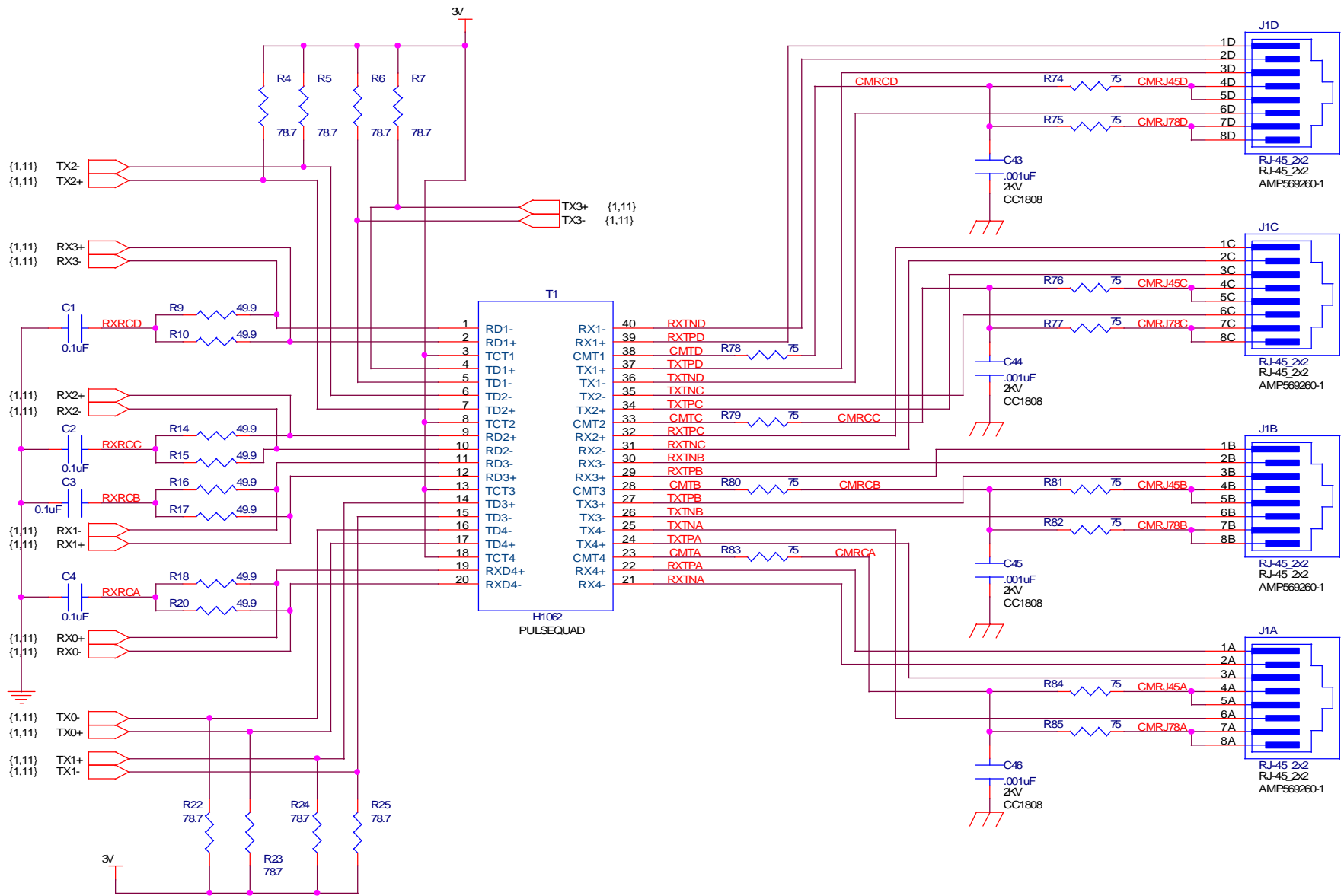


Low-Power, Quad 10/100 -Tx/Fx Ethernet Transceiver

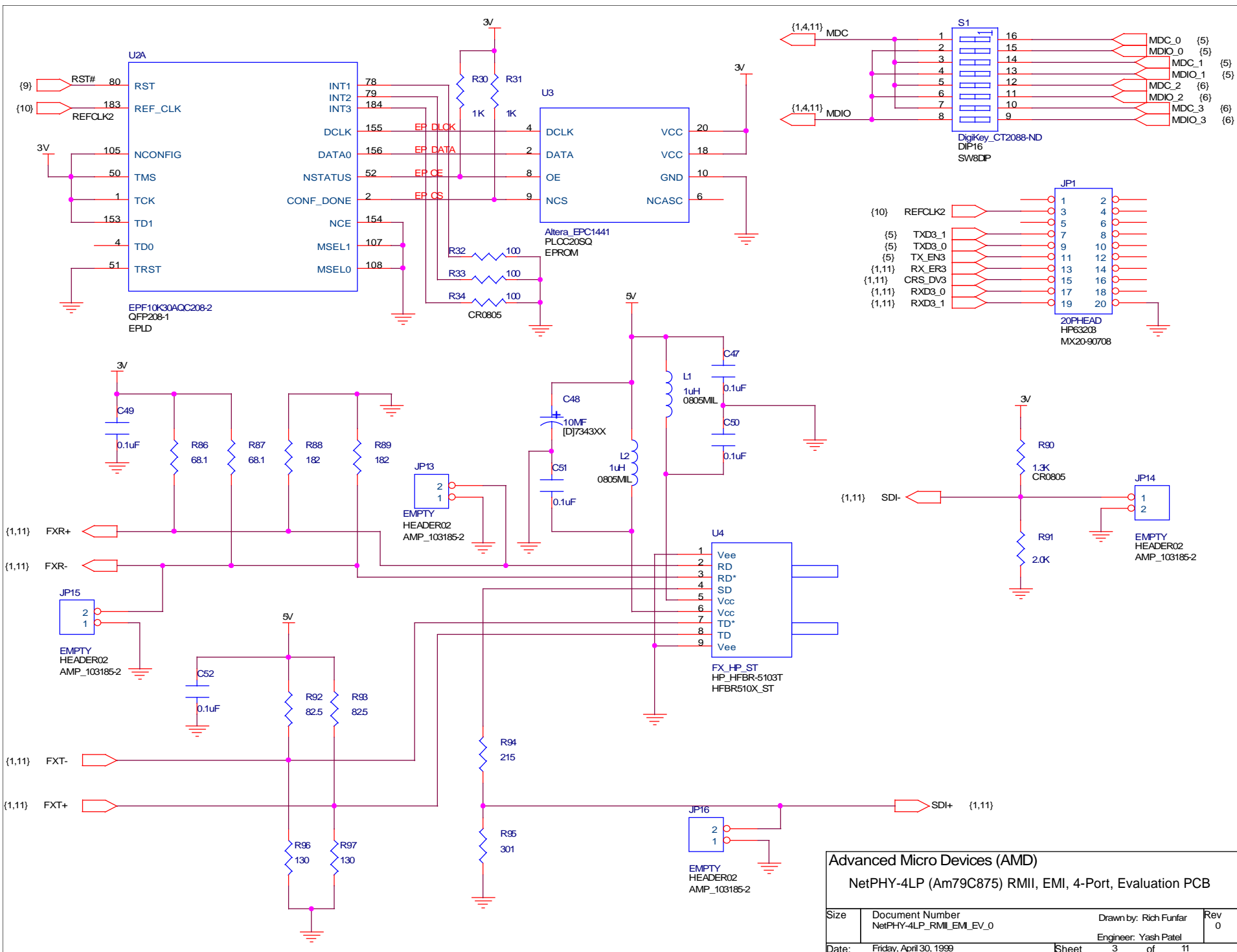
Advanced Micro Devices (AMD)

NetPHY-4L P (Am79C875) RMI, EMI, 4-Port, Evaluation PCB

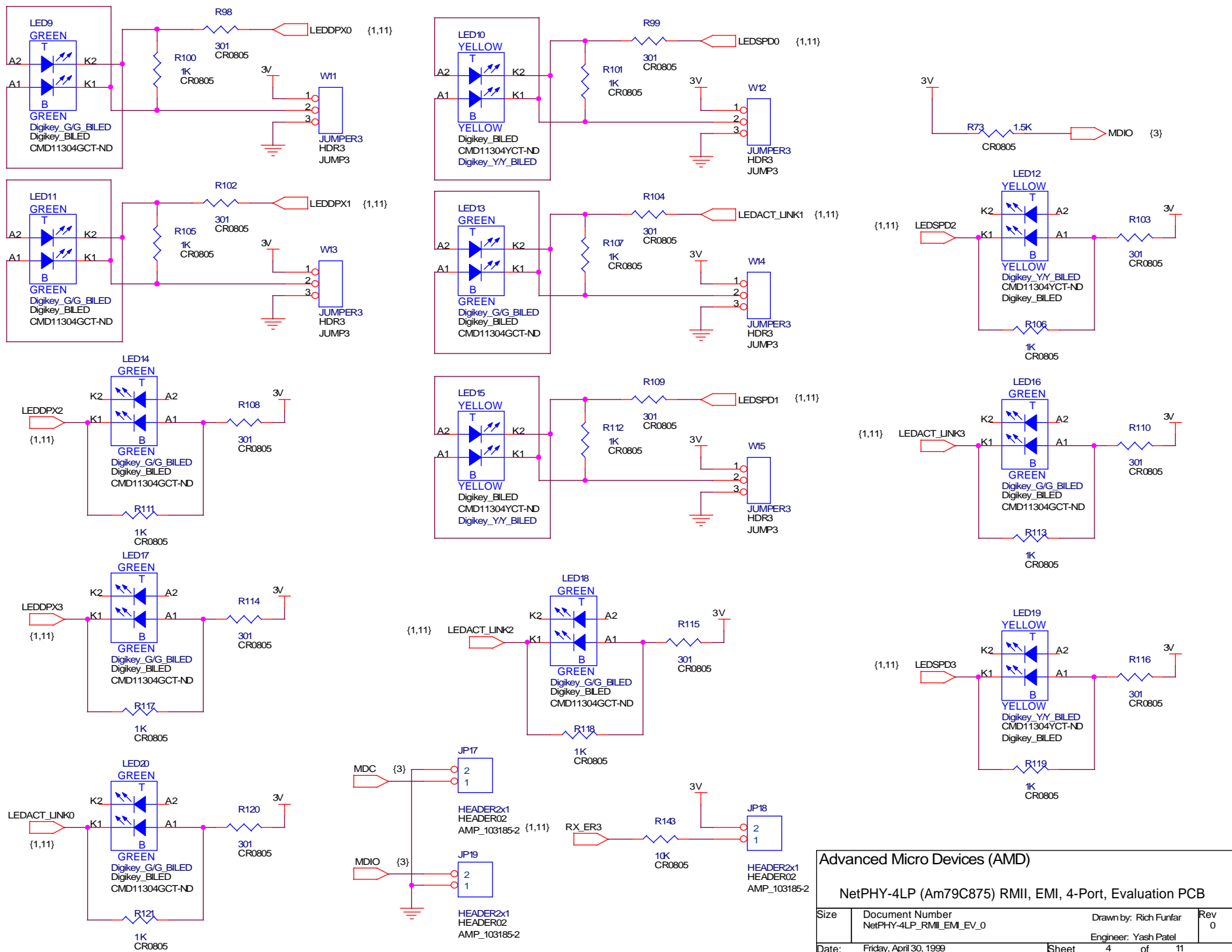
Size	Document Number NetPHY-4LP_RMI_EMI_LEV_0	Drawn by: Rich Furlar	Rev 0
Date:	Wednesday, June 23, 1999	Engineer: Yash Patel	
Date:		Sheet	1 of 11



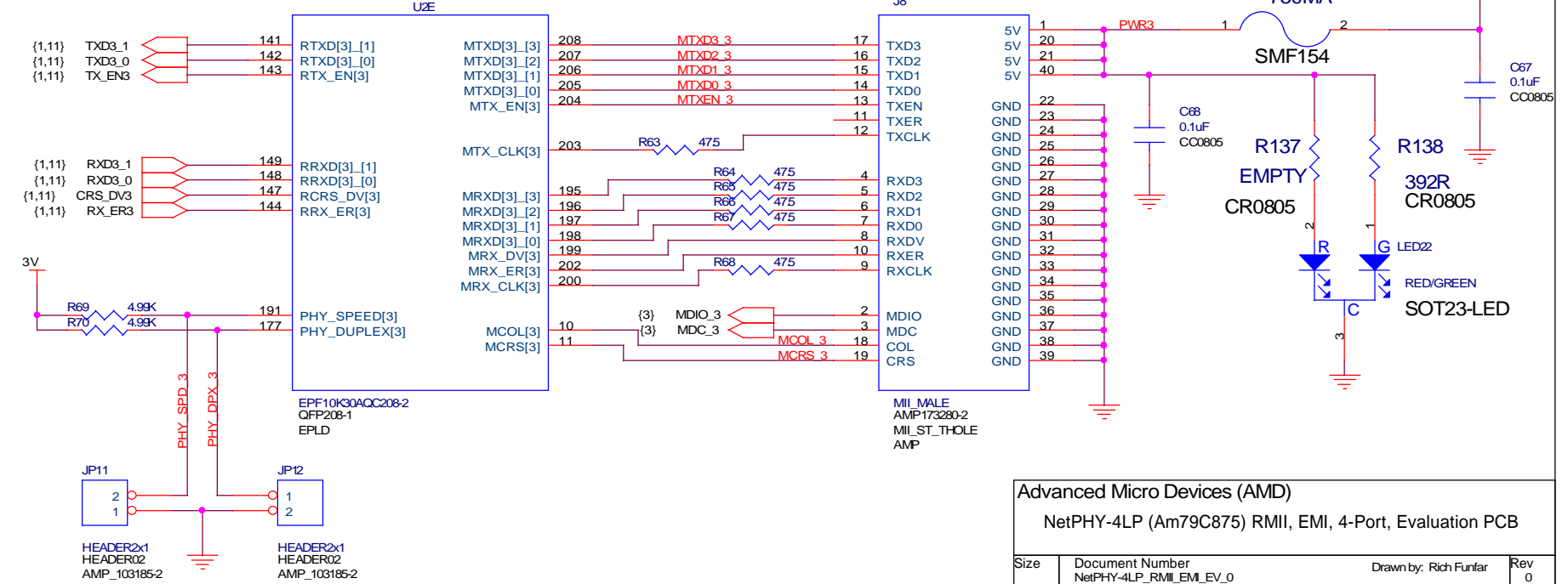
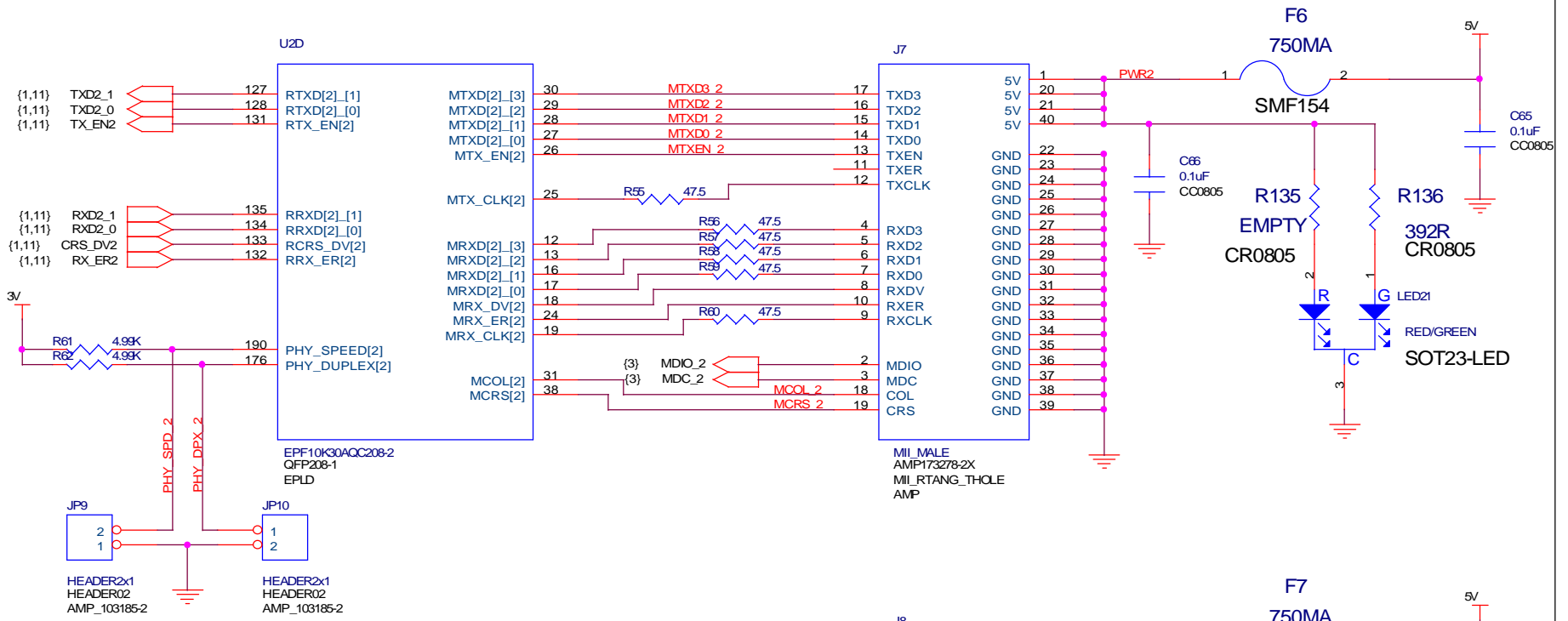
Advanced Micro Devices (AMD)			
NetPHY-4LP (Am79C875) RMII, EMI, 4-Port, Evaluation PCB			
Size	Document Number	Drawn by: Rich Furfar	Rev
	NetPHY-4LP_RMII_EMI_EV_0	Engineer: Yash Patel	0
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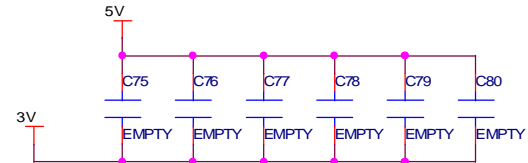
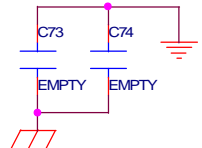
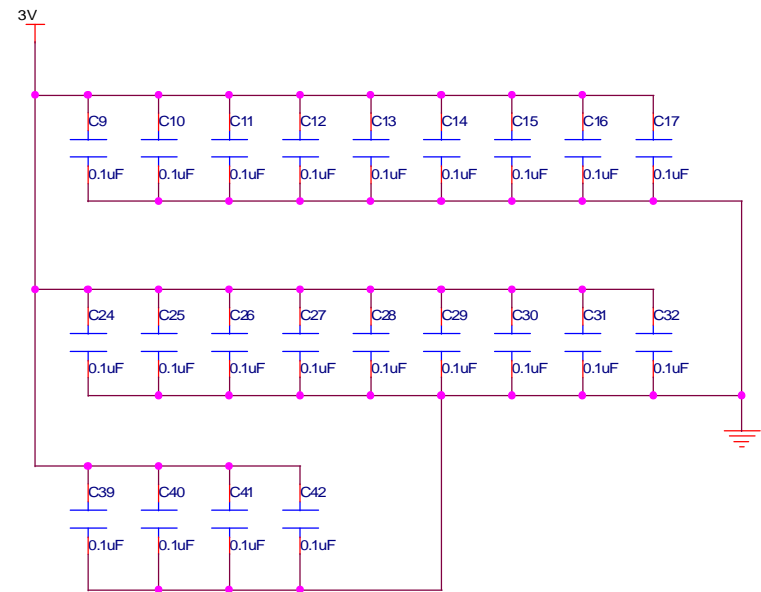
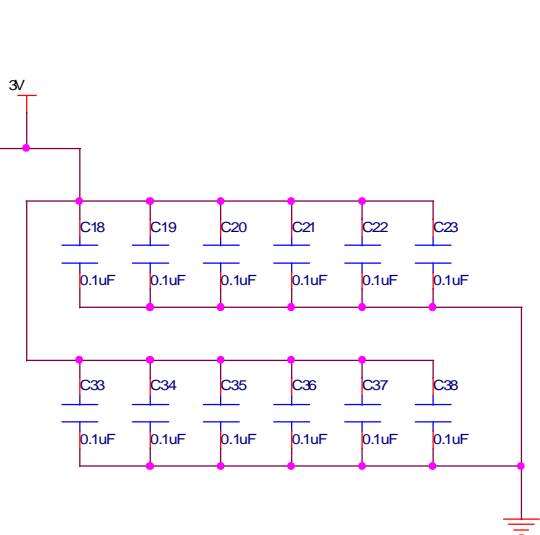
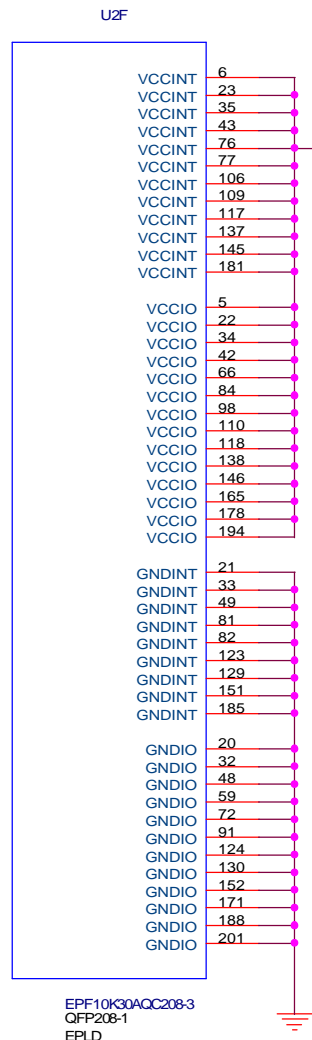
Advanced Micro Devices (AMD)			
NetPHY-4LP (Am79C875) RMII, EMI, 4-Port, Evaluation PCB			
Size	Document Number	Drawn by: Rich Furfar	Rev 0
	NetPHY-4LP_RMII_EMI_EV_0	Engineer: Yash Patel	
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NetPHY-4LP (Am79C875) RMII, EMI, 4-Port, Evaluation PCB			
Size	Document Number	Drawn by: Rich Furlfar	Rev 0
	NetPHY-4LP_RMII_EMI_EV_0	Engineer: Yash Patel	
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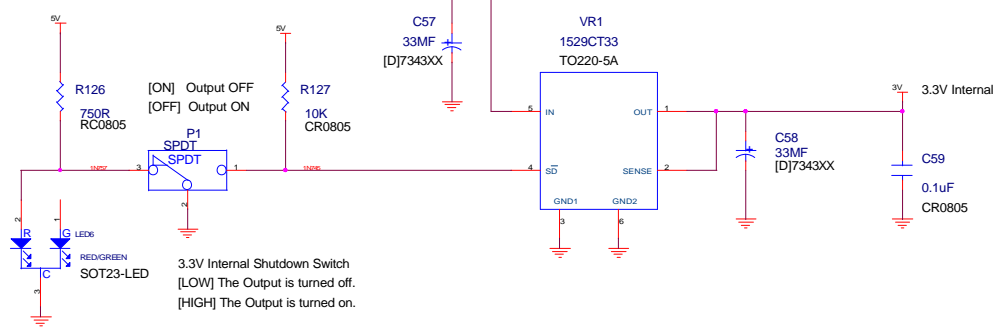
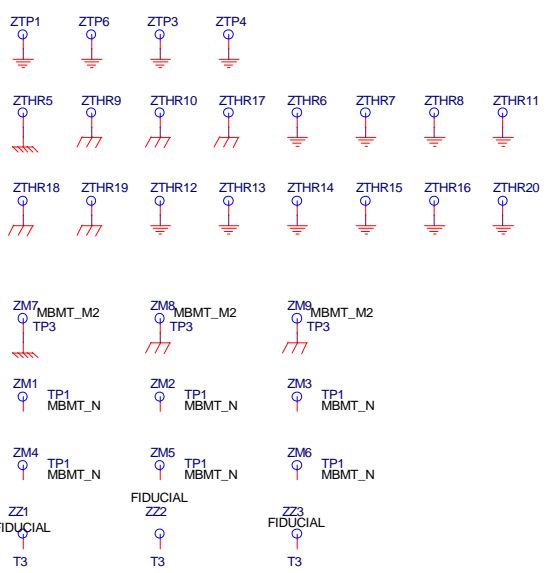
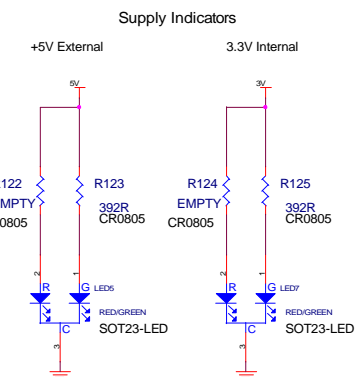
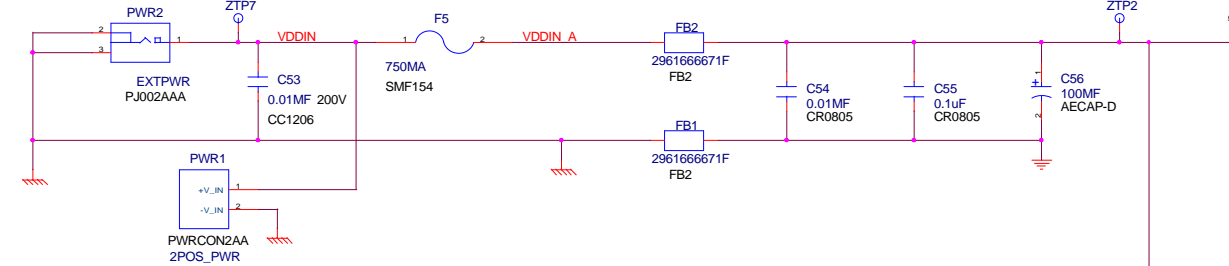


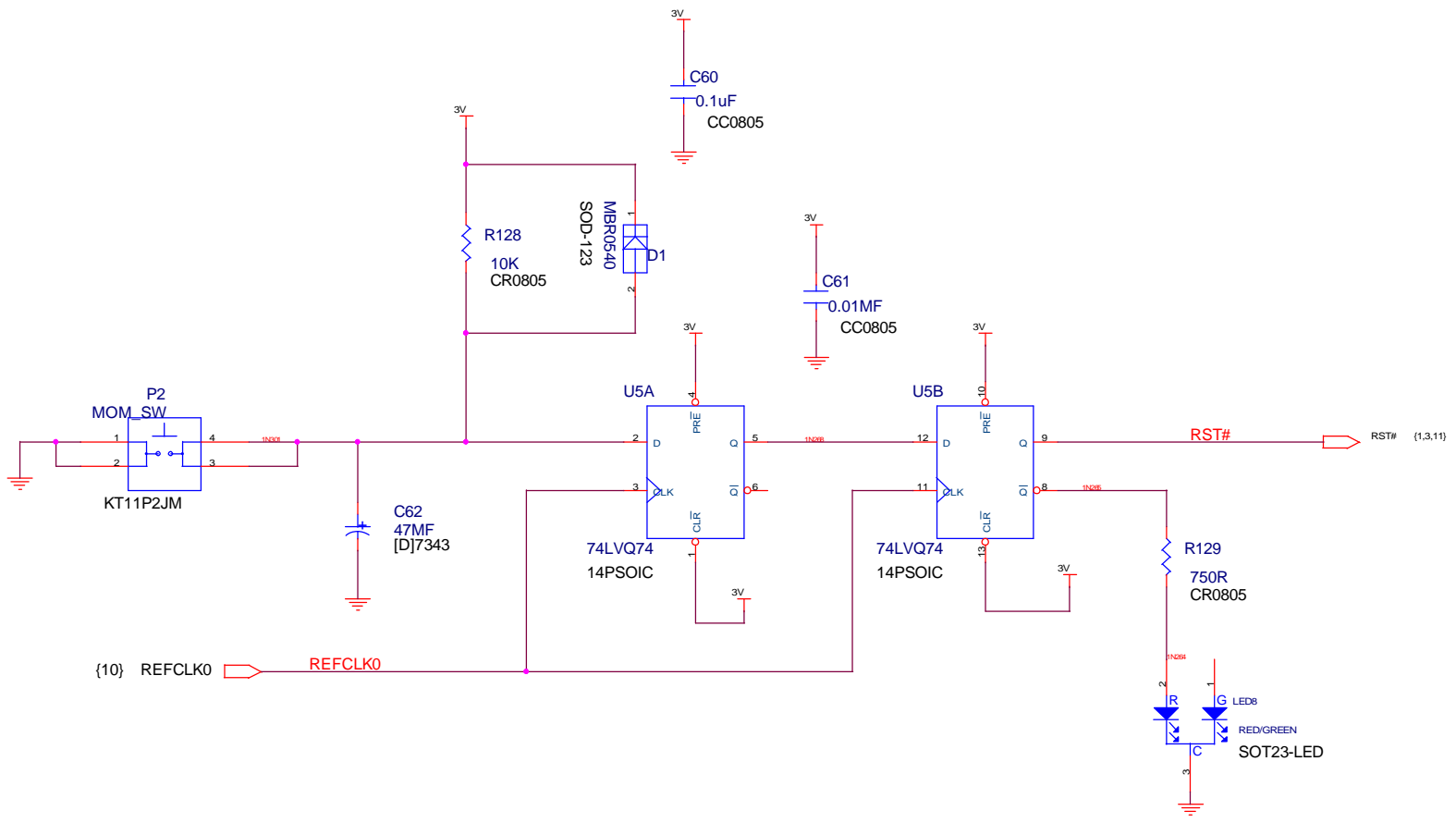
Advanced Micro Devices (AMD)			
NetPHY-4LP (Am79C875) RMII, EMI, 4-Port, Evaluation PCB			
Size	Document Number NetPHY-4LP_RMII_EMI_EV_0	Drawn by: Rich Furlar	Rev 0
Date:	Monday, May 03, 1999	Engineer: Yash Patel	
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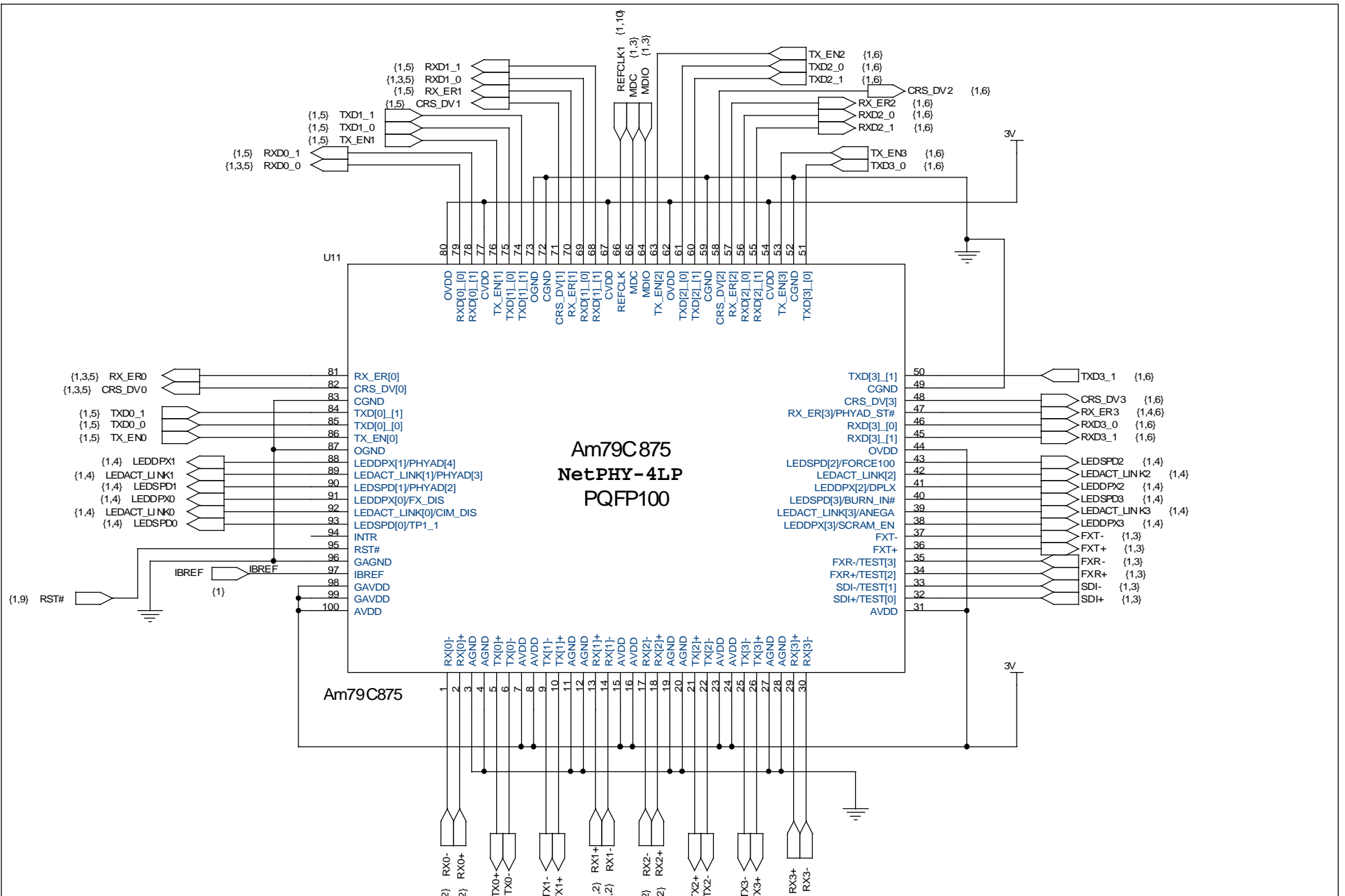
Advanced Micro Devices (AMD)			
NetPHY-4LP (Am79C875) RMII, EMI, 4-Port, Evaluation PCB			
Size	Document Number NetPHY-4LP_RMII_EMI_EV_0	Drawn by: Rich Furfar	Rev 0
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From +5Volt Regulated External Power Supply





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NetPHY-4LP (Am79C875) RMII, EMI, 4-Port, Evaluation PCB			
Size	Document Number	Drawn by: Rich Furlar	Rev 0
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Low-Power, Quad 10/100 -Tx/Fx Ethernet Transceiver

Advanced Micro Devices (AMD)

NetPHY-4LP (Am79C875) RMI, EMI, 4-Port, Evaluation PCB

Size	Document Number NetPHY-4LP_RMI_EMI_LEV_0	Drawn by: Rich Furlar	Rev 0
Date: Wednesday, June 23, 1999	Sheet	11 of 11	Engineer: Yash Patel

Date of origin: 3/27/99
 Last update: 5/3/99 (6/29/99)
 By:Rich Funfar (Yash Patel)

Bill of Materials for NetPHY-4LP, RMII, EMI, 4-Port Evaluation PCB, Rev. 0
 (NetPHY-4LP_RMII_EMI_EV_0)

Date Printed: 6/29/99 6:00 PM
Transmit Turn Ratio: 1:1

Line #	Qty	Device Description	Value	Package	Part Number	Manufacturer	Socket	Ref
1	56	0.1uF Ceramic Capacitor 50 Volt 10% 0805 XR7	0.1uF	CC0805	C0805C104K5RAC	Kemet	NO	C1, C2, C3, C4, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C47, C49, C50, C51, C52, C55, C59, C60, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72
2	8	0.1uF Ceramic Capacitor 50 Volt 10% 0805 XR7	EMPTY	CC0805	C0805C104K5RAC	Kemet	NO	C73, C74, C75, C76, C77, C78, C79, C80
3	4	1000pF Surface Mount Capacitor 2KV DC 1810 10% X7R	.001uF	CC1808	MC1810X102KN202	Arco Electronics	NO	C43, C44, C45, C46
4	1	10MF Tantalum Chip Capacitor 16 Volt	10MF	[D]7343XX	293D106X9016D2T	Sprague	NO	C48
5	1	0.01MF X7R Ceramic Capacitor 200Volt	0.01MF	CC1206	C1206C103K2RAC	Kemet	NO	C53
6	2	0.01MF Ceramic Capacitor 50Volt 0805 XR7 10%	0.01MF	CC0805	C0805C103K2RAC	Kemet	NO	C54, C61
7	1	100MF Electrolytic Capacitor 16 Volt	100MF	AECAP-D	518D107M016AX7S	Sprague	NO	C56
8	2	33MF Tantalum Chip Capacitor 16 Volt	33MF	[D]7343XX	293D336X9016D2T	Sprague	NO	C57, C58
9	1	47MF Tantalum Chip Capacitor 16 Volt 20% [D]7343	47MF	[D]7343	T491D476M016AS	Kemet	NO	C62
10	1	Schottky Rectifier	MBR0540	SOD-123	MBR0540T1	Motorola	NO	D1
11	2	Wound Bead	2961666671F	FB2	29-61-666671F	Fair-Rite	NO	FB1, FB2
12	1	Ferrite Bead inductor	SM_BEAD	RC1206	ILB-120650<25%	DALE	NO	FB3
13	5	SMF Omni-Blok Fuse Block with 1A Fuse	1A	SMF154	154.001	LittleFuse	YES	F5, F6, F7, F8, F9
14	1	Straight .1" x.1" 20 pin Low Profile Header	20PHEAD	MX20-90708	2520-6002UG	3M	NO	JP1
15	11	2 Position Single Row Breakaway Header Assembly	HEADER2x1	HEADER02	103185-2	AMP	NO	JP5, JP6, JP7, JP8, JP9, JP10, JP11, JP12, JP17, JP18, JP19

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 Last update: 5/3/99 (6/29/99)
 By:Rich Funfar (Yash Patel)

Bill of Materials for NetPHY-4LP, RMII, EMI, 4-Port Evaluation PCB, Rev. 0
 (NetPHY-4LP_RMII_EMI_EV_0)

Date Printed: 6/29/99 6:00 PM
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Line #	Qty	Device Description	Value	Package	Part Number	Manufacturer	Socket	Ref
16	4	2 Position Single Row Breakaway Header Assembly	EMPTY	HEADER02	103185-2	AMP	NO	JP13, JP14, JP15, JP16
17	14	2 Position Jumper Shunts	SHUNT	SHUNT2.54	MJ-2M	Houston & Smith	NO	JP5, JP6, JP7, JP8, JP9, JP10, JP11, JP12, JP18, W11, W12, W13, W14, W15
18	1	4-Port 2X2 8 Position Stacked Modular Jack full shield with Panel ground	RJ-45_2x2	RJ-45_2x2	AMP569260-1	AMP	NO	J1
19	4	40-PIN (2x20), Straight, MII, Male, Shrouded Header	MII_ST_THOLE	MII_MALE	AMP173280-2	AMP	NO	J5, J8
20	4	40-PIN (2x20), Right Angle, MII, Male, Shrouded Header	MII_RTANG_THOLE	MII_MALE	AMP173278-2	AMP	NO	J6, J7
21	8	Red/Green BI-Color Surface Mount LED	RED/GREEN	SOT23-LED	SSL-LX15IGC-TR	Lumex	NO	LED5, LED6, LED7, LED8, LED21, LED22, LED23, LED24
22	8	Green/Green Surface Mount LEDs	Digikey_G/G_BILED	Digikey_BILED	CMD11304GCT-ND	Digikey	NO	LED9, LED11, LED13, LED14, LED16, LED17, LED18, LED20
23	4	Yellow/Yellow Surface Mount LEDs	Digikey_Y/Y_BILED	Digikey_BILED	CMD11304YCT-ND	Digikey	NO	LED10, LED12, LED15, LED19
24	2	1uH L +/- (10%) Chip Inductor 0805	1uH	0805MIL	BML0805-1R0K	BI Technologies	NO	L1, L2
25	1	Euro Terminal Block 2 PIN	2POS_PWR	PWRCON2AA	5LEV-02	Augot	NO	PWR1
26	1	Power Supply Jack 2mm center post pin	EXTPWR	PJ002AAA	PJ-002	Cui/Stack Inc.	NO	PWR2
27	1	Surface Mount Toggle Switch SPDT 2 Position	SPDT	GT11MSC	GT11MSCKE	C&K	NO	P1
28	1	SMT MOM.Switch with P2 Actuator	MOM_SW	KT11P2JM	KT11P2JM	C&K	NO	P2
29	8	49.9 Ohm Chip Resistor 1% 125mW 0805	49.9	CR0805	CRCW0805-49R9FB02	DALE	NO	R4, R5, R6, R7, R22, R23, R24, R25
30	10	49.9 Ohm Chip Resistor 1% 125mW 0805	49.9	CR0805	CRCW0805-49R9FB02	DALE	NO	R9, R10, R14, R15, R16, R17, R18, R20, R131, R132
31	3	100 Ohm Chip Resistor 1% 125mW 0805	100	CR0805	RK73H2A1000F	KOA	NO	R32, R33, R34

Date of origin: 3/27/99
 Last update: 5/3/99 (6/29/99)
 By: Rich Funfar (Yash Patel)

Bill of Materials for NetPHY-4LP, RMII, EMI, 4-Port Evaluation PCB, Rev. 0
 (NetPHY-4LP_RMII_EMI_EV_0)

Date Printed: 6/29/99 6:00 PM
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Line #	Qty	Device Description	Value	Package	Part Number	Manufacturer	Socket	Ref
32	24	47.5 Ohm Chip Resistor 1% 125mW 0805	47.5	CR0805	RK73H2A47R5F	KOA	NO	R39, R40, R41, R42, R43, R44, R47, R48, R49, R50, R51, R52, R55, R56, R57, R58, R59, R60, R63, R64, R65, R66, R67, R68
33	8	4.99K Ohm Chip Resistor 1% 125mW 0805	4.99K	CR0805	RK73H2A4991F	KOA	NO	R45, R46, R53, R54, R61, R62, R69, R70
34	1	1.5K Ohm Chip Resistor 1% 125mW 0805	1.5K	CR0805	RK73H2A1501F	KOA	NO	R73
35	12	75 Ohm Chip Resistor 1% 125mW 0805	75	CR0805	RK73H2A75R0F	KOA	NO	R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85
36	2	68.1 Ohm Chip Resistor 1% 125mW 0805	68.1	CR0805	CRCW0805-68R1FB02	DALE	NO	R86, R87
37	2	182 Ohm Chip Resistor 1% 125mW 0805	182	CR0805	CRCW0805-1820FB02	DALE	NO	R88, R89
38	1	1.3K Ohm Chip Resistor 1% 125mW 0805	1.3K	CR0805	CRCW0805-1301FB02	DALE	NO	R90
39	1	2K Ohm Chip Resistor 1% 125mW 0805	2.0K	CR0805	RK73H2A2002F	KOA	NO	R91
40	2	82.5 Ohm Chip Resistor 1% 125mW 0805	82.5	CR0805	CRCW0805-82R5FB02	DALE	NO	R92, R93
41	1	215 Ohm Chip Resistor 1% 125mW 0805	215	CR0805	CRCW0805-2150FB02	DALE	NO	R94
42	2	130 Ohm Chip Resistor 1% 125mW 0805	130	CR0805	RK73H2A1300F	KOA	NO	R96, R97
43	13	301 Ohm Chip Resistor 1% 125mW 0805	301	CR0805	CRCW0805-3010FB02	DALE	NO	R95, R98, R99, R102, R103, R104, R108, R109, R110, R114, R115, R116, R120
44	14	1K Ohm Chip Resistor 1% 125mW 0805	1K	CR0805	RK73H2A1001F	KOA	NO	R30, R31, R100, R101, R105, R106, R107, R111, R112, R113, R117, R118, R119, R121

Date of origin: 3/27/99
 Last update: 5/3/99 (6/29/99)
 By:Rich Funfar (Yash Patel)

Bill of Materials for NetPHY-4LP, RMII, EMI, 4-Port Evaluation PCB, Rev. 0
 (NetPHY-4LP_RMII_EMI_EV_0)

Date Printed: 6/29/99 6:00 PM
Transmit Turn Ratio: 1:1

Line #	Qty	Device Description	Value	Package	Part Number	Manufacturer	Socket	Ref
45	7	Empty do not stuff	EMPTY	CR0805	N/A	N/A	NO	R122, R124, R133, R135, R137, R139, R141
46	6	392 Ohm Chip Resistor 1% 125mW 0805	392R	CR0805	RK73H2A3920F	KOA	NO	R123, R125, R136, R138, R140, R142
47	2	750 Ohm Chip Resistor 1% 125mW 0805	750R	CR0805	RK73H2A7500F	KOA	NO	R126, R129
48	4	10K Ohm Chip Resistor 1% 125mW 0805	10K	CR0805	RK73H2A1002F	KOA	NO	R1, R128, R127, R143
49	1	56.2 Ohm Chip Resistor 1% 125mW 0805	56R2	CR0805	CRCW0805-56R2FB02	DALE	NO	R134
50	1	Straight SMA PC mount Jack Receptacle	XSMA	SMA_STR	142-0701-201	E-F-Johnson	NO	SMA1
51	1	8 Position DIP switch top actuated	DigiKey_CT2088-ND	DIP16	CT2088-ND	Digikey	NO	S1
52	1	10/100 Base TX Quad Port 1:1 Transformer Module	H1062	PULSEQUAD	H1062	Pulse Engineering	NO	T1
53	1	3.3V Low Power,Quad 10/100-TX/FX Ethernet Transceiver	Am79C875	IC201-1004-028	IC201-1004-028	Yamaichi	YES	U1
54	1	3.3V Low Power,Quad 10/100-TX/FX Ethernet Transceiver	NetPHY-4LP	PQFP100	Am79C875	AMD	NO	U11
55	1	Flex 10K Embedded Programmable Logic Device speed 10ns	EPF10K30AQC208-2	QFP208-1	EPF10K30AQC208-2	Altera	NO	U2
56	1	EPROM 440,800 X 1 bit device with 5.0V or 3.3V operation	Altera_EPC1441	PLCC20SQ	EPC1441LC20	Altera	Yes	U3
57	1	EPROM 440,800 X 1 bit device with 5.0V or 3.3V operation	Socket	PLCC20			Yes	U3
58	1	Optical 9-Pin Transceiver with duplex ST receptacle.	FX_HP_ST	HFBR510X_ST	HFBR-5103T	Hewlett Packard	NO	U4
59	1	Dual D-Type Positive Edge_Triggered Flip-Flop, 3.3V Power	74LVQ74	14PSOIC	74LVQ74SC	National Semiconductor	NO	U5
60	1	+3.3V Low Dropout Micropower Voltage Regulator 3A	1529CT33	TO220-5A	LT1529CT-3.3	Linear Technology	YES	VR1
61	1	TO-220 Mounting Kit	TO-220 Mounting Kit	N/A	4880	Thermalloy	YES	VR1
62	1	Heat Sink for To-220	Heat Sink for To-220	N/A	6078B	Thermalloy	YES	VR1
63	5	3 Position Single Row Breakaway Header Assembly	HEADER3x1	HEADER03	103185-3	AMP	NO	W11, W12, W13, W14, W15
64	1	50 MHz Half Size Clock Crystal Oscillator 3.3Volt	50 MHz	OSC_3V	SE2854CT	Digikey	NO	Y1
65	6	Nylon Slotted Round Head Machine Screw Thread 6-32 Length 3/8"	TP1	MBMT_N	112508-N-1	ASMCO	YES	ZM1, ZM2, ZM3, ZM4, ZM5, ZM6
66	3	Metal Slotted Round Head Machine Screw Thread 6-32 Length 3/8"	TP3	MBMT_M2	112508-SS-1	ASMCO	NO	ZM7, ZM8, ZM9

Date of origin: 3/27/99
Last update: 5/3/99 (6/29/99)
By:Rich Funfar (Yash Patel)

Bill of Materials for NetPHY-4LP, RMII, EMI, 4-Port Evaluation PCB, Rev. 0
(NetPHY-4LP_RMII_EMI_EV_0)

Date Printed: 6/29/99 6:00 PM
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Line #	Qty	Device Description	Value	Package	Part Number	Manufacturer	Socket	Ref
67	6	P.C. Pin	TP1	TP1	10-8025-2-03	Concord	NO	ZTP1, ZTP2, ZTP3, ZTP4, ZTP6, ZTP7

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Last update: 5/3/99 (6/29/99)
By: Rich Funfar (Yash Patel)

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(NetPHY-4LP_RMII_EMI_EV_0)

Date Printed: 6/29/99 6:00 PM
Transmit Turn Ratio: 1:1

Cell: C30

Comment: ypatel:

Resistor value for line item 29 should be 49.9 ohms if line item 51 uses 1:1 transmit ratio transformer (H1062)

Cell: C53

Comment: ypatel:

This BOM reflects selection of 1:1 transmit ratio for the transformer. Please Make sure that Line item 29 uses 49.9 ohm resistors