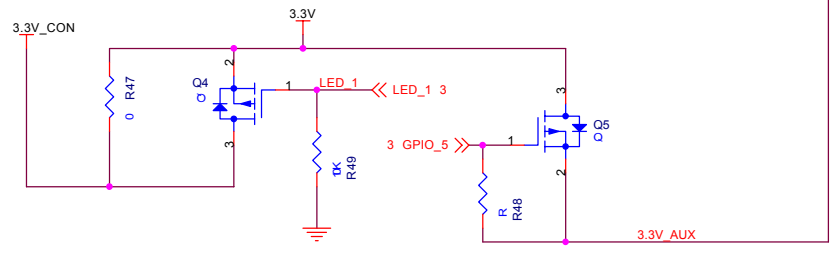
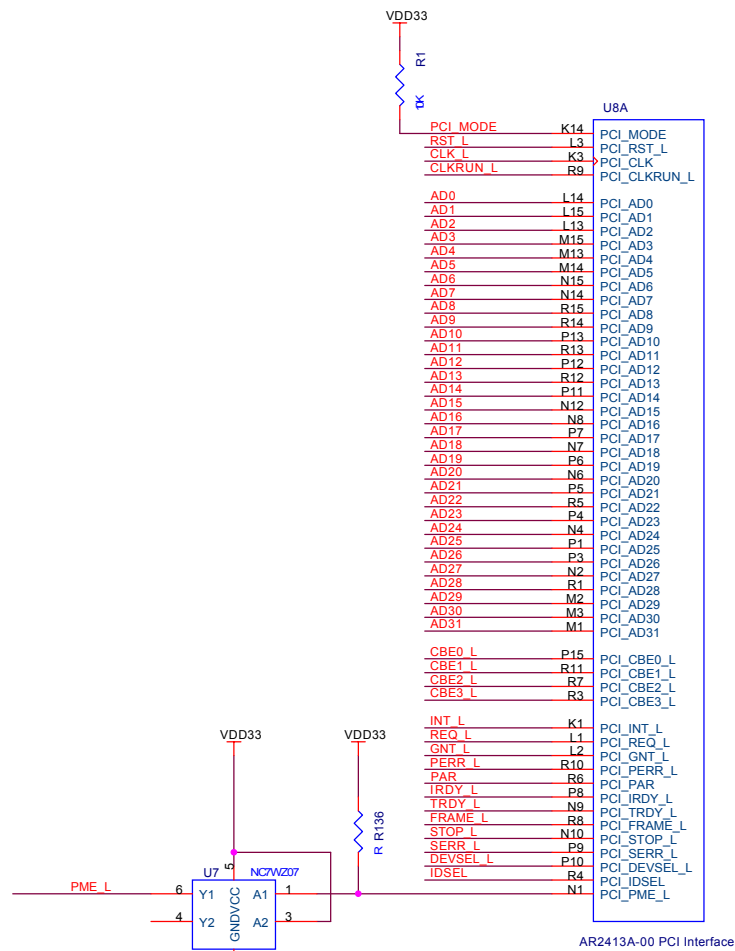
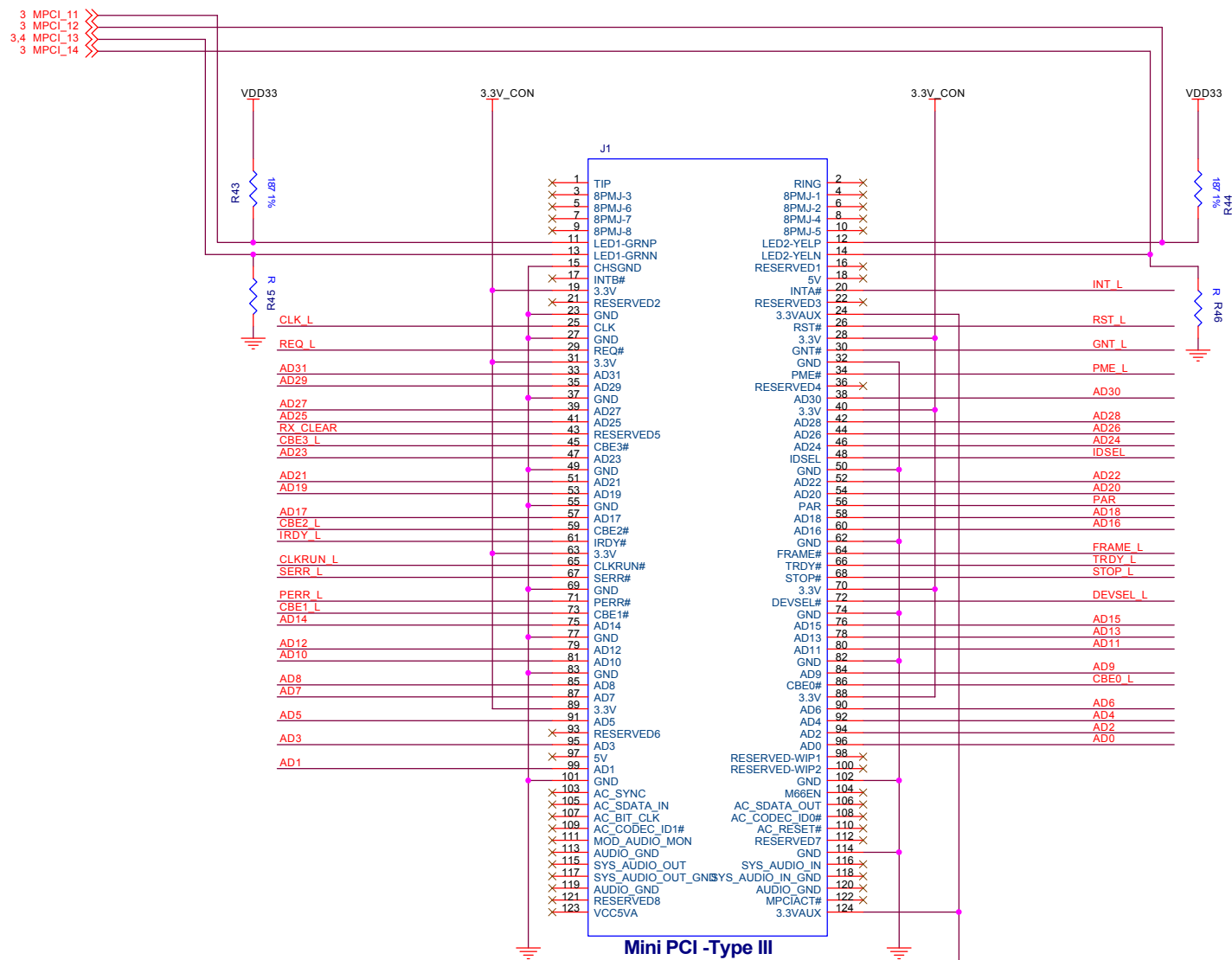


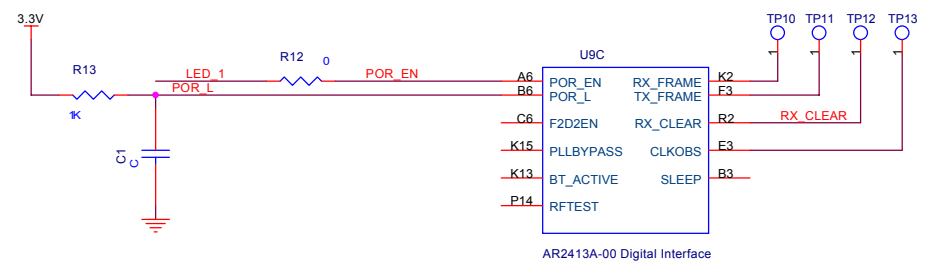
MB51 - AR5005G Based 802.11b/g Type IIIb Mini PCI

ATHEROS

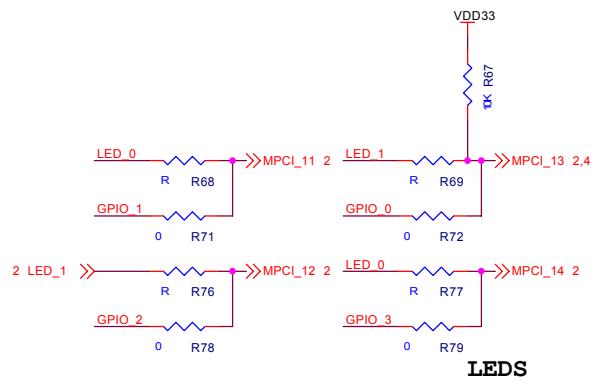
DATE	REVISION NUMBER	INITIALS	DESCRIPTION
2/23/04	245-01268-020, Rev 000	JW	1) Change C22 to R131. Change C24 to R134. Change C29 to R133. Change C42 to L13. Change L10 to C147. Delete C25, C29. Add C148, 1uF, 0603 to input of VR3. Add RF Kill Circuit -- R135,0402, Q7, 2N3906.
1/8/04	245-01268-010, Rev 000	CL	1) RF Kill: Change R135, C39 from 0.1uF to 0.01uF. Change R54 from 62 to 82.5. Change R53 from 2.2k to 1.1k. Change R52 from 1.1k to 750. 2) XLNA bias: Change C36, C39 from 0.1uF to 0.01uF. Change R54 from 62 to 82.5. Change R53 from 2.2k to 1.1k. Change R52 from 1.1k to 750. 3) XLNA input match: Change C46 from 10pF to 5.6pF. Change C47 from 1pF to 1.5pF. 4) XTAL: Change C9 from 24pF to 22pF. Change C10 from 10pF to 15pF.
3/17/04	245-01268-030, Rev 000	CL	1) RF_IN Match: Change L13 from 1.6nH to C149 2.2pF. Change C147 from 3.3pF to DNI. Change C78 from 10pF to R137 0 ohm. 2) XPA Bias: Change R111 from 10 to 0. Change R31 from 22 to 0. Change R129 from 0 to 100. Change R130 from 0 to 150. 3) XPA Supply: Change C77 from 10pF to 5.6pF. Change C76 from 10pF to 5.6pF. 4) 1.8V Regulator: Change Q2 from DNI to MMBT2907A. Change C140 from 4.7uF to DNI. Change VR3 from AME8805MEFT to DNI. 5) RFOUT_BIAS: Change L6 supply from 3.3V_A to 1.8V_A. Change L7 supply from 3.3V_A to 1.8V_A. 6) PME_L: Add R136 10K (0402) pullup. 7) XLNA Bias: Change C39 from 0.01uF to DNI. 8) XPA: Change U6 from LX5512B to GP1214.
3/30/04	245-01268-031	CL	1) XLNA: Change C41 from 10pF 1% to 10pF 5%. 2) RF_IN Match: Change C4 from 10pF to 1pF. 3) Bypassing: Change C59 from 10pF to 2.2pF. 4) External Detector: Change R81 and R84 from 1.1K to 5.1K. 5) XPA Bias: Change R129 from 10 to 100 (again).
4/1/04	245-01268-032	CL	1) Mode Pins: Change R1, R3 from 10K 1% to 10K 5%. 2) RF Kill: Change R67 from DNI to 10K. 3) PME: Change R136 from 100K to DNI (10K).
4/6/04	245-01268-040	JW	Changed C6, C14 to 0402. Disconnect J1,p16. Delete R2 and sleep net. Swap U6 P8,P9. Remove R50. Remove Q6. Change R48 to R between 3.3V_AUX and GPIO_3. Change R49 to R between LED_1 and GND.
4/27/04	245-01268-050	JW	Changed R47 to 0805 package. Changed R131 to 22 ohms. Changed R133,R134 to 220 ohms. Changed R22 pin 2 from GND to 1.8V_A. Changed C8 to 10pF. Changed C27, C28,C38,C43,C44,C74 to 3.0pF.
4/27/04	245-01268-051	CL	Change R133, R134 from 220 5% to 221 1%. Changed C27, C28,C38,C43,C44,C74 to 3.3pF.
5/6/04	245-01268-052	CL	POR: Change R12,R13 from DNI to 10k. Change C1 from DNI to 0.1uF
5/28/04	245-01268-060	JW	Changed R12 to 0 ohm. Changed C1 to DNI. R12 is now connected to LED_1 instead of 3.3V.
6/4/04	245-01268-070	JW	Move C140 to 1.8V_A. Change R48 and R49 to DNI. Remove VR3,C57. Move C148 from 3.3V to 1.8V. Change Q2 to SOT89 CXT2907A. Changed Q5p1 to GPIO_5 and connected to U1pE2. Added R4, 0 OHM, to U1 pE1 and U3 p7. Added pullup R2, 10K OHM to U3 p7. Added R5 DNI between GND and U3 p7. Change R16 to 0603. Changed R13 to 1K. Disconnected U1pD3.
6/9/04	245-01268-080	VN	Fixed pin out of Q2.
6/11/04	245-01268-081	CL	Excel BOM hand-edited. EPICOM PA added as Alternate Vendor. PCB part number up-rev'd as well as header and footer information.
7/6/04	245-01268-082	CL	Changed R130 from 150 to 200.
7/12/04	245-01268-083	CL	Add OEpic as alternate XPA following regulatory certification and ATMEL as alternate EEPROM.



WAKE ON LAN

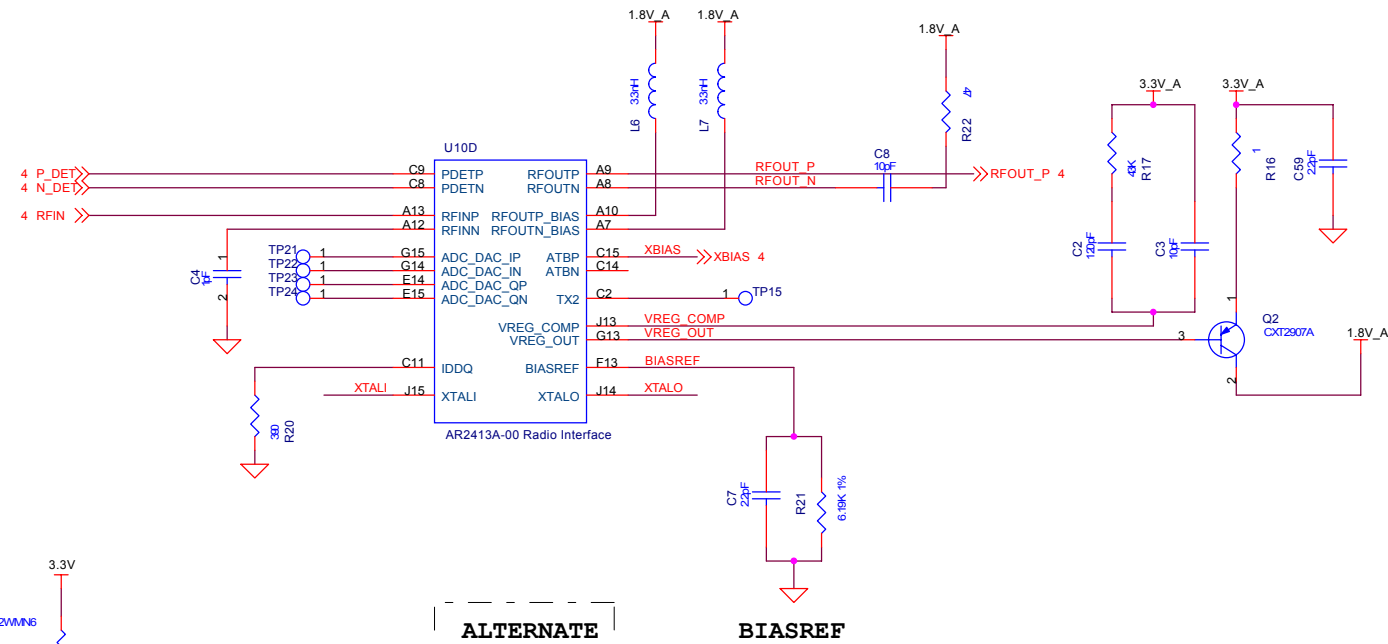


P1

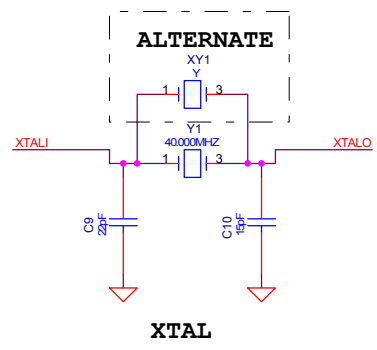


LEDS

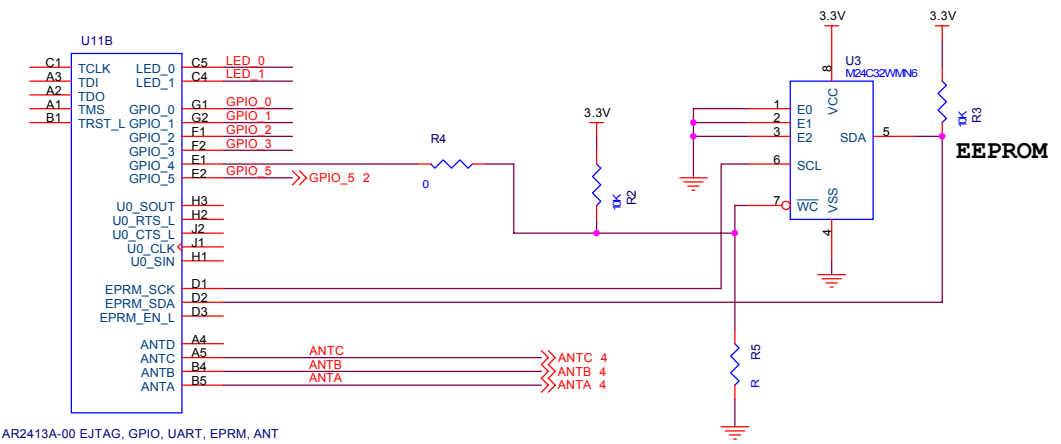
IMPORTANT NOTE: NEVER INSTALL R69 AND R76.



BIASREF



XTAL



EEPROM

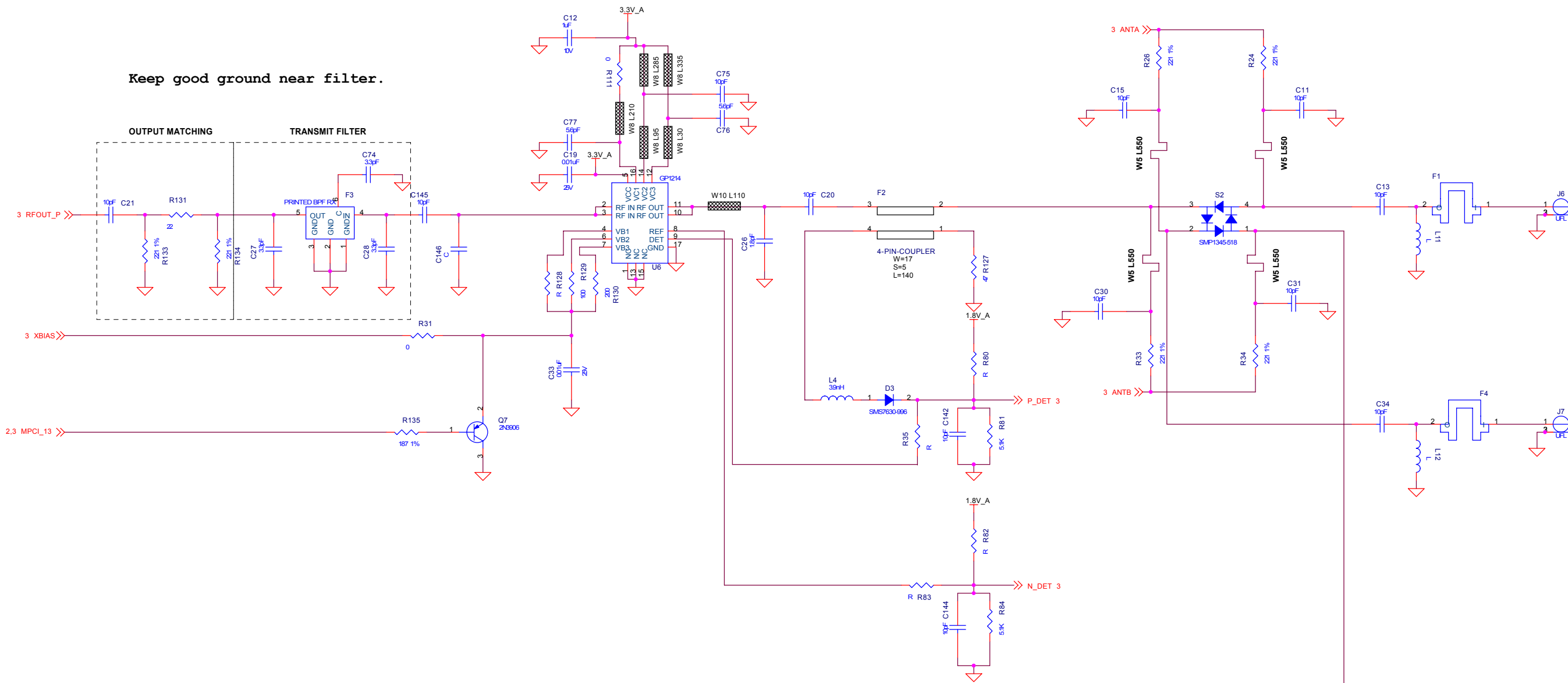
AR2413A-00 EJTAG, GPIO, UART, EPRM, ANT

RFDATAIN_3 = U0_CTS_L
 RFDATAIN_2 = U0_CLK
 RFDATAIN_1 = U0_SIN
 RFDATAIN_0 = EPRM_SCK
 RFDATAOUT = EPRM_SDA
 RFSHIFT = ANTD
 RFLD = ANTB
 RFRST_L = ANTA

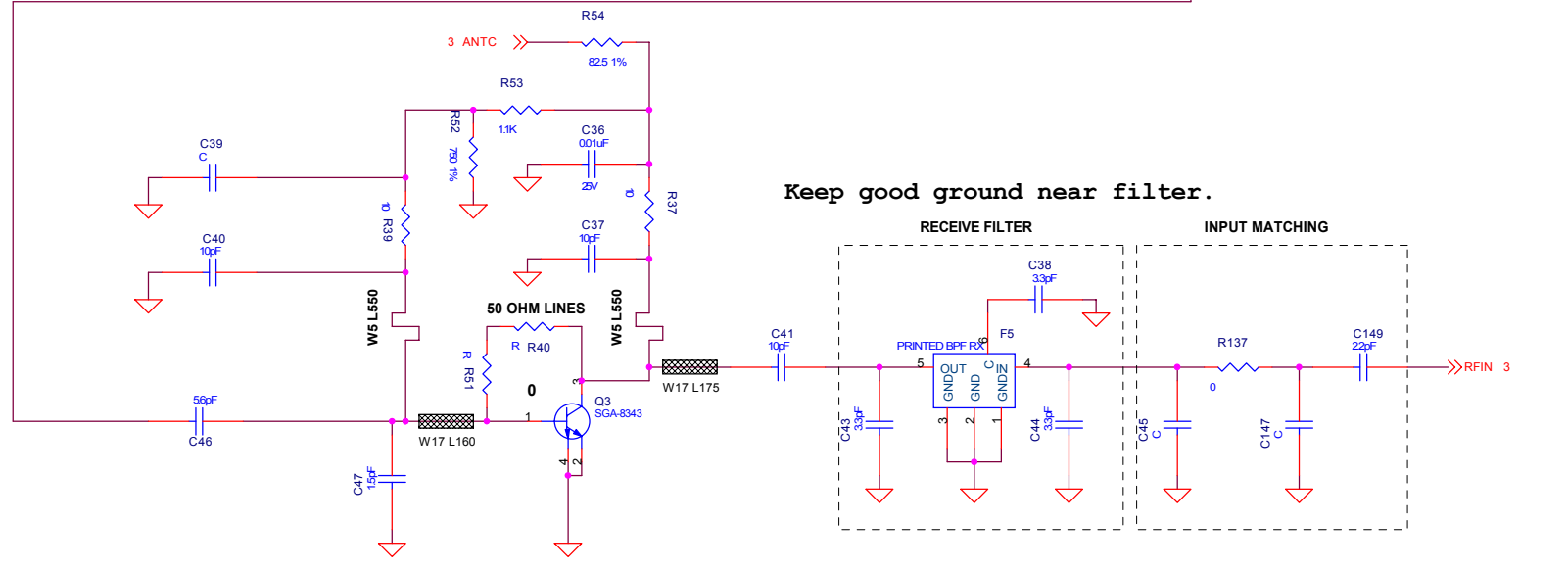
A

P2

Keep good ground near filter.

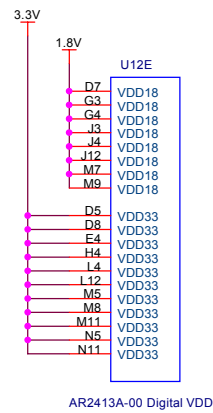
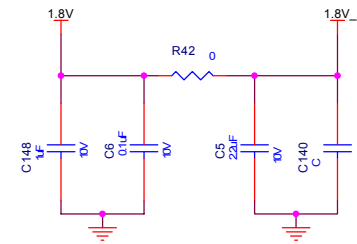
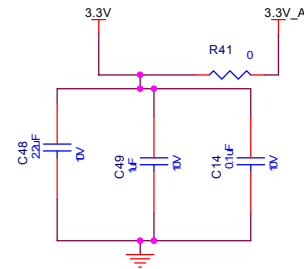
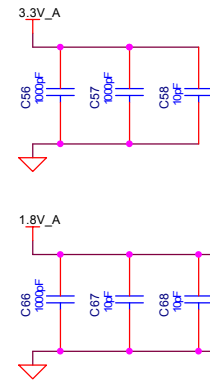
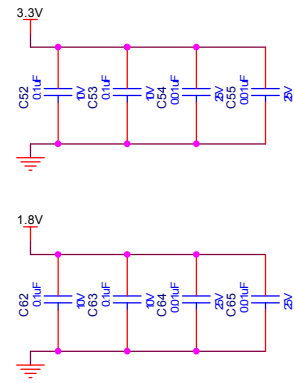


Keep good ground near filter.

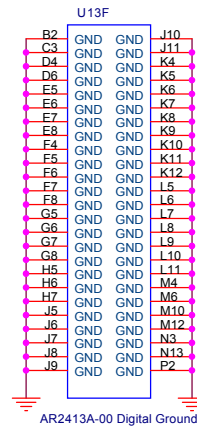


THEROS P3

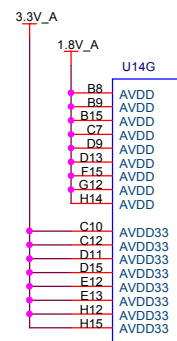
ATHEROS P4



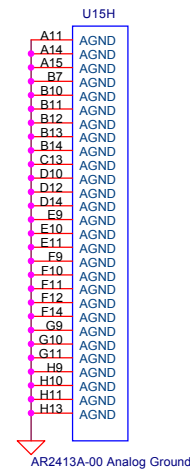
AR2413A-00 Digital VDD



AR2413A-00 Digital Ground



AR2413A-00 Analog VDD



AR2413A-00 Analog Ground

