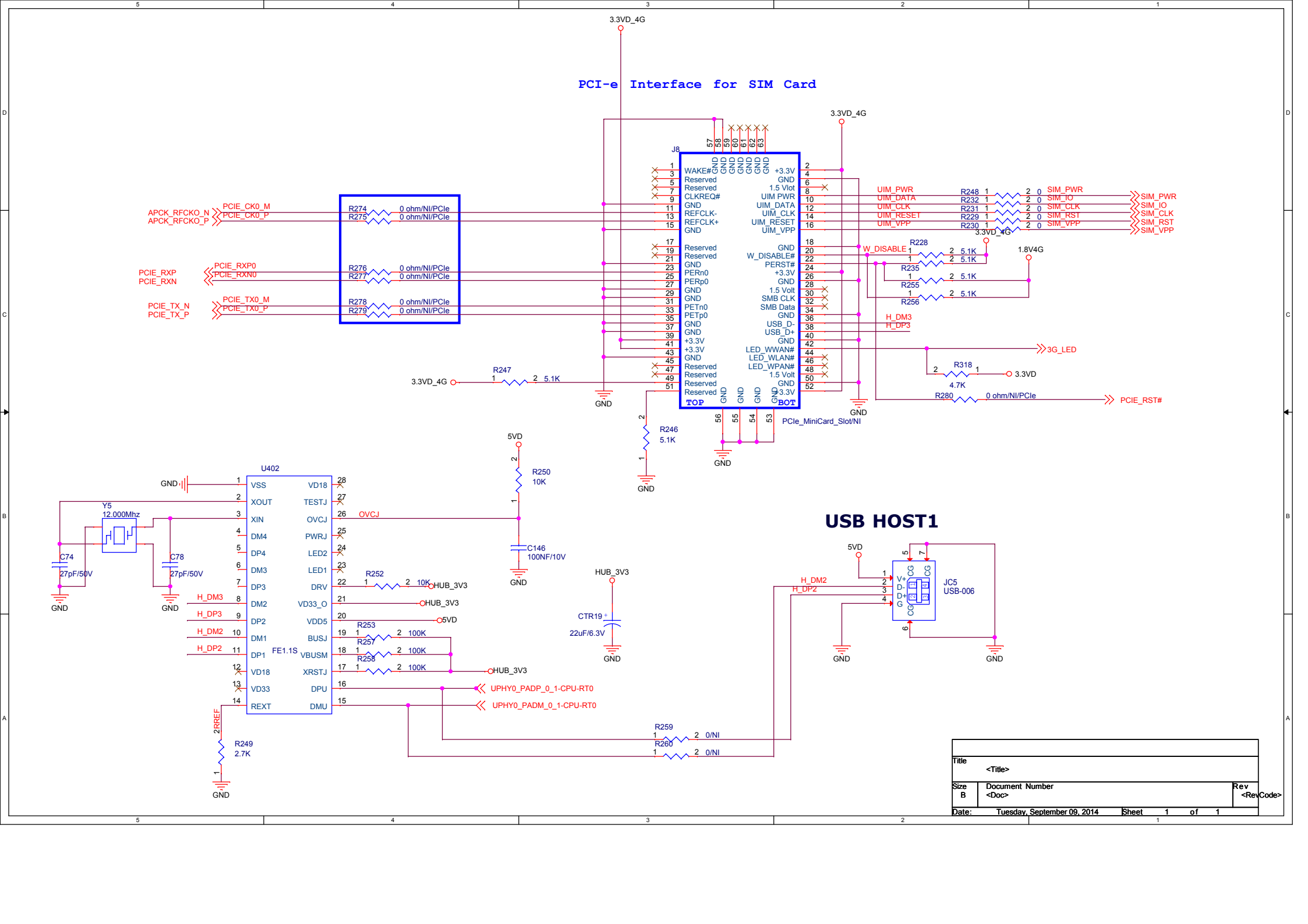
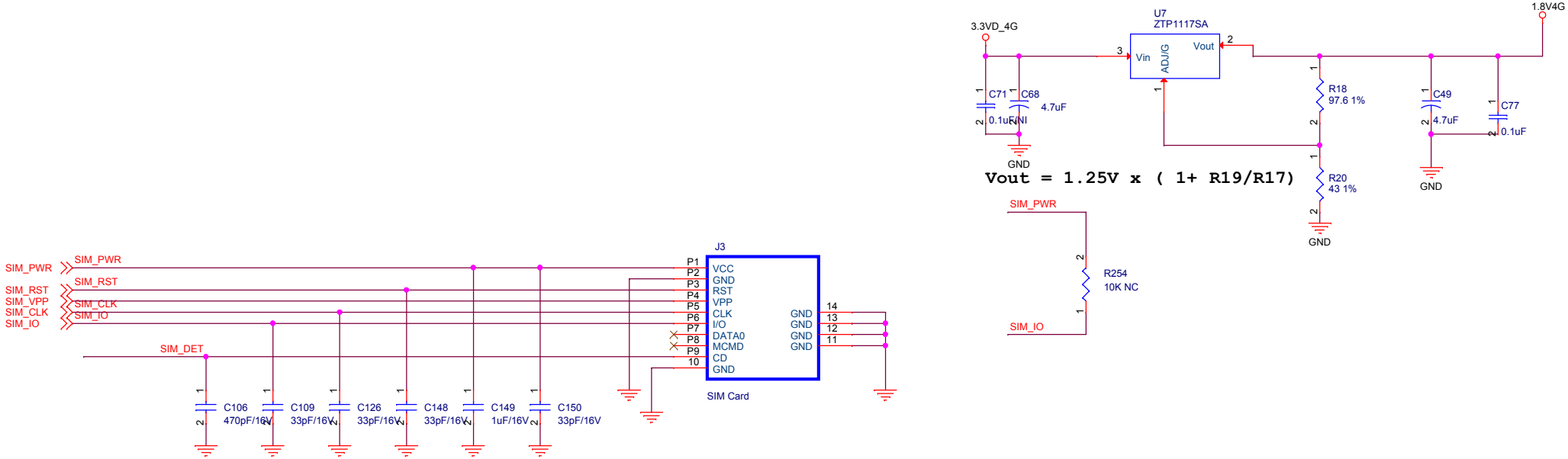
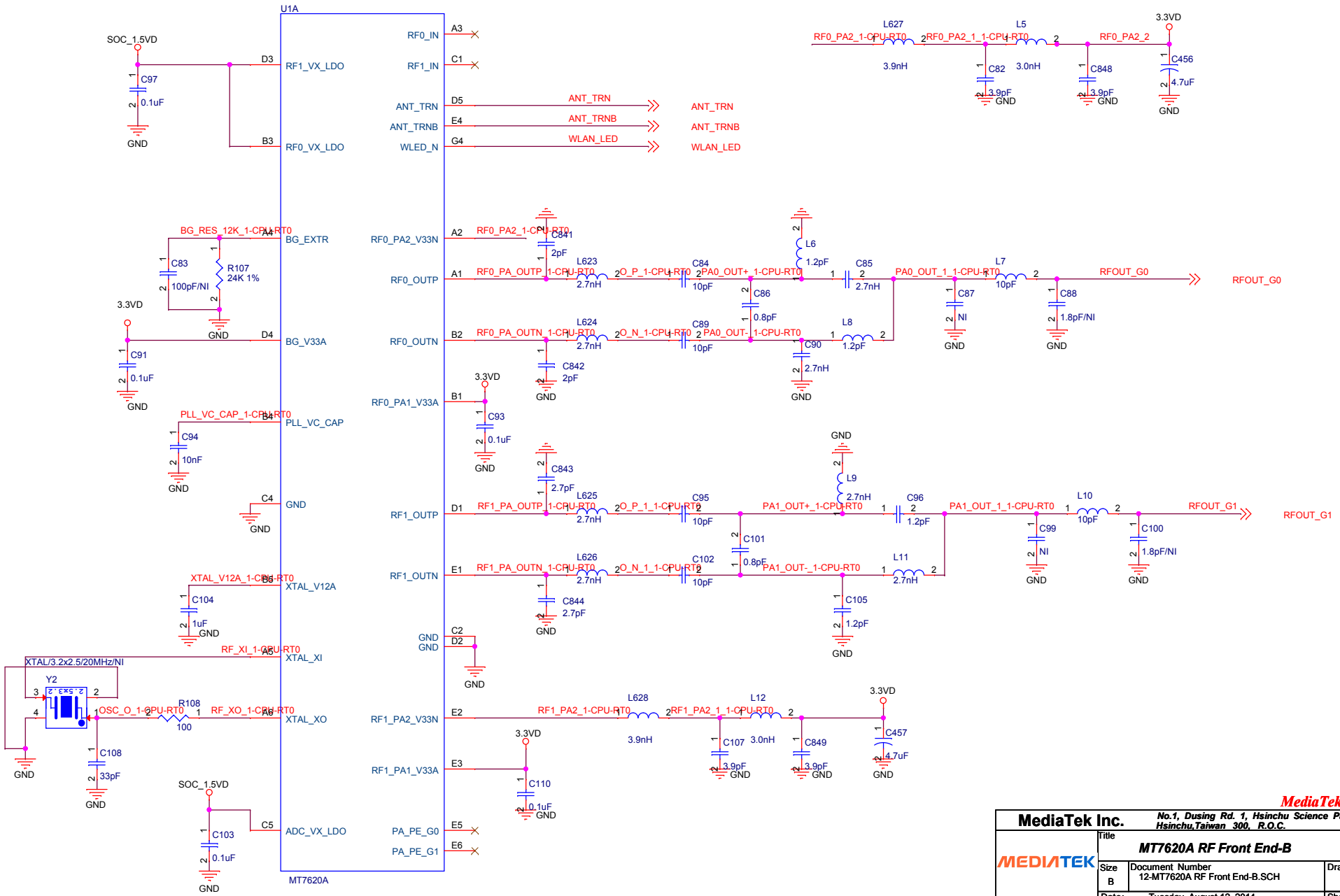
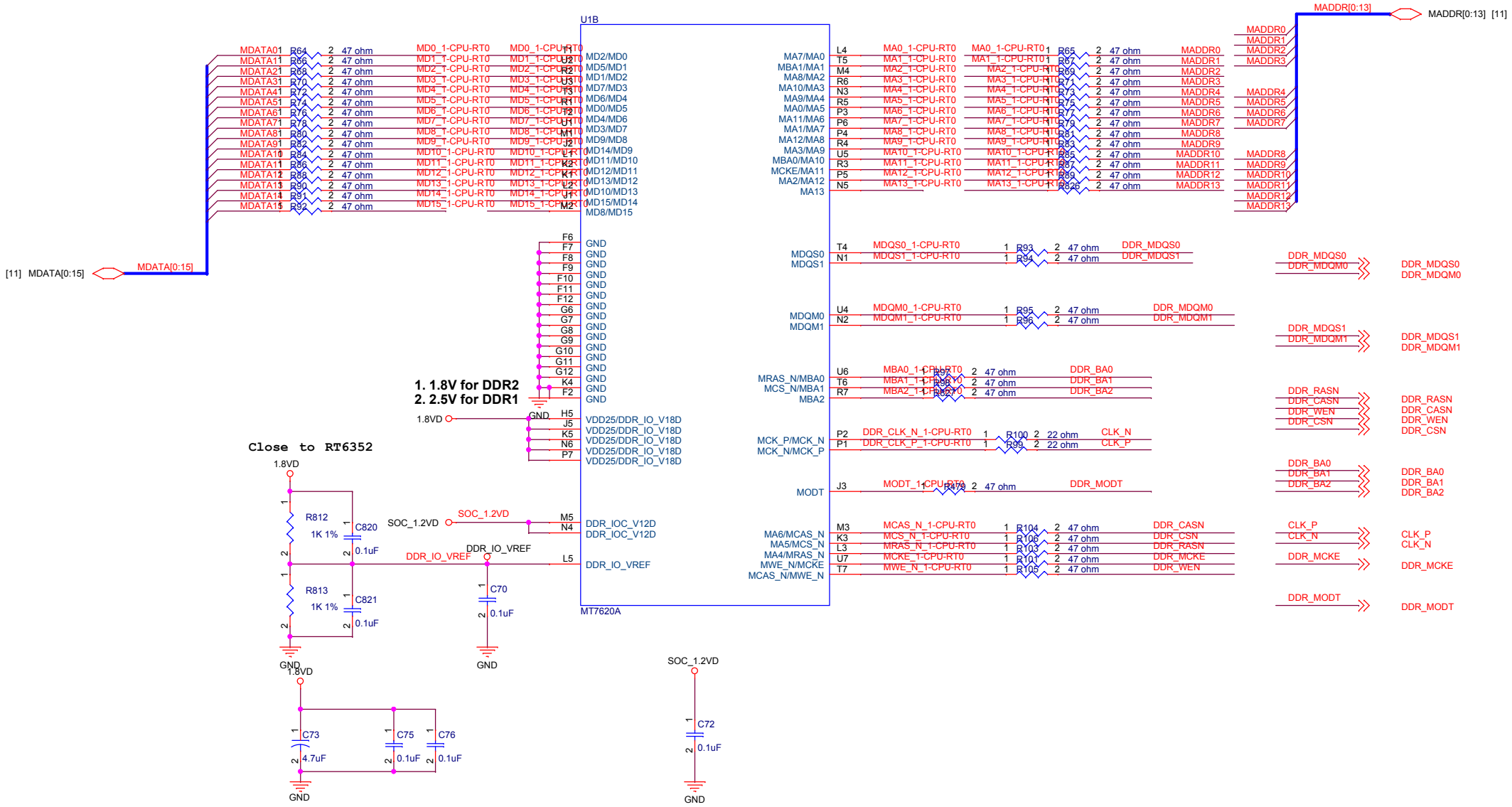

PCI-e Interface for SIM Card
3.3VD_4G
J8
WAKE#
Reserved
Reserved
CLKREQ#
GND
REFCLK-
REFCLK+
GND
Reserved
Reserved
GND
PERn0
PERp0
GND
GND
PETn0
PETp0
GND
GND
+3.3V
+3.3V
GND
Reserved
Reserved
Reserved
+3.3V
GND
1.5 Vlot
UIM PWR
UIM_DATA
UIM_CLK
UIM_RESET
UIM_VPP
GND
W_DISABLE#
PERST#
+3.3V
GND
1.5 Volt
SMB CLK
SMB Data
GND
USB_D-
USB_D+
GND
LED_WWAN#
LED_WLAN#
LED_WPAN#
1.5 Volt
GND
3.3V
TOP
BOT
PCIe_MiniCard_Slot/NI
APCK_RFCKO_N
APCK_RFCKO_P
PCIE_CK0_M
PCIE_CK0_P
R274 0 ohm/NI/PCIe
R275 0 ohm/NI/PCIe
PCIE_RXP
PCIE_RXN
PCIE_RXP0
PCIE_RXN0
R276 0 ohm/NI/PCIe
R277 0 ohm/NI/PCIe
PCIE_TX_N
PCIE_TX_P
PCIE_TX0_M
PCIE_TX0_P
R278 0 ohm/NI/PCIe
R279 0 ohm/NI/PCIe
R247 5.1K
R246 5.1K
UIM_PWR
UIM_DATA
UIM_CLK
UIM_RESET
UIM_VPP
R248 0
R232 0
R231 0
R229 0
R230 0
SIM_PWR
SIM_IO
SIM_CLK
SIM_RST
SIM_VPP
W_DISABLE
R228 5.1K
R235 5.1K
R255 5.1K
R256 5.1K
1.8V4G
H_DM3
H_DP3
3G_LED
R318 4.7K
3.3VD
R280 0 ohm/NI/PCIe
PCIE_RST#
U402
FE1.1S
VSS
XOUT
XIN
DM4
DP4
DM3
DP3
DM2
DP2
DM1
DP1
VD18
VD33
REXT
VD18
TESTJ
OVCJ
PWRJ
LED2
LED1
DRV
VD33_O
VDD5
BUSJ
VBUSM
XRSTJ
DPU
DMU
Y5
12.000Mhz
C74 27pF/50V
C78 27pF/50V
OVCJ
R250 10K
C146 100NF/10V
5VD
R252 10K
HUB_3V3
R253 100K
R257 100K
R258 100K
UPHY0_PADP_0_1-CPU-RT0
UPHY0_PADM_0_1-CPU-RT0
2RREF
R249 2.7K
CTR19 22uF/6.3V
USB HOST1
JC5
USB-006
H_DM2
H_DP2
R259 0/NI
R260 0/NI
GND
Title
<Title>
Size B
Document Number
<Doc>
Rev
<RevCode>
Date: Tuesday, September 09, 2014
Sheet 1 of 1



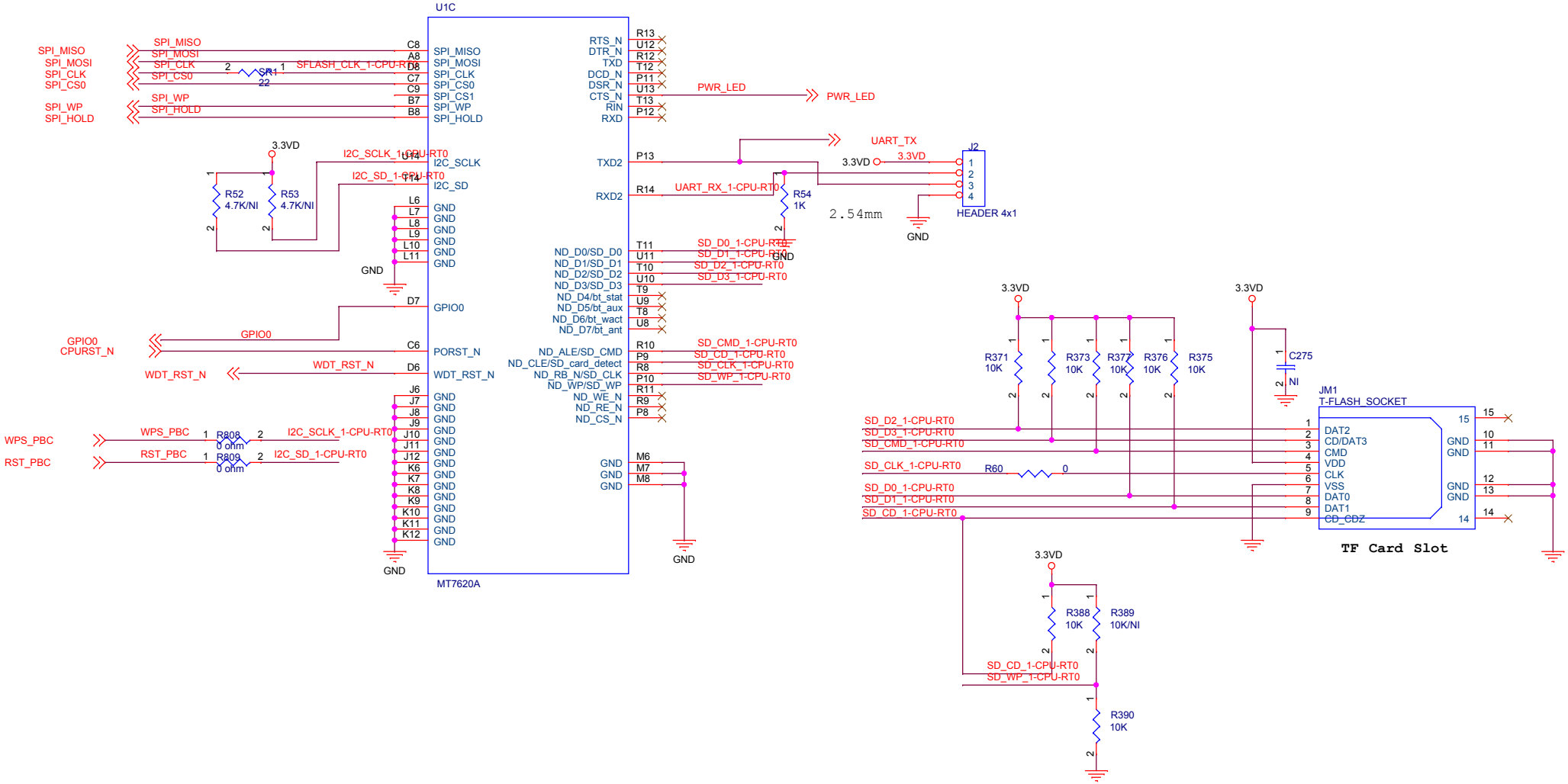
Title	<Title>	
Size B	Document Number <Doc>	Rev <RevCode>
Date: Tuesday, August 12, 2014	Sheet 1 of 1	


U1A
MT7620A
SOC_1.5VD
C97
0.1uF
GND
RF0_IN
RF1_IN
ANT_TRN
ANT_TRNB
WLED_N
RF1_VX_LDO
RF0_VX_LDO
ANT_TRN
ANT_TRNB
WLAN_LED
L627
3.9nH
L5
3.0nH
C82
3.9pF
C848
3.9pF
3.3VD
C456
4.7uF
BG_RES_12K_1-CPU-RT0
C83
100pF/NI
R107
24K 1%
BG_EXTR
BG_V33A
C91
0.1uF
PLL_VC_CAP_1-CPU-RT0
C94
10nF
PLL_VC_CAP
C4
RF0_PA2_V33N
RF0_OUTP
RF0_OUTN
RF0_PA1_V33A
RF0_PA2_1-CPU-RT0
C841
2pF
RF0_PA_OUTP_1-CPU-RT0
L623
2.7nH
O_P_1-CPU-RT0
C84
10pF
PA0_OUT+_1-CPU-RT0
L6
1.2pF
C85
2.7nH
PA0_OUT_1_1-CPU-RT0
L7
10pF
RFOUT_G0
C86
0.8pF
C87
NI
C88
1.8pF/NI
RF0_PA_OUTN_1-CPU-RT0
L624
2.7nH
O_N_1-CPU-RT0
C89
10pF
PA0_OUT-_1-CPU-RT0
L8
1.2pF
C90
2.7nH
C842
2pF
C93
0.1uF
RF1_PA2_V33N
RF1_OUTP
RF1_OUTN
RF1_PA1_V33A
C843
2.7pF
RF1_PA_OUTP_1-CPU-RT0
L625
2.7nH
O_P_1_1-CPU-RT0
C95
10pF
PA1_OUT+_1-CPU-RT0
L9
2.7nH
C96
1.2pF
PA1_OUT_1_1-CPU-RT0
L10
10pF
RFOUT_G1
C101
0.8pF
C99
NI
C100
1.8pF/NI
RF1_PA_OUTN_1-CPU-RT0
L626
2.7nH
O_N_1_1-CPU-RT0
C102
10pF
PA1_OUT-_1-CPU-RT0
L11
2.7nH
C844
2.7pF
C105
1.2pF
XTAL_V12A_1-CPU-RT0
C104
1uF
XTAL_V12A
RF_XI_1-CPU-RT0
XTAL_XI
XTAL/3.2x2.5/20MHz/NI
Y2
2.5x3.2
OSC_O_1-CPU-RT0
R108
100
RF_XO_1-CPU-RT0
XTAL_XO
C108
33pF
GND
C2
D2
RF1_PA2_V33N
RF1_PA1_V33A
RF1_PA2_1-CPU-RT0
L628
3.9nH
RF1_PA2_1_1-CPU-RT0
L12
3.0nH
C107
3.9pF
C849
3.9pF
C457
4.7uF
C110
0.1uF
SOC_1.5VD
C103
0.1uF
C5
ADC_VX_LDO
PA_PE_G0
PA_PE_G1
E5
E6
MediaTek Confidential
MediaTek Inc.
No.1, Dusing Rd. 1, Hsinchu Science Park
Hsinchu,Taiwan 300, R.O.C.
TEL:+886-3-567-0766
Fax:+886-3-578-7610
MEDIATEK
Title
MT7620A RF Front End-B
Size
B
Document Number
12-MT7620A RF Front End-B.SCH
Drawn
Kim
Rev
2.2
Date:
Tuesday, August 12, 2014
Sheet
2
of
20



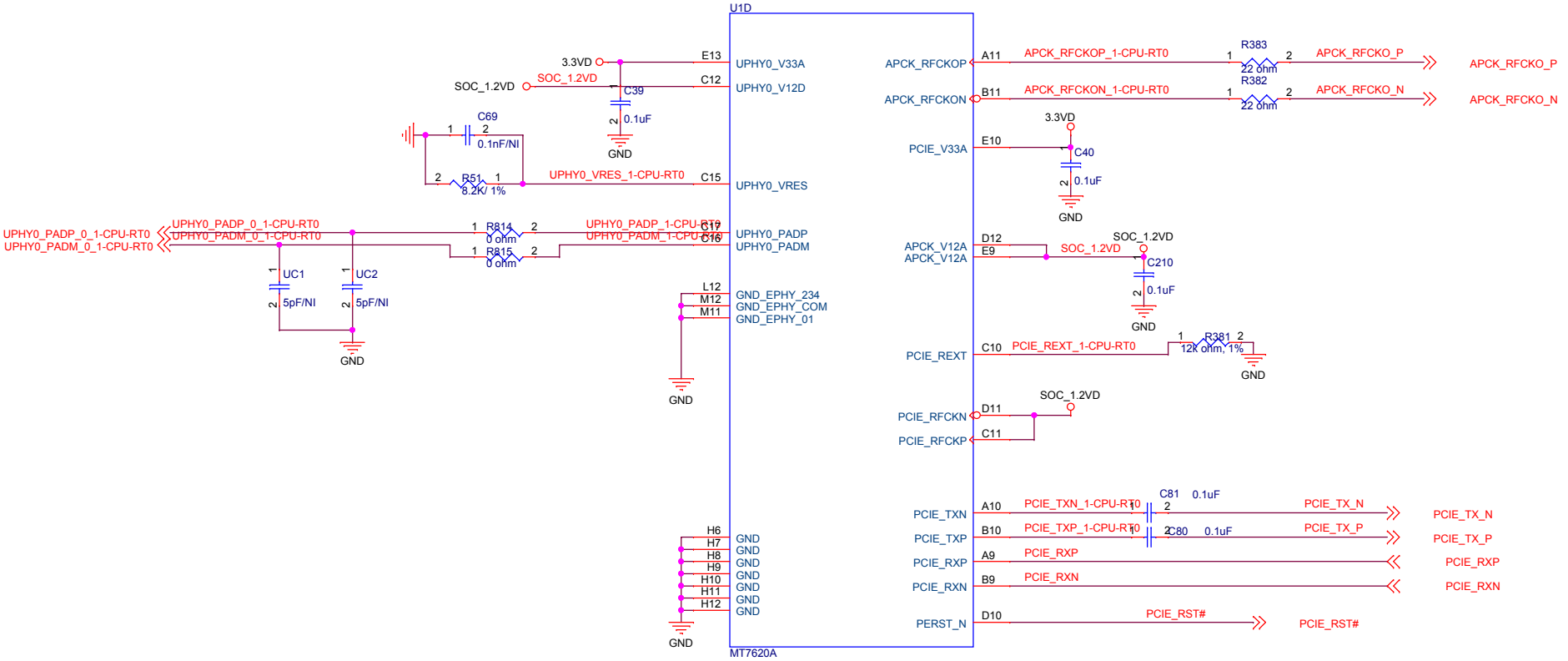
MediaTek Confidential

MediaTek Inc.	No.1, Dusing Rd. 1, Hsinchu Science Park, Hsinchu,Taiwan 300, R.O.C.	TEL:+886-3-567-0766 Fax:+886-3-578-7610	
MEDIATEK	Title: MT7620A DDR I/F-C		
	Size: B	Document Number: 13-MT7620A DDR2 I/F-C.SCH	Drawn: Kim / Rev: 2.2
	Date: Tuesday, August 12, 2014	Sheet 3 of 20	



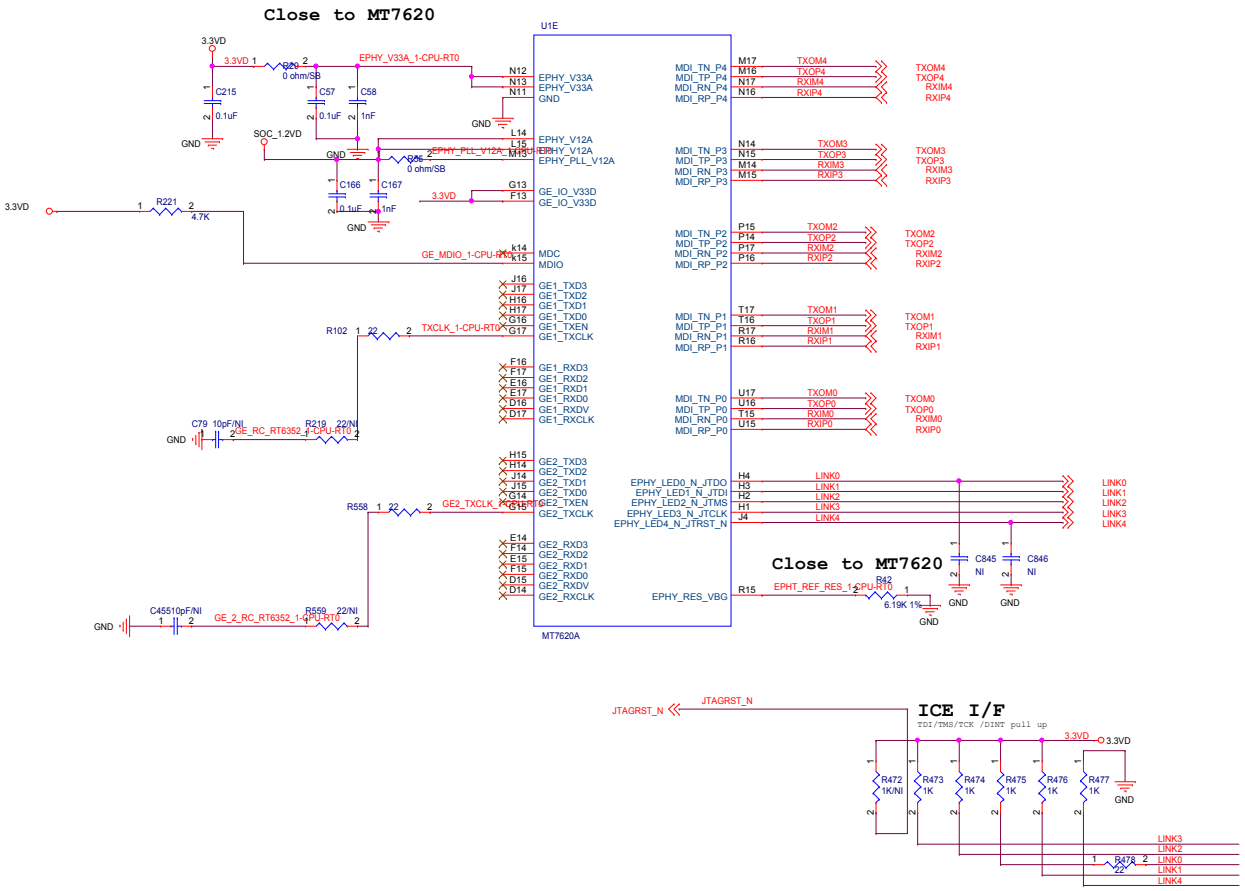
MediaTek Confidential

MediaTek Inc.	No.1, Dusing Rd. 1, Hsinchu Science Park Hsinchu,Taiwan 300, R.O.C.	TEL:+886-3-567-0766 Fax:+886-3-578-7610	
MEDIATEK	Title: MT7620A Pheripheral-C		
	Size: B	Document Number: 13-MT7620A Pheripheral-C.SCH	Drawn: Kim / Rev: 2.2
	Date: Friday, May 29, 2015	Sheet 4 of 20	



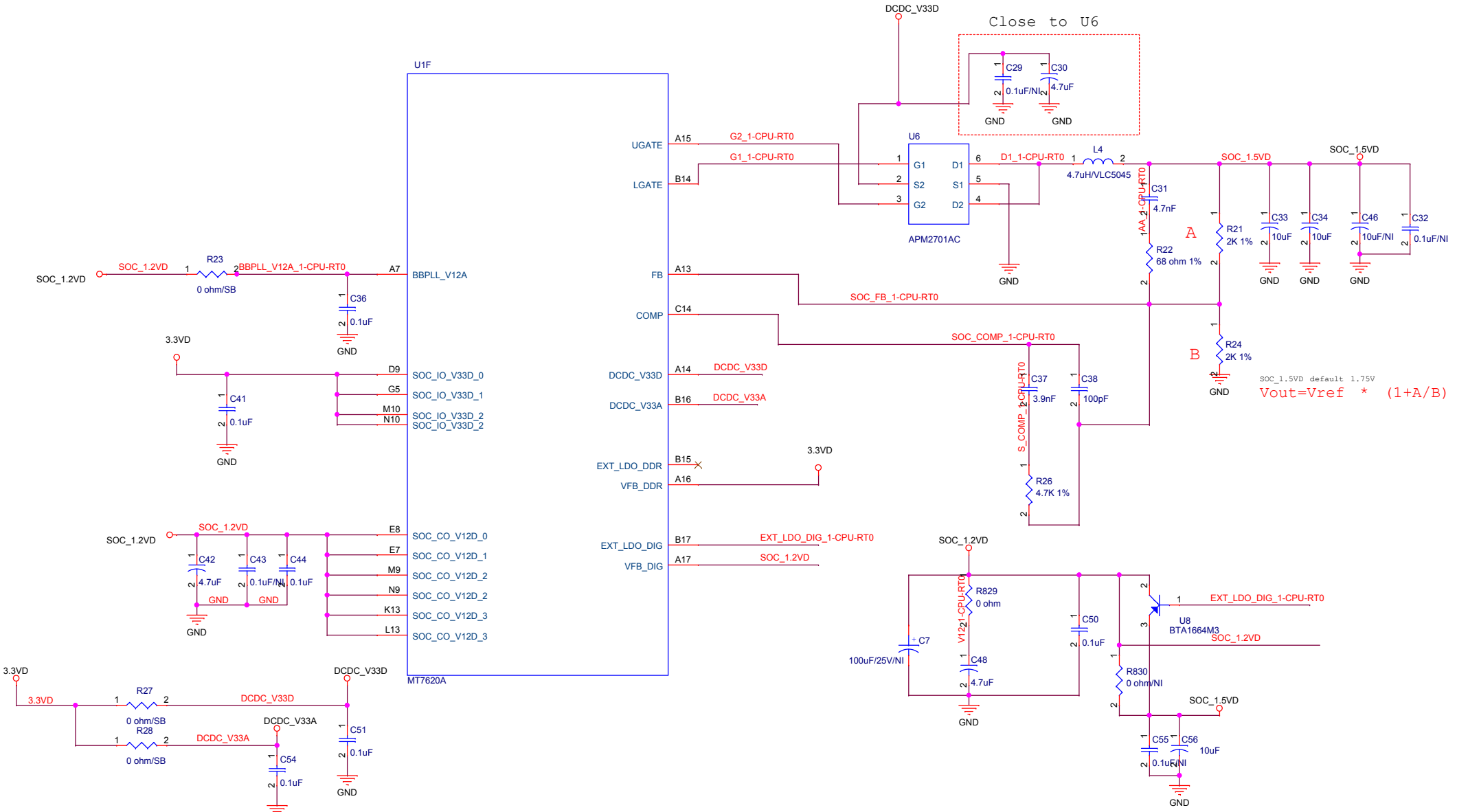
MediaTek Confidential

MediaTek Inc.	No.1, Dusing Rd. 1, Hsinchu Science Park Hsinchu,Taiwan 300, R.O.C.	TEL:+886-3-567-0766 Fax:+886-3-578-7610	
MEDIATEK	Title: MT7620A USB-D		
Size: B	Document Number: 14-MT7620A USB-D.SCH	Drawn: Kim	Rev: 2.2
Date: Tuesday, August 12, 2014	Sheet 5 of 20		



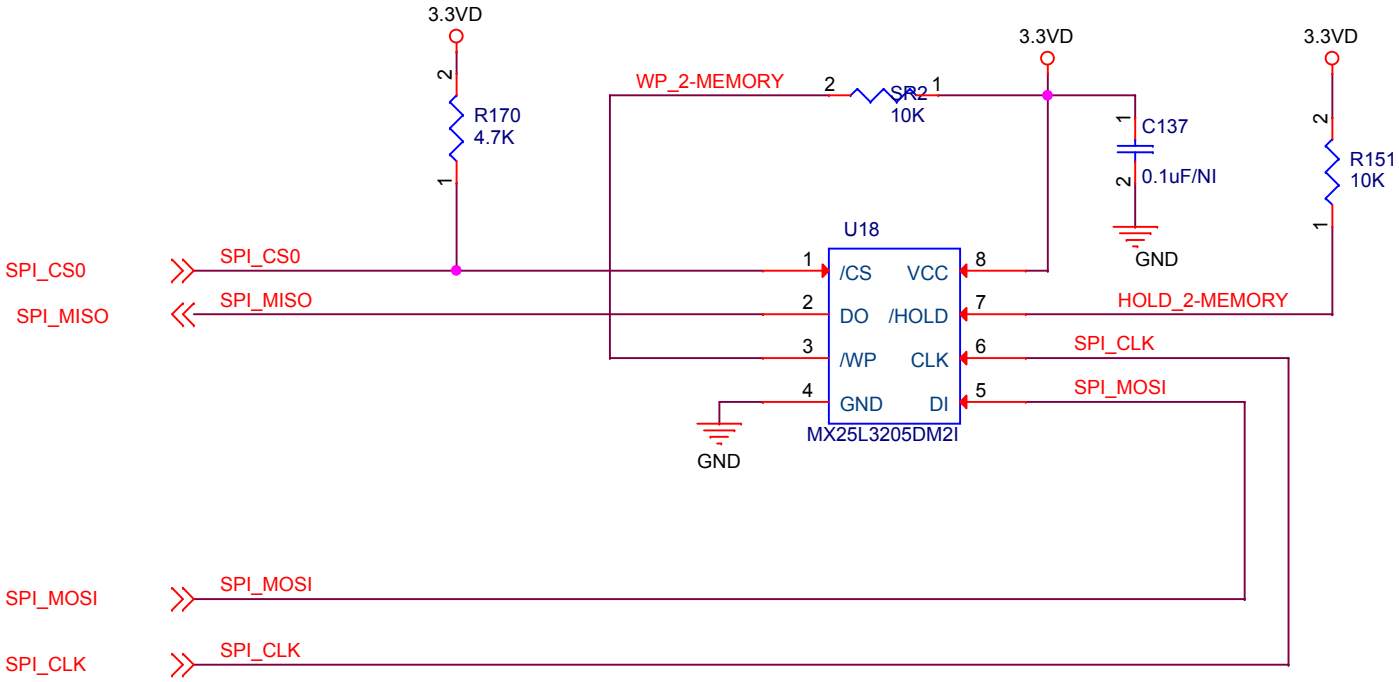
MediaTek Confidential

MediaTek Inc.	No.1, Dusing Rd. 1, Hsinchu Science Park, Hsinchu,Taiwan 300, R.O.C.	TEL:+886-3-567-0766 Fax:+886-3-578-7610	
MEDIATEK	Title: MT7620A Ethernet-E		
Size: C	Document Number: 15-MT7620A Ethernet-E.SCh	Drawn: Kim	Rev: 2.2
Date: Tuesday, August 12, 2014		Sheet 6 of 20	



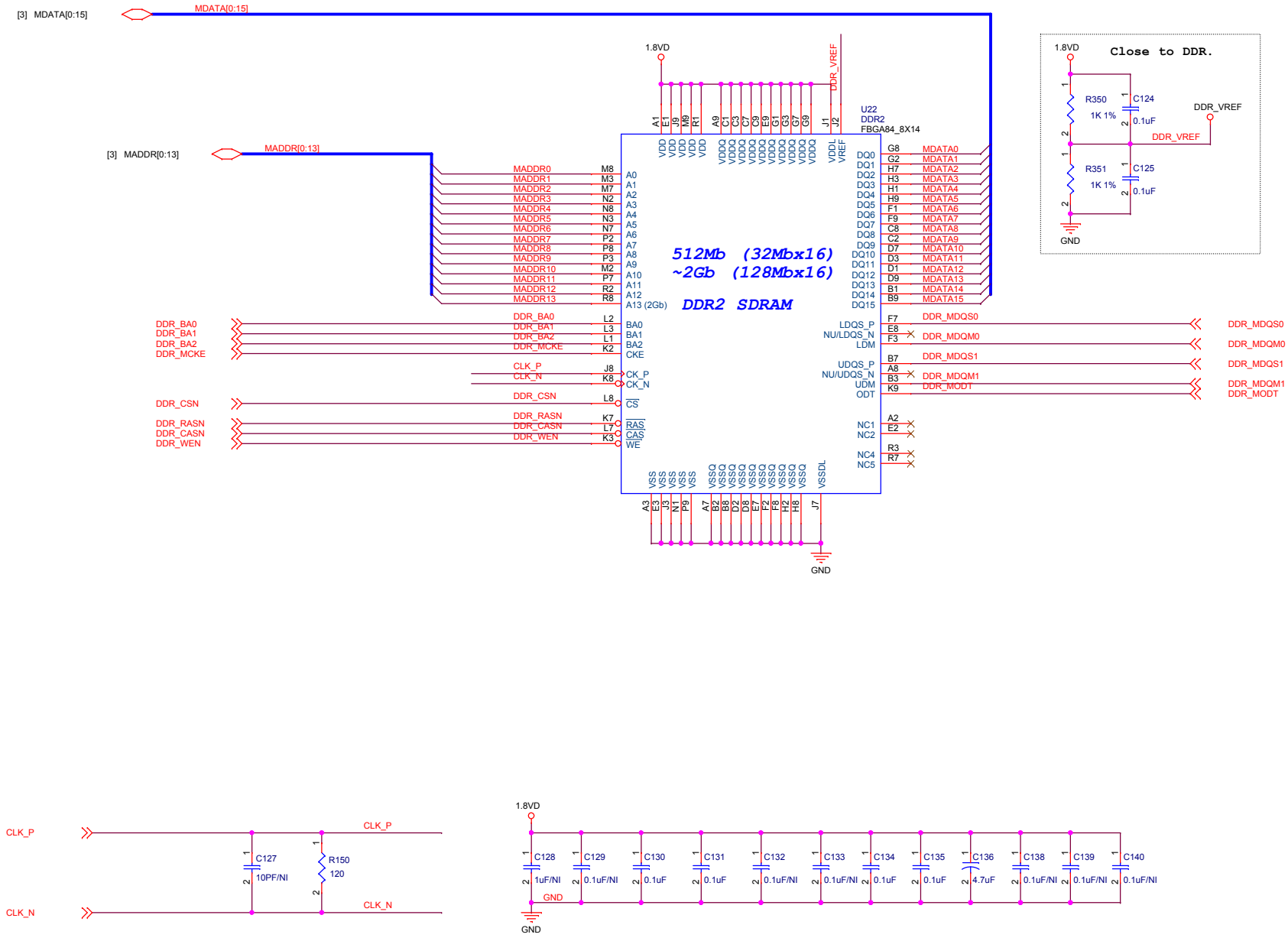
MediaTek Confidential

MediaTek Inc.	No.1, Dusing Rd. 1, Hsinchu Science Park, Hsinchu,Taiwan 300, R.O.C.	TEL:+886-3-567-0766 Fax:+886-3-578-7610	
MEDIATEK	Title: MT7620A Power-F		
	Size: B	Document Number: 16-MT7620A Power-F.SCH	Drawn: Kim / Rev: 2.2
	Date: Tuesday, August 12, 2014	Sheet 7 of 20	



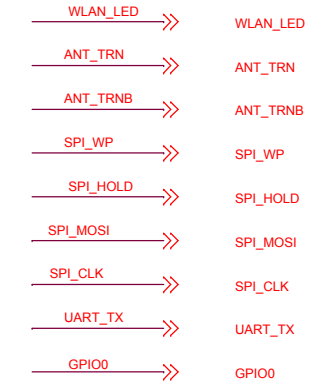
MediaTek Inc.
No.1, Dusing Rd. 1, Hsinchu Science Park
Hsinchu,Taiwan 300, R.O.C.
TEL:+886-3-567-0766
Fax:+886-3-578-7610

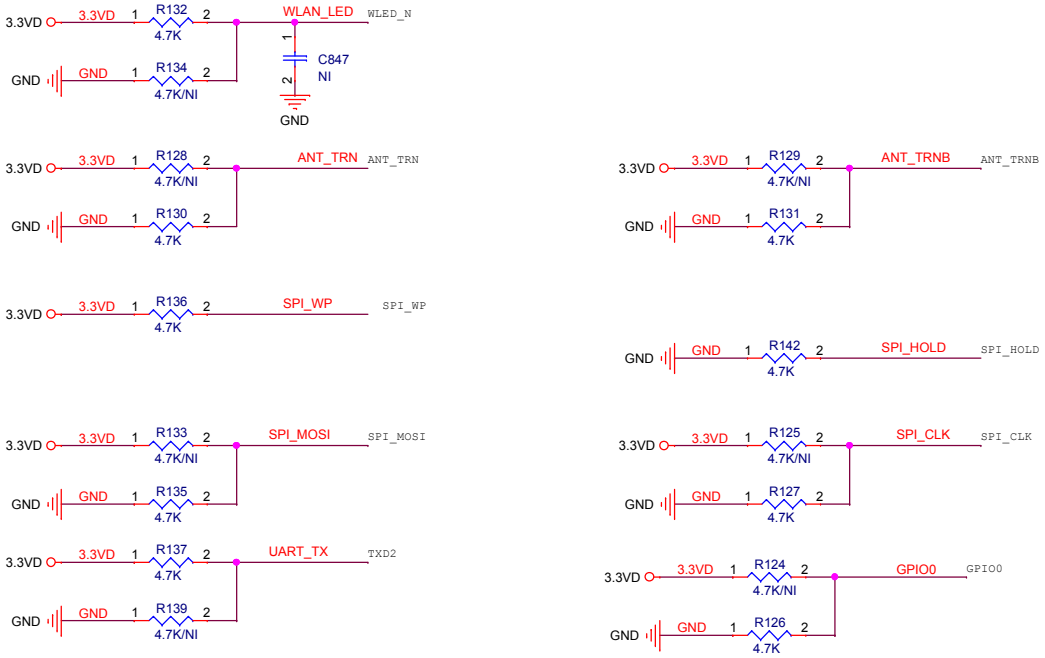
MEDIATEK	Title: SPI Flash		
Size: A	Document Number: 21-SPI Flash.SCH	Drawn: Kim	Rev: 2.2
Date: Tuesday, August 12, 2014		Sheet 10 of 20	



MediaTek Confidential

MediaTek Inc.	No.1, Dusing Rd. 1, Hsinchu Science Park Hsinchu,Taiwan 300, R.O.C.	TEL:+886-3-567-0766 Fax:+886-3-578-7610	
MEDIATEK	Title: DDR-CFG		
	Size: Custom	Document Number: 22-DDR2-CFG.SCH	Drawn: Kim / Rev: 2.2
	Date: Tuesday, August 12, 2014	Sheet 11 of 20	





MT7620 Boot Up Strapping

Pin Name	Description	Value
WLED_N	DRAM_FROM_EE For non scan mode:	0: DRAM configuration from EEPROM 1: DRAM configuration from Auto Detect
ANT_TRN	DBG_JTAG_MODE	0: EPHY_LED 1: JTAG MODE
ANT_TRNB	XTAL_FREQ_SEL	0: 20MHz
{SPI_WP, SPI_HOLD}	DRAM_TYPE	01: DDR1 (CPU/3) TSOP 10: DDR2 (CPU/3) FBGA 11: SDRAM (CPU/5) (LVTTL 3.3 V) TSOP Package
{SPI_MOSI SPI_CLK, TXD2, GPIO0 }	CHIP_MODE[3:0]	A vector to set chip function/test/debug modes. In non-test/debug operation, 0001: Normal mode (boot from ROM+NAND flash 4 cycle address) 0010: Normal mode (boot from SPI 3Byte Addr) 0011: Normal mode (boot from SPI 4Byte Addr) 0100 :iNIC RGMII mode(boot from ROM) 0101: iNIC MII mode(boot from ROM) 0110: iNIC RVMII mode(boot from ROM) 0111: iNIC PHY mode(boot from ROM) 1000: iNIC USB mode(boot from ROM) 1001: iNIC PCIe mode(boot from ROM)

MediaTek Inc.
No.1, Dusing Rd. 1, Hsinchu Science Park
Hsinchu,Taiwan 300, R.O.C.
TEL:+886-3-567-0766
Fax:+886-3-578-7610

Title: Config			
Size: B	Document Number: 23-Config.SCH	Drawn: Kim	Rev: 2.2
Date: Tuesday, August 12, 2014		Sheet 12 of 20	

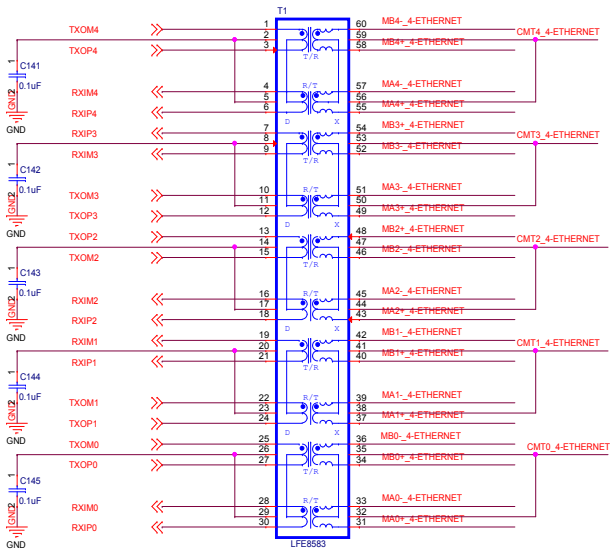
ANTENNA 0_1

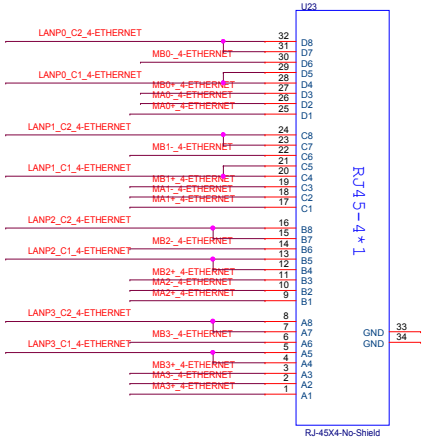
ANTENNA 1_1

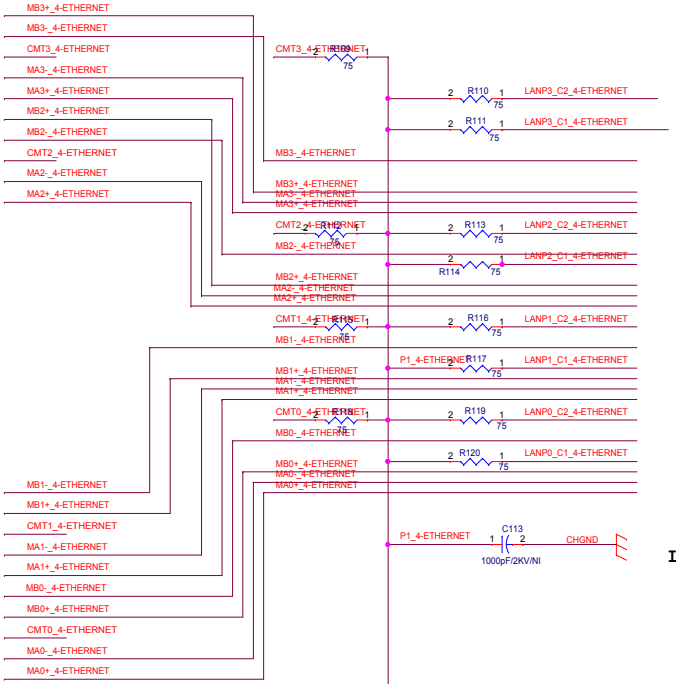
MediaTek Inc.
No.1, Dusing Rd. 1, Hsinchu Science Park
Hsinchu,Taiwan 300, R.O.C.
TEL:+886-3-567-0766
Fax:+886-3-578-7610

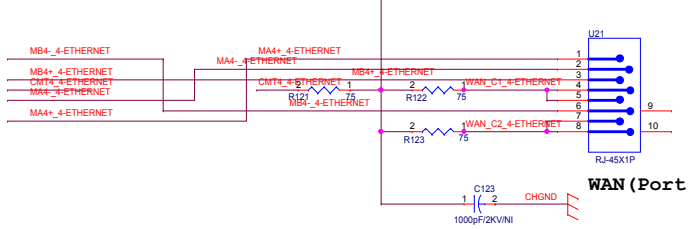
MEDIATEK

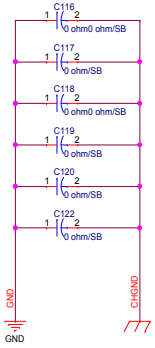
Title: PA			
Size: B	Document Number: 31-Antenna.SCH	Drawn: Kim	Rev: 2.2
Date: Tuesday, August 12, 2014		Sheet 13 of 20	





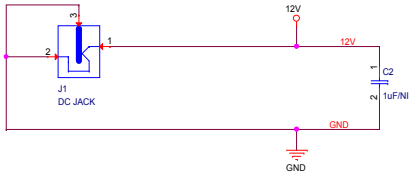


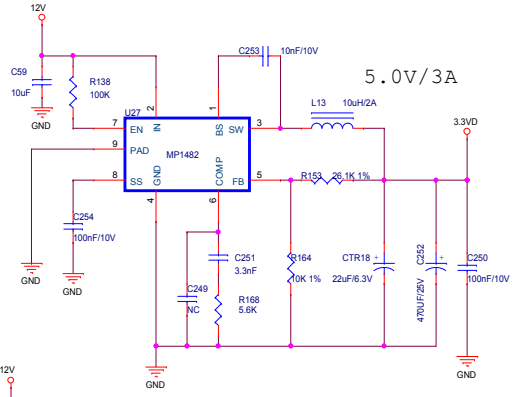


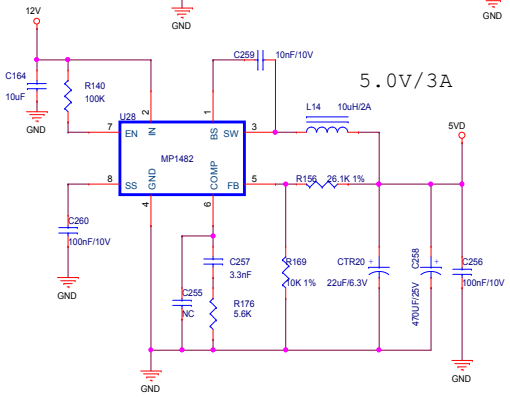


MediaTek Inc.	No.1, Dusing Rd. 1, Hsinchu Science Park Hsinchu,Taiwan 300, R.O.C.	TEL:+886-3-567-0766 Fax:+886-3-578-7610	
MEDIATEK	Title: 4-Ethernet		
	Size: C	Document Number: 41-XMER-RJ45.SCH	Drawn: Kim
	Date: Tuesday, August 12, 2014	Sheet 15 of 20	Rev 2.2

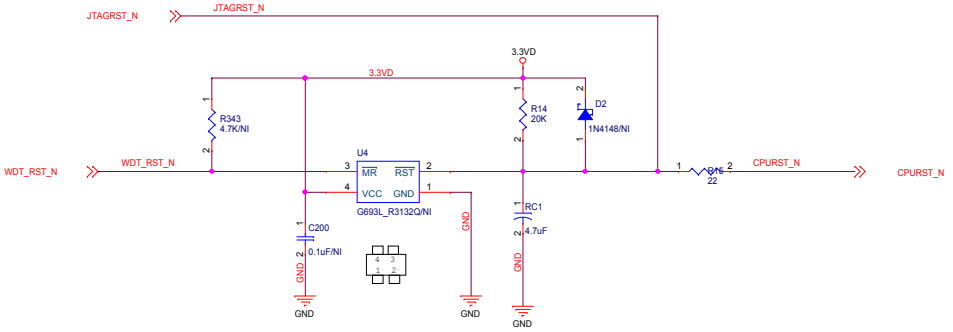
12V DC ADAPTER

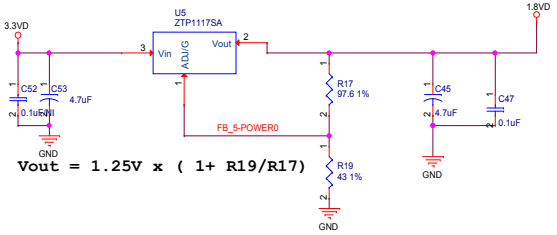


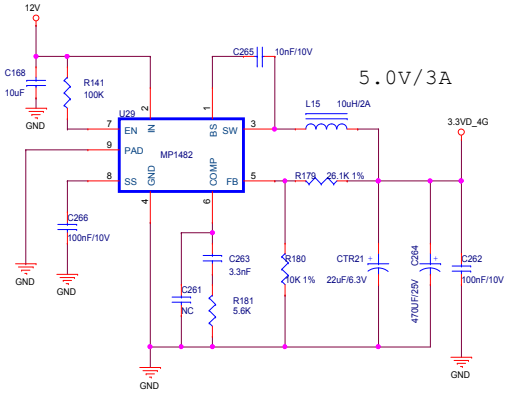




Reset Circuit

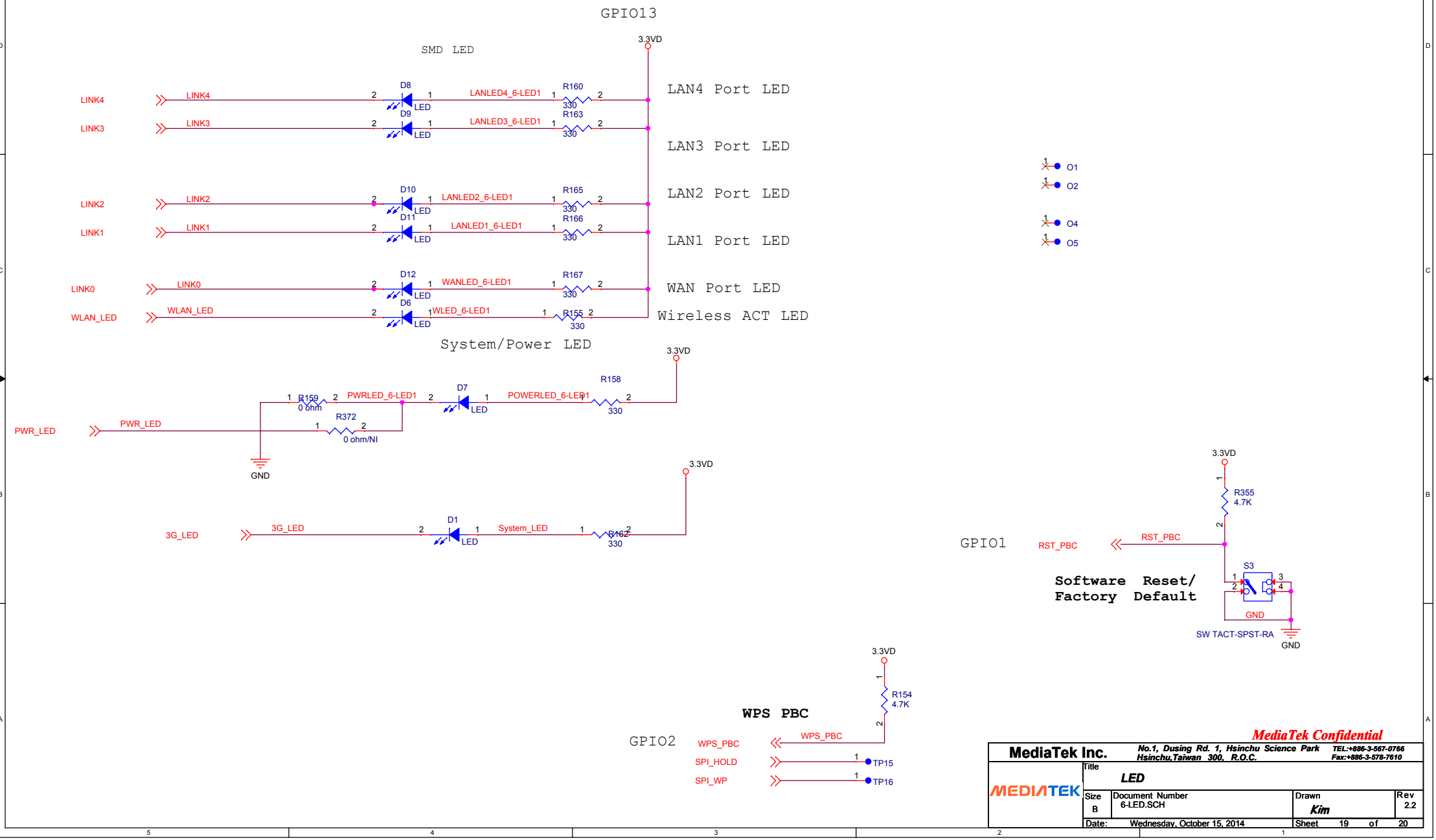






MediaTek Inc.
No.1, Dusing Rd. 1, Hsinchu Science Park
Hsinchu,Taiwan 300, R.O.C.
TEL:+886-3-567-0766
Fax:+886-3-578-7610

MEDIATEK	Title: Power & Reset		
Size: C	Document Number: 5-POWER-RESET.SCH	Drawn: Kim	Rev: 2.2
Date: Tuesday, August 12, 2014		Sheet 18 of 20	



MediaTek Confidential

MediaTek Inc.	No.1, Dusing Rd. 1, Hsinchu Science Park Hsinchu,Taiwan 300, R.O.C.	TEL:+886-3-567-0766 Fax:+886-3-578-7610	
MEDIATEK	Title: LED		
Size: B	Document Number: 6-LED.SCH	Drawn: Kim	Rev: 2.2
Date: Wednesday, October 15, 2014	Sheet 19 of 20		