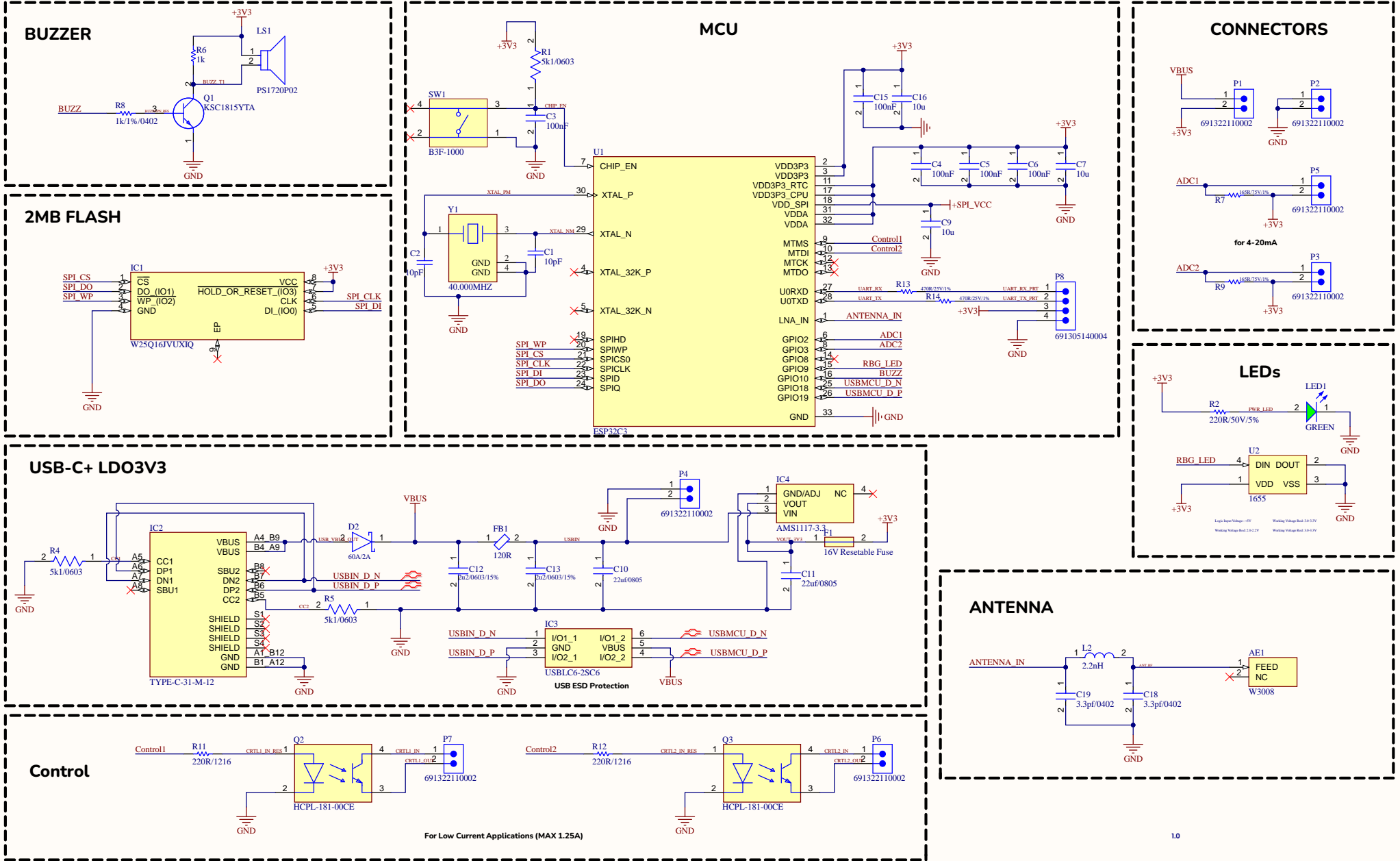


IoT Soil PH and Moisture Mapping Module (v1)



IoT Soil PH and Moisture Mapping module		
Size	Number	Revision
A3		1.0
Date:	11/13/2024	Sheet of 1 of 1
File:	C:\Users\...C3 TransmissionBoardSchDoc	Oreoluwa Oluwafemi

Line #	Name	Description	Designator	Quantity	Footprint	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
	W30B	Antenna	AE1		1 ANT3216X115N							
	10pF		C1, C2		2 CAP160BX90X03L10T15	Murata	GRM185C1H100JA01D	Not Recommended for New Design				
	100nf	Chip Multilayer Ceramic Capacitors for General Purpose 0201, 0.10uF, X5R, 15%, 10%, 6.3V	C3, C4, C5, C6, C15		5 FP-GRM033-0_03-MFG	Murata	GRM033R60J104KE19D	Volume Production				
	10u	Chip Multilayer Ceramic Capacitors for General Purpose, 0603, 10uF, X5R, 15%, 20%, 6.3V	C7, C9, C16		3 FP-GRM188-0_1-e0_2_0_55-IPC_A	Murata	GRM188R60J106ME47D	Volume Production				
	22uF/0805	CAP CER 22UF 6.3V X5R 0805	C10, C11		2 FP-C0805C226MNPACTU-MFG	KEMET	C0805C226MNPACTU	Volume Production				
	2u2/0603/15%	Chip Multilayer Ceramic Capacitors for General Purpose, 0603, 2.2uF, X7R, 15%, 10%, 10V	C12, C13		2 FP-GRM188-0_1-e0_2_0_5-MFG	Murata	GRM188R71A225KE15D	Volume Production				
	3.3pF/0402	Multi-Layer Ceramic Capacitor 3.3pF C0G ±0.25pF 0402 Paper T/R	C18, C19		2 FP-GJM155-0_05-IPC_B							
	40A/2A	DIODE SCHOTTKY 60V 2A CFP3	D2		1 FP-SOD123W-MFG	Nexperia	PMEG6020AELRX	Volume Production				
	16V Resettable Fuse	Fuse	F1		1 FUSC4632X160N							
	120R	Chip Ferrite Bead, 0603, 120Ω @ 100MHz, 0.05Ω 25%, 2A	FB1		1 FP-BLM18-0_15-10_8-IPC_A	Murata	BLM18PG1215N1D	Volume Production				
	W25Q16/VUXIQ	NOR Flash Serial (SPI, Dual SPI, Quad SPI) 3V/3.3V 16M-bit 2M x 8 bits 8-Pin USON EP T/R	IC1		1 S0N50P300X200K66-9N							
	TYPE-C-31-M12	USB Connectors 24 Receptacle 1 8.94"7.3mm RoHS	IC2		1 HBD_TYPE-C-31-M12							
	USBLC6-25C6	Integrated Circuit	IC3		1 SOT95P280X145-6N				Mouseer	511-USBLC6-25C6		
	AMS1117-3.3	Integrated Circuit	IC4		1 SOT229P700X180-8N							
	2.2nH	Wire Wound RF Inductor 2.2nH ±0.2nH 3200mA 0.018Ω 0603 (1608)	L2		1 FP-LCW18AN_R0-MFG							
	GREEN		LED1		1 SMCV_0603_1500 60xx75000	Würth Electronics	150060V575000	Volume Production				
	PS1720P02	AUDIO PIEZO TRANSDUCER 30V 1H	LS1		1 FP-PS1720P02-MFG	TDK	PS1720P02	Volume Production				
	691322110002		P1, P2, P3, P4, P5, P6, P7	7	691322110002	Würth Electronics	691322110002	Volume Production				
	691305140004		P8	1	691305140004	Würth Electronics	691305140004	Volume Production				
	K5C1815YTA	Transistor	Q1		1 BC33740TA							
	HCPL-181-00CE	OPTISO 3.75KV TRANS 4MINIFLAT	Q2, Q3	2	FP-SO-4-MFG	Broadcom Avago	HCPL-181-00CE	Volume Production				
	5K1/0603	RES SMD 5.1K OHM 1% 1/10W/0603	R1, R4, R5	3	FP-RT0603-MFG							
	220R/50V/5%		R2	1	RESC1005X40X25 NL05T10	Yageo	RC0402JR-07220RL	Volume Production				
	1k, 1k/1%/0402	Chip Resistor, 1 KOhm, +/- 1%, 100 mW, -55 to 155 degC, 0402 (1005 Metric), RoHS, Tape and Reel	R6, R8	2	RESC1005X40X25 NL05T05	Bourns	CR0402-FX-1001GLF	Volume Production				
	165R/75V/1%		R7, R9	2	RESC1608X55X30 NL15T15	Panasonic	ERJ-3EF1650V	Volume Production				
	220R/1216		R11, R12	2	RESC3216X60X45 M10T20							
	470R/25V/1%		R13, R14	2	RESC0403X26X15L L03T05	Rohm	MCR006Y2PF4700	Obsolete				
	B3F-1000	Tactile Switch, SPST-NO, 0.05A, 5 to 24 V, -25 to 70 degC, 4-Pin THD, RoHS, Bulk	SW1	1	OMRON-B3F-1000-L_V	Omron	B3F-1000	Volume Production				
	ESP32C3	WiFi Modules (802.11) (Engineering Samples Only) SMD IC ESP32-C3, RISC-V single-core MCU, 2.4G Wi-Fi & BLE 5.0 combo, QFN 32-pin, 5*5 mm, 40 - 105C	U1	1	QFN32_5X5MM							
	1655	Intelligent Control LED Integrated Light Source, 3.5 to 5.3 V, -25 to 80 degC, 4-Pin SMD, RoHS, Tape and Reel	U2	1	ADA-RGB-1655_V	Adafruit Industries	1655					
	40.000MHZ	Crystal 40MHz ±10ppm 10pF SMD 4-3.2mm x 2.5mm	Y1	1	FP-ABM8-MFG	Abracon	ABM8-40.000MHZ-10-1-U-T					