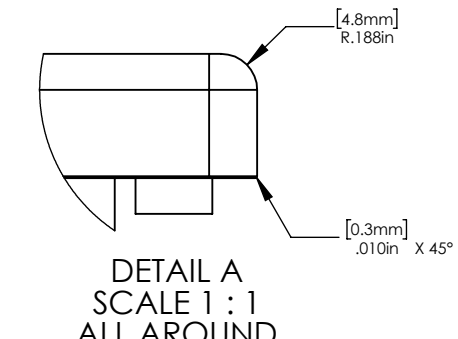
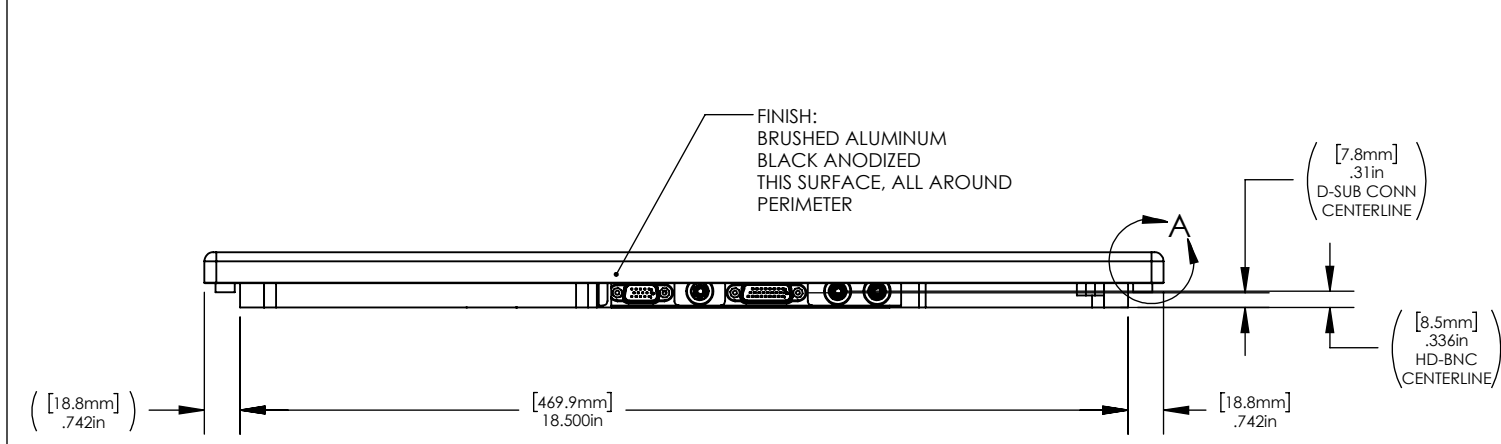
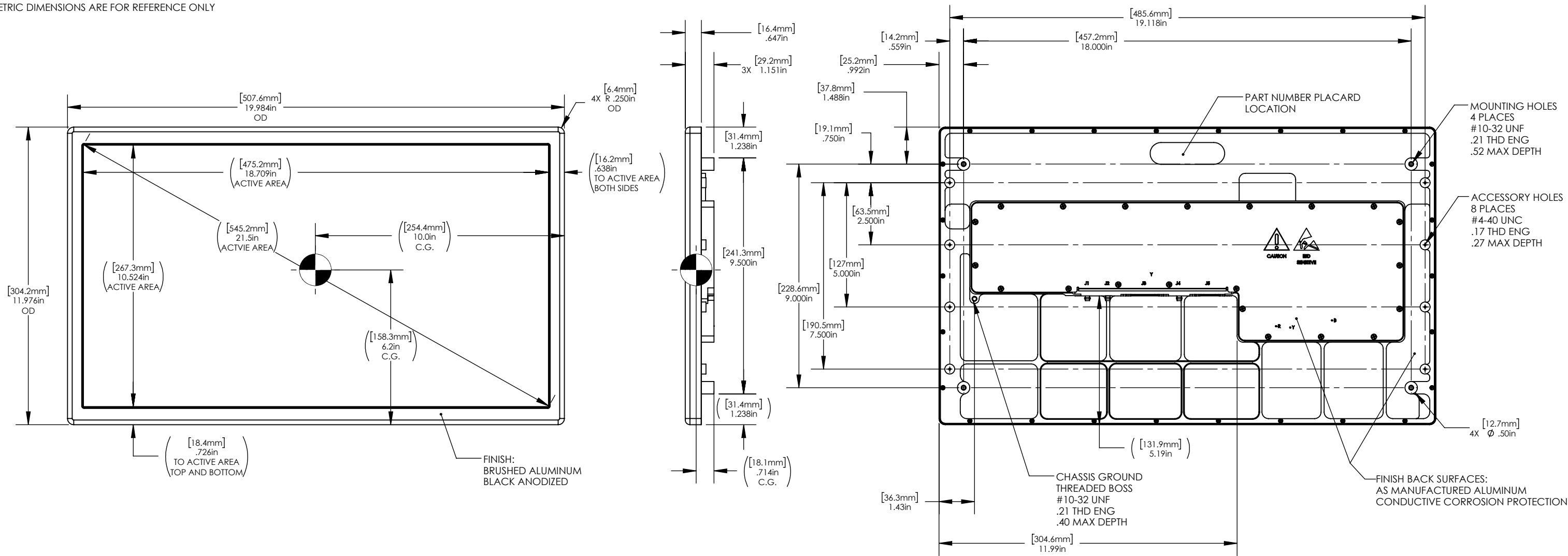


# Electronic Revision Controlled

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. ASSEMBLY WEIGHT 7.2 LBS MAX
2. USE ESD SAFE HANDLING PRACTICES PER ANSI / ESD 520.20
3. SOME MINOR PARTS, LABELS, AND INSTRUCTIONS OMITTED FOR CLARITY
4. VENTING / CLEARANCE: NATURAL CONVECTION, CLEARANCE TO BACK OF UNIT 1/8" MINIMUM
5. MINIMUM 4 EACH 10-32 FASTENERS REQUIRED FOR MOUNTING
6. CONNECTOR KITS NOT INCLUDED
7. SEE QUALITY CONTROL PLAN, IF APPLICABLE, FOR ANY SPECIAL PROCESSES, CRITICAL ITEMS, OR KEY CHARACTERISTICS THAT MAY EXIST
8. METRIC DIMENSIONS ARE FOR REFERENCE ONLY

REVISIONS						
ZONE	REV	DESCRIPTION	DATE	BY	EC NO	APRV
	3.0	CORRECTED MTG HOLE WAS 8-32 IS 10-32, UPDATED WEIGHT, ADDED VIDEO RESOLUTIONS	10/19/17	BEF	NEC 17-0631	SC
	A	INITIAL PRODUCTION RELEASE, CORRECTED TYPOS, UPDATED TOLERANCES	02/23/18	MCS	18-0130	
SH2	B	UPD NOTE AUDIO OUTPUT LINE OUT, WAS 2V P-P	03/15/18	MCS	18-0175	SC
TITLE BLOCK	C	ADD "MODEL" AND "CPN" TO TITLE BLOCK	11/09/18	SC	18-0763	BEF



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<b>ROSEN AVIATION</b>		1020 OWEN LOOP SOUTH EUGENE, OREGON 97402 TEL: (541) 342-3802 FAX: (541) 342-4912		APPROVALS	INITIAL	DATE
				DRAWN BY	MCS	04/11/17
				CHECKER	SC	02/22/18
				ENGINEER	MCS	02/22/18
TITLE <b>OUTLINE AND INSTALLATION DRAWING, 22" SMART DISPLAY MODULE</b>				CUSTOMER PART NUMBER (CPN) <b>SDM220-001-CD</b>		
FIRST CALLED FOR: (FCF) <b>363-22 RVA</b>				SIZE <b>B</b>	MODEL SDM220-001	REV <b>C</b>
				SCALE: 1:4	SHEET 1 OF 2	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
 .X = ± .1  
 .XX = ± .03  
 .XXX = ± .015  
 ∠ = ± 5.0°  
 RADII ± .020  
INTERPRET DIM AND TOL PER ASME Y14.5M - 1994

PERFORMANCE SPECIFICATIONS (REF)

LCD Performance

Screen Resolution (pixels)	1920 x 1080
Display Viewing Area (mm)	408.96mm X 230.04mm
Horizontal Viewing Angle	±89°
Vertical Viewing Angle	±89°
Contrast Ratio (Typical)	1000:1
Screen Brightness (Typical)	350 cd/m <sup>2</sup>

Power Requirements

Operational Voltage Range	18 to 32 VDC
Max Current at Nominal Voltage*	1.4A @ 28VDC
Inrush Peak	4.8 Amps
Inrush Duration	1 ms

Environmental Specifications

Operating Temperature	-15°C - 55°C
Altitude	15,000ft
Humidity	95%RH
Vibration	DO-160G Cat S (Curve B)
Emission of RF Energy	DO-160G Cat M

Supported Video Resolutions \*\*\*

480i @29.97	1080P @23.97
576i @25	1080P @24
720p @50	1080P @25
720P @59.94	1080P @29.97
720P @60	1080P @30
1080i @25	1080P @50
1080i @29.97	1080P @59.94
1080i @30	1080P @60

\* Current Draw will increase as voltage decreases  
 \*\* Audio output is Line Level (2V-RMS) but can be adjusted.  
 \*\*\* Supported video resolutions include both standard SDI and SDI Scramble Protocol

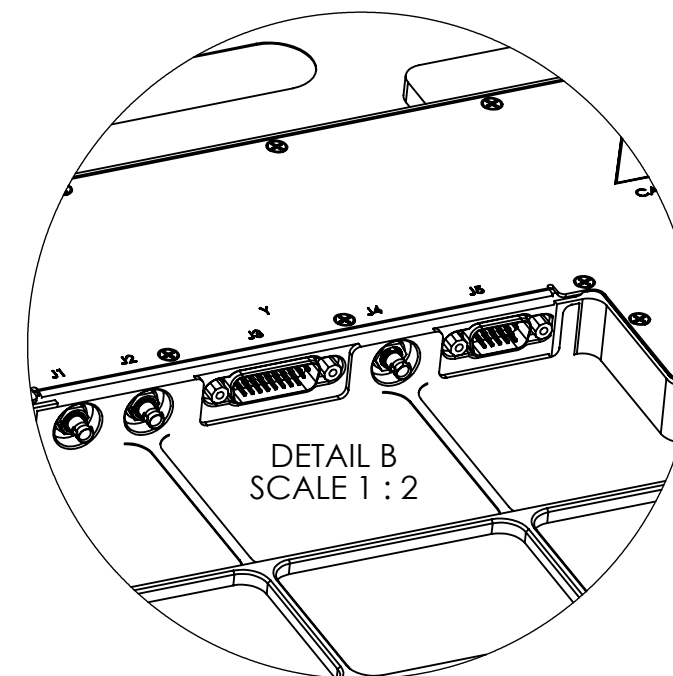
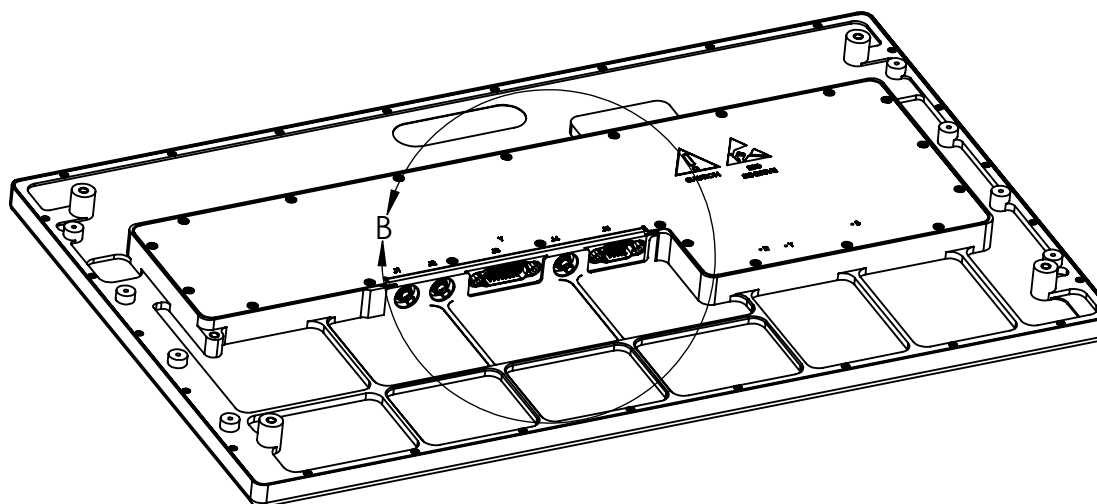
J1	
SDI ***	
LRU CONNECTOR	
HD-BNC, JACK	
SUGGESTED MATE HARDWARE	
TYPE	HDBNC
MATE	AMP - 034-1042
IMPEDANCE	75-Ohms
PIN	FUNCTION
CENTER	3G-SDI
OUTER	3G-SDI RETURN

J2	
SDI ***	
LRU CONNECTOR	
HD-BNC, JACK	
SUGGESTED MATE HARDWARE	
TYPE	HDBNC
MATE	AMP - 034-1042
IMPEDANCE	75-Ohms
PIN	FUNCTION
CENTER	3G-SDI
OUTER	3G-SDI RETURN

J3	
MAIN CONNECTOR	
LRU CONNECTOR	
26 POS, DSUB-HD, MALE PINS	
SUGGESTED MATE HARDWARE	
HOUSING	AMP - 1658682-1
CONTACT	AMP - 1658686-1
SHELL	3M - 3357-9215
Pin	Signal
1	Return 28 VDC
2	28 VDC In
3	Chassis GND
4	Analog Audio Return**
5	Analog Audio out Left**
6	Analog Audio out Right**
7	RS232 Control TX
8	RS232 Control RX
9	Signal GND
10	ARINC-429 in 1 A
11	ARINC-429 in 1 B
12	ARINC-429 in 2 A
13	ARINC-429 in 2 B
14	RS232 GPS TX
15	RS232 GPS RX
16	Signal GND
17	USB GND
18	Pwr Control in
19	Select in
20	Discrete out / Extra in
21	Audio Mute Control in
22	RS485+
23	RS485-
24	USB VBUS
25	USB D+
26	USB D-

J4	
COMPOSITE	
LRU CONNECTOR	
HD-BNC, JACK	
SUGGESTED MATE HARDWARE	
TYPE	HDBNC
MATE	AMP - 034-1042
IMPEDANCE	75-Ohms
PIN	FUNCTION
CENTER	VIDEO SIGNAL
OUTER	VIDEO RETURN

J5	
ETHERNET	
LRU CONNECTOR	
15 POS, DSUB-HD, MALE PINS	
SUGGESTED MATE HARDWARE	
HOUSING	AMP - 1658681-1
CONTACT	AMP - 1658686-1
SHELL	3M - 3357-9209
Pin	Signal
1	ENET C+
2	CHASSIS GND
3	ENET B- (RX-)
4	ENET A- (TX-)
5	ENET D-
6	CHASSIS GND
7	ENET C-
8	ENET B+ (RX+)
9	ENET A+ (TX+)
10	ENET D+
11	IR in
12	IR +5V out
13	Signal GND
14	RS232 Debug TX
15	RS232 Debug RX



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 EUGENE, OREGON 97402  
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SIZE	CUSTOMER PART NUMBER (CPN)	REV
B	SDM220-001-CD	C
SCALE: 1:4	SHEET 2 OF 2	