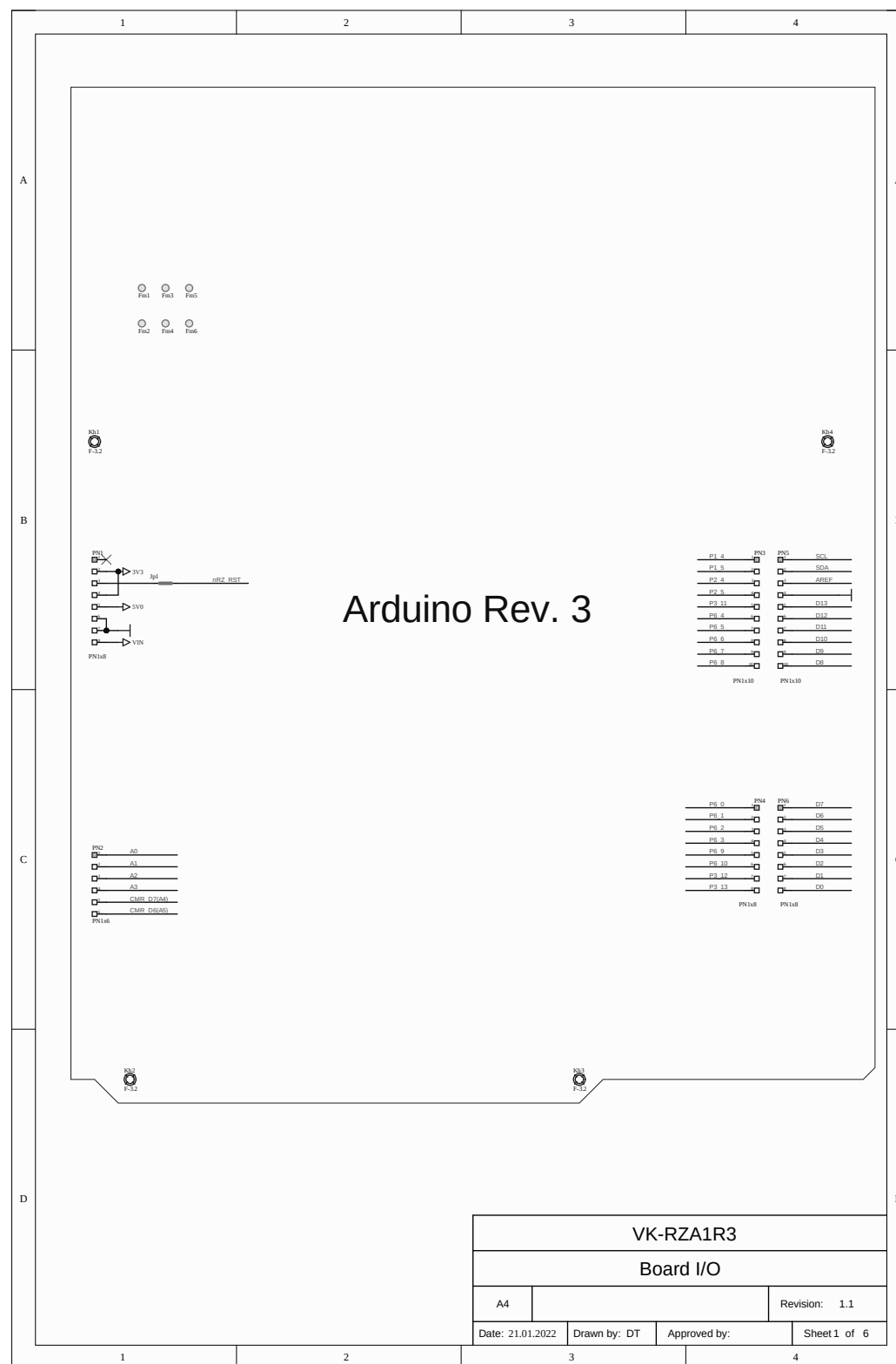
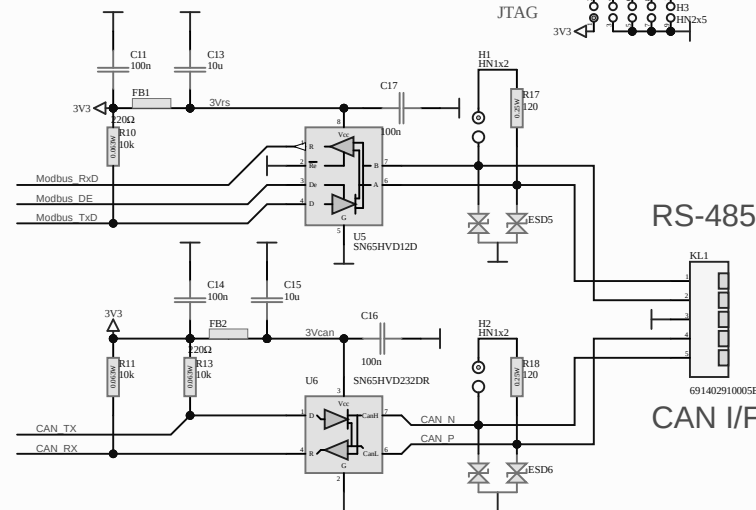
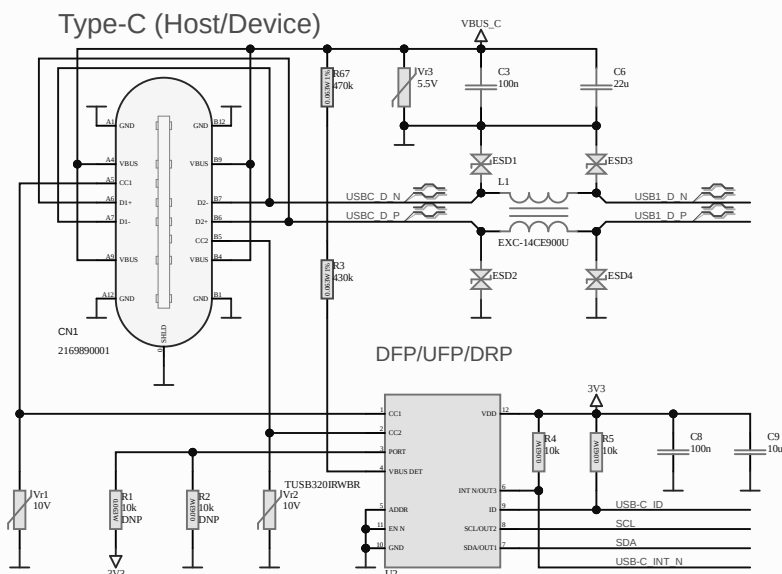
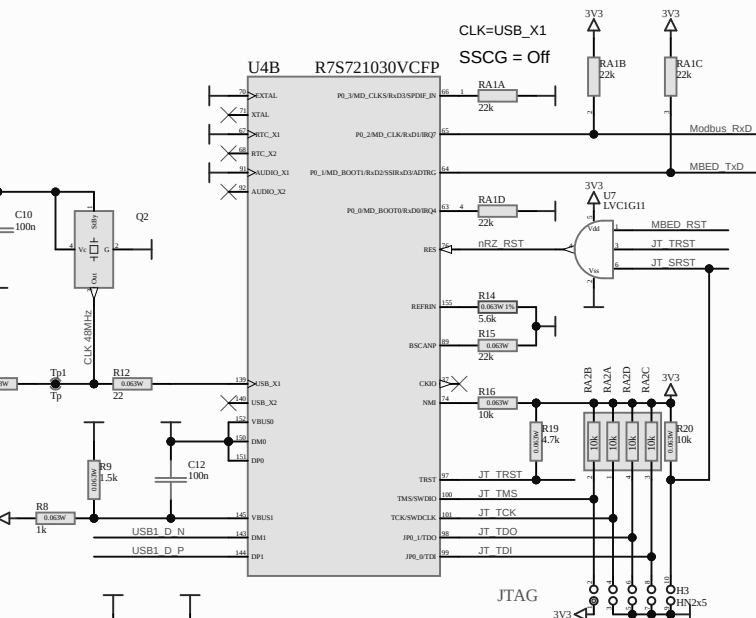
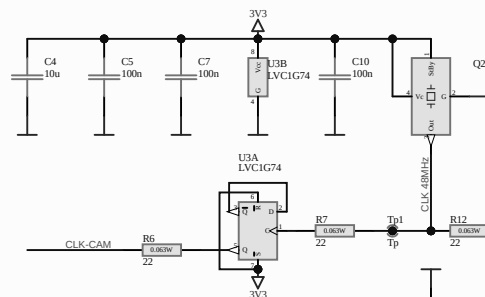
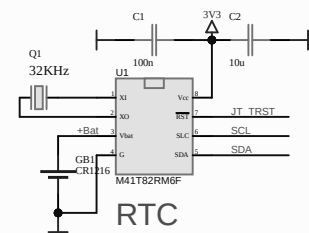
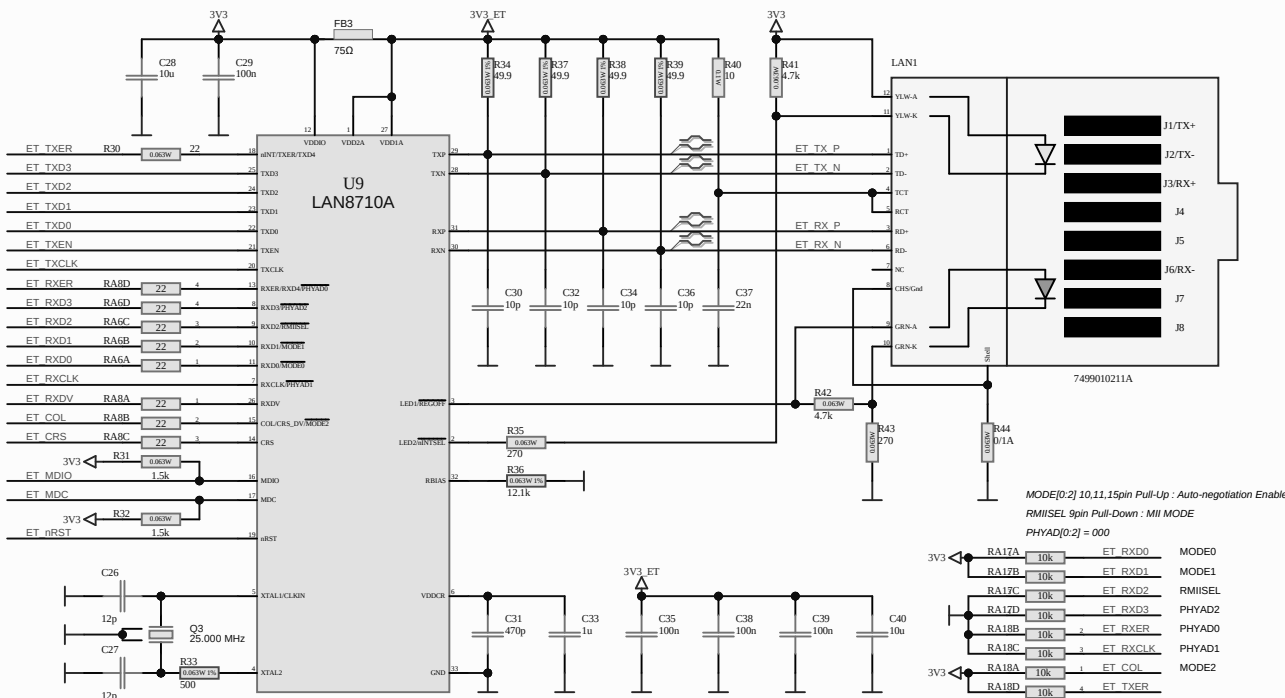




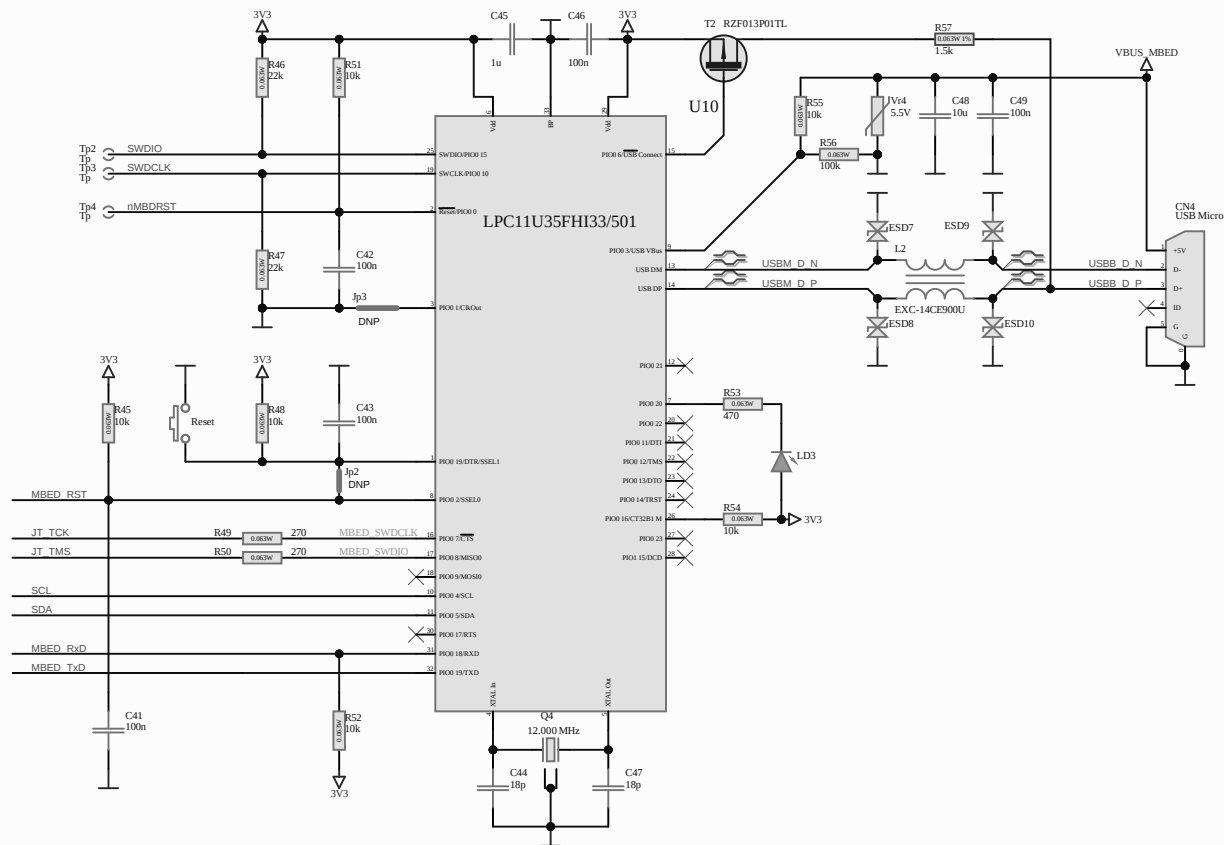
VK-RZA1R3			
Board I/O			
A4	Revision: 1.1		
Date: 21.01.2022	Drawn by: DT	Approved by:	Sheet 1 of 6



VK-RZA1R3			
CPU, USB-C, RTC, CAN, RS-485			
A4			Revision: 1.1
Date: 21.01.2022	Drawn by: DT	Approved by:	Sheet2 of 6



VK-RZA1R3			
LAN Interface			
A4			Revision: 1.1
Date: 21.01.2022	Drawn by: DT	Approved by:	Sheet 4 of 6



VK-RZA1R3			
mbed Interface			
A4			Revision: 1.1
Date: 21.01.2022	Drawn by: DT	Approved by:	Sheet5 of 6

Designator	Description	Comment	Quantity	Part Number	Manufacturer
C1, C3, C5, C7, C8, C10, C11, C12, C14, C16, C17, C19, C20, C21, C22, C23, C24, C25, C28, C40	SMD 0402 16V X7R 100n		52	885012205037	Würth Elektronik
C2, C4, C9, C13, C15, C18, C20, C21, C24, C25, C28, C40	SMD 0402 6.3V X5R 210u		35	885012105020	Würth Elektronik
C6, C56, C59, C67, C68, C72, C73	SMD 0603 6.3V X5R 122u		7	CL10A226MQ8NRNC	Samsung
C26, C27	SMD 0402 50V COG 12p		2	CL05C120JB5NNNC	Samsung
C30, C32, C34, C36	SMD 0402 50V COG 10p		4	GCM1555C1H100JA16D	Murata Electronics
C31	SMD 0402 50V COG 470p		1	CL05C471JB5NNNC	Samsung
C33, C45, C83, C84, C85, C86	SMD 0402 16V X5R 11u		6	CL05A105K05NNNC	Samsung
C37	SMD 0402 16V X7R 122n		1	CL05B223K05NNNC	Samsung
C44, C47	SMD 0402 50V COG 18p		2	CL05C180JB5NNNC	Samsung
C50, C62, C65	SMD 0603 10V X5R 10u		3	C0603 10uF 10V X5R SAMS	Samsung
C51	SMD 0603 50V X7R 100n		1	CL10B104JB8NNNC	Samsung
C52, C53	SMD 0805 25V X5R 122u		2	GRM218R61E226ME44L	Samsung
C54	SMD Case C 10V 1.2Q 100u		1	TAJC107K010RNJ	AVX
C55, C57	SMD 0603 25V X5R 11u		2	CL10A105KA8NNNC	Samsung
C61, C63, C64	SMD 0402 50V COG 47p		3	CL05C470JB5NNNC	Samsung
CN1	USB Type C Receptacle	2169890001	1	2169890001	Molex
CN2	FFC & FPC Connector W	68712414022	1	68712414022	Würth Elektronik
CN3	Memory Card Connector	Micro SD	1	693071010811	Würth Elektronik
CN4	USB B Micro R/A SMD	USB Micro	1	MISB-SWMPR-5B-LF	MTA
D1, D2, D3, D4	SMD SOD128 5A 30V S	PMEG3050EP	4	PMEG3050EP.115	Nexperia
ESD1, ESD2, ESD3, ESD4, ESD7, ESD8, ESD9, ESD10	ESD Suppressor 0201 15	EZA-EG1N50AC	8	EZA-EG1N50AC	Panasonic
ESD5, ESD6	TVS Dual CAN	824098024	2	824098024	Würth Elektronik
FB1, FB2, FB5, FB6, FB7, FB8, FB9, FB11	SMD 0603 0.6A 220Q 220Q		8	742863122	Würth Elektronik
FB3, FB4	SMD 1806 3.5A 75Q/1 120n		2	BLM41PG600SN1L	Murata
FB10	SMD 0603 0.5A 120Q 120Q		1	74279262	Würth Elektronik
GB1	Keystone 3000	CR1216	1	3000	KEYSTONE
H1, H2	соединител щифтов, в	HN1x2	2	CH31022V200	CVILUX
H3	Headers & Wire Housing	HN2x5	1	62201021121	Würth Elektronik
J1	DC Power Connectors W	694102303002	1	694102303002	Würth Elektronik
Jp1, Jp4, Jp5	SMD 0402 0 Q 0.05		3	0603SAJ000JT50	UniOhm
KL1	Fixed Terminal Block W	691402910005B	1	691402910005B	Würth Elektronik
L1, L2	Common mode Noise Fil	EXC-14CE900U	2	EXC-14CE900U	Panasonic
L3	1.34A 120mQ 4x4x1.65	6.8u	1	LQH44PN6R8MPOL	Murata
L4	3.1A 60mQ 1.6x1 h1r	1u	1	TFM201610ALMA1R0MTAA	TDK
L5	3.1A 60mQ 1.6x1 h1r	2.2u	1	TFM201610ALMA2R2MTAA	TDK
LAN1	Ethernet Connector WE-	RJ45	1	7499010211A	Würth Elektronik
LD1, LD3, LD4	Standard LEDs - SMD W	150060GS55040	3	150060GS55040	Würth Elektronik
LD2	Standard LED - SMD WL	150060RS55040	1	150060RS55040	Würth Elektronik
PN1, PN4, PN6	Соединител гнездов, в	PN1x8	3	61300811821	Würth Elektronik
PN2	соединител гнездов, в	PN1x6	1	61300611821	Würth Elektronik
PN3, PN5	Соединител гнездов, в	PN1x10	2	61301011821	Würth Elektronik
Q1	Crystal WE-XTAL 32.768	32KHz	1	830050789	Würth Elektronik
Q2	Standard Clock Oscillato	SG-210STF 48.0000ML	1	SG-210STF 48.0000ML	Epson
Q3	Crystal WE-XTAL 25.0M	25.000 MHz	1	830068911	Würth Elektronik
Q4	Crystal WE-XTAL 12.0M	12.000 MHz	1	830108338809	Würth Elektronik
R1, R2, R4, R5, R10, R11, R13, R16, R20, R28, R29, R45,	SMD 0402 0.063W 5% 10k		19		YAGEO
R3	SMD 0402 0.063W 1% 430k		1		YAGEO
R6, R7, R12, R21, R26, R30	SMD 0402 0.063W 5% 22		6		YAGEO
R8	SMD 0402 0.063W 5% 1k		1		YAGEO
R9, R31, R32	SMD 0402 0.063W 5% 1.5k		3		YAGEO
R14	SMD 0402 0.063W 1% 5.6k		1		YAGEO
R15, R22, R23, R24, R46, R47	SMD 0402 0.063W 5% 22k		6		YAGEO
R17, R18	SMD 1206 0.25W 5% 120		2		YAGEO
R19, R41, R42	SMD 0402 0.063W 5% 4.7k		3		YAGEO
R25, R27, R53	SMD 0402 0.063W 5% 470		3		YAGEO
R33	SMD 0402 0.063W 1% 500		1		YAGEO
R34, R37, R38, R39	SMD 0402 0.063W 1% 49.9		4		YAGEO
R35, R43, R49, R50	SMD 0402 0.063W 5% 270		4		YAGEO
R36	SMD 0402 0.063W 1% 12.1k		1		YAGEO
R40	SMD 0603 0.1W 5% 10		1		YAGEO
R44	SMD 0402 0.063W 5% 0/1A		1		YAGEO
R56	SMD 0402 0.063W 5% 100k		1		YAGEO
R57	SMD 0402 0.063W 1% 1.5k		1		YAGEO
R58	SMD 0402 0.063W 1% 10.5k		1		YAGEO
R60	SMD 0402 0.063W 1% 56k		1		YAGEO
R62, R64, R65	SMD 0402 0.063W 1% 150k		3		YAGEO
R63	SMD 0402 0.063W 1% 680k		1		YAGEO
R66	SMD 0402 0.063W 5% 220		1		YAGEO
R67	SMD 0402 0.063W 1% 470k		1		YAGEO
RA1, RA3, RA15, RA16	SMD 0805 (4RM-0402) 22k		4	YC124-JR-074K7L	YAGEO
RA2, RA17, RA18	SMD 0805 (4RM-0402) 10k		3	YC124-JR-074K7L	YAGEO
RA4, RA6, RA7, RA8, RA9, RA10, RA12, RA14	SMD 0805 (4RM-0402) 22		8	YC124-JR-074K7L	YAGEO
RA5	SMD 0805 (4RM-0402) 2.2k		1	YC124-JR-074K7L	YAGEO
Reset, SB1	Tactile Switch WS-TASV	434133025816	2	434133025816	Würth Elektronik
T1, T3	45V 0.1A 100MHz 4.5pF	BC847CW	2	BC847CWT1G	ON Semiconductor
T2	12V 0.26Q/4.5V 1.06kQ	RZF013P01TL	1	RZF013P01TL	ROHM Semiconductor
U1	Real Time Clock Serial I	M41T82RM6F	1	M41T82RM6F	STMicroelectronics
U2	USB Type-C™ Configura	TUSB3201RWBR	1	TUSB3201RWBR	Texas Instruments
U3	D-type flip-flop	LVC1G74	1	74LVC1G74GS,115	Nexperia
U4	ARM Cortex A9 - MPU R	R7S721030VCFP	1	R7S721030VCFP#AA0	Renesas Electronics
U5	RS-485 Interface IC 3.3V	SN65HVD12D	1	SN65HVD12DR	Texas Instruments
U6	CAN Interface IC 3.3V 1	SN65HVD232DR	1	SN65HVD232DR	Texas Instruments
U7	3 Inpt Pos AND Gate	LVC1G11	1	SN74LVC1G11DBVR	Texas Instruments
U8	Flash 128Mb	W25Q128JVS IQ	1	W25Q128JVS IQ	Winbond
U9	Ethernet Transceiver	LAN8710A	1	LAN8710A-EZK-TR	Microchip Technology
U10	ARM Cortex-M0 64KB Fl	LPC111U35FHI33/501	1	LPC111U35FHI33/501,	NXP Semiconductors
U11	Switching Voltage Regul	AP63301WU-7	1	AP63301WU-7	Diodes Incorporated
U12	Power-Distribution Swit	TPS2001D	1	TPS2001DDBVR	Texas Instruments
U13	DUAL Vin 2.7-5.5V 2.5/3	PAM2319AYAA	1	PAM2319AYAA	Diodes Incorporated
Vr1, Vr2	Varistors xVDC 20%	AVRL101A6R8GTA	2	AVRL101A6R8GTA	Bourns
Vr3, Vr4	Varistors xVDC 20%	CG0402MLA-5.5MG	2	CG0402MLA-5.5MG	Bourns