- 1/64		+/- 0.5°						SCALE		B		450-0000194-0800		A	
DO NOT SCALE PRINT				REMOVE BURRS, BREAK SHARP EDGES															

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REVISIONS				
ECR#	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE	11/27/07	



UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES RESISTORS ARE IN OHMS CAPACITORS ARE IN MICROFARADS				APPROVALS		SIGNATURE & DATE		 1141 HOLLAND DRIVE, BAY 1 BOCA RATON, FL 33487							
				DRAWN		WJM					11/27/07				
				CHECKED											
TOLERANCES				MECH				TITLE 424 HYDROPHONE WITH PLATES							
DECIMALS		FRACTIONS		ANGLES		ELECT									
2 PLACES		3 PLACES						CADFILENAME:		DRAWING NO.		REV			
+/- .010		+/- .005		+/- 1/64		+/- 0.5°				B		450-0000149-0800		A	
DO NOT SCALE PRINT				REMOVE BURRS, BREAK SHARP EDGES				SCALE							