

NOTES: UNLESS OTHERWISE SPECIFIED

1. LINKALIGN-C360MPT-20 CONFIGURABLE OPTIONS PER TABLE I. LINKALIGN-C360MPT-20-K2RF63-1PT9 IS NEXTMOVE STANDARD PRODUCT. CUSTOMIZATIONS AVAILBLE UPON REQUEST. CONTACT NEXTMOVE FOR MORE INFORMATION
2. USE INTERFACE CONTROL DRAWING IN CONJUNCTION WITH DATASHEET N500205
3. SEE TABLE II FOR AVAILABLE LINKALIGN-C360MPT-20 ACCESSORY OPTIONS
4. POSITIONER POWERED BY POWER OVER ETHERNET 50-57 VDC, 4 PAIR, PASSIVE (INDOOR RATED 50 VDC POWER SUPPLY INCLUDED WITH POSITIONER. NOT SHOWN IN DRAWING). OPTIONAL DC POWER INPUT MAY BE USED AS ALTERNATE CUSTOM CONFIGURATION, 20-60 V. STANDBY POWER DRAWS LESS THAN 10 W. MAXIMUM POWER DRAW, 60 W
5. EXTERNAL CONSTRUCTION COMPRISED OF HARD COAT ANODIZE ALUMINUM WITH STAINLESS STEEL HARDWARE
6. CONTINUOUS AZIMUTH TRAVEL UTILIZING A SLIP RING AND RF ROTARY JOINT WITH UP TO 12°/SEC DRIVE RATE (MAX LOAD). ROTARY JOINT AND DRIVE RATE CUSTOMIZABLE (SEE TABLE I). CONTACT NEXTMOVE FOR ADDITIONAL INFORMATION
7. 190° (+/-95°) ELEVATION TRAVEL WITH UP TO 11°/SEC DRIVE RATE (MAX LOAD). DRIVE RATE CUSTOMIZABLE (SEE TABLE I). CONTACT NEXTMOVE FOR ADDITIONAL INFORMATION
8. -19° TO 140°F (-28° TO 60°C) OPERATIONAL TEMPERATURE RANGE (NO LOAD) OR -40° TO -140°F (-40° TO 60°C) WITH EXTENDED TEMPERATURE RANGE OPTION (SEE TABLE I). -40° TO 158°F (-40 TO 70°C) NON-OPERATIONAL TEMPERATURE RANGE
9. 0.01° FEEDBACK RESOLUTION
10. AZIMUTH AND ELEVATION BACKLASH LESS THAN 0.8°
11. 15.45" (39.24 cm) HIGH X 11.97" (30.40 cm) WIDE X 7.36" (18.69 cm) DEEP. DIMENSIONS APPLY WHEN POSITIONER IS AT 0° AZIMUTH AND 0° ELEVATION ANGLES. ENVELOPE DIMENSIONS MAY VARY WITH CUSTOMIZATIONS
12. WEIGHT APPROXIMATELY 35 LBS (16 kg)
13. PAYLOAD NOT TO EXCEED 50 LBS (45.4 kg) OR 20 FT-LBS (67.8 Nm) OF TORQUE ABOUT THE ELEVATION AXIS. TO CALCULATE TORQUE, TAKE THE DISTANCE FROM THE PAYLOAD CENTER OF GRAVITY TO DATUM -B- IN FEET AND MULTIPLY BY THE PAYLOAD WEIGHT. MAXIMUM OPERATING TORQUE MAY BE REDUCED AT TEMPERATURES BELOW -7°F (-22°C) AND/OR WITH PERIPHERAL DEVICES. ELEVATION TORQUE IS CUSTOMIZABLE (SEE TABLE I). CONTACT NEXTMOVE FOR ADDITIONAL INFORMATION
14. TABLE TOP MOUNTING HOLES USES NEXTMOVE TYPE 4.750-P INTERFACE. ACCESSORIES AVAILABLE TO MATE WITH THIS INTERFACE (SEE TABLE II). CONTACT NEXTMOVE FOR ADDITIONAL INFORMATION
15. CENTER OF GRAVITY 0.4" (1.0 cm) IN THE X-DIRECTION, 7.5" (19.1 cm) IN THE Y-DIRECTION AND 0" (0 cm) IN THE Z-DIRECTION
16. STANDARD RF PASS THRU COMPRISED OF DUAL CHANNEL RF ROTARY JOINT (SENRING PART NUMBER HF0218-64-24S) (CH 1 DC-18 GHz & CH 2 DC-4 GHz), (1) 20" (51 cm) INTERNAL LENGTH LOW LOSS 142 COAX CABLE (FAIRVIEW MICROWAVE PART NUMBER FMCA1236-20), (1) 8" (20 cm) INTERNAL LENGTH LOW LOSS 142 COAX CABLE (FAIRVIEW MICROWAVE PART NUMBER FMCA1265-8), (1) 20" (51 cm) INTERNAL LENGTH LMR-100A-UF COAX CABLE (PASTERNAK PART NUMBER PE3W14423-20) & (1) 8" (20 cm) INTERNAL LENGTH LMR-100A-UF COAX CABLE (PASTERNAK PART NUMBER PE3W15443-8). EXTERNAL RF CONNECTORS N-TYPE. SEE SHEET 4 AND TABLE V FOR MORE DETAILS. RF ROTARY JOINT AND RF CABLES CUSTOMIZABLE (SEE SHEET 5 & TABLE VI, VII & VIII). CONTACT NEXTMOVE FOR MORE INFORMATION
17. RF ROTARY JOINT (SENRING PART NUMBER HF0218-64-24S) AVERAGE POWER CAPABILITY CH 1 50 W @ 18 GHz & CH 2 50W @ 4 GHz
18. SIGNAL PASS THRU WIRES ABLE TO CARRY UP TO 60 VAC / 75 VDC, 2A. SIGNAL PASS THRU CUSTOMIZABLE (SEE TABLE I). CONTACT NEXTMOVE FOR MORE INFORMATION
19. CONNECTORS MAY BE CUSTOMIZED UPON REQUEST
20. ETHERNET PASS THRU MAY BE ADDED RESULTING IN ADDITIONAL HEIGHT TO THE POSITIONER
21. GPS HEADING UNIT MAY BE ADDED UPON REQUEST
22. SUPPLEMENTAL INTERFACE CONTROL DRAWING FOR CUSTOM CONFIGURATIONS AVAILABLE UPON REQUEST

REV	DESCRIPTION	DATE	APPROVED
B	CN601275	2023-07-20	CLC

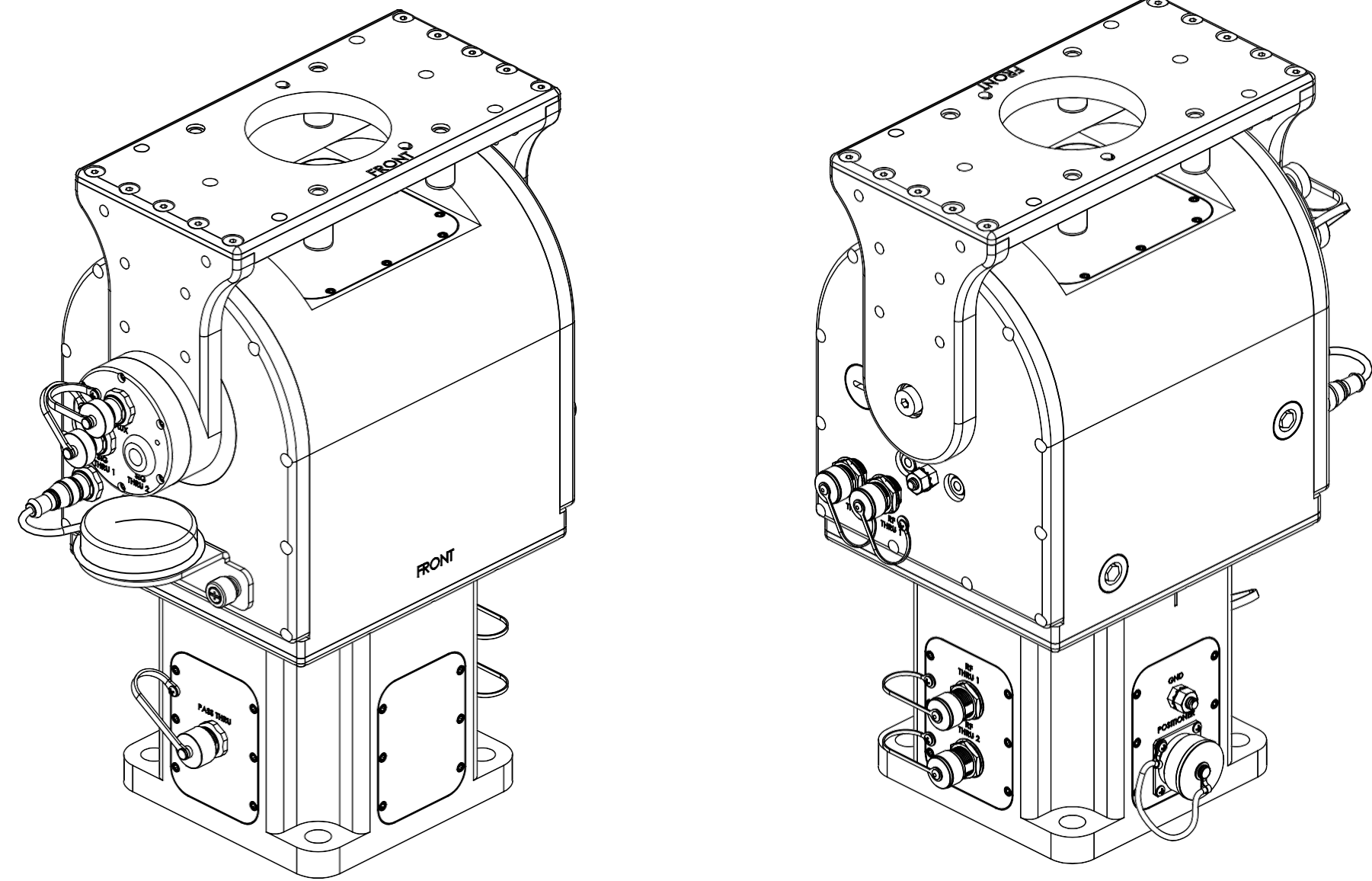
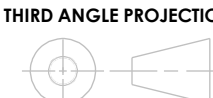
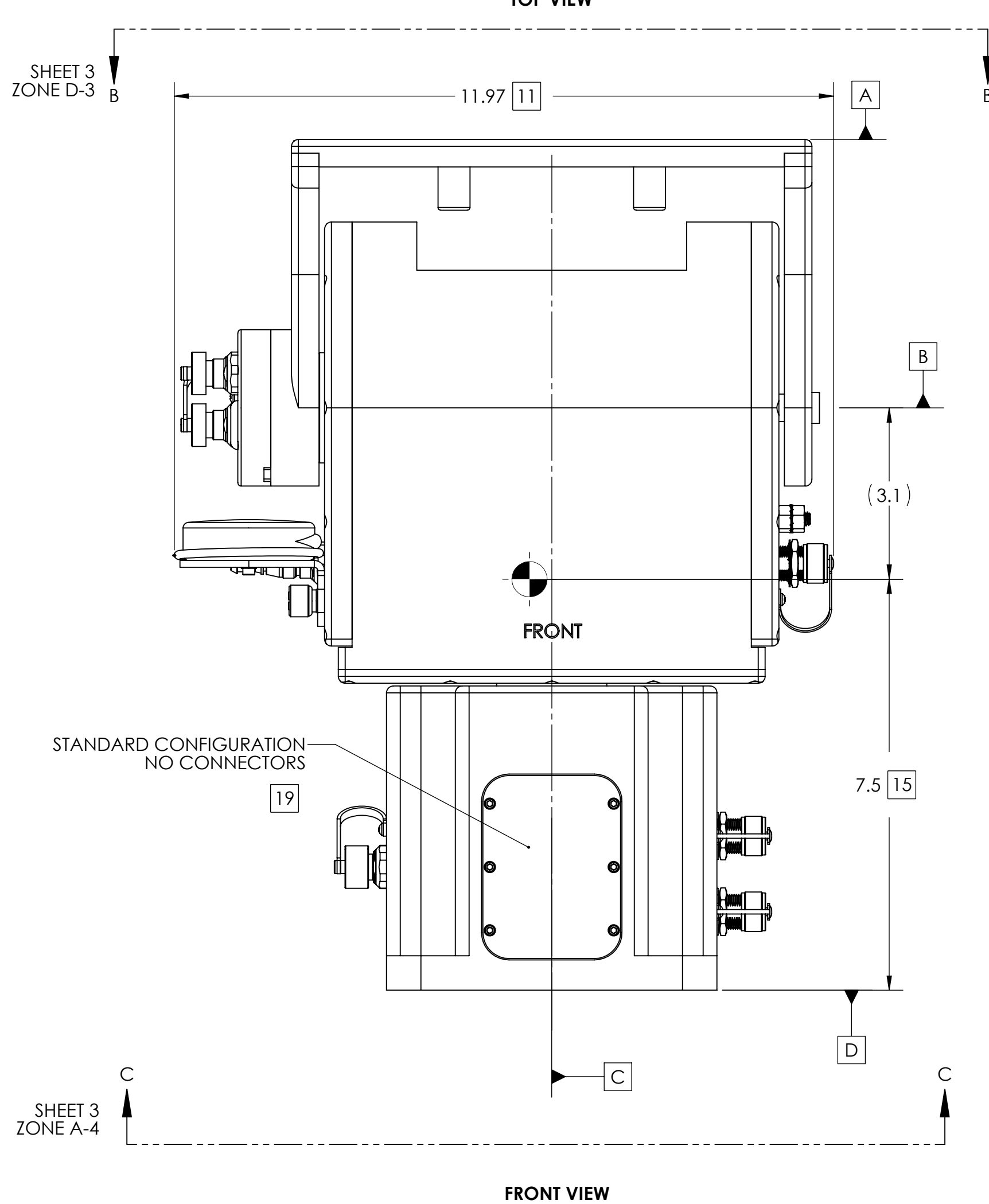
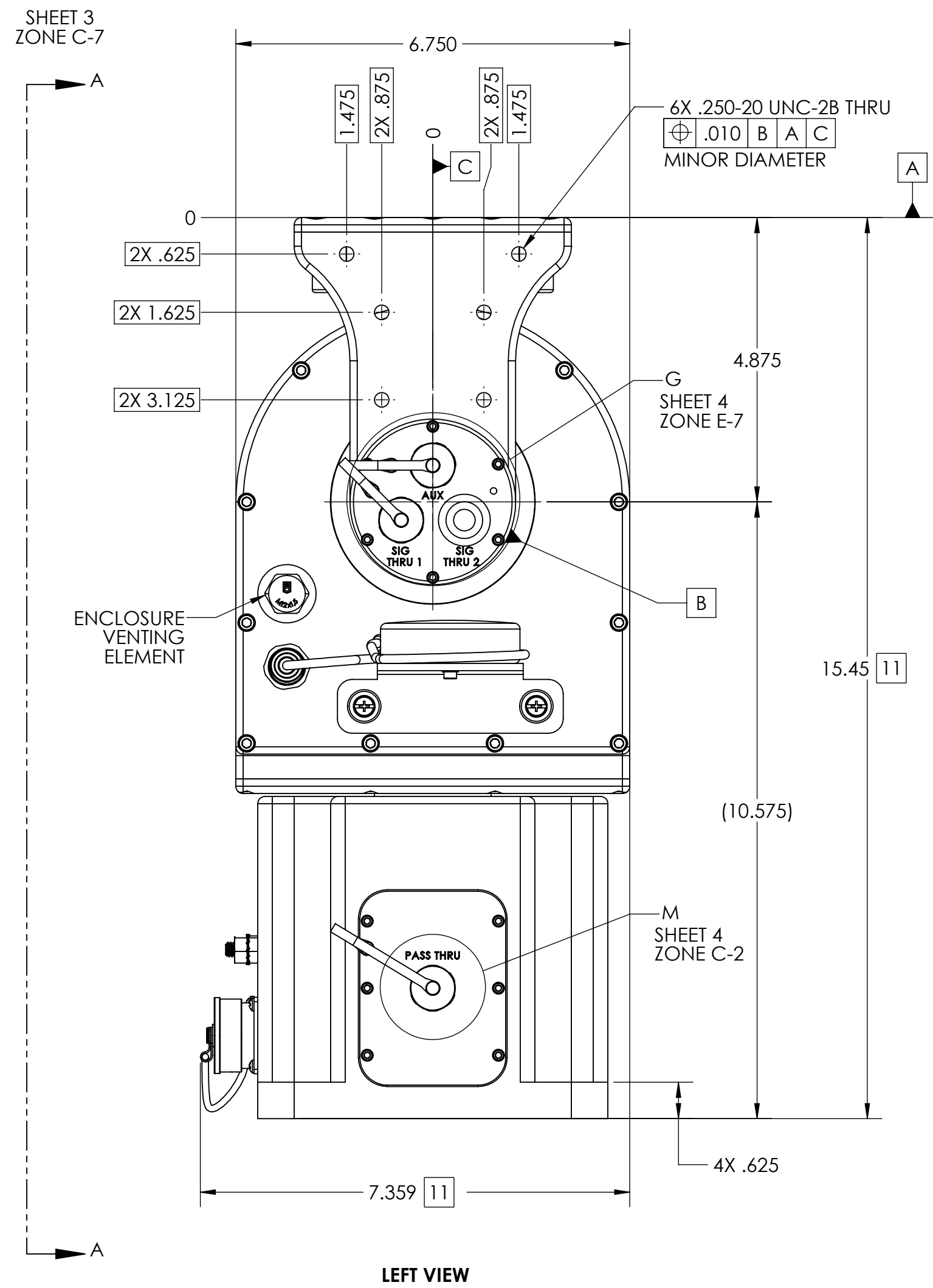
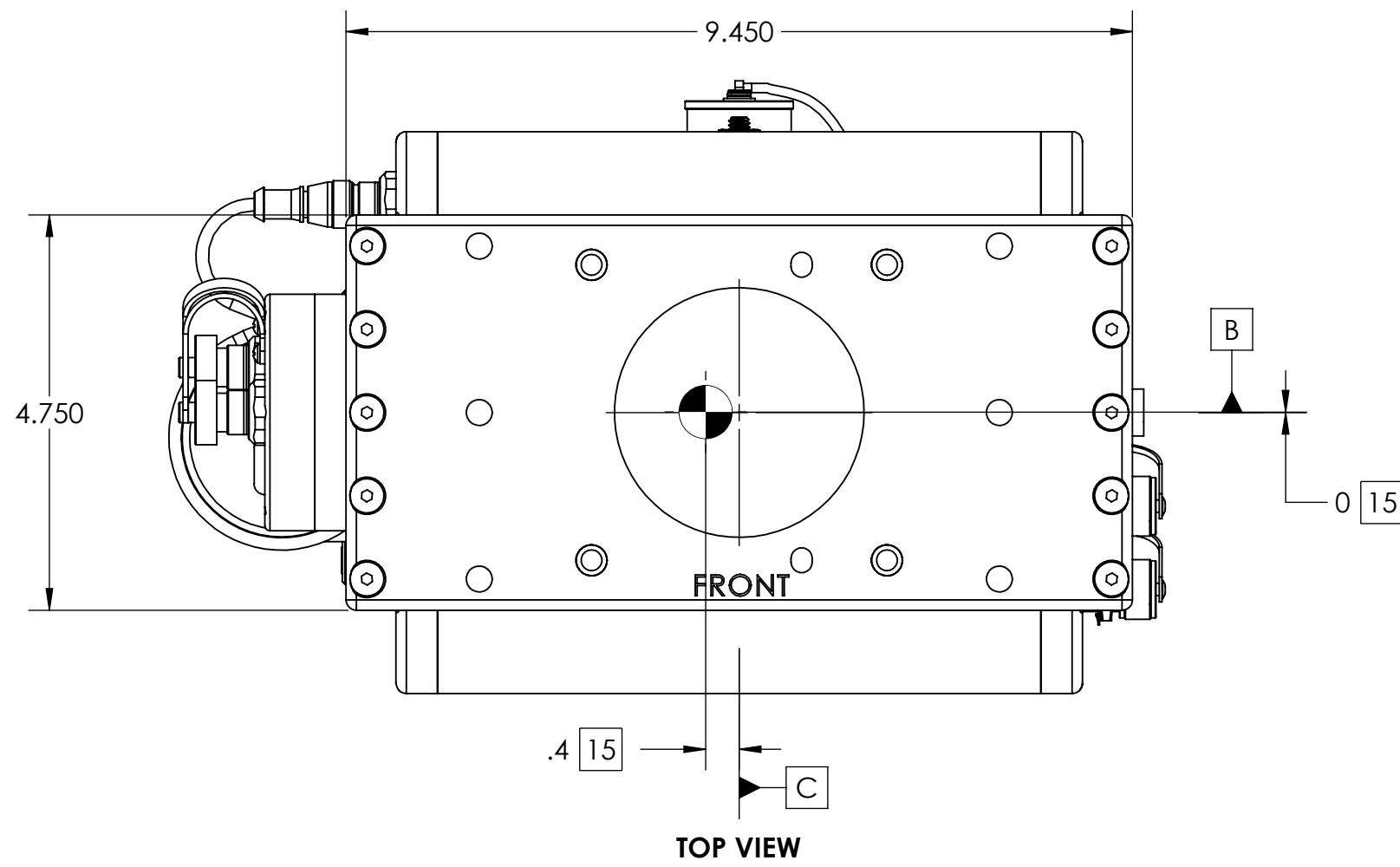
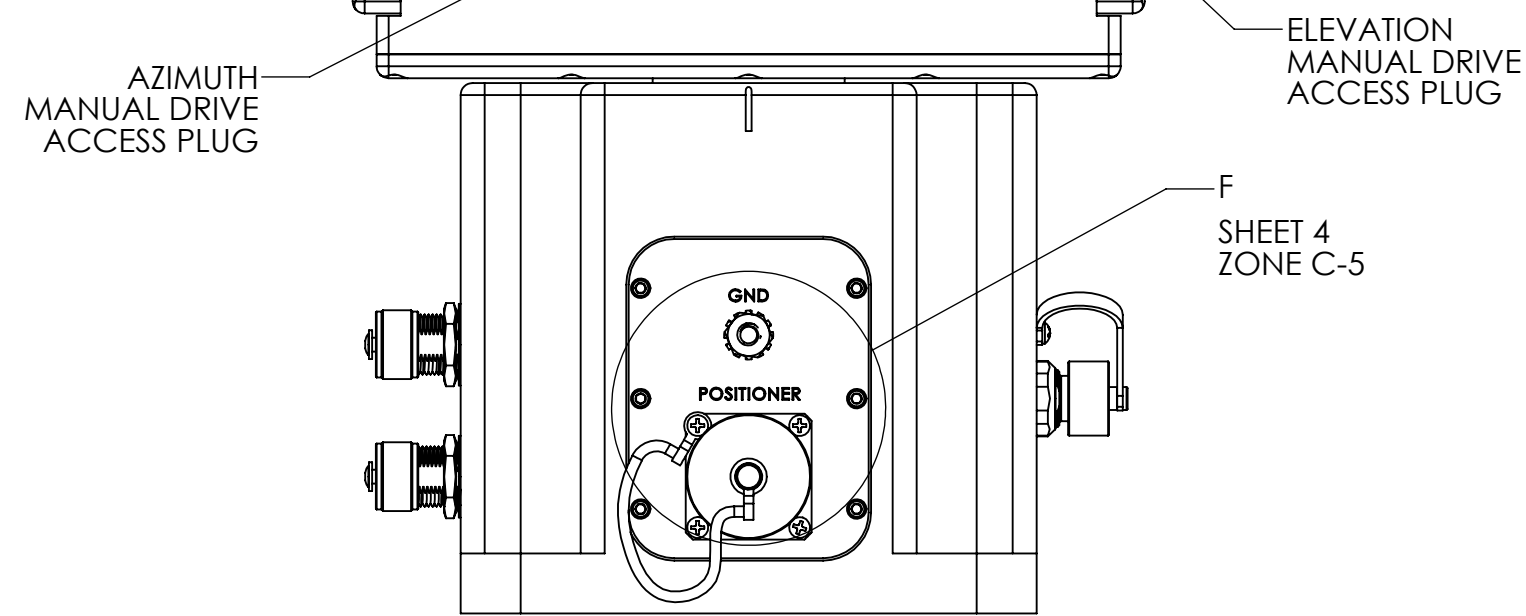


TABLE I	
BUILDING A PART NUMBER	STANDARD OPTIONS
LA-C360MPT - 20 - K 2RF63 - 1PT9 - 100	<<EXAMPLE
	<b>SHIELDED ETHERNET CABLE STANDARD LENGTHS</b>
	050 = 50 ft
	100 = 100 ft
	150 = 150 ft
	200 = 200 ft
	250 = 250 ft
	300 = 300 ft
	NC = No Cable
	XXX = Custom Cable Length
	MCO = Mating Connector Only
	<b>CUSTOM CONFIGURATION</b>
	= Standard options - leave blank
	DC = DC Input Power
	1PT9 = (1) 10 Pin Signal Pass Thru (9 Pins Active & 1 Pin Not Connected)
	2PT10 = (2) 10 Pin Signal Pass Thrus
	GR = GHU Ready
	ET = Extended Temperature
	<b>RF CABLE PASS THRU OPTIONS</b>
	= No RF Pass Thru - leave blank
	2RF01 = Qty then RF Cable Code - See RF Pass Thru Options Table VII or VIII on Sheet 5 for Code
	<b>ROTARY JOINT OPTIONS</b>
	= No RF Rotary Joint used - leave blank
	X = Use Rotary Joint Code - See Rotary Joint Options Table VI on Sheet 5 for Code
	<b>MOTOR DRIVES AND PAYLOAD</b>
	20 = Az Travel @ 12°/s, El Travel @ 12°/s, El torque 20 ft-lbs, 50 lb payload. Typically paired with ~2 ft antenna
	25 = Az Travel @ 12°/s, El Travel @ 1°/s, El torque 80 ft-lbs, 50 lb payload. Typically paired with ~2 ft antenna
	26 = Az Travel @ 12°/s, El Travel @ 4°/s, El torque 30 ft-lbs, 50 lb payload. Typically paired with ~2 ft antenna
	<b>MODEL</b>
	LA-C360MPT = LinkAlign-C360MPT (Continuous azimuth, +/-90° elevation)

TABLE II (SOME ACCESSORY OPTIONS) (MAY REQUIRE ADAPTERS)		
ACCESSORY DESCRIPTION	ACCESSORY PART NUMBER	ACCESSORY ICD
TRIPOD ASSEMBLY, LIGHTWEIGHT, FOLDING, 2 INCH OD MAST	ACC-N900320-1	ICDN900320
TRIPOD ASSEMBLY, HEAVY DUTY, 2 INCH OD MAST	ACC-N900413-1	ICDN900413
TRIPOD ASSEMBLY, LIGHTWEIGHT, 2 INCH OD MAST	ACC-N900868-1	ICDN900868
QUADPOD ASSEMBLY, LIGHTWEIGHT, 2 INCH OD MAST	ACC-N900869-1	ICDN900869

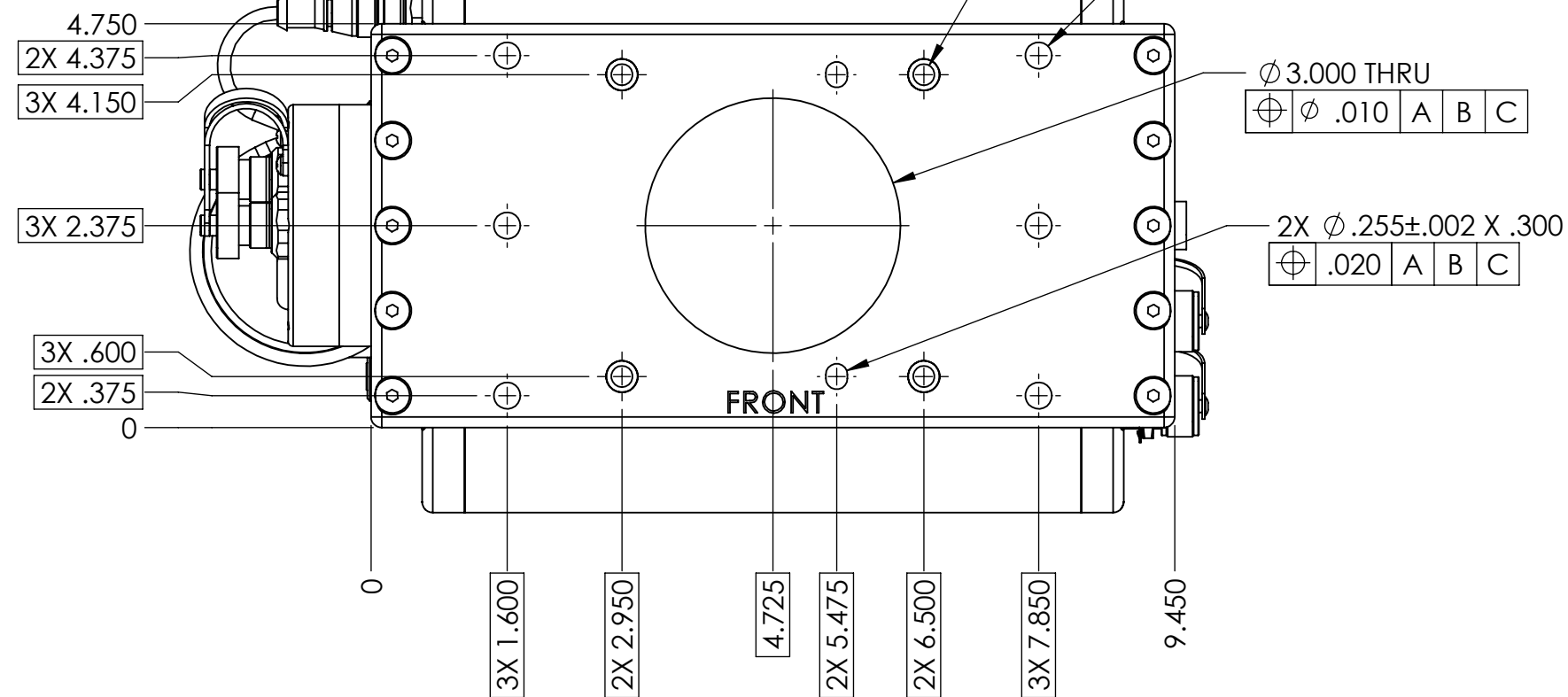
<b>SYMBOL KEY</b> <input type="checkbox"/> NOTE <input type="checkbox"/> PL ITEMS  <b>PROPRIETARY AND CONFIDENTIAL</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF QPAR ANTENNAS USA, LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION IS PROHIBITED.  QPAR ANTENNAS USA, LLC SAN DIEGO, CA 92020 www.qparusa.com	<b>UNLESS OTHERWISE SPECIFIED:</b> DIMENSIONS ARE IN INCHES TOLERANCES: ANGLE ± .5 DEGREES TWO PLACE DECIMAL ±.030 THREE PLACE DECIMAL ±.010  INTERPRET DIM AND TOL PER ASME Y14.5M - 1994  <b>THIRD ANGLE PROJECTION</b>  DO NOT SCALE DRAWING	DRAWN C. CHEYNE 2021-08-18 CHECKED S. CHEYNE 2021-08-18 ME APPR. C. CHEYNE 2021-08-18 EE APPR. J. MINEKIME 2021-08-18	<b>QPAR ANTENNAS USA, LLC</b>  <b>TITLE:</b> LINKALIGN-C360MPT-20 INTERFACE CONTROL DRAWING	
		PART NO. <b>SEE TABLE I</b>	SIZE DWG. NO. <b>C ICDN900952</b>	REV <b>B</b>
		SCALE: 1:3	SHEET 1 OF 5	



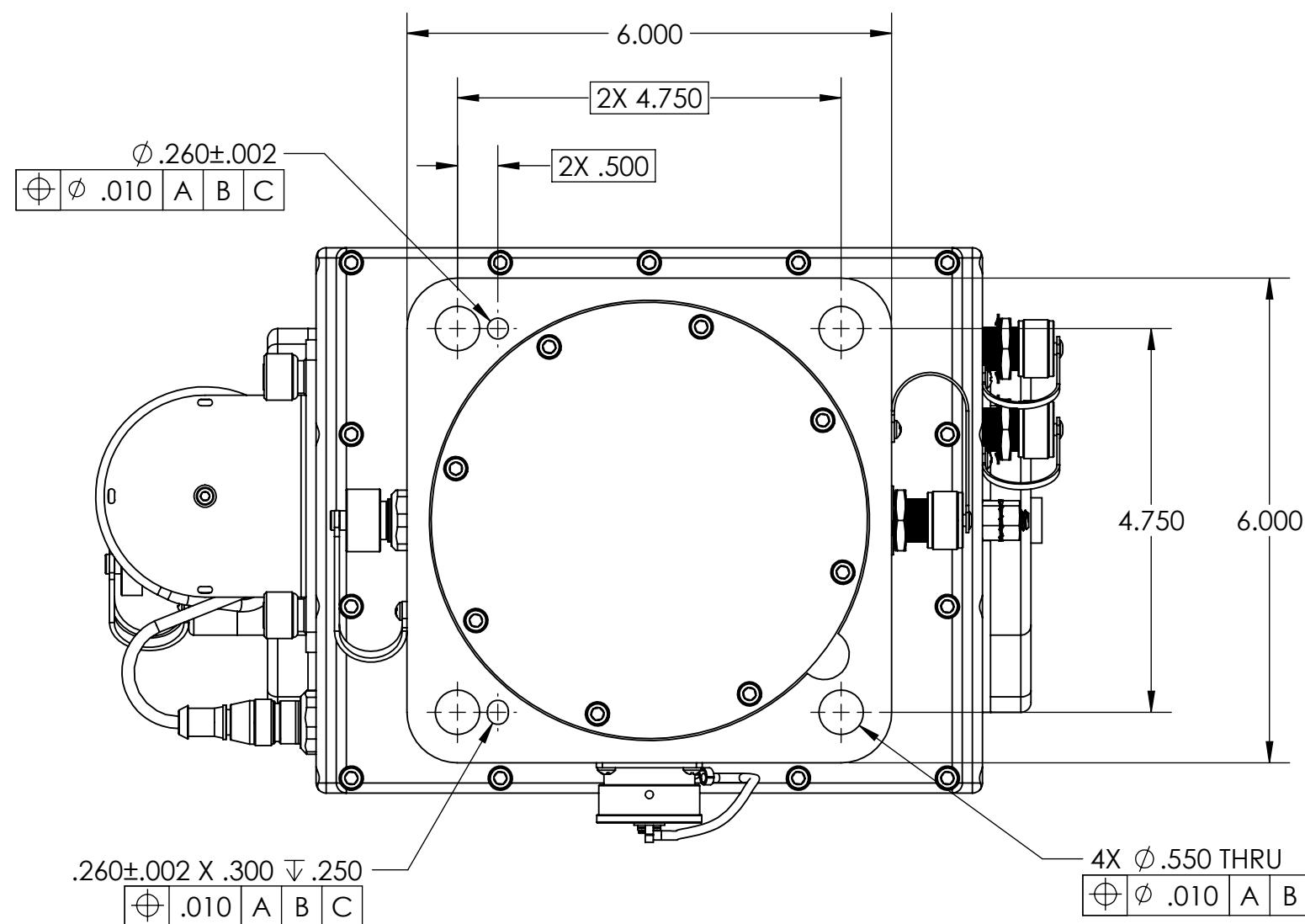


**REAR VIEW**  
VIEW A-A  
SCALE 1 : 2  
SHEET 2  
ZONE D-8

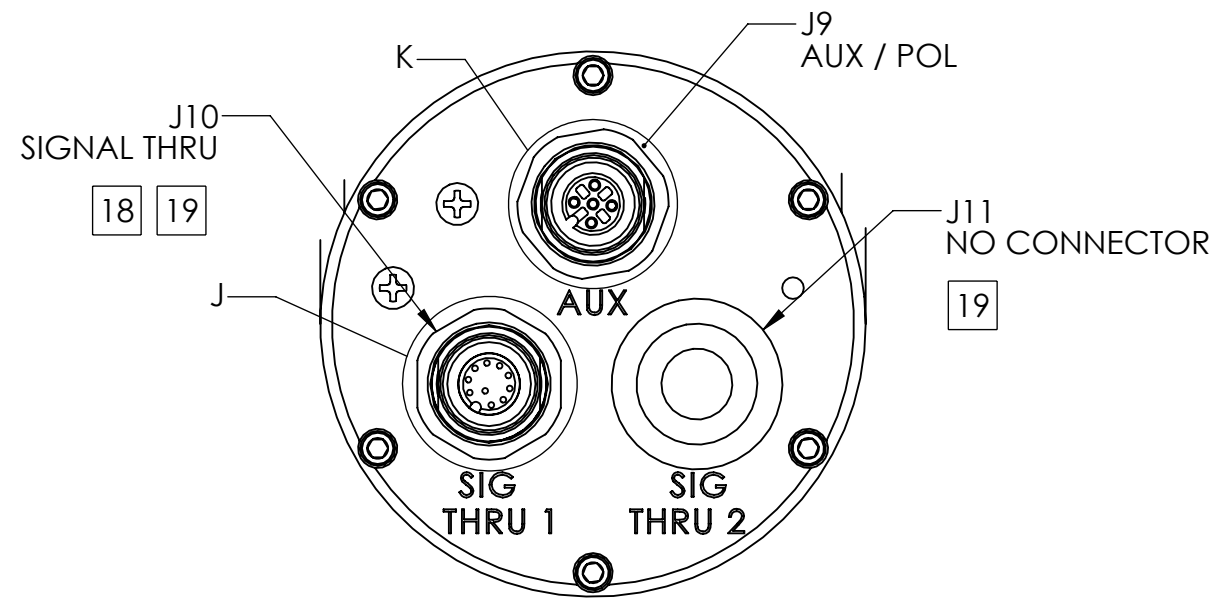
F  
SHEET 4  
ZONE C-5



**TOP VIEW**  
VIEW B-B  
SCALE 1 : 2  
SHEET 2  
ZONE D-5

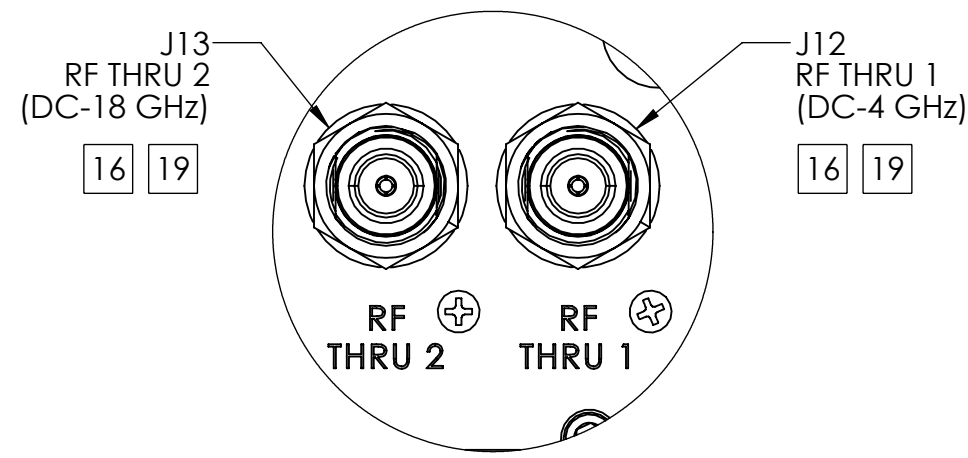


**BOTTOM VIEW**  
VIEW C-C  
SCALE 1 : 2  
SHEET 2  
ZONE A-5  
TABLE TOP MOUNTING HOLES  
NEXTMOVE TYPE 4.750-P INTERFACE



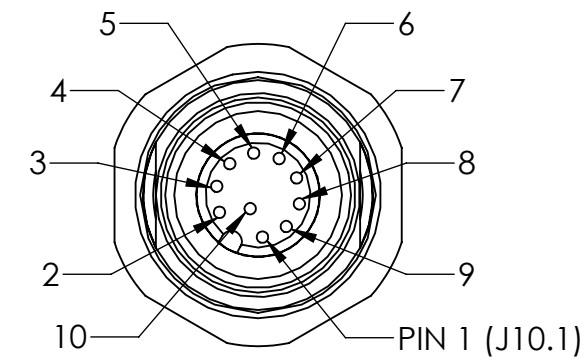
CONNECTORS SHOWN FROM MATING SIDE  
J9 USED FOR NEXTMOVE OPTIONAL POLARIZATION ACCESSORY  
J10 SIGNAL PASS THRU CONNECTOR

**LEFT VIEW ELEVATION PANEL CONNECTORS**  
DETAIL G  
SCALE 1 : 1  
SHEET 2 ZONE D-6  
SHOWN WITHOUT PROTECTIVE CAPS



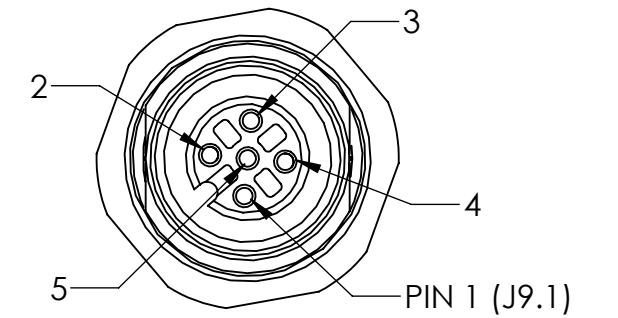
CONNECTORS SHOWN FROM MATING SIDE  
J12 & J13 MATES WITH N-TYPE MALE RF CONNECTOR  
RF THRU 1 DC-4 GHz & RF THRU 2 DC-18 GHz

**RIGHT VIEW ELEVATION SIDE PLATE CONNECTORS**  
DETAIL H  
SCALE 1 : 1  
SHOWN WITHOUT CONNECTOR CAPS  
SEE TABLE V FOR J12 & J13  
RF PASS THRU CONNECTOR PINOUT DETAILS



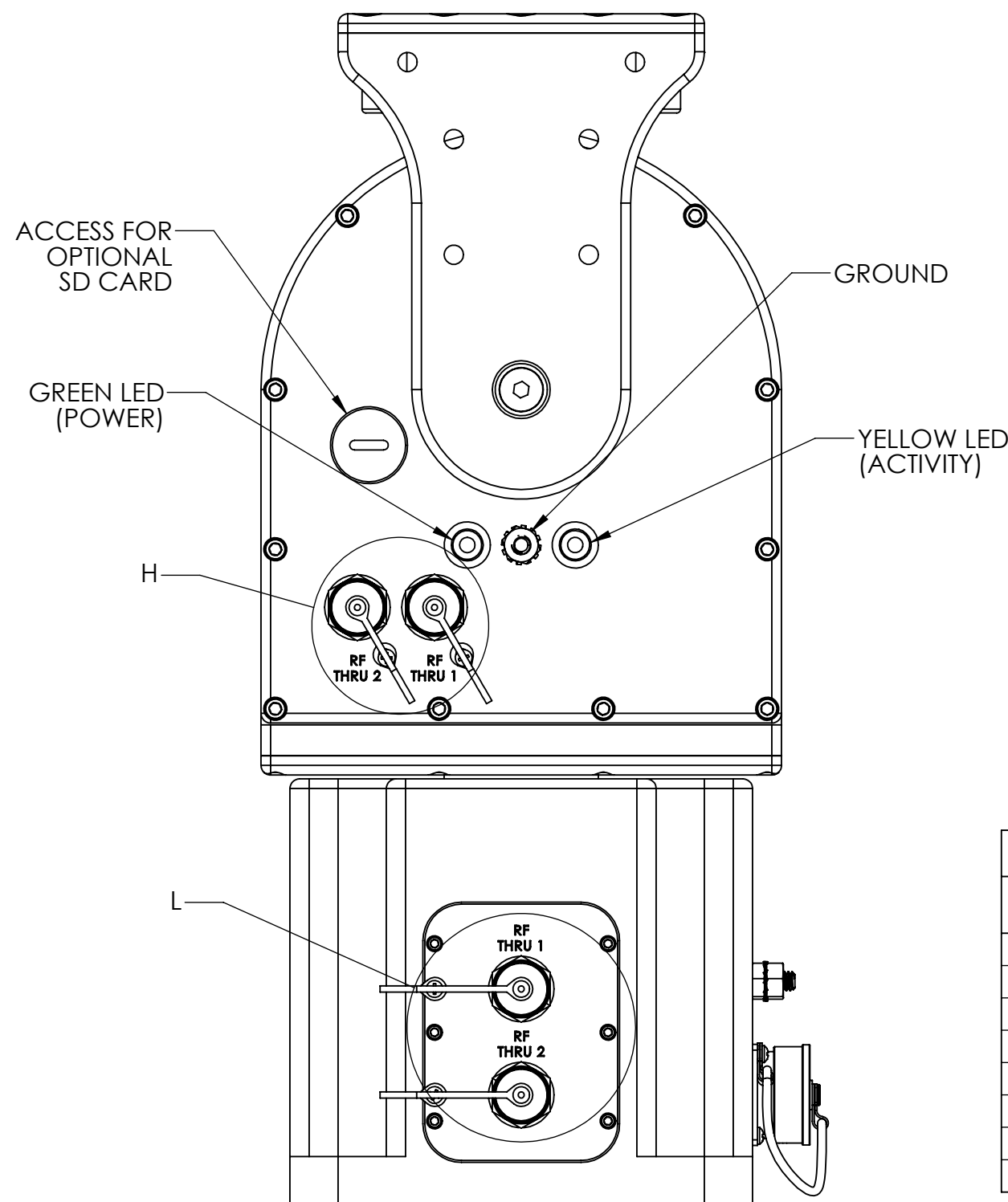
J10 SIGNAL THRU CONNECTOR  
MATES WITH TURCK  
P/N RS 10T-\* (\*LENGTH IN METERS)  
OR SIMILAR IN SERIES TURCK CONNECTORS

**LEFT VIEW, ELEVATION PANEL CONNECTOR**  
DETAIL J  
SCALE 2 : 1  
SEE TABLE V FOR J10 SIGNAL  
PASS THRU CONNECTOR PINOUT DETAILS

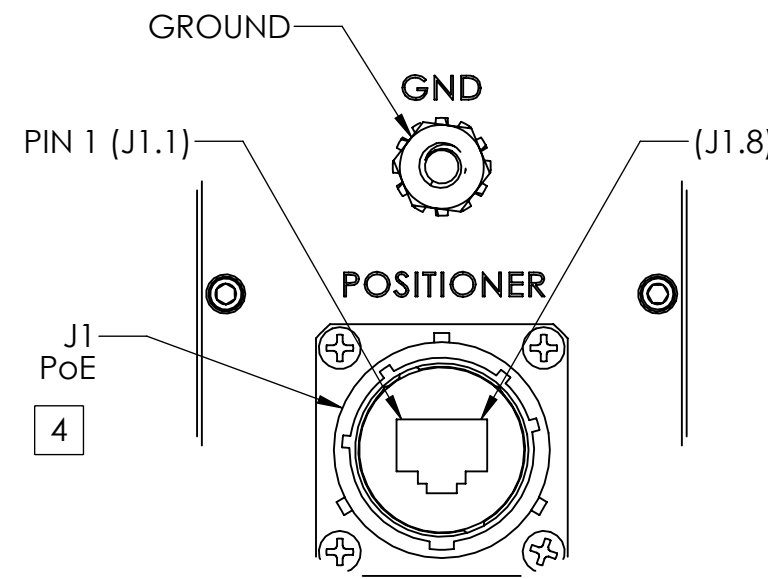


J9 AUX CONNECTOR  
MATES WITH TURCK  
P/N RS 4.5T-\* (\*LENGTH IN METERS)  
OR SIMILAR IN SERIES TURCK CONNECTORS

**LEFT VIEW, ELEVATION PANEL CONNECTOR**  
DETAIL K  
SCALE 2 : 1  
SEE TABLE IV FOR J9 AUX/POL  
CONNECTOR PINOUT DETAILS



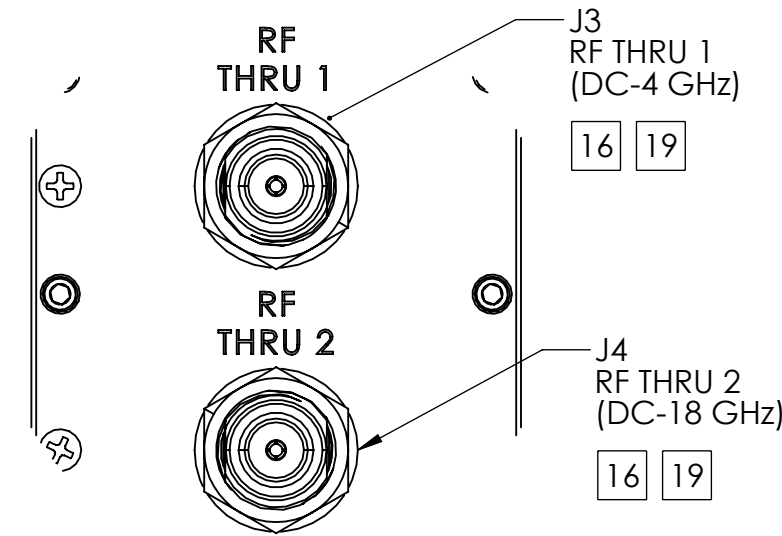
**RIGHT VIEW**  
VIEW E-E  
SCALE 1 : 2  
SHEET 2  
ZONE E-1



J1 CONNECTOR SHOWN FROM MATING SIDE  
MATES WITH AMPHENOL P/N RJF6B

**REAR VIEW AZIMUTH BASE CONNECTORS**  
DETAIL F  
SCALE 1 : 1  
SHEET 3, ZONE D-6  
SHOWN WITHOUT CONNECTOR CAP  
SEE TABLE III FOR J1 PoE CONNECTOR PINOUT DETAILS

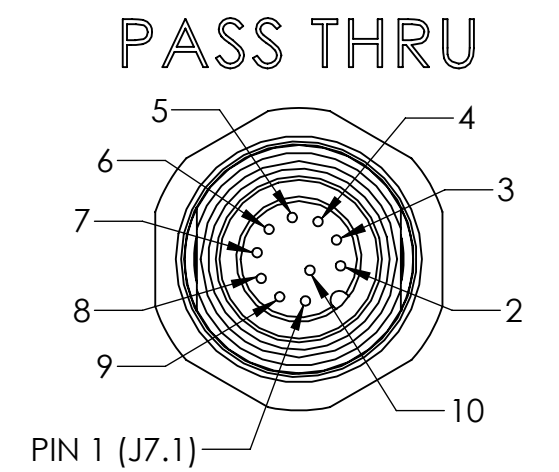
CONNECTOR DESIGNATION	FUNCTION
J1.1	DATA PAIR 1
J1.2	DATA PAIR 1
J1.3	DATA PAIR 2
J1.4	+48 VDC PoE POWER INPUT
J1.5	+48 VDC PoE POWER INPUT
J1.6	DATA PAIR 2
J1.7	DC RETURN FOR PoE INPUT
J1.8	DC RETURN FOR PoE INPUT



CONNECTORS SHOWN FROM MATING SIDE  
J3 & J4 MATES WITH N-TYPE MALE RF CONNECTOR  
RF THRU 1 DC-4 GHz & RF THRU 2 DC-18 GHz

**RIGHT VIEW AZIMUTH BASE CONNECTORS**  
DETAIL L  
SCALE 1 : 1  
SHOWN WITHOUT CONNECTOR CAPS  
SEE TABLE V FOR J3 & J4  
RF PASS THRU CONNECTOR PINOUT DETAILS

CONNECTOR DESIGNATION	FUNCTION
J9.1	GND
J9.2	+/-12 VDC MOTOR
J9.3	+/-12 VDC MOTOR
J9.4	POT WIPER
J9.5	+3.3V



J7 SIGNAL THRU CONNECTOR  
MATES WITH TURCK  
P/N RKC 10T-\* (\* LENGTH IN METERS)  
OR SIMILAR IN SERIES TURCK CONNECTORS

**LEFT VIEW AZIMUTH BASE CONNECTOR**  
DETAIL M  
SHEET 2 ZONE B-6  
SCALE 2 : 1  
SHOWN WITHOUT CONNECTOR CAPS  
SEE TABLE V FOR J7 SIGNAL  
PASS THRU CONNECTOR PINOUT DETAILS

FROM	TO
SIGNAL PASS THRU	
J7.1	J10.1
J7.2	J10.2
J7.3	J10.3
J7.4	J10.4
J7.5	J10.5
J7.6	J10.6
J7.7	J10.7
J7.8	J10.8
J7.9	J10.9
J7.10 (NOT CONNECTED)	J10.10 (NOT CONNECTED)
RF PASS THRU	
J3.1	J12.1
J4.1	J13.1

TABLE VI - ROTARY JOINT OPTIONS			
Rotary Joint Code	Manufacturer	MFR Part Number	Description
A	Pasternack	<u>PE1406</u>	Rotary Joint, 8 GHz SMA Female to SMA Female
B	Spinner	<u>835087</u>	Rotary Joint, DC-18 GHz N Female to N Female
C	Spinner	<u>835045</u>	Rotary Joint, DC-40 GHz 2.92 Female to 2.92 Female
D	Senring	<u>HF0118-56</u>	RF Rotary Joint Slip Ring, DC to 18GHz
E	Senring	<u>HF0218-31</u>	Rotary Joint, 18 GHz, High Frequency Dual Channel
F	Diamond Antenna & Microwave	<u>18-2120-0</u>	Rotary Joint, Type N, 200 W max Power at 6 GHz
G	Spinner	<u>153158</u>	Rotary Joint, 50 GHz, Dual Channel
H	Spinner	<u>BN153139</u>	Rotary Joint, 18 GHz (CH1), 13GHz (CH2), High Frequency Dual Channel
J	Spinner	<u>BN945421</u>	Rotary Joint, 1 Channel, DC-5 GHz, N-Type Female to N-Type Female
K	Senring	<u>HF0218-64-24S</u>	Rotary Joint, 18 GHz, High Frequency Dual Channel with 24 Signal Wires
L	Spinner	<u>BN522214</u>	Rotary Joint, 4 Channel, DC to 4 GHz

TABLE VII - RF CABLE PASS THRU OPTIONS		
RF Cable Code	RF Cable Type	Description
RF01	<u>RG316</u>	DC-3 GHz RF Cable Pass Thrus (RF Cable RG316) (N-Type)
RF02	<u>LMR-100A-UF</u>	DC-5.8 GHz (Max Input Power @ 5.8 GHz - 13W) RF Cable Pass Thru (RF Cable LMR-100A-UF) (N-Type)
RF03	<u>LMR-195UF</u>	DC-5.8 GHz (Max Input Power @ 5.8 GHz - 50W) RF Cable Pass Thru (RF Cable LMR-195UF) (N-Type)
RF04	<u>LMR-240UF</u>	DC-5.8 GHz (Max Input Power @ 5.8 GHz - 80W) RF Cable Pass Thru (RF Cable LMR-240UF) (N-Type)
RF05	<u>FlexCore 210</u>	DC-18 GHz RF Cable Pass Thru (RF Cable FlexCore 210) (N-Type)
RF06	<u>PE-P160LL or LL160</u>	DC-18 GHz RF Cable Pass Thru (RF Cable Low Loss 160) (N-Type)
RF07	<u>UFA147B</u>	DC-11 GHz RF Pass Thru (RF Cable UFA147A) (N-Type)
RF08	<u>LMR-100A-UF</u>	DC-5.8 GHz SMA RF Cable Pass Thru (RF Cable LMR-100A-UF) (SMA Type)
RF09	<u>FlexCore 210</u>	DC-18 GHz RF Cable Pass Thru (RF Cable FlexCore 210) (2.92 Type)
RF10	<u>T-Flex 405</u>	DC-40 GHz RF Cable Pass Thru (RF Cable T-Flex 405) (2.92 Type)
RF11	<u>RG179</u>	DC-3 GHz RF Cable Pass Thrus (RF Cable RF179) (BNC Type)
RF12	<u>UFB205A</u>	DC-18 GHz RF Pass Thru (RF Cable UFB205A) (N-Type)
RF13	<u>UFA210B</u>	DC-18 GHz RF Pass Thru (RF Cable UFA210B) (N-Type)
RF14	<u>True Blue 290</u>	DC-18 GHz RF Pass Thru (RF Cable True Blue 290) (N-Type)
RF15	<u>PE-P142LL or LL142</u>	DC-18 GHz RF Pass Thru (RF Cable Low Loss 142) (N-Type)

TABLE VIII - RF CABLE PASS THRU COMBINATION OPTIONS		
RF Cable Code	RF Cable Type	Description
RF60	<u>PE-P160LL or LL160</u> <u>LMR-100A-UF</u>	(1) DC-18 GHz RF Cable Pass Thru (RF Cable Low Loss 160) (N-Type) & (1) DC-5.8 GHz RF Cable Pass Thru (RF Cable LMR-100A-UF) (N-Type)
RF61	<u>RG316</u> <u>RG179</u>	(2) DC-3 GHz RF Cable Pass Thrus (RF Cable RG316) (N-Type) & (1) BNC Type DC-3 GHz RF Cable Pass Thrus (RF Cable RF179)
RF62	<u>PE-P142LL or LL142</u> <u>LMR-100A-UF</u>	(1) DC-18 GHz RF Cable (RF Cable Low Loss 142) (N-Type) & (1) DC-5.8 GHz RF Cable Pass Thru (RF Cable LMR-100A-UF) (N-Type)