Section	From Ref	f From Pin	Connector	Mating Connector	Crimp	To Ref	To Pin	Connector	Mating Connector	Crimp Wi	ire ID Gauge L	_ength (mm)	Insulation	Color	From Label
Safety	J50 J50	1 2	1839211 1839211	1704857 1704857	No No	Pushbutton Pushbutton	Terminal 1 Terminal 2	Wire Wire	N/A N/A	No No	20	TBD TBD	Silicon Silicon	red red	IO_VDD_3V3 IO_SAFETY_SWITCH_IN
Switch	J50 J50	3	1839211 1839211	1704857 1704857	No No	Pushbutton Pushbutton	LED+	Wire Wire	N/A N/A	No No	20	TBD TBD	Silicon Silicon	white	N_IO_LED_SAFETY  GND
	J35	1	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2	Pushbutton PPP2ETH	1 1	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2	26	20	Silicon	default	VDD_5V_TEL2
	J35 J35	3	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	PPP2ETH PPP2ETH	3	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	20	Silicon Silicon	default default	CAN2_L CAN2_H
	J35	4	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2	PPP2ETH	4	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2	26	20	Silicon	default	GND
	J36 J36	2	SM05B-GHS-TB(LF)(SN) SM05B-GHS-TB(LF)(SN)	GHR-05V-S GHR-05V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	PPP2ETH PPP2ETH	2	SM05B-GHS-TB(LF)(SN) SM05B-GHS-TB(LF)(SN)	GHR-05V-S GHR-05V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	20 20	Silicon Silicon	default default	ETH_RX0+ ETH_RX0-
Ethernet	J36 J36	3 4	SM05B-GHS-TB(LF)(SN) SM05B-GHS-TB(LF)(SN)	GHR-05V-S GHR-05V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	PPP2ETH PPP2ETH	3 4	SM05B-GHS-TB(LF)(SN) SM05B-GHS-TB(LF)(SN)	GHR-05V-S GHR-05V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	20 20	Silicon Silicon	default default	GND ETH_TX0+
	J36	5	SM05B-GHS-TB(LF)(SN)	GHR-05V-S	SSHL-002T-P0.2	PPP2ETH	5	SM05B-GHS-TB(LF)(SN)	GHR-05V-S	SSHL-002T-P0.2	26	20	Silicon	default	ETH_TX0-
	J41 J41	2	SM06B-GHS-TB(LF)(SN) SM06B-GHS-TB(LF)(SN)	GHR-06V-S GHR-06V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	PPP2ETH PPP2ETH	2	SM06B-GHS-TB(LF)(SN) SM06B-GHS-TB(LF)(SN)	GHR-06V-S GHR-06V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	25 25	Silicon Silicon	default default	VDD_5V_TEL2 UART5_RX_TEL2
	J41 J41	3	SM06B-GHS-TB(LF)(SN) SM06B-GHS-TB(LF)(SN)	GHR-06V-S GHR-06V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	PPP2ETH PPP2ETH	3 4	SM06B-GHS-TB(LF)(SN) SM06B-GHS-TB(LF)(SN)	GHR-06V-S GHR-06V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	25 25	Silicon Silicon	default default	UART5_TX_TEL2 UART5_CTS_TEL2
	J41	5	SM06B-GHS-TB(LF)(SN)	GHR-06V-S	SSHL-002T-P0.2	PPP2ETH	5	SM06B-GHS-TB(LF)(SN)	GHR-06V-S	SSHL-002T-P0.2	26	25	Silicon	default	UART5_RTS_TEL2
	J41 J9	6	SM06B-GHS-TB(LF)(SN) 1839211	GHR-06V-S 1704857	SSHL-002T-P0.2 No	PPP2ETH M9N	6 1	SM06B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-06V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	25 35	Silicon Silicon	default default	GND GND
GNSS	J9	2	1839211	1704857	No	M9N	2	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2	26	35	Silicon	default	CAN1_L
	J9	3 4	1839211 1839211	1704857 1704857	No No	M9N M9N	3 4	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	35 35	Silicon Silicon	default default	CAN1_H 5V
	J7 J7	1 2	1814935 1814935	1704857 1704857	No No	F9P F9P	4 3	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	130 130	Silicon Silicon	default default	GND CAN1_L
	J7	3	1814935	1704857	No	F9P	2	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2	26	130	Silicon	default	CAN1_H
Neo F9P & Spare	J7 J8	1	1814935 1814935	1704857 1704857	No No	F9P F9P	1	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	130 130	Silicon Silicon	default default	VDD_5V_CAN1 GND
	J8 J8	2	1814935 1814935	1704857 1704857	No No	F9P F9P	2 3	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	130 130	Silicon Silicon	default default	CAN2_L CAN2_H
	J8	4	1814935	1704857	No	F9P	4	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26	130	Silicon	default	VDD_5V_CAN2
RPI	J2 J2	1 2	1814935 1814935	1704857 1704857	No No	SIYI A8 SIYI A8	6 7	SM09B-GHS-TB(LF)(SN) SM09B-GHS-TB(LF)(SN)	GHR-09V-S GHR-09V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	500 500	Silicon Silicon	white orange	ETH_RX1+ ETH_RX1-
Ethernet	J2	3	1814935	1704857	No	SIYI A8	4	SM09B-GHS-TB(LF)(SN)	GHR-09V-S	SSHL-002T-P0.2	26	500	Silicon	grey	ETH_TX1+
	J2 J12	1	1814935 1839211	1704857 1704857	No No	SIYI A8 SIYI A8 - Video	5 1	SM09B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-09V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	500 500	Silicon Silicon	green white	ETH_TX1- UART8_TX_GPS2
	J12	2	1839211	1704857	No	SIYI A8 - Video	2	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2	26	500	Silicon	grey	UART8_RX_GPS2
SIYI A8	J12 J12	4	1839211 1839211	1704857 1704857	No	SIYI A8 - Video SIYI A8 - Video	3 X	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	500 500	Silicon Silicon	black X	GND X
w/o HM30	J13 J13	1 2	1839211 1839211	1704857 1704857		SIYI A8 - Power SIYI A8 - Power	1 2	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	500 500	Silicon Silicon	red red	12V 12V
	J13	3	1839211	1704857	No	SIYI A8 - Power	3	SM04B-GHS-TB(LF)(SN)	GHR-04V-S	SSHL-002T-P0.2	26	500	Silicon	black	GND
	J13 J14	1	1839211 XT30PW-F	1704857 XT30-M	No No	SIYI A8 - Power HM30 - Power	1	SM04B-GHS-TB(LF)(SN) Wire	GHR-04V-S N/A	SSHL-002T-P0.2 N/A	26 16	500 170	Silicon Silicon	black red	GND 12V
	J14	2	XT30PW-F	XT30-M	No	HM30 - Power	2	Wire	N/A	N/A	16	170	Silicon	black	GND
	J15 J15	2	1814935 1814935	1704857 1704857	No No	HM30 - UART HM30 - UART	2	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	170 170	Silicon Silicon	white grey	UART7_TX_TEL1 UART7_RX_TEL1
НМ30	J15 J15	3 4	1814935 1814935	1704857 1704857	No No	HM30 - UART HM30 - UART	3 4	SM04B-GHS-TB(LF)(SN) SM04B-GHS-TB(LF)(SN)	GHR-04V-S GHR-04V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	170 170	Silicon Silicon	black X	GND X
	J17	1	1814922	1704854	No	HM30-SBUS	1	SM03B-GHS-TB(LF)(SN)	GHR-03V-S	SSHL-002T-P0.2	26	170	Silicon	blue	IO_PPM_INPUT_AND_SBUS_INPUT
	J17 J17	3	1814922 1814922	1704854 1704854	No No	HM30-SBUS	3	SM03B-GHS-TB(LF)(SN) SM03B-GHS-TB(LF)(SN)	GHR-03V-S GHR-03V-S	SSHL-002T-P0.2 SSHL-002T-P0.2	26 26	170 170	Silicon Silicon	black X	GND X
	J18	1	1814964	1704860	No	Benewake Lidar	1 2	Wire	N/A	N/A	26	180	Default	default	12V
	J18 J18	3	1814964 1814964	1704860 1704860		Benewake Lidar Benewake Lidar	3	Wire Wire	N/A N/A	N/A N/A	26 26	180 180	Default Default	default default	CAN1_L CAN1_H
<b>.</b>	J18 J18	5	1814964 1814964	1704860 1704860		Benewake Lidar Benewake Lidar	4 5	Wire Wire	N/A N/A	N/A N/A	26 26	180 180	Default Default	default default	X UART RX
Benewake Lidar w/ spare	J18	6	1814964	1704860	No	Benewake Lidar	6	Wire	N/A	N/A	26	180	Default	default	UART TX
Spare	J18 J20	7	1814964 1839211	1704860 1704857	No No	Benewake Lidar Benewake Lidar	6 N/A	Wire Spare	N/A N/A	N/A N/A	26 N/A	180 N/A	Default N/A	default N/A	GND X
	J20	2	1839211	1704857	No No	Benewake Lidar Benewake Lidar	N/A	Spare	N/A	N/A	N/A	N/A	N/A	N/A	UART RX
	J20 J20	3 4	1839211 1839211	1704857 1704857		Benewake Lidar	N/A N/A	Spare Spare	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	UART TX GND
US-D1	J22 J22	1 2	1814935 1814935	1704857 1704857	No No	US-D1 US-D1	red black	Wire Wire	N/A N/A	N/A N/A	N/A N/A	190 190	N/A N/A	default default	12V GND
Radar Altimeter	J22	3	1814935	1704857	No	US-D1	white	Wire	N/A	N/A	N/A	190	N/A	default	CAN1_L
	J22 J31	1	1814935 1814951	1704857 1704859	No No	US-D1 Att. Interface	green 6 & 8	Wire 207760-1281	N/A 204523-1201	N/A 2145291000	N/A 26	190 400	N/A Flat	default black	CAN1_H GND
	J31 J31	2 3	1814951 1814951	1704859 1704859	No No	Att. Interface Att. Interface	10 9	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	400 400	Flat Flat	red grey	12V_PL CAN1_L
	J31	4	1814951	1704859	No	Att. Interface	11	207760-1281	204523-1201	2145291000	26	400	Flat	green	CAN1_H
Bottom Payload	J31 J31	5 6	1814951 1814951	1704859 1704859	No No	Att. Interface Att. Interface	12 2 & 4	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	400	Flat Flat	white pink	FMU_CH1 12VSW
	J39 J39	1 2	1814935 1814935	1704857 1704857	No No	Att. Interface Att. Interface	1 3	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	400 400	Flat Flat	white	ETH_RX+ ETH_RX-
	J39	3	1814935	1704857	No	Att. Interface	5	207760-1281	204523-1201	2145291000	26	400	Flat	orange grey	ETH_TX+
	J39 J29	1	1814935 1778735	1704857 1704859	No No	Att. Interface Att. Interface	7 6 & 8	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26	400 235	Flat N/A	green black	ETH_TX- GND
	J29	2	1778735	1704859	No	Att. Interface	10	207760-1281	204523-1201	2145291000	26	235	N/A	red	12V_PL
	J29 J29	3 4	1778735 1778735	1704859 1704859	No No	Att. Interface Att. Interface	9	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	235 235	N/A N/A	grey green	CAN1_L CAN1_H
Side Payload 1 (right)	J29 J29	5 6	1778735 1778735	1704859 1704859	No No	Att. Interface Att. Interface	12 2 & 4	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	235 235	N/A N/A	white pink	FMU_CH7 X
(right)	J37	1	1839211	1704857	No	Att. Interface	1	207760-1281	204523-1201	2145291000	26	235	N/A	white	ETH_RX3+
	J37 J37	3	1839211 1839211	1704857 1704857	No No	Att. Interface Att. Interface	3 5	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	235 235	N/A N/A	orange grey	ETH_RX3- ETH_TX3+
	J37 J30	4	1839211 1778735	1704857 1704859	No No	Att. Interface Att. Interface	7 6 & 8	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	235 235	N/A N/A	green black	ETH_TX3- GND
	J30	2	1778735	1704859	No	Att. Interface	10	207760-1281	204523-1201	2145291000	26	235	N/A	red	12V_PL
	J30 J30	3 4	1778735 1778735	1704859 1704859	No No	Att. Interface Att. Interface	9	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	235 235	N/A N/A	grey green	CAN2_L CAN2_H
Side Payload 2	J30	5	1778735	1704859	No	Att. Interface	12	207760-1281	204523-1201	2145291000	26	235	N/A	white	FMU_CH8
(left)	J30 J38	6	1778735 1839211	1704859 1704857	No No	Att. Interface Att. Interface	2 & 4	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	235 235	N/A N/A	pink N/A	X X
	J38 J38	2 3	1839211 1839211	1704857 1704857	No No	Att. Interface Att. Interface	3 5	207760-1281 207760-1281	204523-1201 204523-1201	2145291000 2145291000	26 26	235 235	N/A N/A	N/A N/A	X X
	J38	4	1839211	1704857	No	Att. Interface	7	207760-1281	204523-1201	2145291000	26	235	N/A	N/A	X
	J23 J23	2	1814948 1814948	1704858 1704858	No No	ESC1	GND CAN1_H	Wire Wire	N/A N/A	N/A N/A	16 16	FIXED FIXED	Silicon Silicon	yellow grey	GND CAN1_L
ESC1	J23 J23	3 4	1814948 1814948	1704858 1704858	No No	ESC1	CAN1_L GND	Wire Wire	N/A N/A	N/A N/A	16 16	FIXED FIXED	Silicon Silicon	green black	CAN1_H GND
2001	J23	5	1814948	1704858	No	ESC1	IO_CH1	Wire	N/A	N/A	16	FIXED	Silicon	white	IO_CH1
	J25 J25	1 2	XT60PW-F XT60PW-F	XT60-M XT60-M	No No	ESC1	HV+ HV-	Wire Wire	N/A N/A	N/A N/A	6	FIXED FIXED	Silicon Silicon	red black	HV+ HV-
	J27	1	1814948	1704858	No	ESC2	GND	Wire	N/A	N/A	16	FIXED	Silicon	yellow	GND
	J27 J27	3	1814948 1814948	1704858 1704858	No No	ESC2 ESC2	CAN1_H CAN1_L	Wire Wire	N/A N/A	N/A N/A	16 16	FIXED FIXED	Silicon Silicon	grey green	CAN1_L CAN1_H
ESC2	J27 J27	4 5	1814948 1814948	1704858 1704858	No No	ESC2 ESC2	GND IO_CH2	Wire Wire	N/A N/A	N/A N/A	16 16	FIXED FIXED	Silicon Silicon	black white	GND IO_CH1
	J28	1	XT60PW-F	XT60-M	No	ESC2	HV+	Wire	N/A	N/A	6	FIXED	Silicon	red	HV+
	J28 J32	1	XT60PW-F 1814948	XT60-M 1704858	No No	ESC2 ESC3	HV- GND	Wire Wire	N/A N/A	N/A N/A	6 16	FIXED FIXED	Silicon Silicon	black yellow	HV- GND
	J32	2	1814948	1704858	No	ESC3	CAN1_H	Wire	N/A	N/A	16	FIXED	Silicon	grey	CAN1_L
ESC3	J32 J32	3 4	1814948 1814948	1704858 1704858	No No	ESC3	CAN1_L GND	Wire Wire	N/A N/A	N/A N/A	16 16	FIXED FIXED	Silicon Silicon	green black	CAN1_H GND
	J32 J34	5	1814948 XT60PW-F	1704858 XT60-M	No No	ESC3 ESC3	IO_CH3 HV+	Wire Wire	N/A N/A	N/A N/A	16 6	FIXED FIXED	Silicon Silicon	white red	IO_CH1 HV+
	J34	2	XT60PW-F	XT60-M	No	ESC3	HV-	Wire	N/A	N/A	6	FIXED	Silicon	black	HV-
	J40 J40	1 2	1814948 1814948	1704858 1704858	No No	ESC4 ESC4	GND CAN1_H	Wire Wire	N/A N/A	N/A N/A	16 16	FIXED FIXED	Silicon Silicon	yellow grey	GND CAN1_L
E904	J40	3	1814948	1704858	No	ESC4	CAN1_L	Wire	N/A	N/A	16	FIXED	Silicon	green	CAN1_H
ESC4	J40 J40	5	1814948 1814948	1704858 1704858	No No	ESC4 ESC4	GND IO_CH4	Wire Wire	N/A N/A	N/A N/A	16 16	FIXED FIXED	Silicon Silicon	black white	GND IO_CH1
	J42 J42	1 2	XT60PW-F XT60PW-F	XT60-M XT60-M	No No	ESC4 ESC4	HV+ HV-	Wire Wire	N/A N/A	N/A N/A	6	FIXED FIXED	Silicon Silicon	red black	HV+ HV-
	UTL	_	VIOOL AA-I	AT OUTIVI	140	_007	114-	VIIIC	INITY	14/11	U	. INLU	Smoott	SIGON	114