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Ti375C529 Development Board REV A1

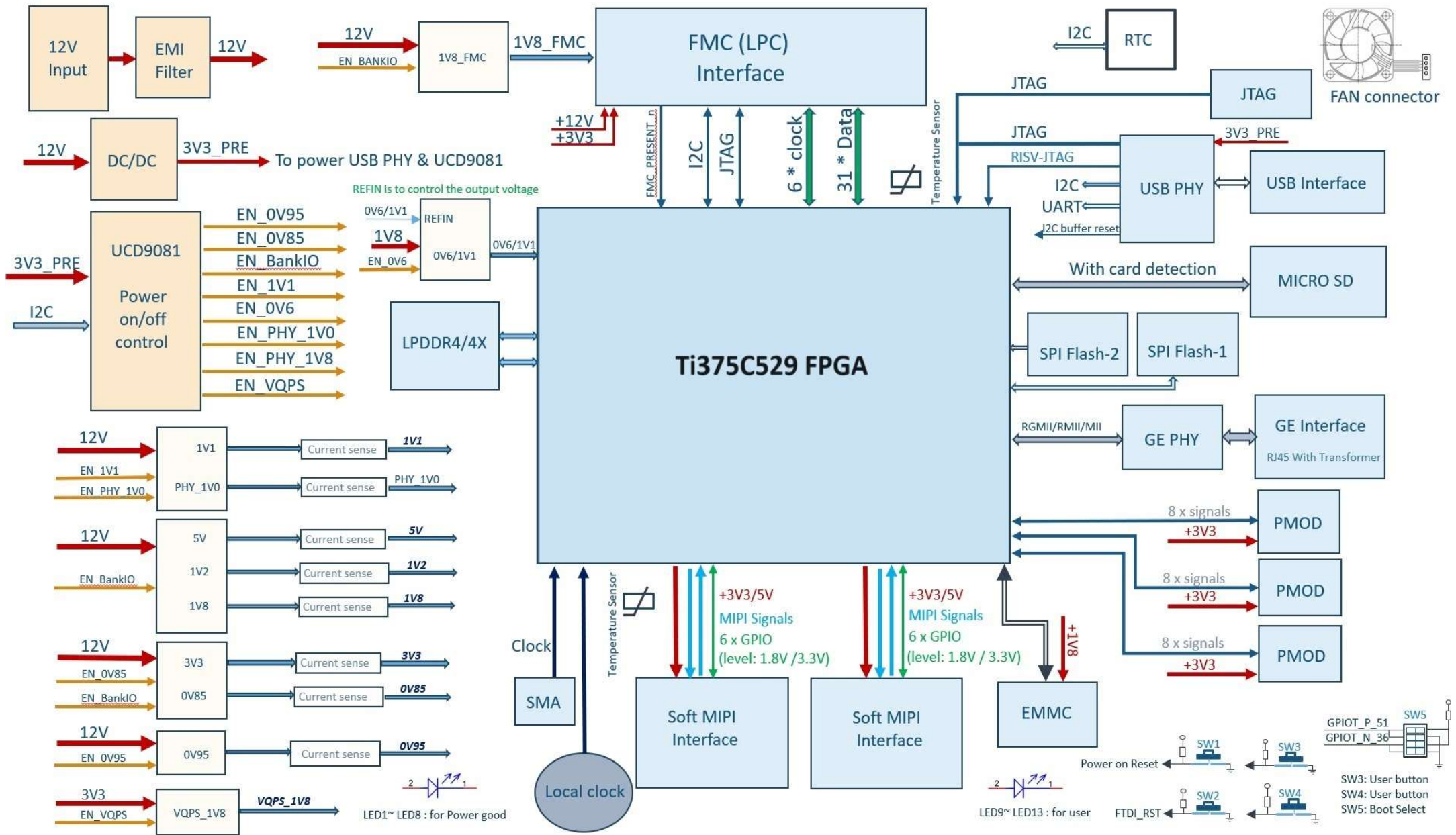
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DOCUMENT VERSION HISTORY

VER	DATE	EDITOR	DESCRIPTION
Rev A1	12/06/2024	PE Team	Initial Release

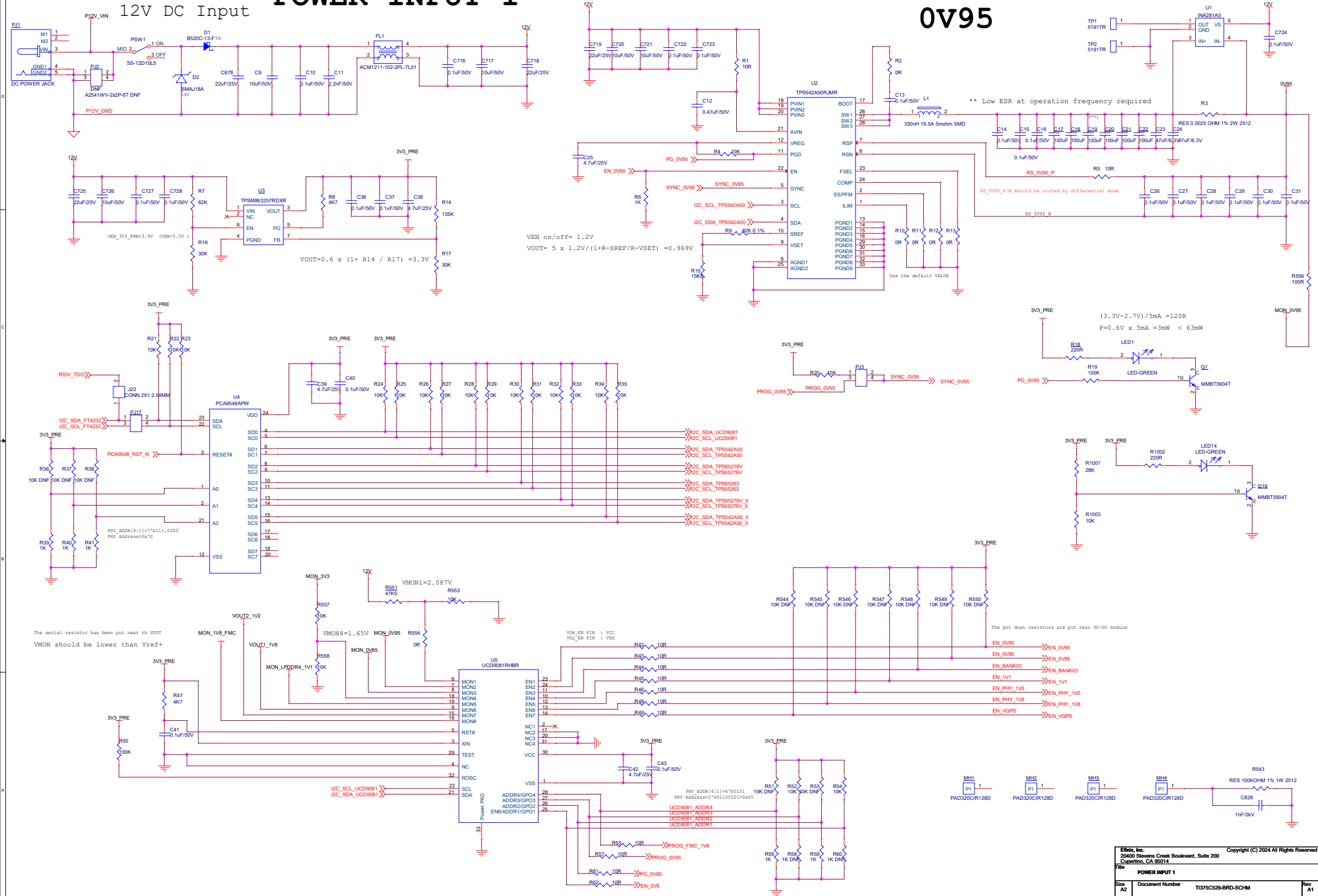
Ti375C529 BLOCK DIAGRAM



POWER INPUT 1

12V DC Input

0V95



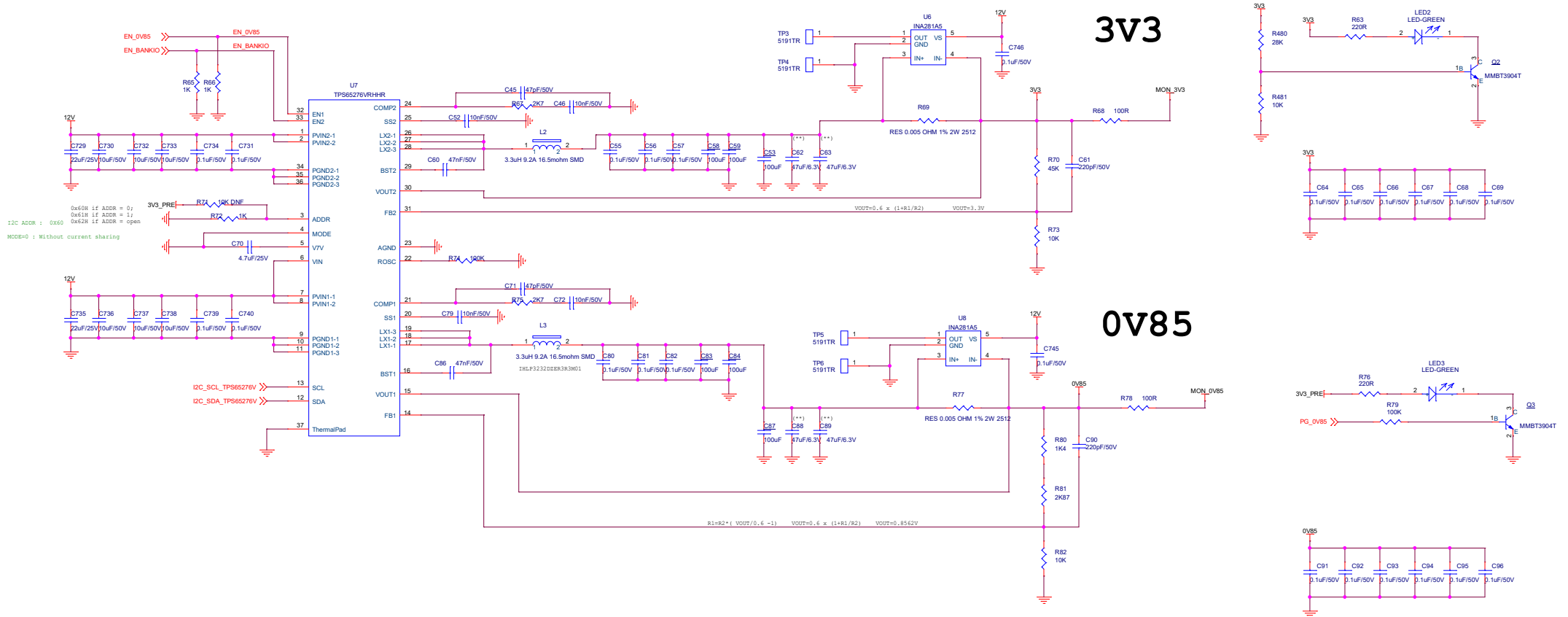
VEN on/off = 1.2V
 $V_{OUT} = 5 \times 1.2V / (1 + R-SREF/R-VSET) = 0.969V$

$(3.3V - 2.7V) / 5mA = 120R$
 $P = 0.6V \times 5mA = 3mW < 63mW$

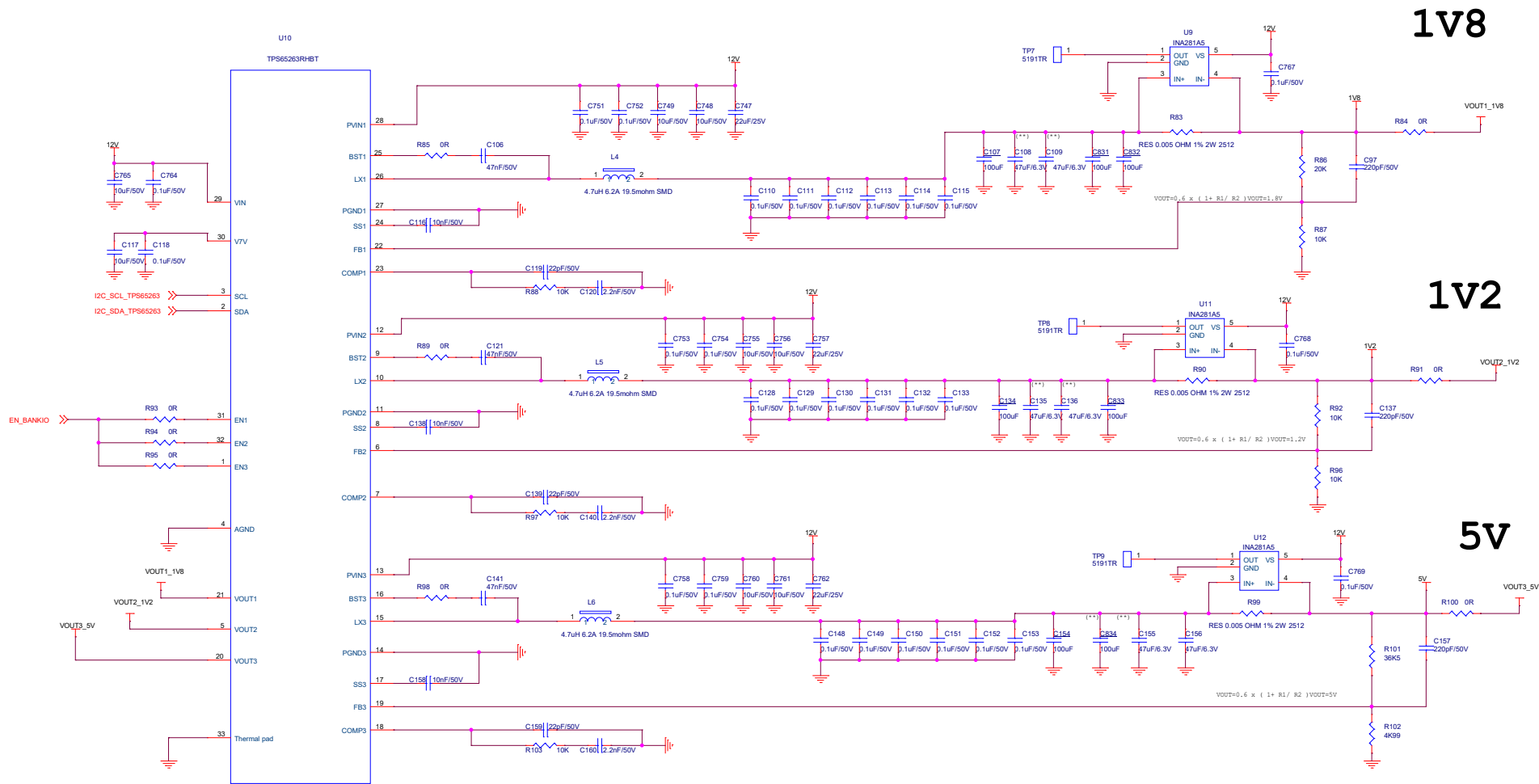
The put down resistors are put near DC-DC module

The serial resistor has been put near the VOUT
 VMON should be lower than Vref+

POWER INPUT2



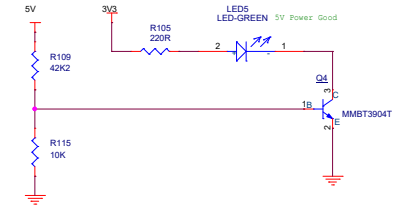
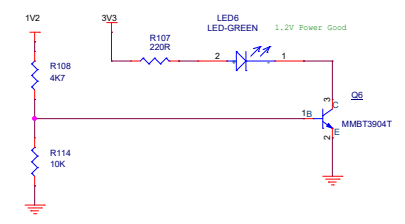
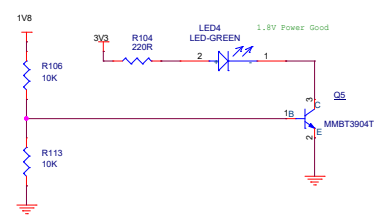
POWER INPUT 3



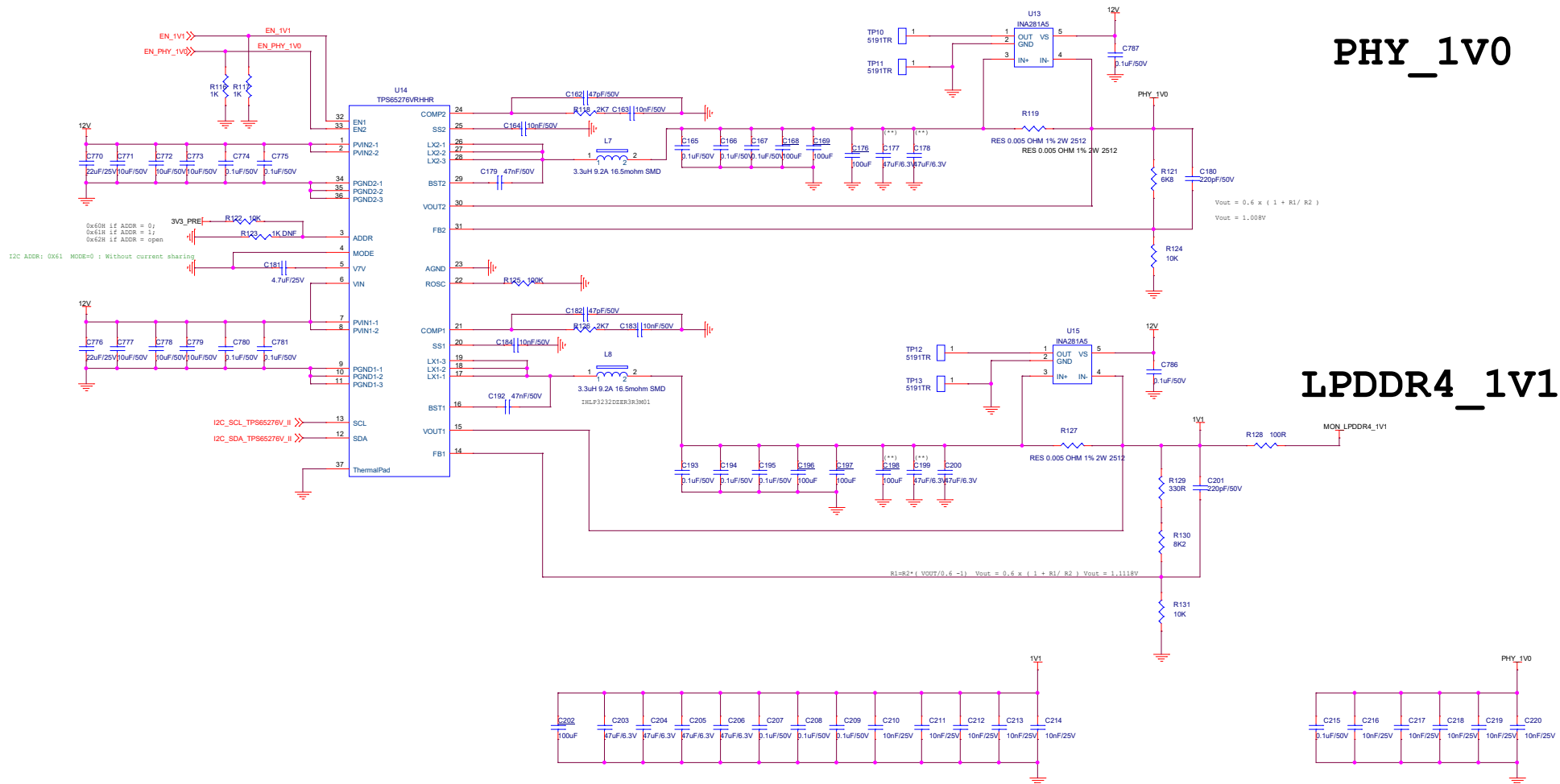
1V8

1V2

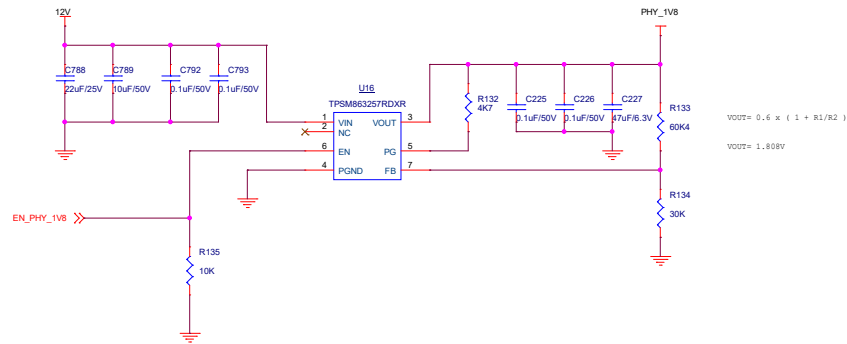
5V



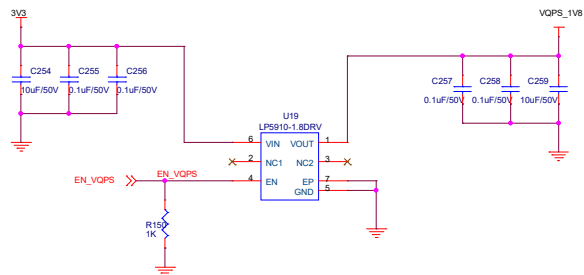
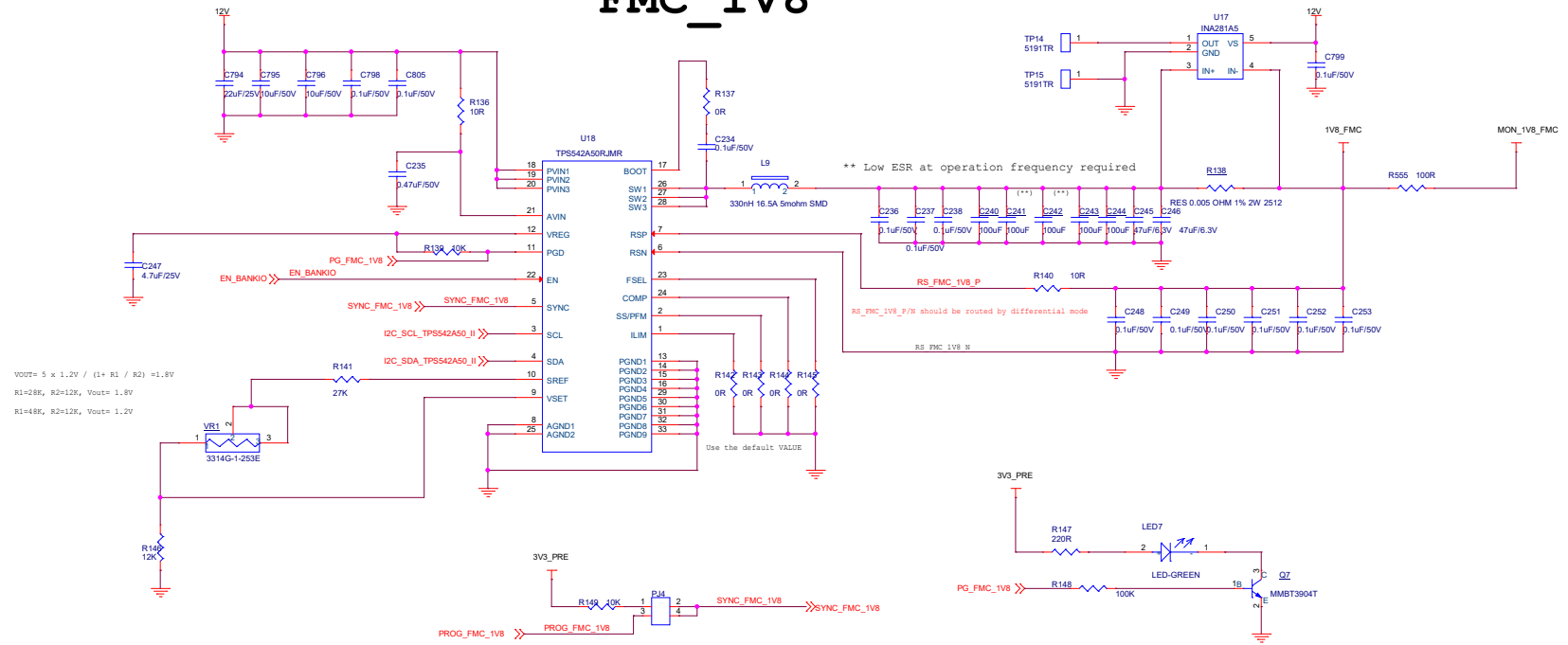
POWER INPUT 4



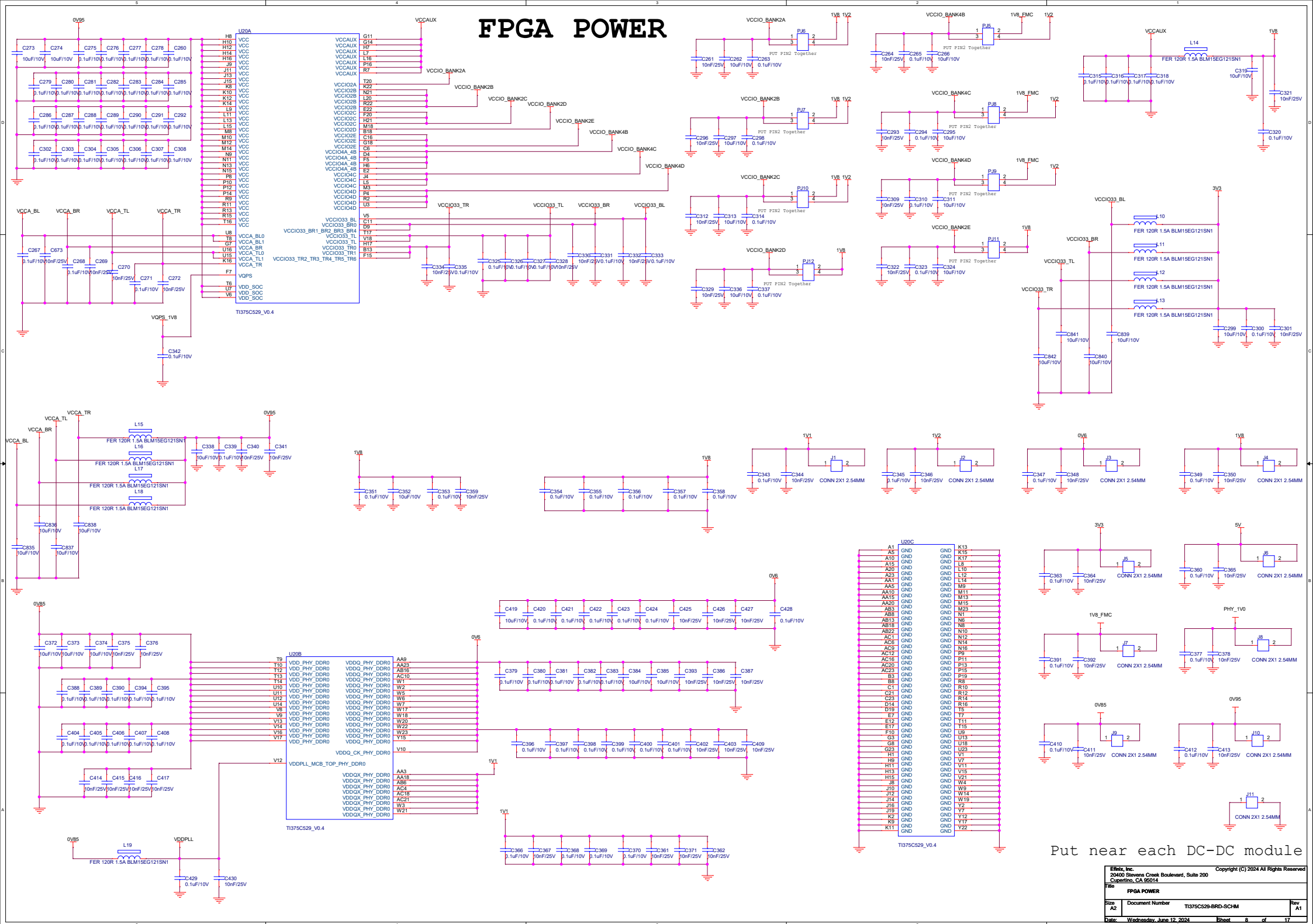
POWER INPUT 5



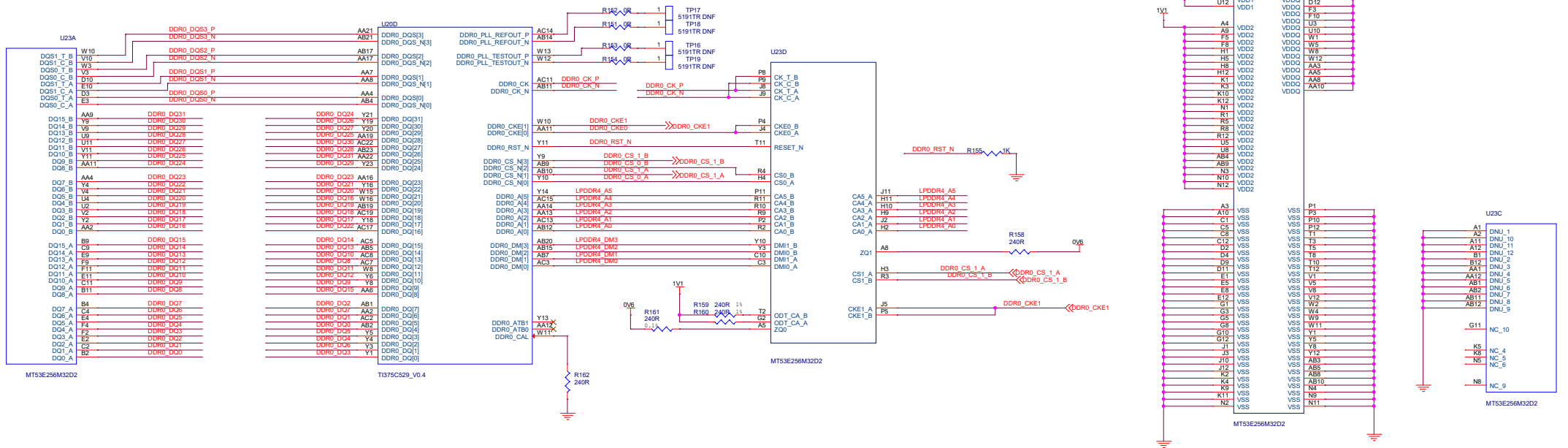
FMC_1V8



FPGA POWER



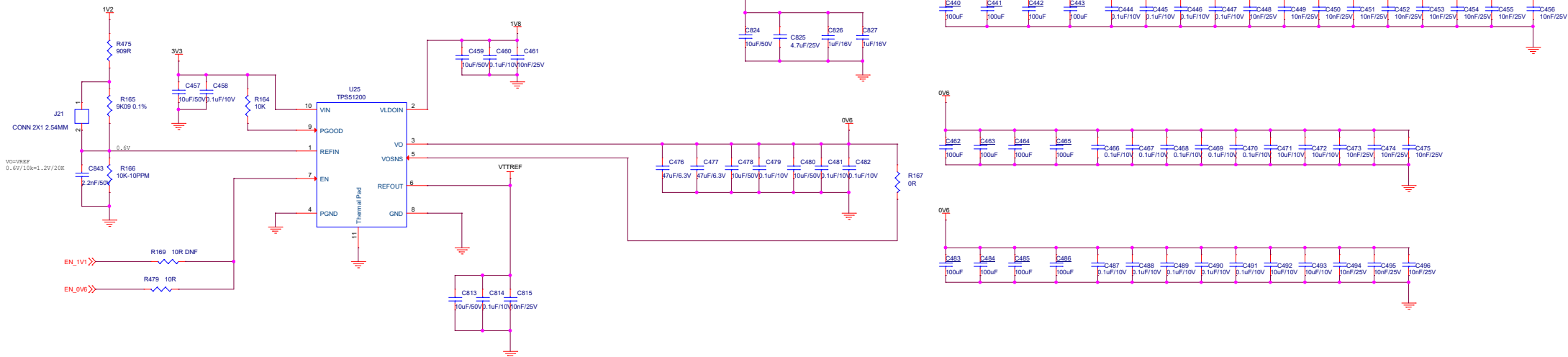
FPGA LPDDR4/4X INTERFACE



DQ signals can be swapped between one byte group

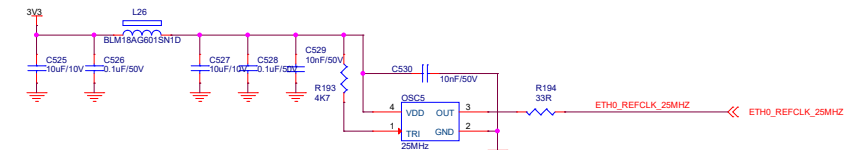
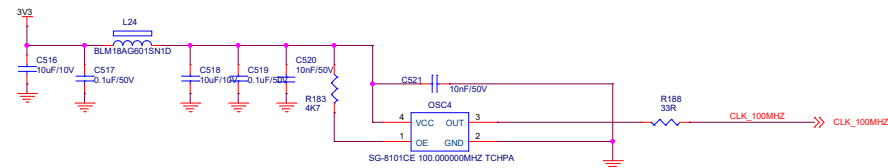
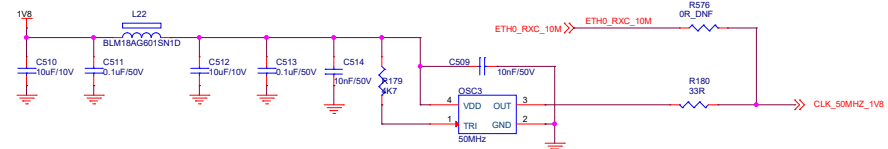
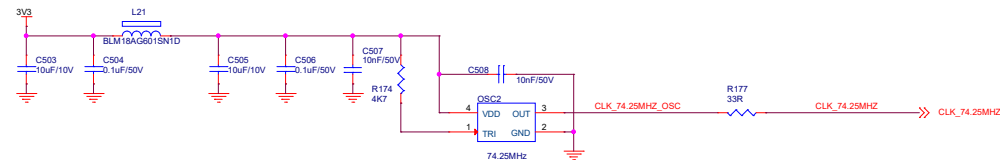
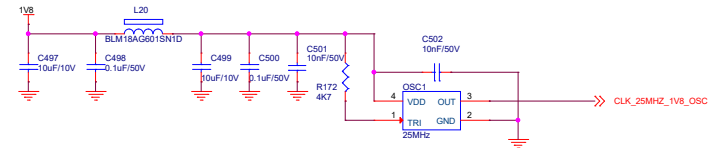
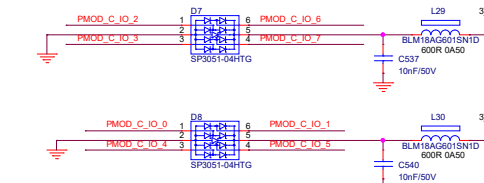
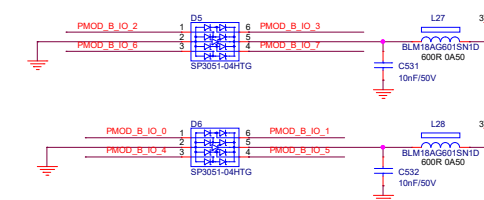
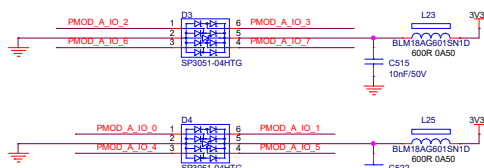
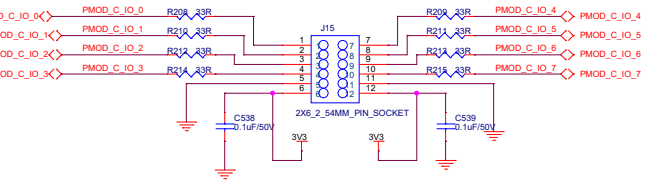
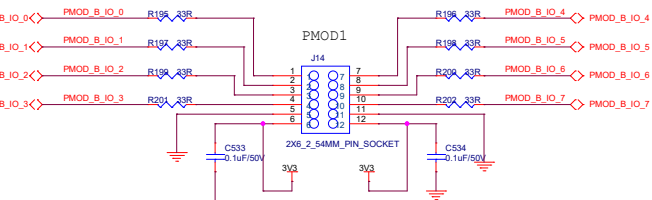
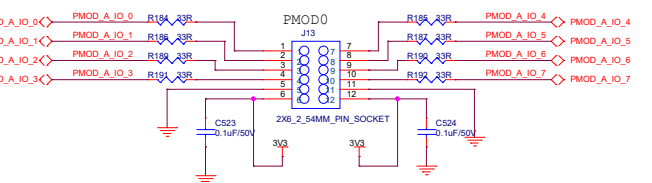
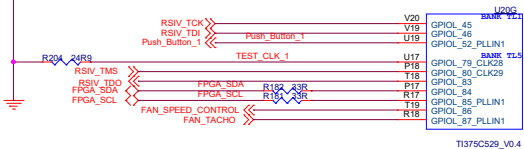
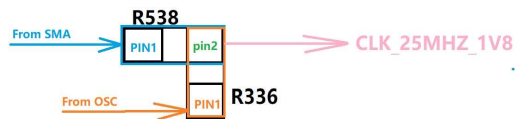
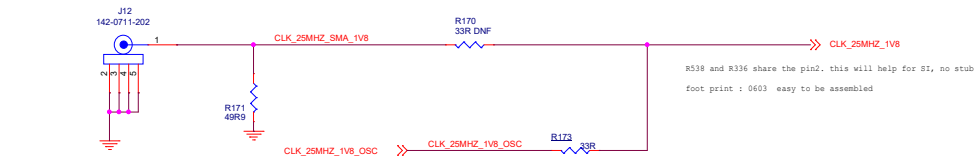
J21 is for LPDDR4

R475 and R165 is for LPDDR4X

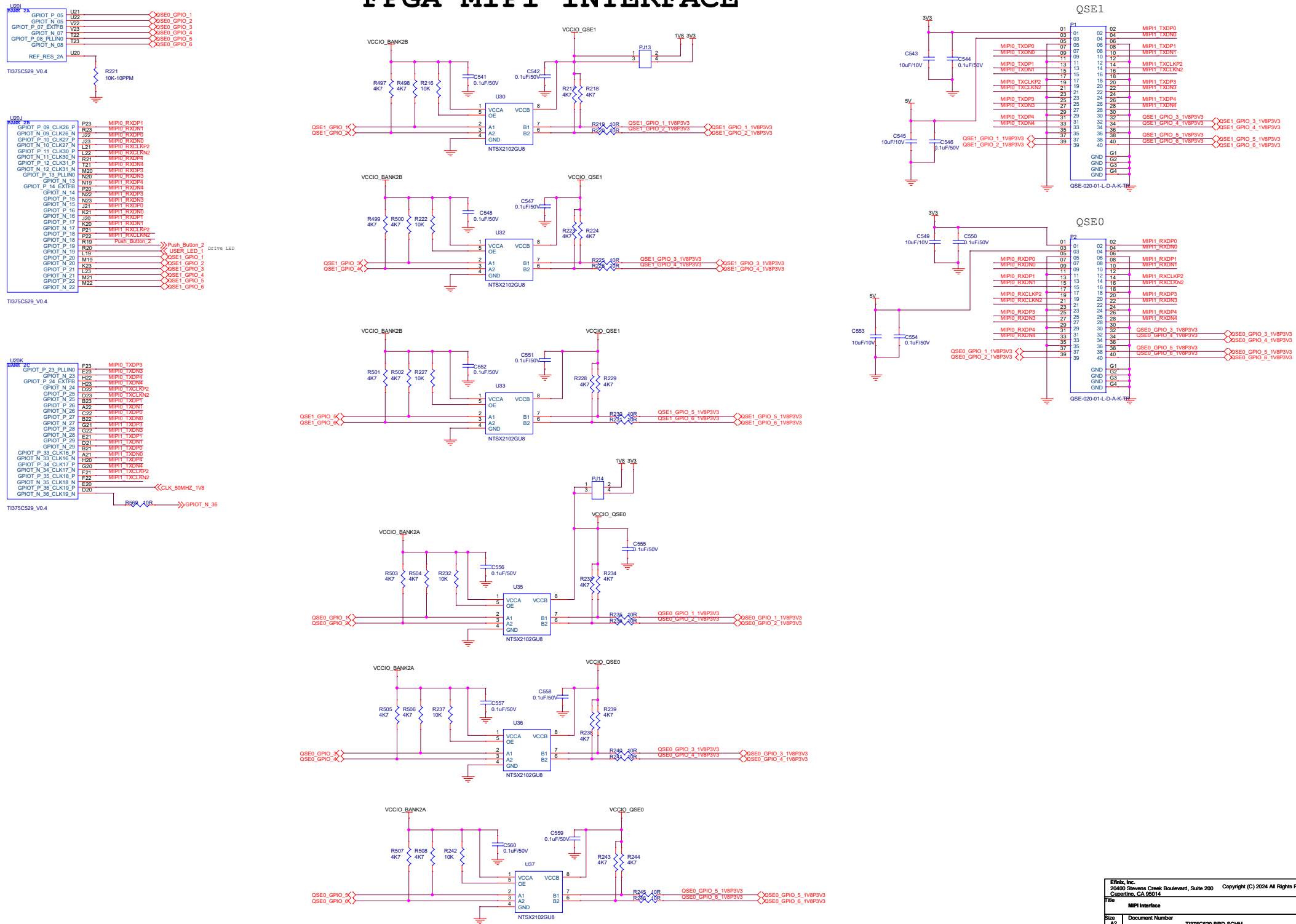


PMOD & OSC

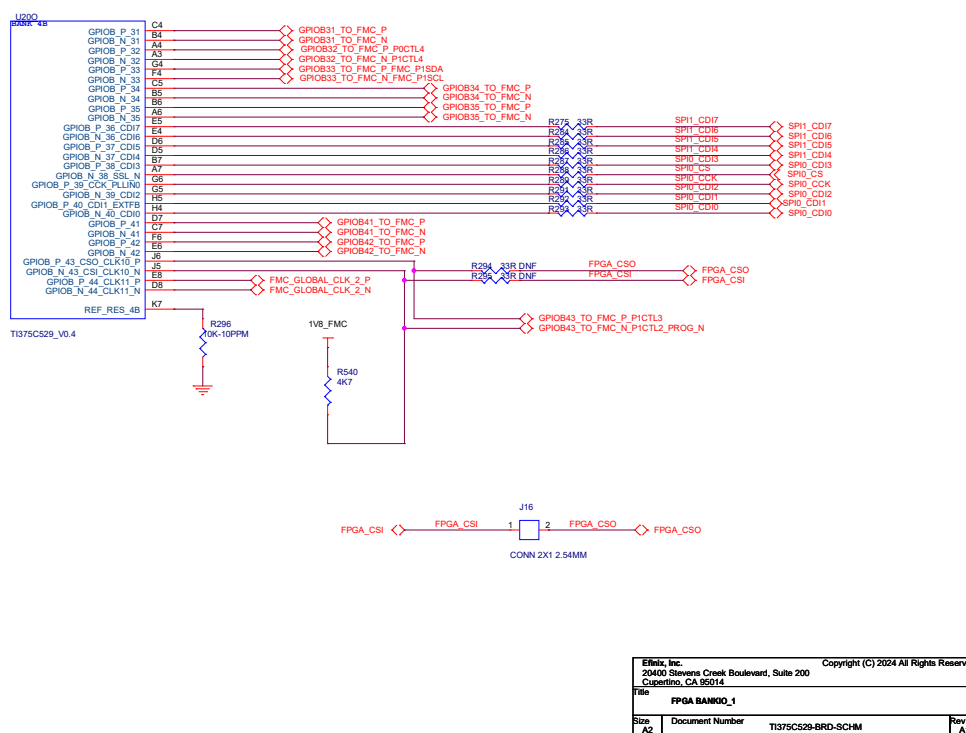
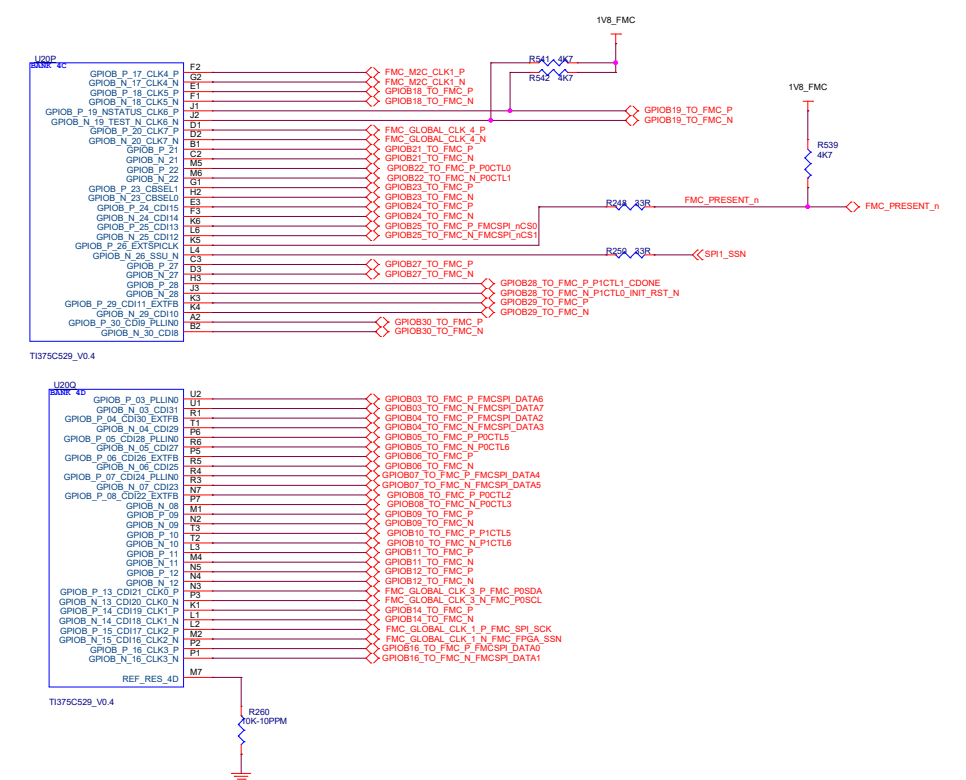
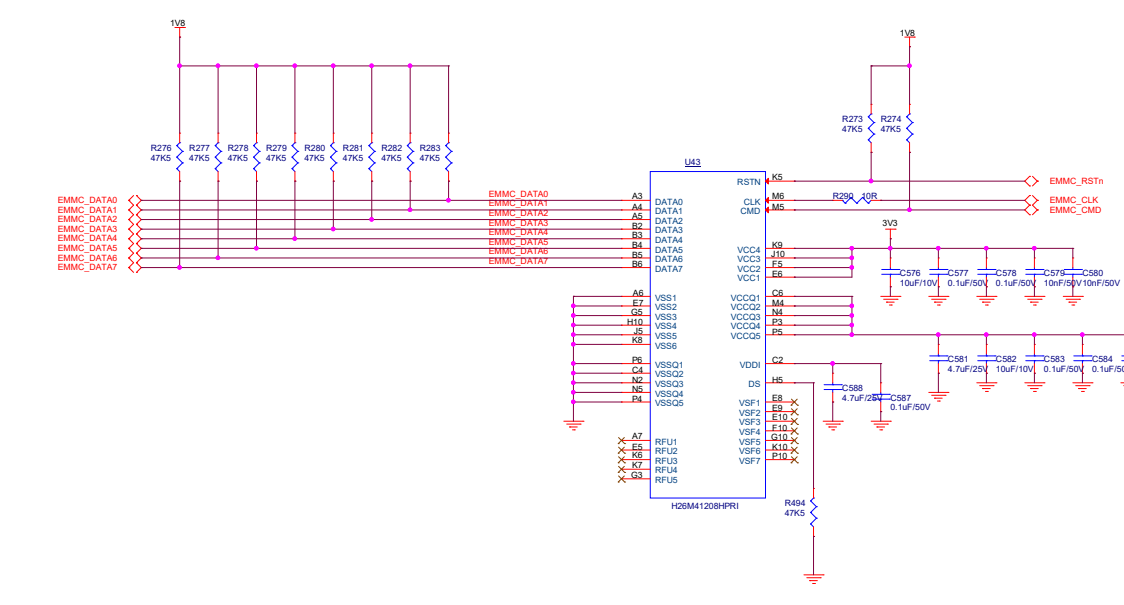
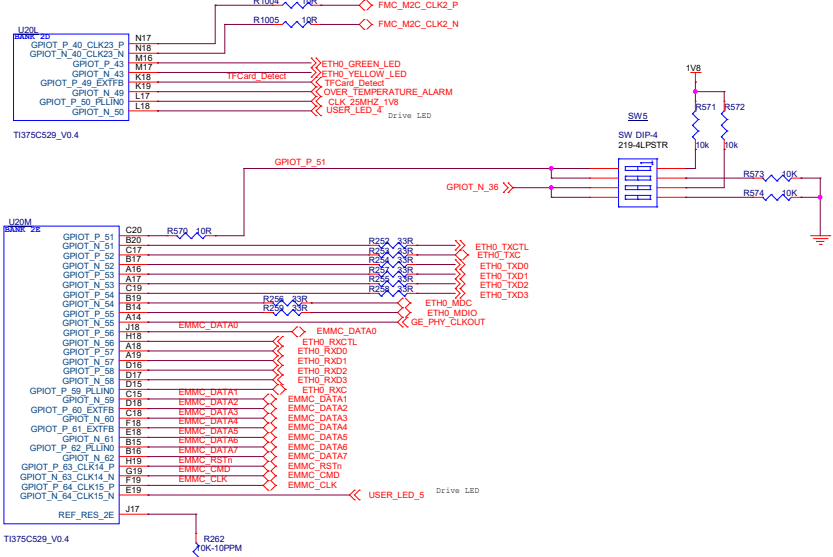
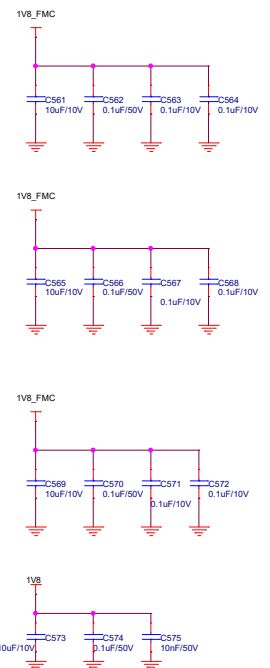
1. 8V 25MHZ INPUT



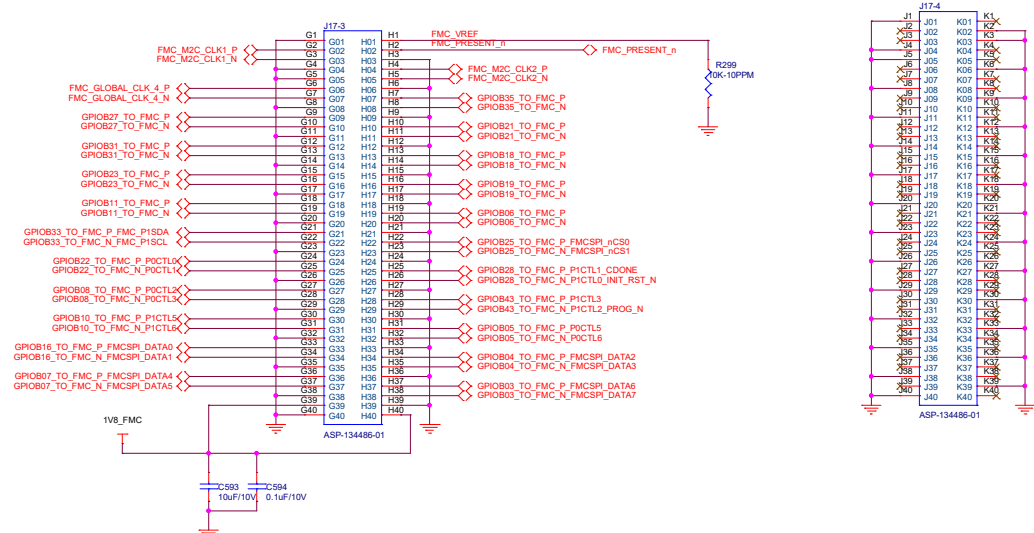
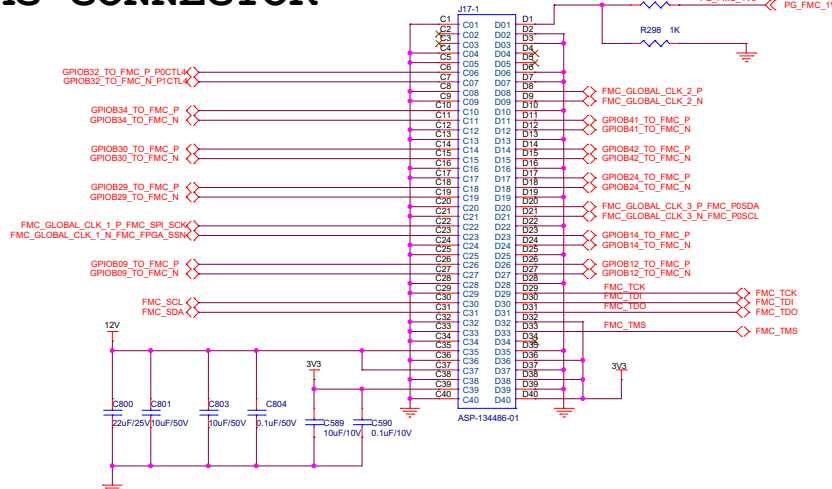
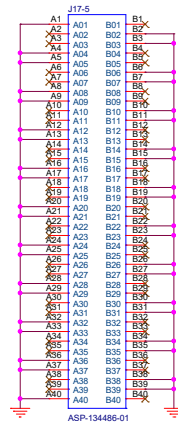
FPGA-MIPI INTERFACE



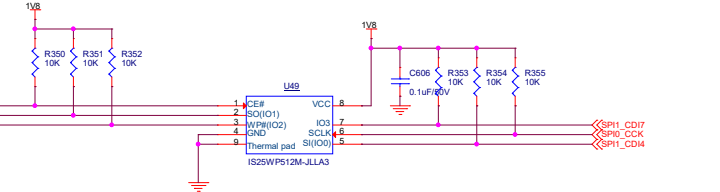
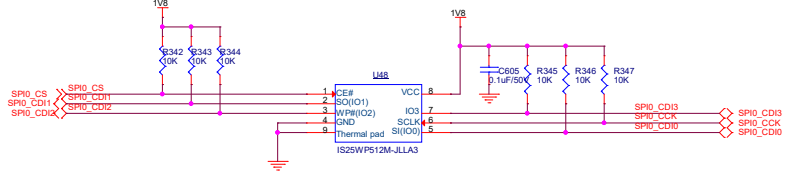
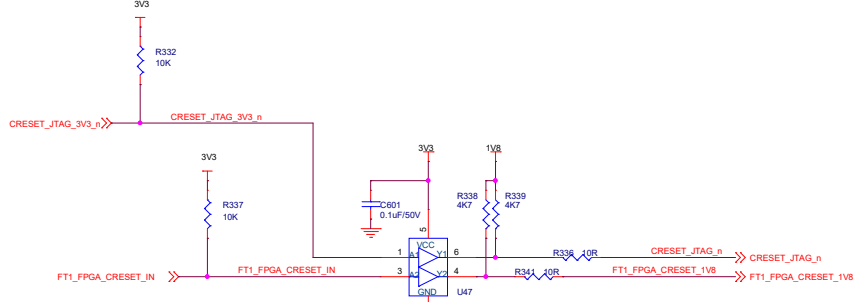
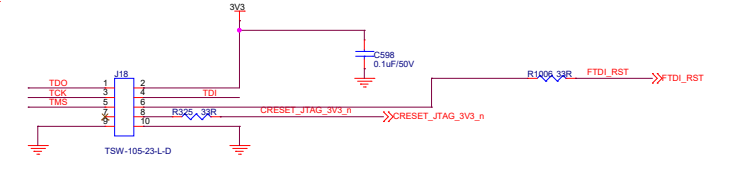
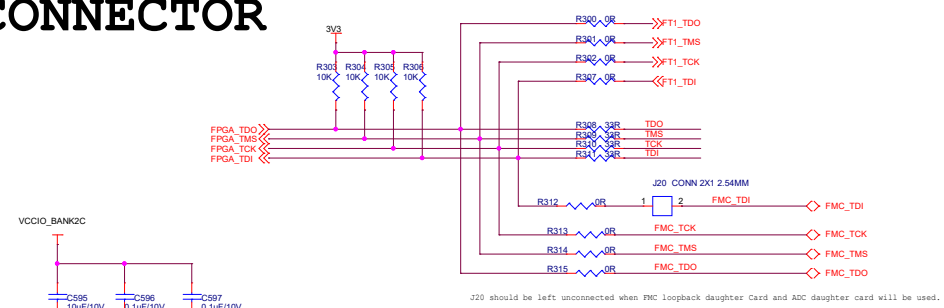
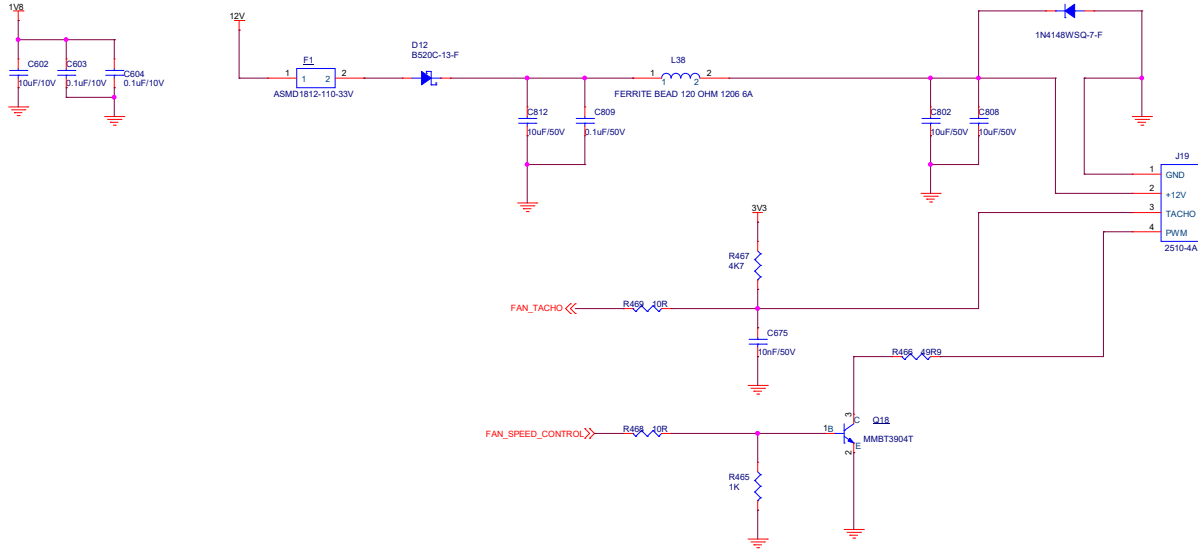
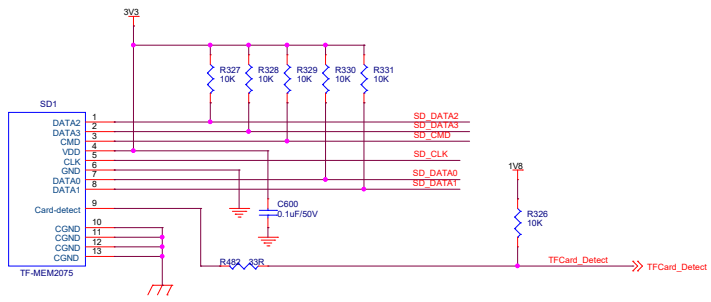
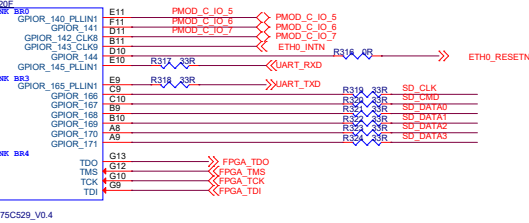
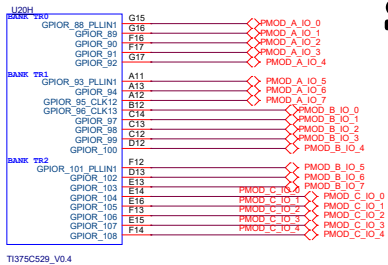
EMMC & FPGA - FMC



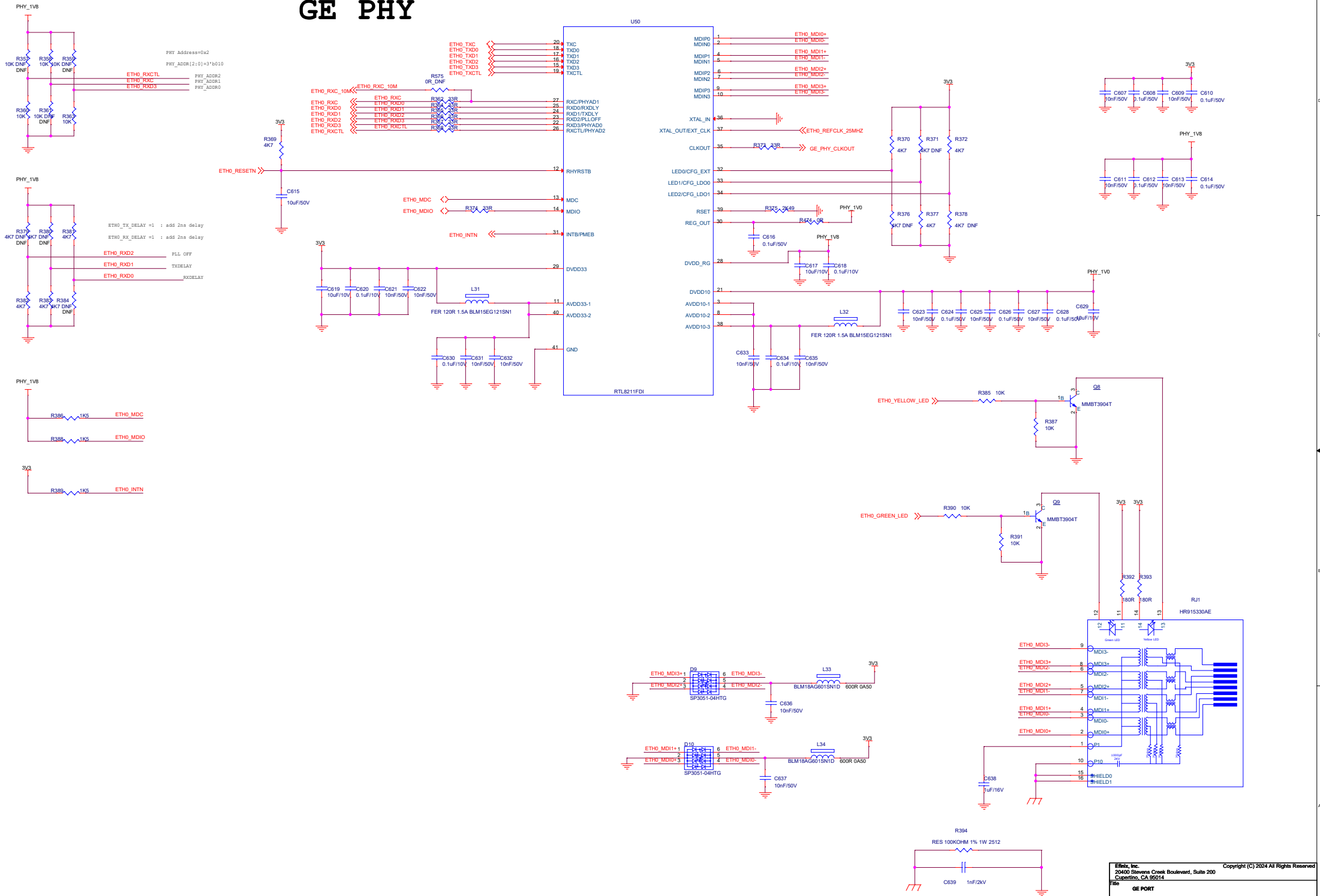
FMC CONNECTOR



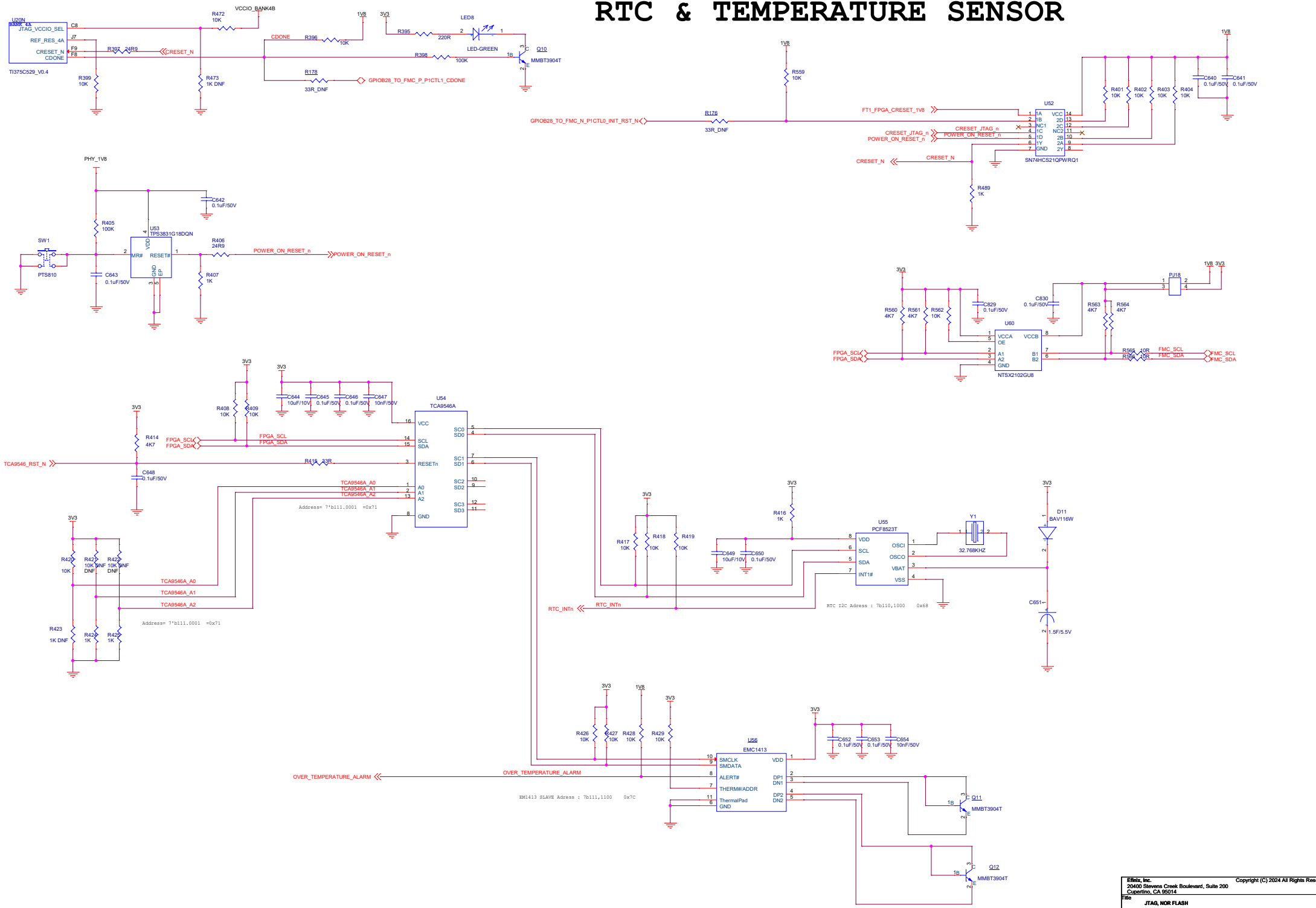
SPI FLASH & JTAG & FAN CONNECTOR



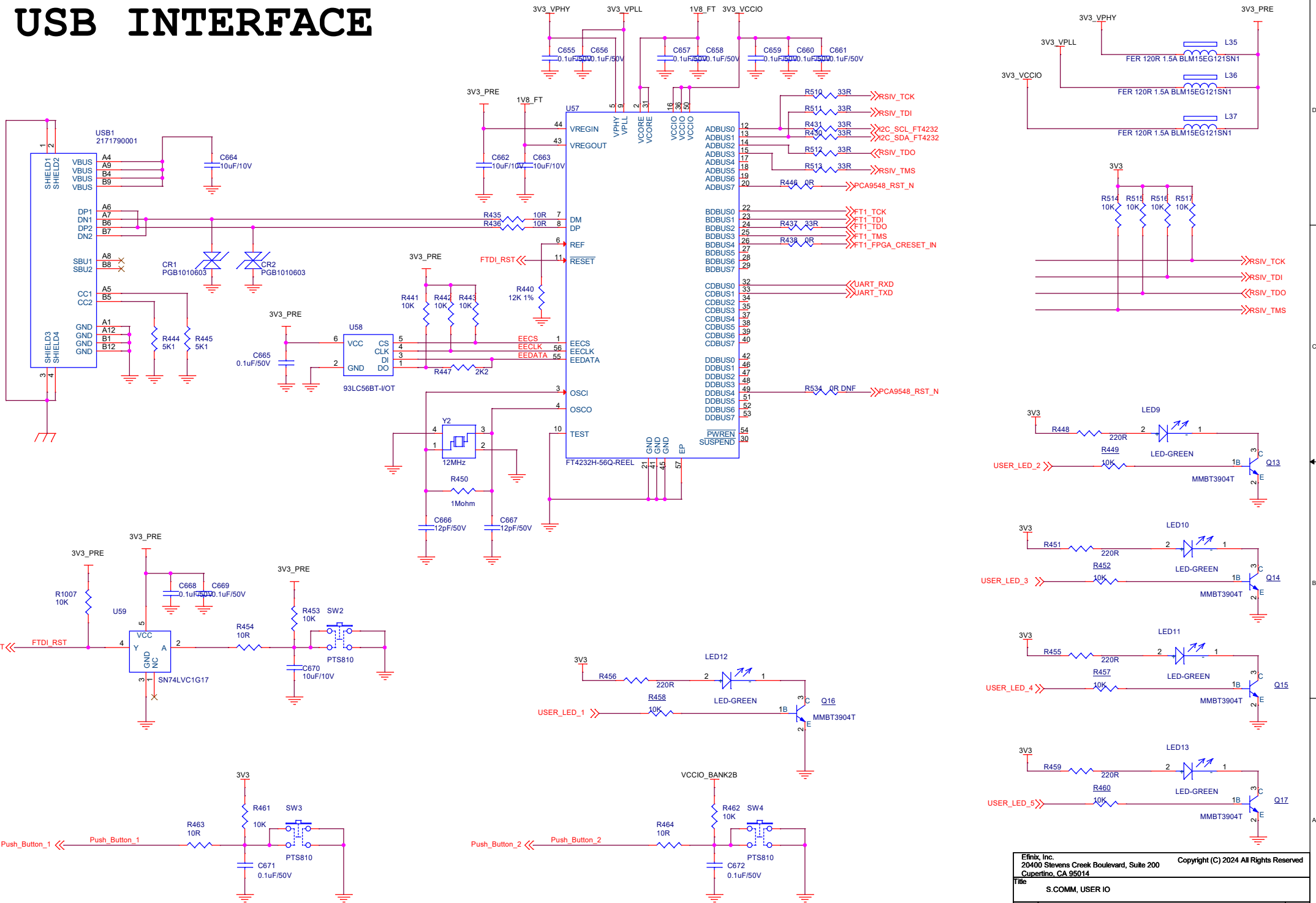
GE PHY



RTC & TEMPERATURE SENSOR



USB INTERFACE



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Title S.COMM, USER IO		
Size A3	Document Number T1375C529-BRD-SCHM	Rev A1
Date: Wednesday, June 12, 2024	Sheet 17 of 17	



Item	Qty	Part Type	Description	Value	Reference	Footprint	Manufacturing PN
1	2	Suppressors	ESD Suppressors	PGB1010603	CR1,CR2	SMD0603	PGB1010603
2	44	CAPACITOR	X7R, 10%, 10uF/50V,1206	10uF/50V	C9,C117,C254,C259,C457,C459,C478,C480,C615,C717,C720,C721,C726,C730,C732,C733,C736,C737,C738,C748,C749,C755,C756,C760,C761,C765,C771,C772,C773,C777,C778,C779,C789,C795,C796,C801,C802,C803,C808,C812,C813,C818,C821,C824	C1206	CL31B106KBHNNNE
3	36	CAPACITOR	X7R,0.1uF/50V, 10%, 0603	0.1uF/50V	C10,C716,C722,C723,C724,C727,C728,C731,C734,C739,C740,C745,C746,C751,C752,C753,C754,C758,C759,C764,C767,C768,C769,C774,C775,C780,C781,C786,C787,C792,C793,C798,C799,C804,C805,C809	C0603	CC0603KRX7R9BB104
4	5	CAPACITOR	MLCC 2.2NF 10% 50V X7R SMD0402	2.2nF/50V	C11,C120,C140,C160,C843	C0402	CC0402KRX7R9BB222
5	2	CAPACITOR	CAP CER 0.47UF 50V X7R 0603	0.47uF/50V	C12,C235	C0603	CC0603KRX7R9BB474
6	78	CAPACITOR	X7R, 10%, 0.1uF/50V	0.1uF/50V	C13,C14,C15,C16,C26,C27,C28,C29,C30,C31,C36,C37,C40,C41,C43,C55,C56,C57,C64,C65,C66,C67,C68,C69,C80,C81,C82,C91,C92,C93,C94,C95,C96,C110,C111,C112,C113,C114,C115,C118,C128,C129,C130,C131,C132,C133,C148,C149,C150,C151,C152,C153,C165,C166,C167,C193,C194,C195,C207,C208,C209,C215,C225,C226,C234,C236,C237,C238,C248,C249,C250,C251,C252,C253,C255,C256,C257,C258	C0402	CC0402KRX7R9BB104
7	43	CAPACITOR	X5R, 100uF 20%, 10V, Low ESR Required	100uF	C17,C18,C19,C20,C21,C22,C53,C58,C59,C83,C84,C87,C107,C134,C154,C168,C169,C176,C196,C197,C198,C202,C240,C241,C242,C243,C244,C440,C441,C442,C443,C462,C463,C464,C465,C483,C484,C485,C486,C831,C832,C833,C834	C1210	CC1210MKX5R6BB107
8	25	CAPACITOR	X5R, 47uF 6.3V 20%, 0805, Low ESR	47uF/6.3V	C23,C24,C62,C63,C88,C89,C108,C109,C135,C136,C155,C156,C177,C178,C199,C200,C203,C204,C205,C206,C227,C245,C246,C476,C477	C0805	CC0805MKX5R5BB476
9	11	CAPACITOR	X5R 4.7UF 10% 25V 0805	4.7uF/25V	C25,C38,C39,C42,C70,C181,C247,C581,C588,C819,C825	C0805	CL21A475KAQNNNE
10	4	CAPACITOR	MLCC 47PF 5% 50V 0402	47pF/50V	C45,C71,C162,C182	C0402	CC0402JRNPO9BN470
11	50	CAPACITOR	MLCC 10NF 10% 50V X7R SMD0402	10nF/50V	C46,C52,C72,C79,C116,C138,C158,C163,C164,C183,C184,C501,C502,C507,C508,C509,C514,C515,C520,C521,C522,C529,C530,C531,C532,C537,C540,C575,C579,C580,C585,C586,C607,C609,C611,C613,C621,C622,C623,C625,C627,C631,C632,C633,C635,C636,C637,C647,C654,C675	C0402	CC0402KRX7R9BB103
12	4	CAPACITOR	MLCC 47NF 10% 50V X7R 0402	47nF/50V	C60,C86,C179,C192	C0402	CC0402KRX7R9BB473
13	6	CAPACITOR	MLCC 220PF 5% 50V 0402	220pF/50V	C61,C90,C97,C137,C180,C201	C0402	CC0402JRNPO9BN221
14	3	CAPACITOR	MLCC 47NF 10% 50V X7R 0402	47nF/50V	C106,C121,C141	C0402	CC0402KRX7R9BB473
15	3	CAPACITOR	MLCC 22PF 5% 50V NP0 SMD 0402	22pF/50V	C119,C139,C159	C0402	CC0402JRNPO9BN220
16	1	CAPACITOR	MLCC 220PF 5% 50V 04022	220pF/50V	C157	C0402	CC0402JRNPO9BN221

Item	Qty	Part Type	Description	Value	Reference	Footprint	Manufacturing PN
17	79	CAPACITOR	MLCC 10NF 10% 25V X7R SMD0201	10nF/25V	C210,C211,C212,C213,C214,C216,C217,C218,C219,C220,C261,C264,C269,C270,C272,C293,C296,C301,C309,C312,C321,C322,C328,C329,C330,C332,C334,C340,C341,C344,C346,C348,C350,C359,C361,C362,C364,C365,C367,C371,C375,C376,C378,C386,C387,C392,C393,C402,C403,C409,C411,C413,C414,C415,C416,C417,C425,C426,C427,C430,C439,C448,C449,C450,C451,C452,C453,C454,C455,C456,C461,C473,C474,C475,C494,C495,C496,C673,C815	C0201	CC0201KRX7R8BB103
18	143	CAPACITOR	X5R 100NF 10% 10V 0201	0.1uF/10V	C260,C263,C265,C267,C268,C271,C275,C276,C277,C278,C279,C280,C281,C282,C283,C284,C285,C286,C287,C288,C289,C290,C291,C292,C294,C298,C300,C302,C303,C304,C305,C306,C307,C308,C310,C314,C315,C316,C317,C318,C320,C323,C325,C326,C327,C331,C333,C335,C337,C339,C342,C343,C345,C347,C349,C351,C353,C354,C355,C356,C357,C358,C360,C363,C366,C368,C369,C370,C377,C379,C380,C381,C382,C383,C388,C389,C390,C391,C394,C395,C396,C397,C398,C399,C400,C401,C404,C405,C406,C407,C408,C410,C412,C420,C421,C422,C423,C424,C428,C429,C431,C433,C434,C435,C436,C437,C438,C444,C445,C446,C447,C458,C460,C466,C467,C468,C469,C470,C479,C481,C482,C487,C488,C489,C490,C491,C563,C564,C567,C568,C571,C572,C590,C594,C596,C597,C603,C604,C618,C620,C630,C634,C814	C0201	CC0201KRX5R6BB104
19	66	CAPACITOR	MLCC 10UF 10% 10V X5R SMD0603	10uF/10V	C262,C266,C273,C274,C295,C297,C299,C311,C313,C319,C324,C336,C338,C352,C372,C373,C374,C384,C385,C419,C432,C471,C472,C492,C493,C497,C499,C503,C505,C510,C512,C516,C518,C525,C527,C543,C545,C549,C553,C561,C565,C569,C573,C576,C582,C589,C593,C595,C602,C617,C619,C629,C644,C649,C662,C663,C664,C670,C835,C836,C837,C838,C839,C840,C841,C842	C0603	CC0603KRX5R6BB106
20	78	CAPACITOR	X7R, 0.1uF/50V, 10%, 0402	0.1uF/50V	C498,C500,C504,C506,C511,C513,C517,C519,C523,C524,C526,C528,C533,C534,C538,C539,C541,C542,C544,C546,C547,C548,C550,C551,C552,C554,C555,C556,C557,C558,C559,C560,C562,C566,C570,C574,C577,C578,C583,C584,C587,C598,C600,C601,C605,C606,C608,C610,C612,C614,C616,C624,C626,C628,C640,C641,C642,C643,C645,C646,C648,C650,C652,C653,C655,C656,C657,C658,C659,C660,C661,C665,C668,C669,C671,C672,C829,C830	C0402	CC0402KRX7R9BB104
21	5	CAPACITOR	MLCC 1UF 10% 50V X7R SMD 0805	1uF/16V	C638,C820,C822,C826,C827	C0805	CC0805KKX7R9BB105
22	2	CAPACITOR	CAP CER 1808 1NF 2000V X7R 20%	1nF/2kV	C639,C828	C1808	CC1808KKX7RDBB102
23	1	CAPACITOR	1.5F -20%,+80% 5.5V THROUGH HOLE 21.5mmx7.5mm P=5.0mm	1.5F/5.5V	C651	RAD	DCL5R5155CF
24	2	CAPACITOR	MLCC 12PF 5% 50V NP0 SMD 0402	12pF/50V	C666,C667	C0402	CC0402JRNPO9BN120
25	14	CAPACITOR	X7R, 10%, 22uF/25V 1210	22uF/25V	C678,C718,C719,C725,C729,C735,C747,C757,C762,C770,C776,C788,C794,C800	C1210	CC1210KKX7R8BB226
26	2	SCHOTTKY DIODE	DIODE SCHOTTKY 20V 5A SMC	B520C-13-F	D1,D12	DO-SMC	B520C-13-F
27	1	DIODE	TVS DIODE 18VWM 29.2VC SMA	SMAJ18A	D2	SMA-DO214AC	SMAJ18A
28	8	TVS	TVS DIODE 6VWM 17VC SOT23-6	SP3051-04HTG	D3,D4,D5,D6,D7,D8,D9,D10	SOT23-6	SP3051-04HTG
29	1	DIODE	SWITCH SOD-123 110V 250MW	BAV116W	D11	SOD123	BAV116W

Item	Qty	Part Type	Description	Value	Reference	Footprint	Manufacturing PN
30	1	DIODE	75V 150mA SMD SOD-323	1N4148WSQ-7-F	D14	SOD-323	1N4148WSQ-7-F
31	1	CMC	CMC 6A 2LN 1K OHM SMD	ACM1211-102-2PL-TL01	FL1	SMD_12X11	ACM1211-102-2PL-TL01
32	1	FUSE	FUSE BOARD MOUNT 1.1A 33VDC SMD 1812	FUSE-1.1A-33VDC-1812	F1	F1812	ASMD1812-110-33V
33	15	CONNECTOR	CONN HEADER VERT 2X1 POS 2.54mm	CONN 2X1 2.54MM	J1,J2,J3,J4,J5,J6,J7,J8,J9,J10,J11,J16,J20,J21,J22	SIP2-2_54	X6521WV-2X01H-C60D30
34	1	SMA	CONN SMA JACK STR 50 OHM SMD	142-0711-202	J12	SMA	142-0711-202
35	3	CONNECTOR	CONN 12 Position Receptacle Connector 0.100" (2.54mm) Through Hole, Right Angle Gold	2X6_2_54MM_PIN_SOCKET	J13,J14,J15	2X6_2_54MM_PIN_SOCKET	A2541HWR-2x6P-6T
36	1	CONNECTOR	CONN ARRAY RCPT 160POS SMD GOLD	ASP-134603-01	J17	ASP-134486-01	ASP-134603-01
37	1	CONNECTOR	CONN HEADER VERT 10POS 2.54MM	A2541WV-2X5P	J18	CON5X2-2_54A	A2541WV-2X5P
38	1	CONNECTOR	CONN 2510 1*4PIN 2.54mm Trough Hole	2510-4A	J19	2510-4PIN	2510-4A
39	14	LED	LED GREEN CLEAR SMD0603 571nm 2V 0603	LED-GREEN	LED1,LED2,LED3,LED4,LED5,LED6,LED7,LED8,LED9,LED10,LED11,LED12,LED13,LED14	LED0603	LTST-C191KGKT
40	2	IND	FIXED IND 330NH 16.5A 5 MOHM SMD	330nH 16.5A 5mohm SMD	L1,L9	SMD-5_49mm X5_18mm	IHLP2020CZERR33M11
41	4	IND	FIXED IND 3.3UH 9.2A 17.7MOHM SMD	3.3uH 9.2A 16.5mohm SMD	L2,L3,L7,L8	SMD8_64mmx8_18mm	IHLP3232DZER3R3M01
42	3	IND	FIXED IND 4.7UH 6A 19.5 MOHM SMD	4.7uH 6.2A 19.5mohm SMD	L4,L5,L6	SMD_10_2mmx10_2mm	744311470
43	12	Ferrite	FERRITE BEAD 120 OHM 0402 1LN	FER 120R 1.5A BLM15EG121SN1	L10,L11,L12,L13,L14,L15,L16,L17,L18,L19,L31,L32	402	BLM15EG121SN1D
44	13	Ferrite	FERRITE BEAD 600 OHM 0603 1LN	BLM18AG601SN1D	L20,L21,L22,L23,L24,L25,L26,L27,L28,L29,L30,L33,L34	603	BLM18AG601SN1D
45	3	Ferrite	FERRITE BEAD 120 OHM 0402 1LN02	FER 120R 1.5A BLM15EG121SN1	L35,L36,L37	402	BLM15EG121SN1D
46	1	Ferrite	FERRITE BEAD 160 OHM 6A 1206 1LN06	FERRITE BEAD 120 OHM 1206 6A	L38	L1206	HI1206T161R-10
47	2	OSCILLATOR	XTAL OSC 25MHZ+/-50PPM, HCMOS, SMD-4PIN, 1.6V ~ 3.6V, Enable/Disable , No Lead	25MHz	OSC1,OSC5	OSC2520	SG-210STF 25.0000MS3
48	1	OSCILLATOR	MEMS OSC XO 74.2500MHZ+/-20ppm, LVCMOS, LVTTTL Oscillator 3.3V, Enable/Disable, 4-SMD, No Lead	74.25MHz	OSC2	OSC2520	SG-8101CG-74.250000MHZ-TBGSA
49	1	OSCILLATOR	XTAL OSC 50MHZ+/-30PPM, HCMOS, SMD-4PIN, 1.71V ~ 3.63V, Enable/Disable , No Lead	50MHz	OSC3	OSC2520	MC2520Z50.0000C19XSH
50	1	OSCILLATOR	XTAL OSC XO 100.000000MHZ CMOS SMD	SG-8101CE 100.000000MHZ TCHPA	OSC4	3225-4PIN	SG-8101CE 100.000000MHZ TCHPA

Item	Qty	Part Type	Description	Value	Reference	Footprint	Manufacturing PN
51	1	CONNECTOR	CONN PWR JACK 2.5X5.5MM SOLDER, 2.5A, Horizontal, Surface Mount (SMT), Dc Power Jack Connector	DC-044D-2.5A-2.5-SMT	PJ1	DC-044D-2.5A-2.5-SMT	DC-044D-2.5A-2.5-SMT
52	14	CONNECTOR	CONN HEADER VERT 2X2POS 2.54mm	CONN 2X2 2.54MM	PJ3,PJ4,PJ5,PJ6,PJ7,PJ8,PJ9,PJ10,PJ11,PJ12,PJ13,PJ14,PJ17,PJ18	CON2X2-2_54A	A2541WV-2x2P-6T
53	1	SWITCH	SPDT, 3PIN, AC-125V,DC-50V, 3A, DIP SW3_13X6.8MM_TM	SS-12D10L5	PSW1	TH	SS-12D10L5
54	2	CONNECTOR	0.80 mm Q Strip High-Speed Ground Plane Socket Strip	QSE-020-01-L-D-A-K-TR	P1,P2	QSE-020-01-X-D-A	QSE-020-01-L-D-A-K-TR
55	18	TRANSISTOR	60V NPN SMALL SIGNAL TRANSISTOR IN SOT523	MMBT3904T-7-F	Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q17,Q18	SOT523	MMBT3904T-7-F
56	1	RJ45	100/1000Base-T Magnetics single Port RJ45 connector with Integrated Magnetics and LEDS	HR915330AE	RJ1	RJ45-TH_HR911130A	HR915330AE
57	43	RESISTOR	RES 1/16W 10R 1% SMD0402	10R	R1,R5,R42,R43,R44,R46,R48,R49,R55,R57,R61,R62,R136,R140,R219,R220,R225,R226,R230,R231,R235,R236,R240,R241,R245,R246,R290,R336,R341,R435,R436,R454,R463,R464,R468,R469,R479,R565,R566,R569,R570,R1004,R1005	R0402	RC0402FR-0710RL
58	37	RESISTOR	RES 1/16W 0R SMD0402	0R	R2,R10,R11,R12,R13,R84,R85,R89,R91,R93,R94,R95,R98,R100,R137,R142,R143,R144,R145,R151,R152,R153,R154,R167,R300,R301,R302,R307,R312,R313,R314,R315,R316,R438,R446,R474,R554	R0402	RC0402JR-070RL
59	1	RESISTOR	2.5 mOhms 1% 2W Chip Resistor 2512 (6432 Metric) Automotive AEC-Q200, Current Sense, Moisture Resistant, Pulse Withstanding Metal Element	RES 0.0025 OHM 1% 2W 2512	R3	R2512	LR2512-22R0025F4
60	118	RESISTOR	RES 1/16W 10K 1% SMD0402	10K	R4,R20,R21,R22,R23,R24,R25,R26,R27,R28,R29,R30,R31,R32,R33,R34,R35,R52,R54,R73,R82,R87,R88,R92,R96,R97,R103,R106,R113,R114,R115,R122,R124,R131,R135,R139,R149,R164,R216,R222,R227,R232,R237,R242,R303,R304,R305,R306,R326,R327,R328,R329,R330,R331,R332,R337,R342,R343,R344,R345,R346,R347,R350,R351,R352,R353,R354,R355,R358,R360,R363,R385,R387,R390,R391,R396,R399,R401,R402,R403,R404,R408,R409,R417,R418,R419,R420,R426,R427,R428,R429,R441,R442,R443,R453,R461,R462,R472,R481,R514,R515,R516,R517,R553,R557,R558,R559,R562,R571,R572,R573,R574,R1003,R449,R452,R457,R458,R460	R0402	RC0402FR-0710KL
61	20	RESISTOR	RES 1/16W 1K 1% SMD0402	1K	R6,R39,R40,R41,R56,R59,R65,R66,R72,R116,R117,R150,R155,R298,R407,R416,R424,R425,R465,R489	R0402	RC0402FR-071KL
62	1	RESISTOR	RES 1/16W 62K 1% SMD0402	62K	R7	R0402	RC0402FR-0762KL
63	52	RESISTOR	RES 1/16W 4K7 1% SMD0402	4K7	R8,R47,R108,R132,R172,R174,R179,R183,R193,R217,R218,R223,R224,R228,R229,R233,R234,R238,R239,R243,R244,R338,R339,R369,R370,R372,R377,R381,R382,R383,R414,R467,R497,R498,R499,R500,R501,R502,R503,R504,R505,R506,R507,R508,R539,R540,R541,R542,R560,R561,R563,R564	R0402	RC0402FR-074K7L
64	1	RESISTOR	RES 82K 0.1% 1/16W SMD 0402	82K 0.1%	R9	R0402	RT0402BRE0782KL
65	1	RESISTOR	RES 1/16W 135K 1% SMD0402	135K	R14	R0402	RN73H1ETTP1353F50

Item	Qty	Part Type	Description	Value	Reference	Footprint	Manufacturing PN
66	1	RESISTOR	RES 1/16W 15K8 1% SMD0402	15K8	R15	R0402	RC0402FR-0715K8L
67	3	RESISTOR	RES 1/16W 30K 1% SMD0402	30K	R16,R17,R134	R0402	RC0402FR-0730KL
68	12	RESISTOR	RES 1/16W 220R 1% SMD0402	220R	R18,R63,R76,R104,R105,R107,R147,R395,R451,R455,R459,R1002	R0402	RC0402FR-07220RL
69	8	RESISTOR	RES 1/16W 100K 1% SMD0402	100K	R19,R50,R74,R79,R125,R148,R398,R405	R0402	RC0402FR-07100KL
70	1	RESISTOR	RES 1/16W 10R 1% SMD0402	10R	R45	R0402	RC0402FR-0710RLL
71	4	RESISTOR	RES 1/16W 2K7 1% SMD0402	2K7	R67,R75,R118,R126	R0402	RC0402FR-072K7L
72	5	RESISTOR	RES 1/16W 100R 1% SMD0402	100R	R68,R78,R128,R555,R556	R0402	RC0402FR-07100RL
73	8	RESISTOR	RES 0.005 OHM 1% 2W 2512	RES 0.005 OHM 1% 2W 2512	R69,R77,R83,R90,R99,R119,R127,R138	R2512	PA2512FKE7W0R005E
74	1	RESISTOR	RES 1/16W 45K 1% SMD0402	45K	R70	R0402	RC0402FR-0745KL
75	1	RESISTOR	RES 1/16W 1K4 1% SMD0402	1K4	R80	R0402	RC0402FR-071K4L
76	1	RESISTOR	RES 1/16W 2K87 1% SMD0402	2K87	R81	R0402	RC0402FR-072K87L
77	1	RESISTOR	RES 1/16W 20K 1% SMD0402	20K	R86	R0402	RC0402FR-0720KL
78	1	RESISTOR	RES 1/16W 36K5 1% SMD0402	36K5	R101	R0402	RC0402FR-0736K5L
79	1	RESISTOR	RES 1/16W 4K99 1% SMD0402	4K99	R102	R0402	RC0402FR-074K99L
80	1	RESISTOR	RES 1/16W 42K2 1% SMD0402	42K2	R109	R0402	RC0402FR-0742K2L
81	1	RESISTOR	RES 1/16W 6K8 1% SMD0402	6K8	R121	R0402	RC0402FR-076K8L
82	1	RESISTOR	RES 1/16W 330R 1% SMD0402	330R	R129	R0402	RC0402FR-07330RL
83	1	RESISTOR	RES 1/16W 8K2 1% SMD0402	8K2	R130	R0402	RC0402FR-078K2L
84	1	RESISTOR	RES 1/16W 60K4 1% SMD0402	60K4	R133	R0402	RC0402FR-0760K4L
85	1	RESISTOR	RES 1/16W 27K 1% SMD0402	27K	R141	R0402	RC0402FR-0727KL
86	1	RESISTOR	RES 1/16W 12K 1% SMD0402	12K	R146	R0402	RC0402FR-0712KL
87	5	RESISTOR	RES 240 OHM 1% 1/16W 0402	240R	R158,R159,R160,R161,R162	R0402	RC0402FR-07240RL
88	1	RESISTOR	RES 9.09K OHM 0.1% 1/16W 0402	9K09 0.1%	R165	R0402	RP0402BRD079K09L
89	6	RESISTOR	RES10KOHM 0.1% 1/16W 0402 10ppmC	10K-10PPM	R166,R221,R260,R262,R296,R299	R0402	RT0402BRE0710KL
90	2	RESISTOR	RES 1/16W 49.9R 1% SMD0402	49R9	R171,R466	R0402	RC0402FR-0749R9L
91	81	RESISTOR	RES 1/16W 33R 1% SMD0402	33R	R173,R177,R180,R181,R182,R184,R185,R186,R187,R188,R189, R190,R191,R192,R194,R195,R196,R197,R198,R199,R200,R201, R202,R208,R209,R210,R211,R212,R213,R214,R215,R248,R250, R252,R253,R254,R255,R256,R257,R258,R259,R275,R284,R285, R286,R287,R288,R289,R291,R292,R293,R308,R309,R310,R311, R317,R318,R319,R320,R321,R322,R323,R324,R325,R362,R364, R365,R366,R367,R368,R373,R374,R415,R430,R431,R437,R482, R510,R511,R512,R513	R0402	RC0402FR-0733RL
92	4	RESISTOR	RES 1/16W 24.9R 1% SMD0402	24R9	R204,R205,R397,R406	R0402	RC0402FR-0724R9L
93	12	RESISTOR	RES 1/16W 47.5K 1% SMD0402	47K5	R273,R274,R276,R277,R278,R279,R280,R281,R282,R283,R494, R551	R0402	RC0402FR-0747K5L
94	1	RESISTOR	RES 2.49K 1% 1/16W SMD0402	2K49	R375	R0402	RC0402FR-072K49L
95	3	RESISTOR	RES 1/16W 1K5 1% SMD0402	1K5	R386,R388,R389	R0402	RC0402FR-071K5L
96	2	RESISTOR	RES 1/16W 180R 1% SMD0402	180R	R392,R393	R0402	RC0402FR-07180RL

Item	Qty	Part Type	Description	Value	Reference	Footprint	Manufacturing PN
97	2	RESISTOR	RES 100KOHM 1% 1W 2512	RES 100KOHM 1% 1W 2512	R394,R543	R2512	CRCW2512100KFKEG
98	1	RESISTOR	RES 1/16W 12K 1% SMD0402	12K 1%	R440	R0402	RC0402FR-0712KL
99	2	RESISTOR	RES 1/16W 5K1 1% SMD0402	5K1	R444,R445	R0402	RC0402FR-075K1L
100	1	RESISTOR	RES 1/16W 2K2 1% SMD0402	2K2	R447	R0402	RC0402FR-072K2L
101	2	RESISTOR	RES 1/16W 220R 1% SMD0402	220R	R448,R456	R0402	RC0402FR-07220RL
102	1	RESISTOR	RES 1/16W 1M 1% SMD0402	1Mohm	R450	R0402	RC0402FR-071ML
103	1	RESISTOR	RES SMD 909 OHM 0.1% 1/16W 0402	909R	R475	R0402	RT0402BRE07909RL
104	2	RESISTOR	RES 1/16W 28K 1% SMD0402	28K	R480,R1001	R0402	RC0402FR-0728KL
105	1	SD	MICRO SD PUSH-PUSH, SMT, 1.40MM, 9 (8 + 1) Position Card Connector Secure Digital, Right Angle Gold	MEM2075-00-140-01-A	SD1	TF-MEM2075	MEM2075-00-140-01-A
106	4	SWITCH	3.9N, 16VDC, 50mA	PTS810	SW1,SW2,SW3,SW4	PTS810	PTS810SJG250SMTRLFS
107	1	SWITCH	SWITCH SLIDE DIP SPST 100MA 20V	SW DIP-4	SW5	SW-DIP-4_127-DSHP04TSGET	DSHP04TSGET
108	15	TEST POINT	Color Keyed SMT Test Point -Black P/N 5191TR	5191TR	TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8,TP9,TP10,TP11,TP12,TP13,TP14,TP15	TP-RECT3X2_5-5191TR	5191TR
109	1	CONNECTOR	Universal Serial Bus (USB) Shielded I/O Receptacle, Type C, Right-Angle, Surface Mount, Top Mount, Single Row, 16 Circuits, Gold (Au) Plating	2171790001	USB1	2171790001	2171790001
110	7	IC	IC Current SENSE Amplifier 1 CIRCUIT SOT23-5	INA281A5	U1,U6,U8,U9,U11,U15,U17	SOT23-5	INA281A5IDBVT
111	2	IC	IC REG BUCK ADJ 15A 33VQFN	TPS542A50RJMR	U2,U18	VQFN-HR	TPS542A50RJMR
112	2	IC	Non-Isolated PoL Module DC DC Converter 1 Output 0.6 ~ 5.5V 3A 3V - 17V Input	TPSM863257RDXR	U3,U16	QFN-7PIN	TPSM863257RDXR
113	1	IC	IC INTERFACE SPECIALIZED 24TSSOP	PCA9548APW	U4	TSSOP24	PCA9548APW
114	1	IC	IC SUPERVISOR 8 CHANNEL 32VQFN	UCD9081RHBR	U5	VQFN-32	UCD9081RHBR
115	2	IC	IC REG BUCK PROG DL 36VQFN	TPS65276VRHHR	U7,U14	VQFN-36PIN	TPS65276VRHHR
116	1	IC	IC REG BUCK PROG TRPL 32VQFN	TPS65263RHBT	U10	VQFN-32PIN	TPS65263RHBT
117	1	IC	Linear Voltage Regulator IC Positive Fixed 1 Output 300mA 6-WSON (2x2)	LP5910-1.8DRV	U19	WSON-6PIN	LP5910-1.8DRVR
118	1	IC	EFINIX FPGA	TI375C529	U20	FBGA529	TI375C529
119	1	MEMORY	IC DRAM 8GBIT 2.133GHZ 200WFBGA	MT53E256M32D2	U23	WFBGA-200P	MT53E256M32D2DS-046
120	1	IC	IC REG CONV DDR 1OUT 10VSON	TPS51200	U25	VSON-10PIN	TPS51200DRC
121	7	IC	IC TRANSLTR BIDIRECTIONAL Voltage Level Translator 1 Circuit 2 Channel 50Mbps 8-XQFN 1.4x1.2	NTSX2102GU8	U30,U32,U33,U35,U36,U37,U60	XQFN8	NTSX2102GU8

Item	Qty	Part Type	Description	Value	Reference	Footprint	Manufacturing PN
122	1	IC	IC E-NAND/FLASH -40??-85??/NAND/STACK/8GBX1/153FBGA	H26M41208HPRI	U43	FBGA-153	H26M41208HPRI
123	1	IC	IC BUFFER NON-INVERT 5.5V SC88	NC7WZ07P6	U47	SC70-6	NC7WZ07P6
124	2	IC	IC FLASH 512MBIT SPI/QUAD 8WSON	IS25WP512M-JLLA3	U48,U49	WSON-8	IS25WP512M-JLLA3
125	1	IC	GE PHY 1PORT 10/100/1000Mb/s 2.97V~3.63V 40-QFN(5x5mm)	RTL8211FDI	U50	QFN40	RTL8211FDI-CG
126	1	IC	IC GATE AND 2CH 4-INP 14TSSOP	SN74HCS21QPWRQ	U52	TSSOP14	SN74HCS21QPWRQ1
127	1	IC	IC SUPERVISOR 1 CHANNEL 4X2SON	TPS3831G18DQN	U53	X2SON4	TPS3831G18DQNR
128	1	IC	IC BUS SWITCH 2 X 1.4 16TSSOP	TCA9546A	U54	TSSOP16	TCA9546APWR
129	1	IC	IC RTC CLOCK/CALENDAR I2C 8SO	PCF8523T	U55	SO8	PCF8523T/1,118
130	1	IC	SENSOR DIGITAL -40C-125C 10DFN	EMC1413-A-AIA-TR	U56	QFN10	EMC1413-A-AIA-TR
131	1	IC	IC USB TO UART/MPSSE QUAD 56VQFN	FT4232H-56Q-REEL	U57	VQFN-56	FT4232H-56Q-REEL
132	1	IC	IC EEPROM 2KBIT MIC WIRE SOT23-6	93LC56BT-I/OT	U58	SOT23-6	93LC56BT-I/OT
133	1	IC	IC BUF 1bit NON-INVERT 1.65V to 5.5V SOT23-5	SN74LVC1G17	U59	SOT23-5	SN74LVC1G17DBVR
134	1	VR	TRIMMER 25K OHM 0.25W GW TOP ADJ	3314G-1-253E	VR1	3314G-1	3314G-1-253E
135	1	OSC	CRYSTAL 32.7680KHZ 9PF SMD	32.768KHZ	Y1	3_2mmX1_5mm	FC-135R 32.7680KF-AC3
136	1	CRYSTAL	Automotive & Industrial Grade Ceramic Base SMD Crystal	12MHz	Y2	CRY3225	ABM8AIG-12.000MHZ-12-D2Z-T