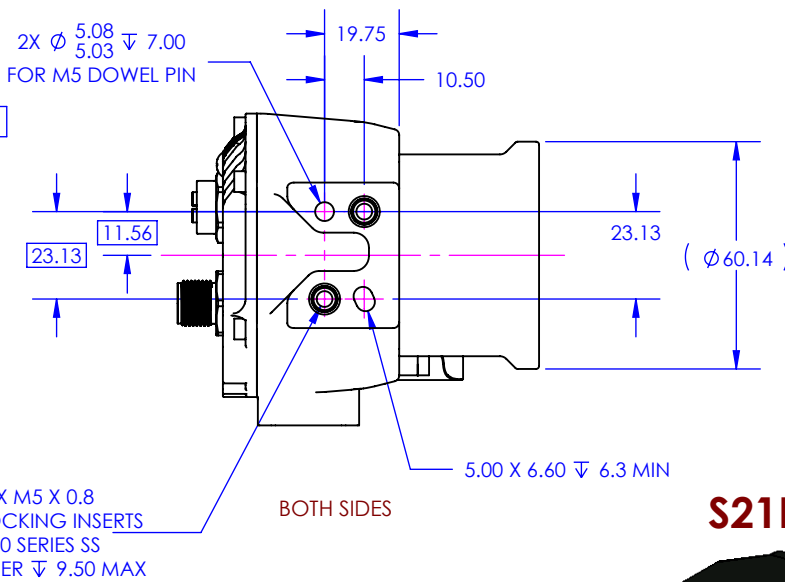
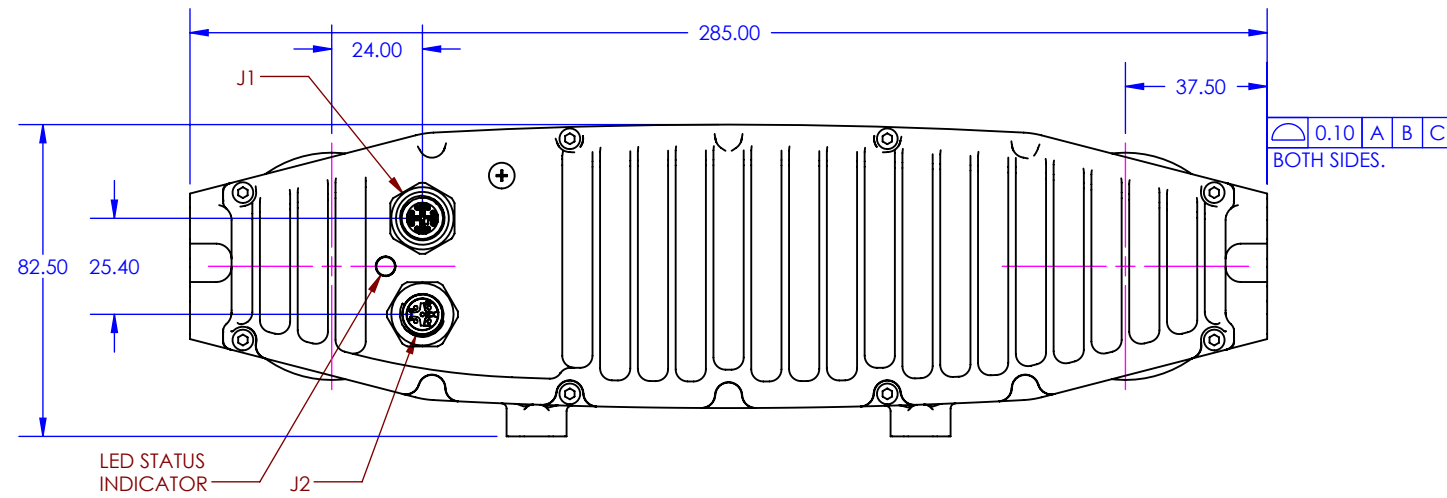
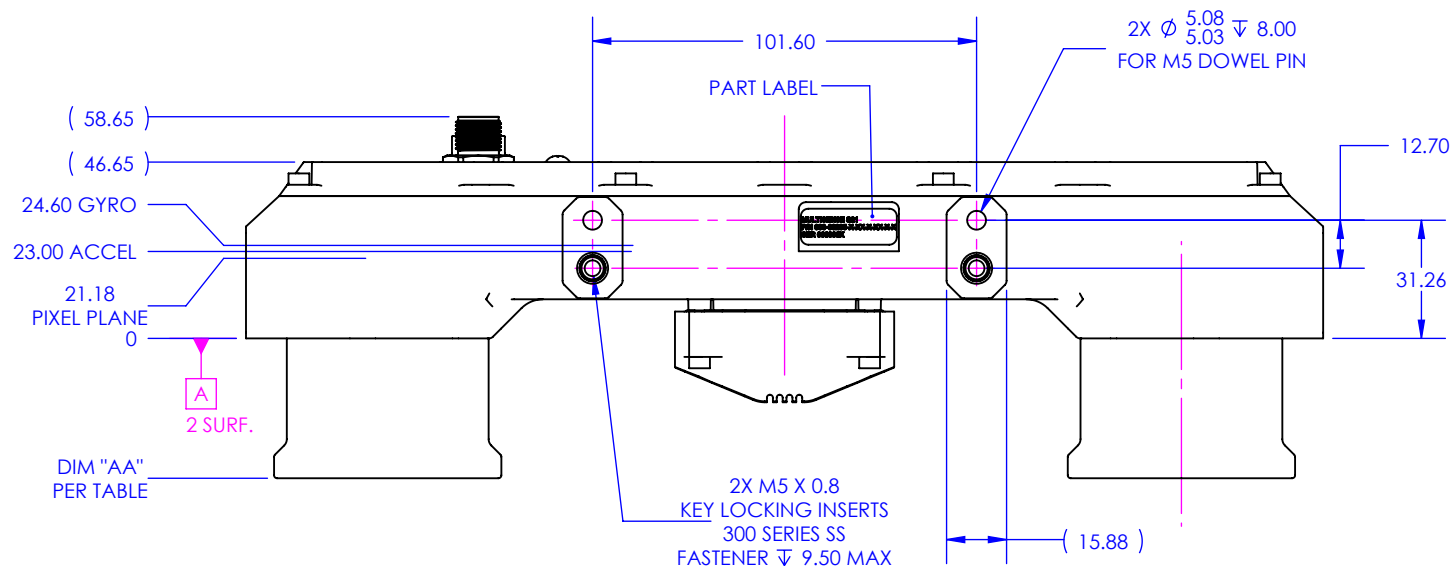
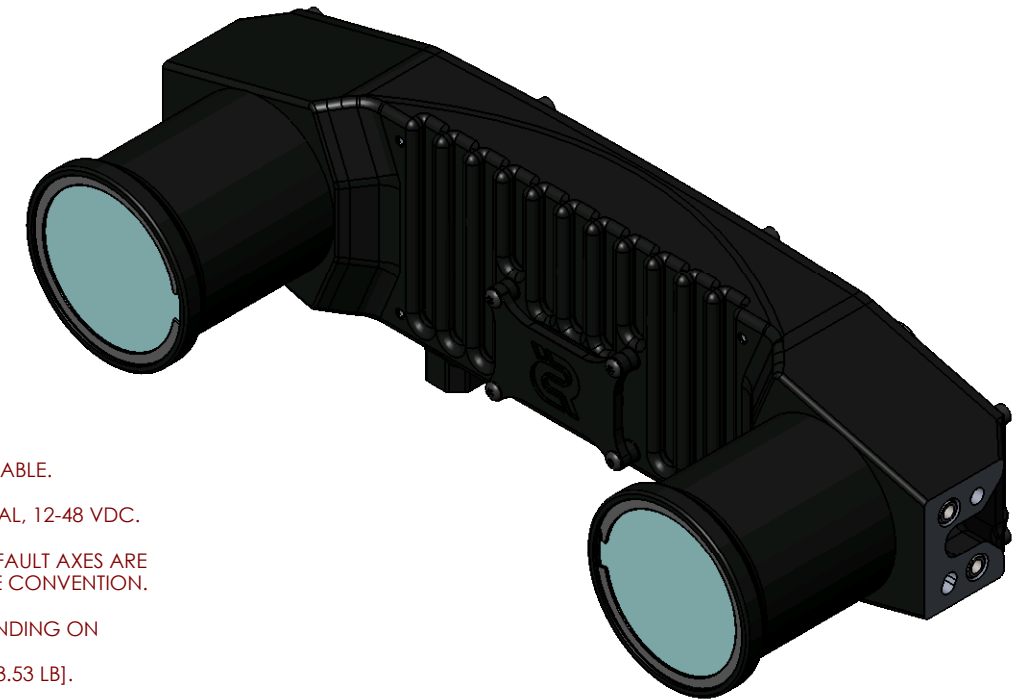


REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2017-11-30	REM
B	REMOVED 4MP IMAGER OPTIONS	2018-02-06	MCC

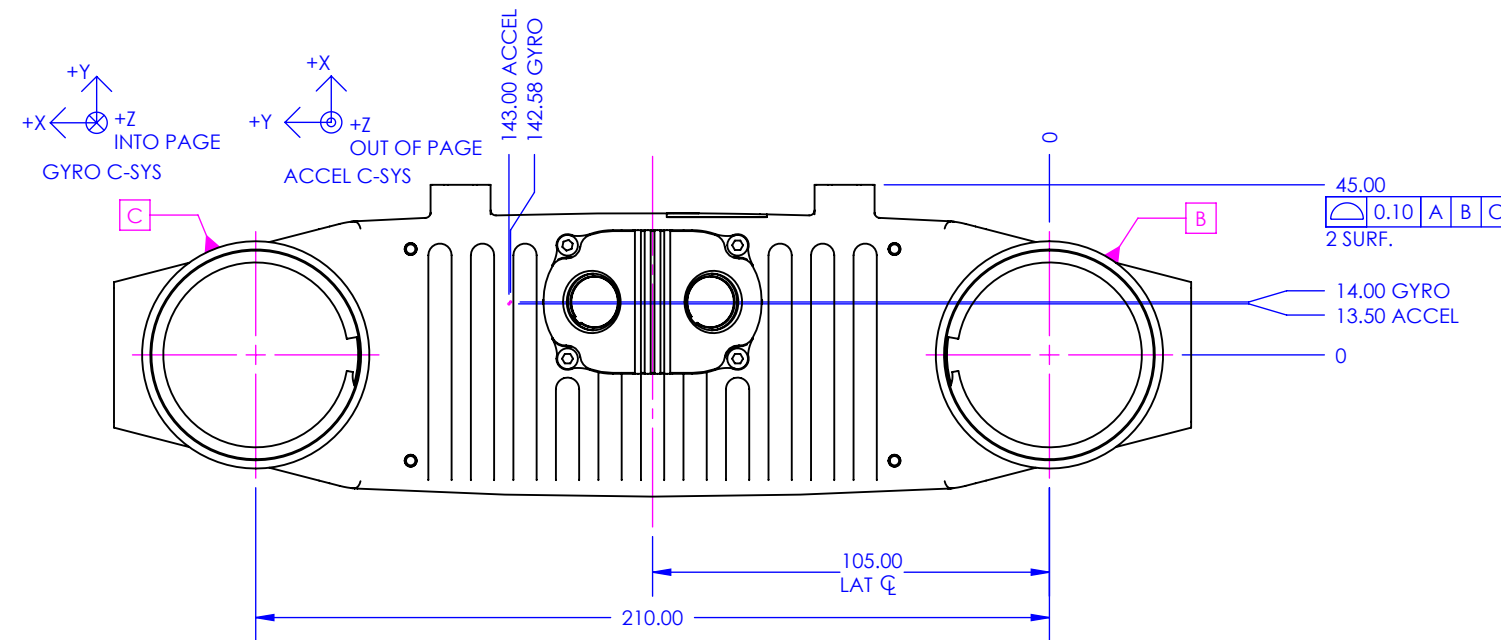


S21B-1-2M-N-060-1-N SHOWN



NOTE(S) UNLESS OTHERWISE SPECIFIED:

- SEE SHEET 2 FOR PART CONFIGURATION TABLE.
- INPUT POWER VOLTAGE: 24 VDC NOMINAL, 12-48 VDC.
- GYRO AND ACCEL/MAGNETOMETER DEFAULT AXES ARE SHOWN AXES FOLLOW RIGHT HAND RULE CONVENTION.
- MASS 1.40 - 1.90 KG [3.08 - 4.20 LB] DEPENDING ON CONFIGURATION.
S21B-1-2M-N-060-1-N IS 1.60 KG [3.53 LB].



LENS NUMBER	DIM "AA" ± 0.25
045	38.19
048	37.00
050	39.75
060	58.65
080	53.70
125	52.80

LED STATUS INDICATOR	
PATTERN	DESCRIPTION
	NON-OP

J2	
M12-A5/M	
1	24 VDC
2	CAM TRIG
3	PWR GND
4	PPS
5	I/O GND

J1	
M12-X8/F	
1000 BASE T	
1	A+
2	A-
3	B+
4	B-
5	D+
6	D-
7	C-
8	C+

<p>Carnegie Robotics 4501 HATFIELD STREET PITTSBURGH, PA 15201 412-251-0321 CARNIEGEROBOTICS.COM CAGE CODE: 4QND3</p>	<table border="1"> <tr> <th>ENGR</th> <th>DATE</th> </tr> <tr> <td>REM</td> <td>2017-01-23</td> </tr> <tr> <th>CHECKED</th> <th>DATE</th> </tr> <tr> <td>REM</td> <td>2017-11-30</td> </tr> <tr> <th>ENGR</th> <th>DATE</th> </tr> <tr> <td>REM</td> <td>2016-11-10</td> </tr> <tr> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td>REM</td> <td>2017-11-30</td> </tr> </table>	ENGR	DATE	REM	2017-01-23	CHECKED	DATE	REM	2017-11-30	ENGR	DATE	REM	2016-11-10	APPROVED	DATE	REM	2017-11-30	MULTISENSE S21B	
	ENGR	DATE																	
	REM	2017-01-23																	
CHECKED	DATE																		
REM	2017-11-30																		
ENGR	DATE																		
REM	2016-11-10																		
APPROVED	DATE																		
REM	2017-11-30																		
<p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CARNEGIE ROBOTICS LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CARNEGIE ROBOTICS LLC IS PROHIBITED.</p>	<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS</p> <p>TOLERANCES: ANGULAR ± 0.5° SURFACE FINISH: 1.6</p> <p>X ± 1.3 X.X ± 0.5 X.XX ± 0.13</p>	<table border="1"> <tr> <th>SIZE</th> <th>PART NUMBER</th> <th>REV</th> </tr> <tr> <td>B</td> <td>S21B</td> <td>B</td> </tr> </table>	SIZE	PART NUMBER	REV	B	S21B	B	<table border="1"> <tr> <th>MATERIAL</th> <th>FINISH</th> <th>DO NOT SCALE</th> </tr> <tr> <td>N/A</td> <td>SEE NOTE</td> <td>SHEET 1 OF 2</td> </tr> </table>	MATERIAL	FINISH	DO NOT SCALE	N/A	SEE NOTE	SHEET 1 OF 2				
SIZE	PART NUMBER	REV																	
B	S21B	B																	
MATERIAL	FINISH	DO NOT SCALE																	
N/A	SEE NOTE	SHEET 1 OF 2																	

AUXILIARY LIGHTING CONFIGURATIONS



-N
NO LIGHTING



-P
IR PATTERN PROJ



-R
IR LIGHT

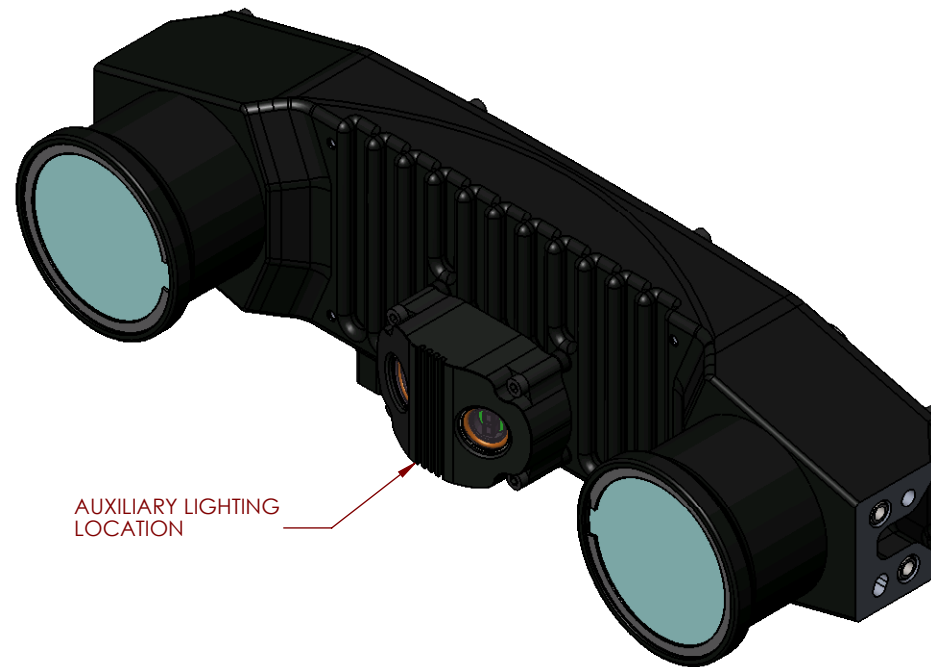


-V
VISIBLE LIGHT

PART CONFIGURATION TABLE											
COATING 1.		IMAGER		IR FILTER		LENS		CONNECTOR		AUXILIARY	
1	BLACK POWDERCOAT	2M	2MP MONO	N	NONE	048	4.8 MM FL, 115° HFOV	1	M12-A5/M, M12-X8/F	N	NONE
		2C	2MP COLOR	V	VIS 0, 400-700 UM	050	5.0 MM FL, 95° HFOV			R	IR LIGHT
		2R	2MP IR ENHANCED	R	VIS 0 + NIR, 400-900 UM	060	6.0 MM FL, 80° HFOV			P	IR PATTERN PROJ
				W	WIDE, 400-1100 UM	080	8.0 MM FL, 80° HFOV			V	VISIBLE LIGHT
				B	BANDPASS, 400-700 UM, 830-870 UM	125	12.5 MM FL, 45° HFOV				

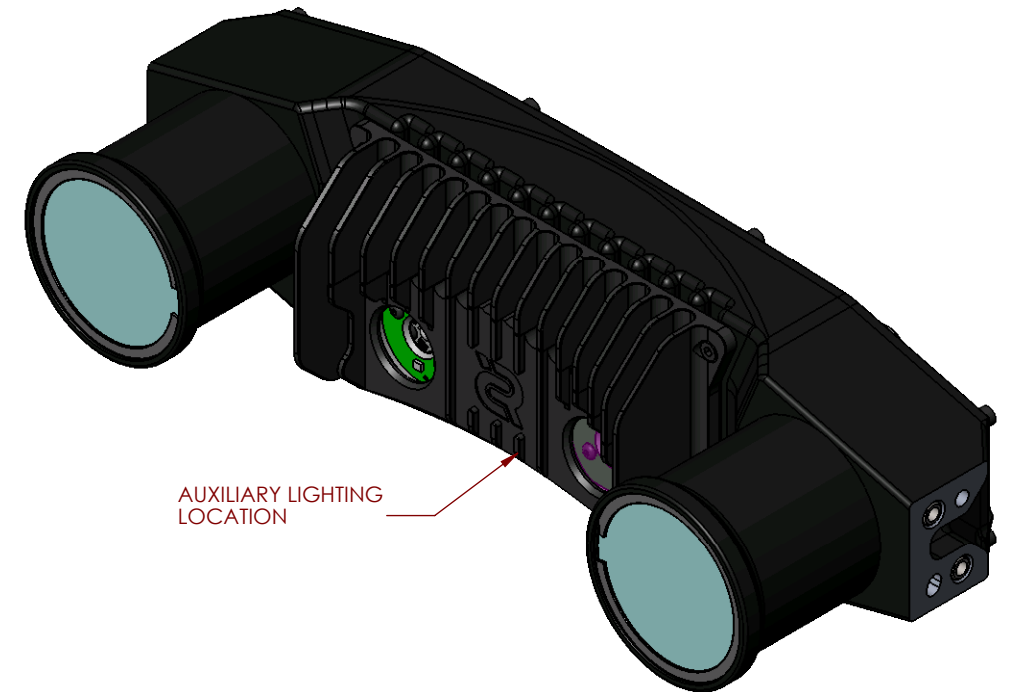
1. OTHER COATINGS AND COLORS AVAILABLE.

S21B-1-2M-N-048-1-P SHOWN



AUXILIARY LIGHTING LOCATION

S21B-1-2M-N-080-1-R SHOWN



AUXILIARY LIGHTING LOCATION

<p>Carnegie Robotics 4501 HATFIELD STREET PITTSBURGH, PA 15201 412-251-0321 CARNIEGROBOTICS.COM CAGE CODE: 4QND3</p>	ENGR	DATE	MULTISENSE S21B		
	DRAWN	2017-01-23			
	CHECKED	2017-11-30			
	ENGR	2016-11-10			
APPROVED	2017-11-30	SIZE B PART NUMBER S21B REV B			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES: ANGULAR ± 0.5° SURFACE FINISH: 1.6 X ± 1.3 X.X ± 0.5 X.XX ± 0.13			MATERIAL	FINISH	DO NOT SCALE
			N/A	SEE NOTE	
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					SHEET 2 OF 2