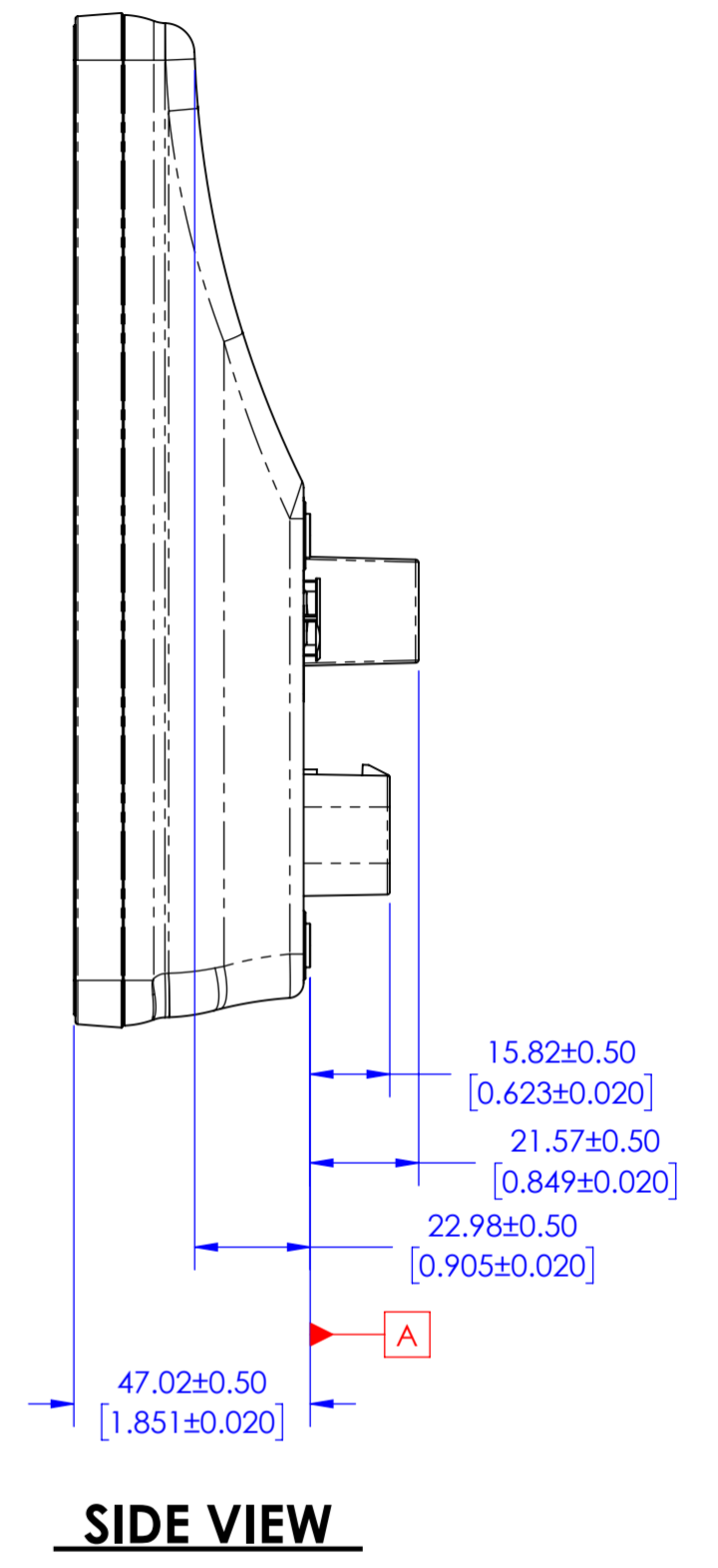
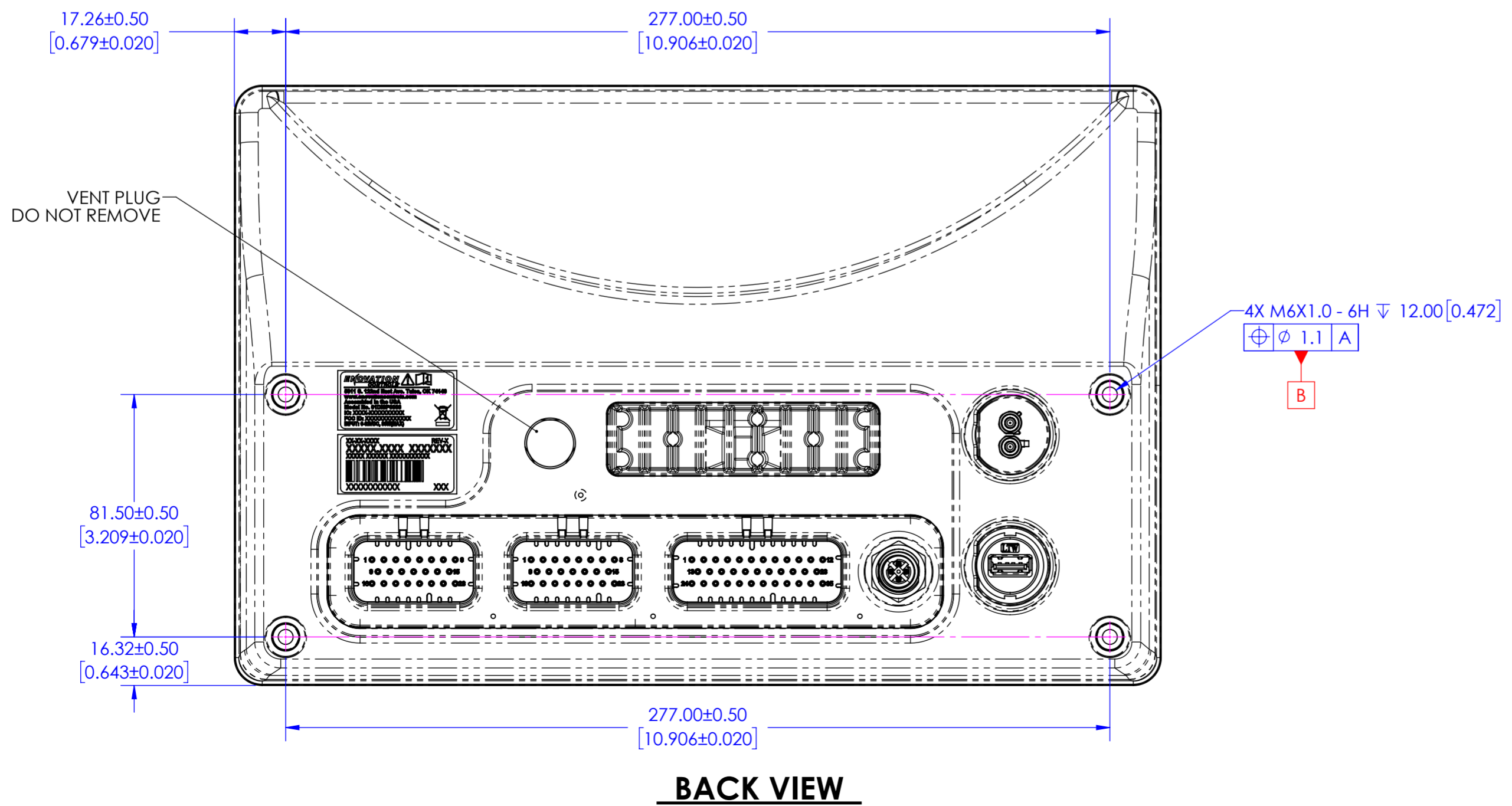
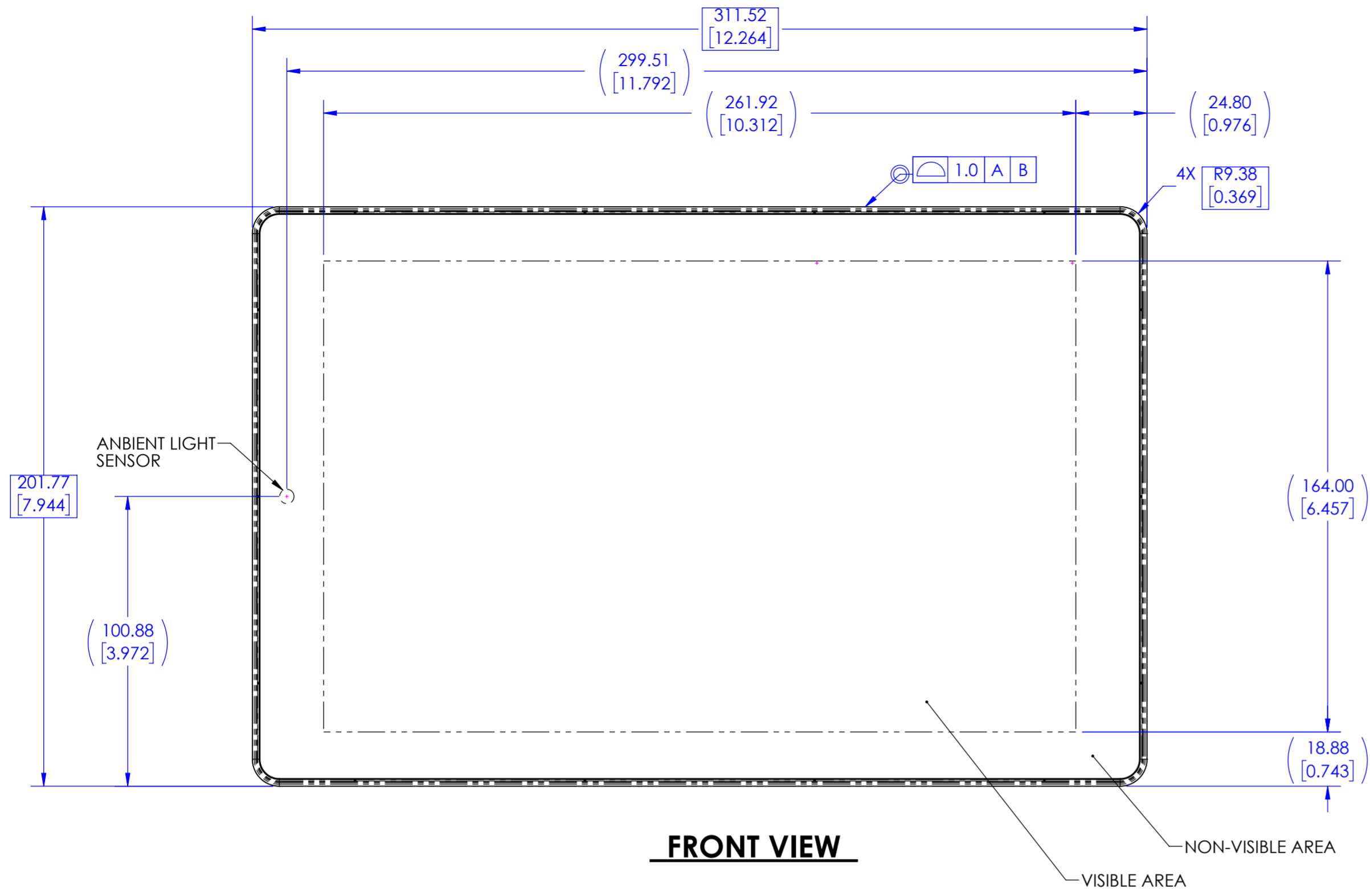


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REVISIONS		DATE	BY	APPVD	
ZONE	REV.	ECO#	DESCRIPTION	(YYYY.MM.DD)	
-	A-	C05800	INITIAL DRAWING RELEASE	2023.06.16	JP LB
-	A1	C05866	ADDED HOW TO ORDER VARIANT FOR EMBEDDED MAPS (SHEET 2)	2023.07.26	JP LB



NOTES:

- REFER TO ENOVATION CONTROLS 3D CAD MODEL 78020680 FOR NON DIMENSIONED FEATURES.

2.0 A B APPLIES TO ALL UNDIMENSIONED GEOMETRY FROM THE TRUE SURFACE.

DIMENSIONING AND TOLERANCING PER ASME Y14.5 - 2009 APPLY. UNLESS OTHERWISE SPECIFIED		SHALL MEET REQUIREMENTS OF ENC 4E00711 ENVIRONMENTAL COMPLIANCE SPECIFICATION		METRIC DO NOT SCALE DRAWING			
Tolerances Inch: X ± .1 .XX ± .03 .XXX ± .010	Tolerances Metric: X ± .2 X ± .7 XX ± .25	PRODUCE PART FROM CAD MODEL 78020681.SLDASM					
MATERIAL: -		DESCRIPTION: TECH SPECS, PRISONER 12 PV-U120L-TSA5		PART NUMBER: 78020681		DRAWING NUMBER: 78020681	
FINISH: -		SCALE: 1:1.5 AND NOTED		SHEET SIZE: A2		SHEET: 1 OF 4	
						REVISION: A1	

HOW TO ORDER

PV-U120L-TSA5-XXXX

PLATFORM OPTIONS
 QDAB = DAB+ (Digital Audio Broadcast)
 QWX = Weather Band
 QWXM-1 = Embedded Maps North America

ELECTRICAL & ENVIRONMENTAL SPECIFICATIONS

HARDWARE

- DISPLAY:**
12" (133.38mm (H) X 355.68mm (V)) LVDS TT LCD with LED backlight
- COLOR:**
24-bit color
- RESOLUTION:**
1280 X 800 PIXELS
- CONTRAST RATIO:**
1000:1 (Typ.)
- BRIGHTNESS:**
1000 cd/m2
- DISPLAY SURFACE:**
Anti-glare
- TOUCH PANEL:**
Glove touch PCAP
- REAL TIME CLOCK:**
Li-Ion battery backup
- CONNECTORS:**
 - (2) Ampseal 23 pin
 - (1) Ampseal 35 pin
 - (1) M12 4 pin
 - (1) USB Pig tail
 - (1) Radio Antenna Jack
- VIDEO INPUTS:**
3 NTSC/PAL (Single channel viewable)

COMMUNICATION

- CAN:**
(2) CAN 2.0B according to ISO-11898-2; J1939 and CANopen; proprietary messaging
- SERIAL:**
(1) RS-485 Serial (MODBUS master/slave)
- USB:**
(2) USB 2.0 Full Speed Host
- ETHERNET:**
(1) Ethernet 10/100 Base-T
- WIFI:**
802.11 b/g radio
- BLUETOOTH:**
Fully integrated Bluetooth 2.1 class 1
- AUDIO BUS:**
(1) A2B

INFOTAINMENT

- STEREO:**
 - (4) Outputs (20Hz-20KHz)
 - (1) Subwoofer (configurable, 30Hz-250Hz)
 - (2) Auxiliary Inputs
 - (3) Amp Turn On/Accessory
- FM TUNER:**
Frequency Range: 87.9MHz-107.9MHz
- AM TUNER:**
Frequency Range: 530kHz-1710kHz
- WX TUNER: (WX OPTION)**
Frequency Range: 162.4MHz-162.55MHz
- DAB+ TUNER: (DAB OPTION)**
Frequency Range: 170MHz-240MHz
- USB MEDIA:**
MP3, M4A Playback
- BLUETOOTH:**
Audio Streaming

ELECTRICAL

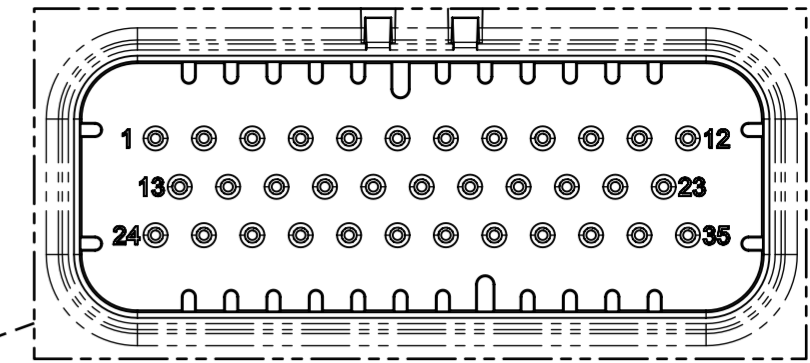
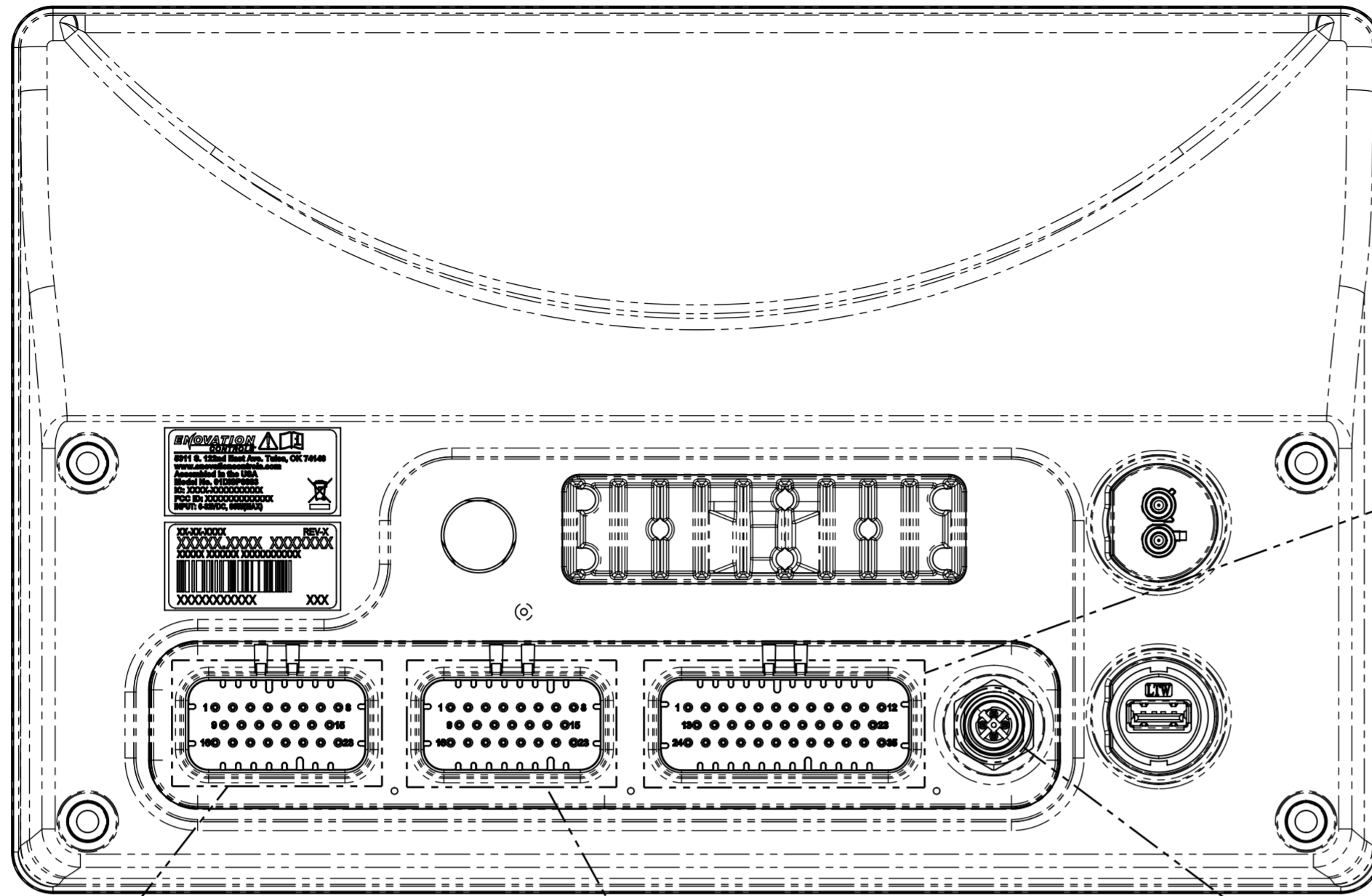
- OPERATING VOLTAGE:**
6 - 36 VDC, reverse polarity protected
- OUTPUTS:**
 - (1) 500mA Switched Low-side
 - (1) Frequency Out (2Hz - 3KHz)
- INPUTS:**
 - (3) Analog 0-5VDC, 4-20mA, or resistive, 10-bit resolution
 - (5) Discrete digital, active-high
 - (1) Frequency In (2Hz - 10kHz) 5Vpk-pk min, 120Vpk-pk max

ENVIRONMENTAL

- OPERATING:**
-40°C to +70°C [-40°F to +158°F]
- STORAGE:**
-40°C to +85°C [-40°F to +185°F]
- PROTECTION:**
IP66 and IP67, front and back, for outdoor use
- VIBRATION:**
ISO 15003: 3.9 Grms (10 - 350Hz), 3 axis
- SHOCK:**
±50G in 3 axis
- EMC/EMI:**
SAE J1113, ISO 13766, CE per 2014/30/EU

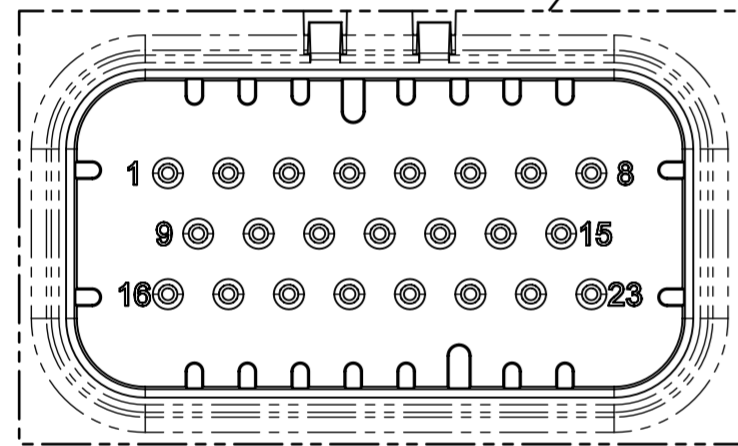
DESCRIPTION			
TECH SPECS, PRISONER 12 PV-U120L-TSA5			
PART NUMBER	DRAWING NUMBER	REVISION	
78020681	78020681	A1	
CAD FILE	SCALE	SHEET SIZE	SHEET
78020681.SLDASM	1:5 AND NOTED	A3	2 OF 4

CONNECTOR PIN-OUT SPECIFICATIONS



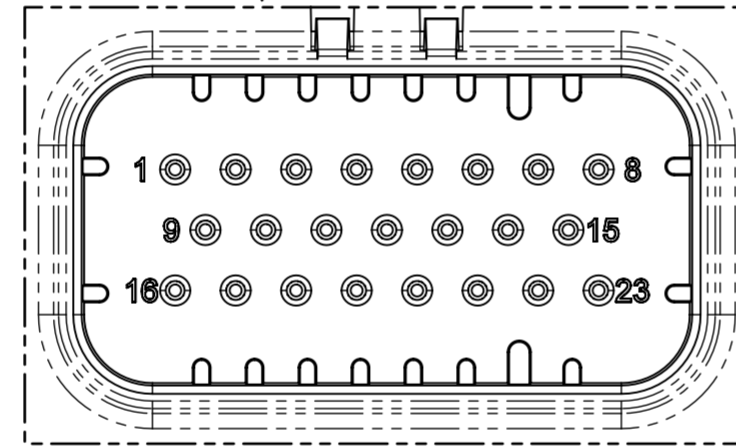
35-POS CONNECTOR-C
(MATING CONNECTOR AMP 776164-1 BLACK)

PIN #	FUNCTION
1	Video In 4 P
2	Video In 4 N
3	A2B P
4	A2B N
5	Line In 1 Left
6	Line In 1 Left Return
7	Line In 1 Right
8	Line In 1 Right Return
9	Line In 2 Left
10	Line In 2 Left Return
11	Line In 2 Right
12	Line In 2 Right Return
13	A2B Shield
14	A2B Ground
15	A2B 5V
16	Line Out 5 Left P
17	Line Out 5 Left N
18	Line Out 4 Left P
19	Line Out 4 Left N
20	Line Out 3 Left P
21	Line Out 3 Left N
22	Line Out 2 Left N
23	Line Out 2 Left P
24	Amp Turn-on 3
25	Amp Turn-on 2
26	Amp Turn-on 1
27	No Connect
28	Line Out 5 Right P
29	Line Out 5 Right N
30	Line Out 4 Right P
31	Line Out 4 Right N
32	Line Out 3 Right P
33	Line Out 3 Right N
34	Line Out 2 Right P
35	Line Out 2 Right N



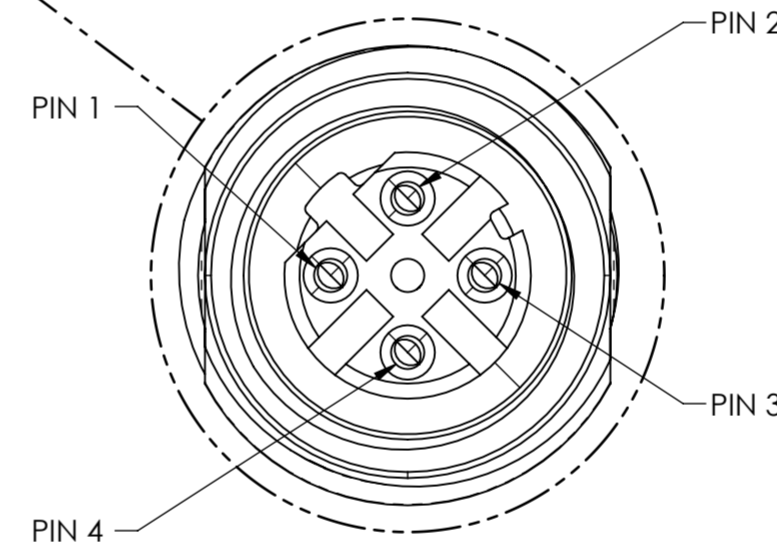
23-POS CONNECTOR-A
(MATING CONNECTOR AMP 770680-1 BLACK)

PIN #	FUNCTION
1	Digital In 1
2	Analog In 3
3	Analog In 2
4	Analog In 1
5	CAN 1 L
6	CAN 1 H
7	Battery
8	Ground
9	Analog In 3 Return
10	Analog In 2 Return
11	Analog In 1 Return
12	Digital In 3
13	Digital In 2
14	Frequency Out 1
15	Ignition
16	No Connect
17	No Connect
18	CAN 2 L
19	CAN 2 H
20	Digital In 4
21	Digital In 5
22	Open Drain Out
23	Frequency Out 2



23-POS CONNECTOR-B
(MATING CONNECTOR AMP 770680-4 GRAY)

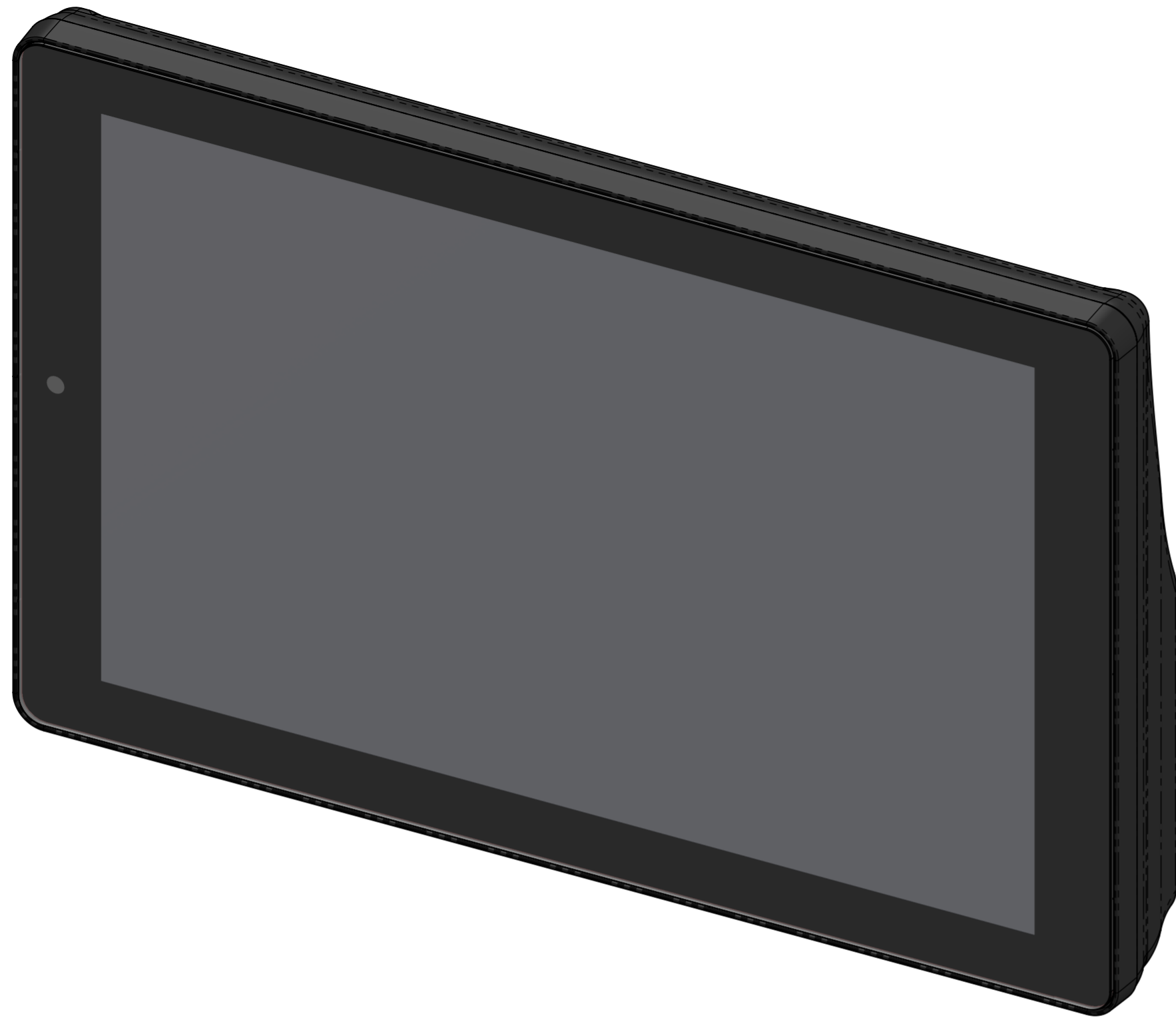
PIN #	FUNCTION
1	Video In 1 P
2	Video In 2 P
3	Video In 3 P
4	RS485 H
5	RS485 L
6	Line Out 1 Right N
7	Line Out 1 Right P
8	Line Out 1 Left N
9	Video In 1 N
10	Video In 2 N
11	Video In 3 N
12	Radio Control VIN
13	Frequency In
14	Frequency In Return
15	Line Out 1 Left P
16	USB1 N
17	USB1 P
18	USB1 VBUS
19	USB1 Ground
20	USB1 Shield
21	Radio Control Bus
22	Radio Control Shield
23	Radio Control Ground



4-POS CONNECTOR-D
(MATING CONNECTOR M-12, 4 POS, D-CODED, MALE)

PIN #	FUNCTION
1	Ethernet TX+
2	Ethernet RX+
3	Ethernet TX-
4	Ethernet RX-

TECH SPECS, PRISONER 12 PV-U120L-TSA5



DESCRIPTION TECH SPECS, PRISONER 12 PV-U120L-TSA5			
PART NUMBER 78020681	DRAWING NUMBER 78020681	REVISION A1	
CAD FILE 78020681.SLDASM	SCALE 1:1.25 AND NOTED	SHEET SIZE A2	SHEET 4 OF 4