

## A0005 Ground Station Telemetry

Project: Avionics General  
 Revision: 2.0  
 Date: 4/9/2023  
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Qty	Component	Manufacturer	Part Number	Designator	Footprint	Footprint Type	Price per Unit	Data Sheet	Source	Alternate Parts	Other
1	ARM Cortex-M7 Microcontroller 100-LQFP	STMicroelectronics	STM32H750VBT6	U1	100-LQFP	SMD	\$17.06	<a href="#">STM32H750VBT6</a>	<a href="#">LCSC</a>		
9	0.1 uF 0603 ceramic capacitor	KEMET	C0603C104J4RACTU	C1, C5, C9-C12, C14, C17-C18	0603	SMD	\$0.14	<a href="#">C0603C104J4RACTU</a>	<a href="#">Digikey</a>		
2	Green LED 1206 SMD	Lumex Opto/Components Inc.	SML-LX1206GC-TR	D2, D3	1206	SMD	\$0.38	<a href="#">SML-LX1206GC-TR</a>	<a href="#">Digikey</a>	LD1117AS33TR	
1	3.3V Linear Regulator	Texas Instruments	LMS8117AMP-3.3/NOPB	U2	SOT-223	SMD	\$1.39	<a href="#">LMS8117AMP-3.3/NOPB</a>	<a href="#">Digikey</a>		
2	240 Ohm Resistor 0603 SMD	Vishay	MCT06030C2400FP500	R6, R7	0603	SMD	\$0.13	<a href="#">MCT06030C2400FP500</a>	<a href="#">Digikey</a>	RC0603FR-07240RL	
2	LED current limiting	Samsung Electro-Mechanics	CL10A225K08NNNC	C2, C3	0603	SMD	\$0.10	<a href="#">CL10A225K08NNNC</a>	<a href="#">Digikey</a>		
2	2.2 uF 0603 Ceramic Capacitor	KEMET	C0603X105J4RACAUTO	C15, C16	0603	SMD	\$0.48	<a href="#">C0603X105J4RACAUTO</a>	<a href="#">Digikey</a>		
2	1 uF 0603 Ceramic Capacitor	KEMET	T491A106K010AT	C4, C7	1206	SMD	\$0.37	<a href="#">T491A106K010AT</a>	<a href="#">Digikey</a>		
2	10 uF Tantalum Capacitor	KEMET	T491A106K010AT	C4, C7	1206	SMD	\$0.37	<a href="#">T491A106K010AT</a>	<a href="#">Digikey</a>		
1	Tactile Switch SMD	C&K	PTS 647 SM38 SMTR2 LFS	B1	4LEAD	SMD	\$0.18	<a href="#">PTS 647 SM38 SMTR2 LFS</a>	<a href="#">Digikey</a>		
1	IC USB-TO-UART BRIDGE 28VQFN	Silicon Labs	CP2102-GMR	U3	QFN-28	SMD	\$3.24	<a href="#">CP2102-GMR</a>	<a href="#">LCSC</a>		
1	CONN HEADER R/A 20POS 1.27MM	CNC Tech	3220-20-0200-00	P1	20POS, 2ROW	Through-hole	\$1.43	<a href="#">3220-20-0200-00</a>	<a href="#">Digikey</a>		
1	St-Link V2 Programmer	STMicroelectronics	ST-LINK V2				\$25.31	<a href="#">ST-LINK V2</a>	<a href="#">ST</a>		
1	TVS DIODE 5.5VWM 8.5VC SOT23-5	Littelfuse Inc.	SP0504BAHTG	D4	SOT23-5	SMD	\$0.95	<a href="#">SP0504BAHTG</a>	<a href="#">Digikey</a>		
2	RES 100K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT100K	R4, R5	0603	SMD	\$0.10	<a href="#">RMCF0603FT100K</a>	<a href="#">Digikey</a>		
1	CAP CER 4.7UF 10V X5R 0603	Samsung Electro-Mechanics	CL10A475KP8NNNC	C6	0603	SMD	\$0.10	<a href="#">CL10A475KP8NNNC</a>	<a href="#">Digikey</a>		
1	280 Ohm Resistor 0603 SMD	Stackpole Electronics Inc	RMCF0603FT280R	R3	0603	SMD	\$0.10	<a href="#">RMCF0603FT280R</a>	<a href="#">Digikey</a>		
1	RGB LED current limiting Red	Stackpole Electronics Inc	RMCF0603JT82R0	R2	0603	SMD	\$0.10	<a href="#">RMCF0603JT82R0</a>	<a href="#">Digikey</a>	RMCF0603FT82R0	
1	82 Ohm Resistor 0603 SMD	Stackpole Electronics Inc	RMCF0603FT280R	R1	0603	SMD	\$0.10	<a href="#">RMCF0603FT280R</a>	<a href="#">Digikey</a>		
1	RGB LED current limiting Green	Stackpole Electronics Inc	RMCF0603JT82R0	R2	0603	SMD	\$0.10	<a href="#">RMCF0603JT82R0</a>	<a href="#">Digikey</a>	RMCF0603FT82R0	
1	68 Ohm Resistor 0603 SMD	Stackpole Electronics Inc	RMCF0603FT280R	R1	0603	SMD	\$0.10	<a href="#">RMCF0603FT280R</a>	<a href="#">Digikey</a>		
1	RGB LED current limiting Blue	Stackpole Electronics Inc	RMCF0603JT82R0	R2	0603	SMD	\$0.10	<a href="#">RMCF0603JT82R0</a>	<a href="#">Digikey</a>	RMCF0603FT82R0	
1	LED RGB CLEAR 4PLCC SMD	Creel ED, Inc.	CLMVC-FKA-CL1D1L71BB7C3C	D1		SMD	\$0.19	<a href="#">CLMVC-FKA-CL1D1L71BB7C3C</a>	<a href="#">Digikey</a>		
1	CRYSTAL 24.0000MHZ 18PF SMD	ECS Inc.	ECS-240-18-33-JGN-TR	Y1	4-SMD, No Lead	SMD	\$0.56	<a href="#">ECS-240-18-33-JGN-TR</a>	<a href="#">Digikey</a>		
2	CAP CER 8PF 250V C0G/NPO 0603	KEMET	CBR06C809BAGAC	C8, C13	0603	SMD	\$0.68	<a href="#">CBR06C809BAGAC</a>	<a href="#">Digikey</a>		
1	10 kOhm 1/10W Resistor 0603 SMD	Yageo	RC0603FR-0710KL	R9	0603	SMD	\$0.10	<a href="#">RC0603FR-0710KL</a>	<a href="#">Digikey</a>		
1	RX TXRX MODULE ISM < 1GHZ SMD	Seed Technology Co., Ltd	109990166/RFM95	U4	16-SMD Module	SMD	\$8.12	<a href="#">RFM95</a>	<a href="#">Digikey</a>		LoRa
1	CONN SMA JACK STR 50OHM EDGE MNT	Cinch Connectivity Solutions Johnson	142-0701-851	AE1			\$4.23	<a href="#">142-0701-851</a>	<a href="#">Digikey</a>		LoRa antenna connector
1	RES 4.7K OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603FT4K70	R8	0603	SMD	\$0.10	<a href="#">RMCF0603FT4K70</a>	<a href="#">Digikey</a>		
1	USB Type B connector	Stewart Connector	SS-52300-001	P2	USB-B	through-hole	\$1.07	<a href="#">SS-52300-001</a>	<a href="#">Digikey</a>		
2	XBEE HEADER SOCKET 2MM 10PIN 2PK	Adafruit Industries LLC	1528-1392-ND	U5	10POS	through-hole	\$0.95	<a href="#">1528-1392-ND</a>	<a href="#">Digikey</a>		
1	IC TRANSCEIVER FULL 1/1 8SOIC	Texas Instruments	SN65HVD71DR	U6	8-SOIC	SMD	\$3.41	<a href="#">SN65HVD71DR</a>	<a href="#">Digikey</a>		
4	RES SMD 10 OHM 1% 1/4W 0603	Rohm Semiconductor	ESR03EZPF10R0	R10, R12, R13, R15	0603	SMD	\$0.15	<a href="#">ESR03EZPF10R0</a>	<a href="#">Digikey</a>		
2	TVS DIODE 7V/12V 14V/26V SOT23-3	Bourns Inc.	CDSOT23-SM712	D5, D6	SOT-23-3	SMD	\$1.53	<a href="#">CDSOT23-SM712</a>	<a href="#">Digikey</a>		
1	CONN MOD JACK 8P8C R/A UNSHLD	Amphenol ICC (FCI)	54602-908LF	P3	8POS	Through-hole	\$0.71	<a href="#">54602-908LF</a>	<a href="#">Digikey</a>		Ethernet Cable Jack
2	RES 100 OHM 5% 1/10W 0603	YAGEO	RC0603JR-07100RL	R11, R14	0603	SMD	\$0.10	<a href="#">RC0603JR-07100RL</a>	<a href="#">Digikey</a>		