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Revisions			
Rev	Description	Date	Approved
1.0	Proto Release K70	13 May 12	J.K.
1.1	Pilot Release K70	07 Aug 12	J.K.
2.0	Proto Release K70 WiFi	27 June 13	J.K.
2.1	Pilot Release K70 WiFi	07 Aug 13	J.K.
2.2	Commercial Release	11 Nov 13	J.K.

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12 MHz XTAL	
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TAMPER DETECT	
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VREFH/VREFL filter	
VREF_OUT	
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1. Unless Otherwise Specified:

- All resistors are in ohms
- All capacitors are in uF
- All voltages are DC
- All polarized capacitors are aluminum electrolytic

2. Interrupted lines coded with the same letter or letter combinations are electrically connected.

3. Device type number is for reference only. The number varies with the manufacturer.

4. Special signal usage:

- _B Denotes - Active-Low Signal
- <> or [] Denotes - Vectored Signals

5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

Power & Ground Nets

NET	VOLTAGE	DESCRIPTION
P5V_USB	5V	Primary input power. Filtered from USB connector. Input to USB power switch.
P5V_SW	5V	Output of USB power switch controlled by the 5V_EN signal from the JM60 MCU. Used by OSBDM voltage translation circuits.
P5V_TRG_USB	5V	Output of USB power switch controlled by the VTRG_EN signal from the JM60 MCU. Provides input to regulator.
P3V3	3.3V	Output of regulator using USB power input (P5V_TRG_USB).
P3V3_MCU	3.3V	MCU digital power. Filtered from P3V3.
VDDA	3.3V	VDDA power for MCU and analog circuits. Filtered from P3V3_MCU.
VREFH	3.3V	Upper reference voltage for ADC on the MCU. Filtered from VDDA.
VREFL	0V	Lower reference voltage for ADC on the MCU. Filtered from VSSA.
VSSA	0V	VSSA power for MCU and analog circuits. Filtered from GND.
GND	0V	Digital Ground.
VDD_INT	3.3V	MCU Internal supply
VREF_DDR2	0.9V	DDR2 VREF = VDDQ/2 supply for MCU and SDRAM
VTT_DDR2	0.9V	DDR2 VTT= VDDQ/2 termination supply for MCU and SDRAM
VDD_1V8	1.8V	DDR2 VDDQ supply for MCU and SDRAM

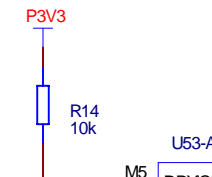
List číslo / Celkový počet	Nazev: TABLE OF CONTENT	
1/3	Platnost od: 11/2013	Číslo verze: V2.2
Dne: 11/2013	Kreslil: ELNICO	Project: SQM4-K70

<- Longer: Outside of SQM4 module
 <- Medium: Limited function
 -> Shorter: On board only

MICROPROCESSOR I/O PINS K70FN1M0 MCU PART A

<- Longer: Free use and position
 <- Medium: Garanted position on expanded connectors
 -> Shorter: Used on EasyBoard

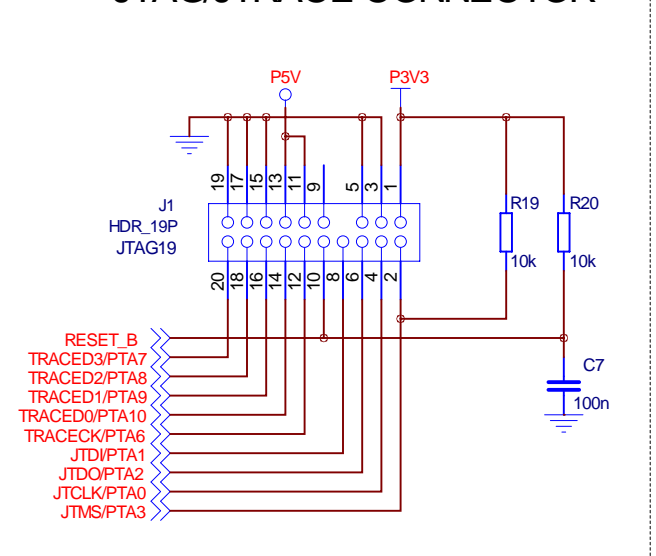
RIM FRAME CONNECTION



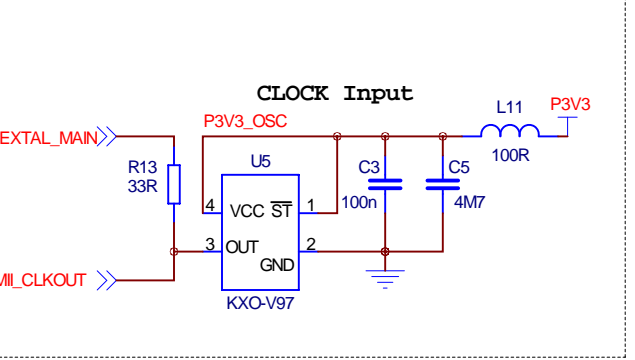
1 OF 2

K70FN1M0V015

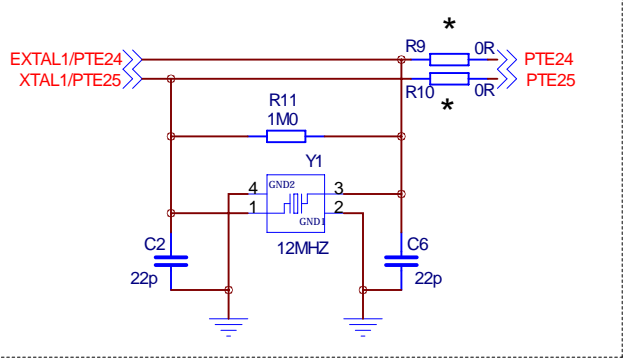
JTAG/JTRACE CONNECTOR



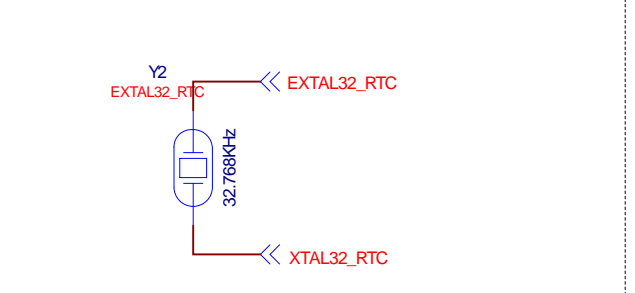
* Eth Clock



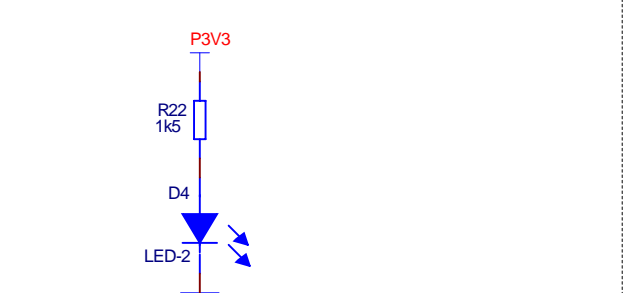
*Second xtal



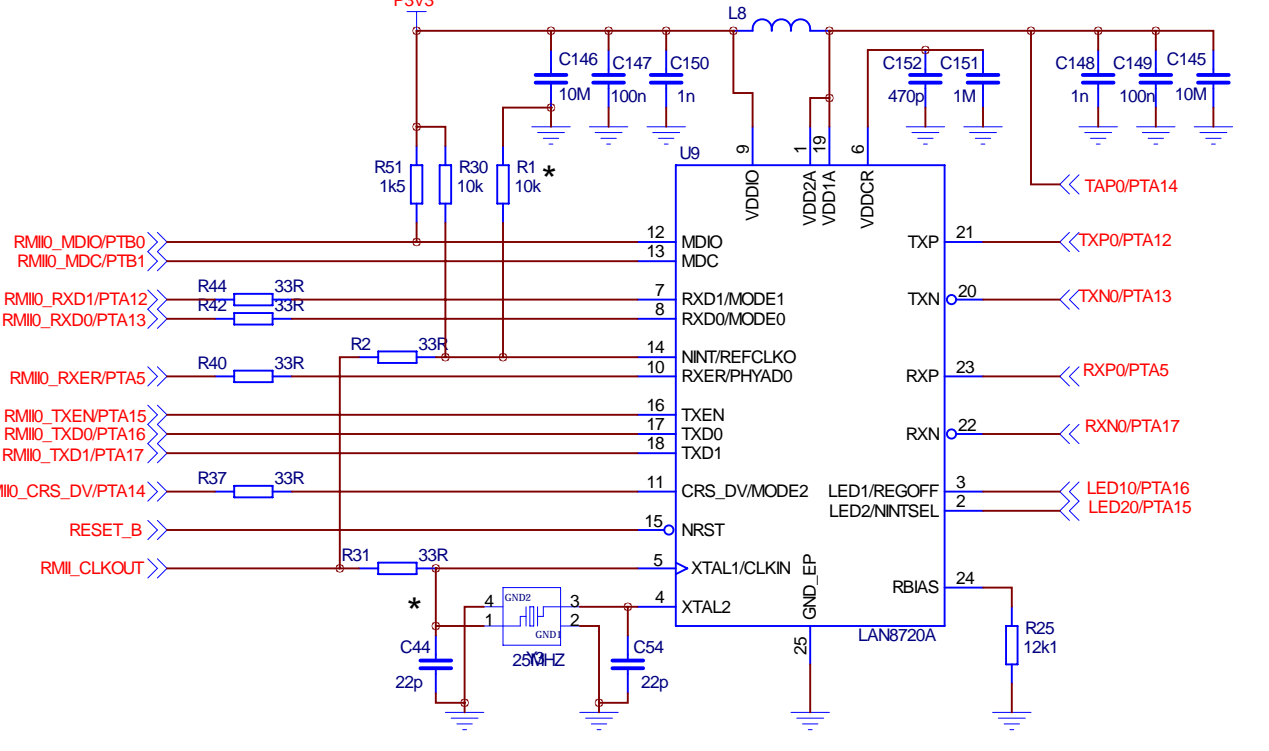
RTC xtal



POWER LED

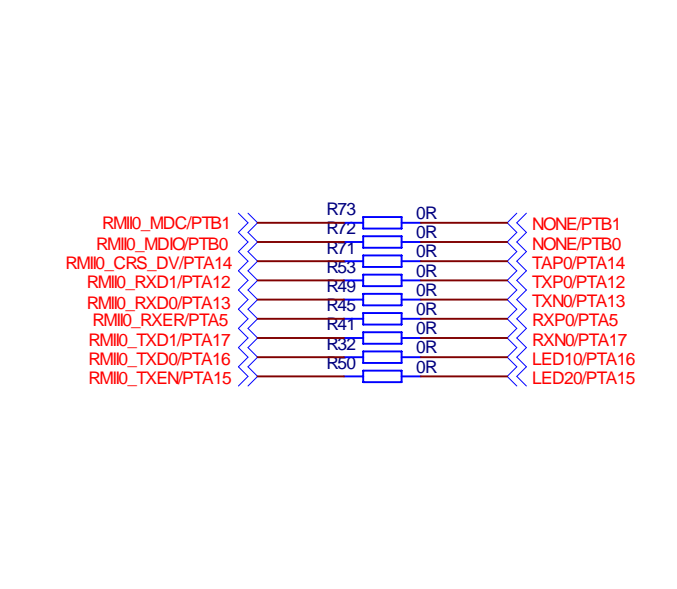


ETHERNET PHY1 *



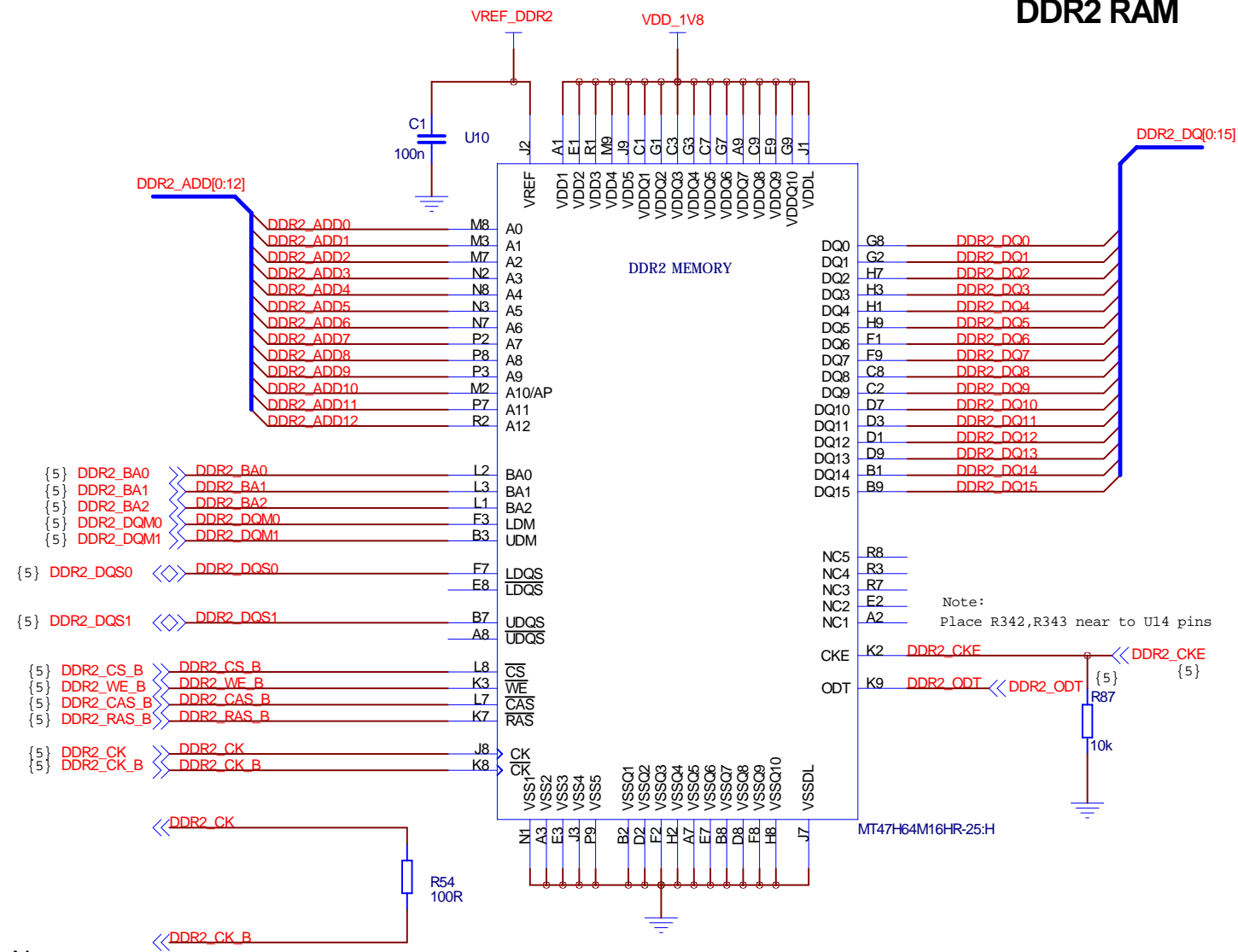
*Alternative placement

* Alternative placement to PHY0

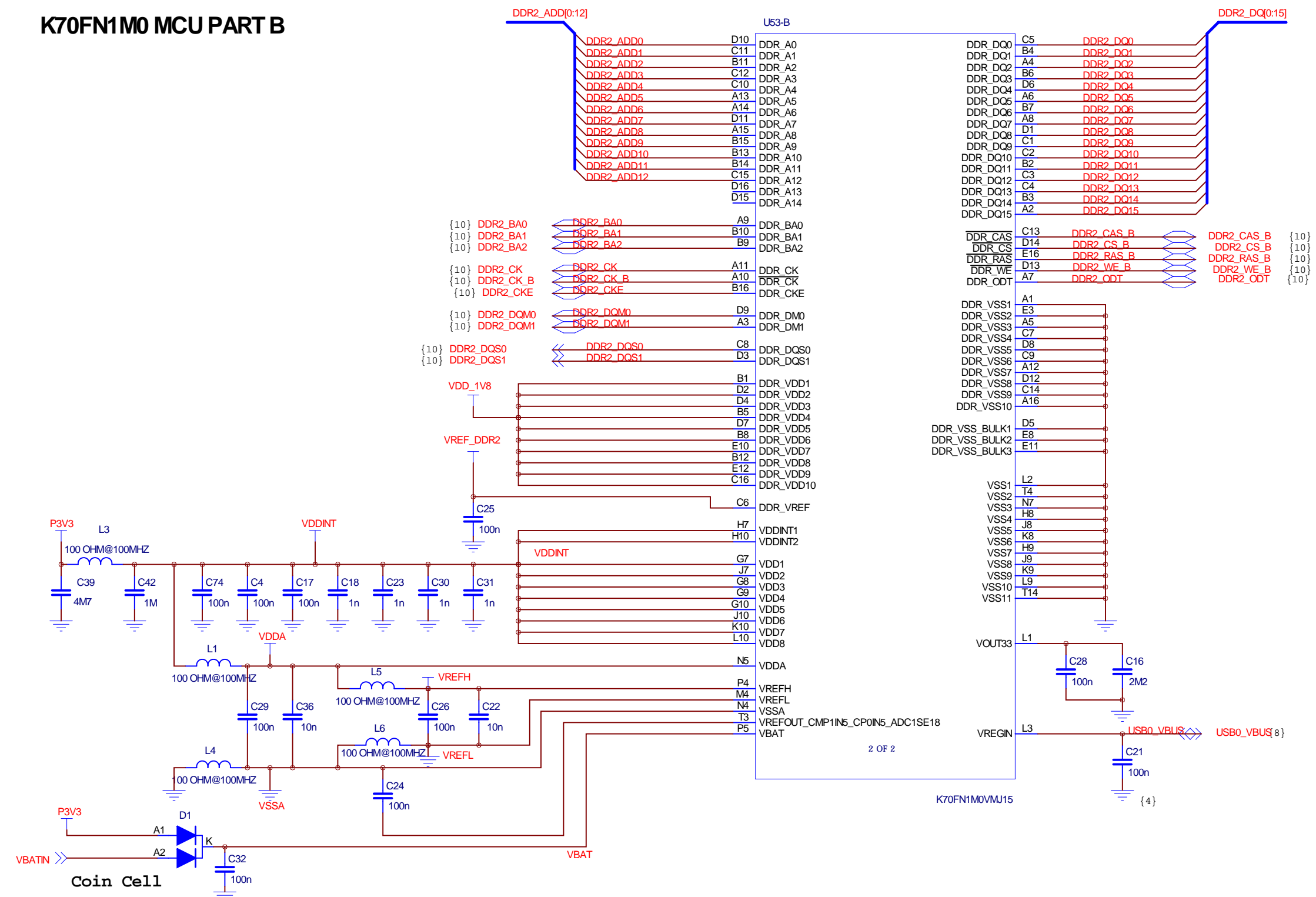


List číslo / Celkový počet	Nazev:	K70N1M0_MCU-1	
2/3	Přiláhot od:	11/2013	Číslo verze: V2.2
Dne:	Kreslil:	Projekt:	
11/2013	ELNICO	SQM4-K70	

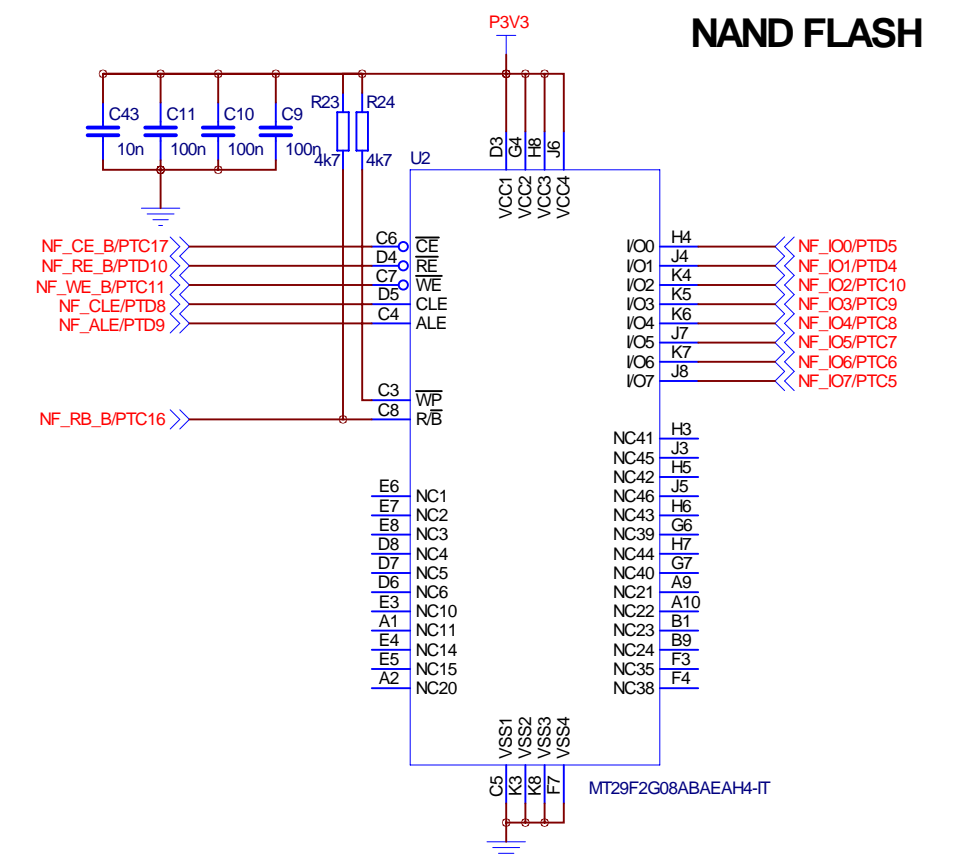
DDR2 RAM



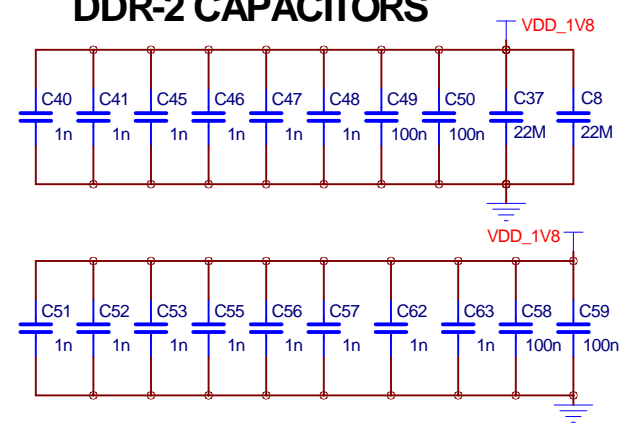
K70FN1M0 MCU PART B



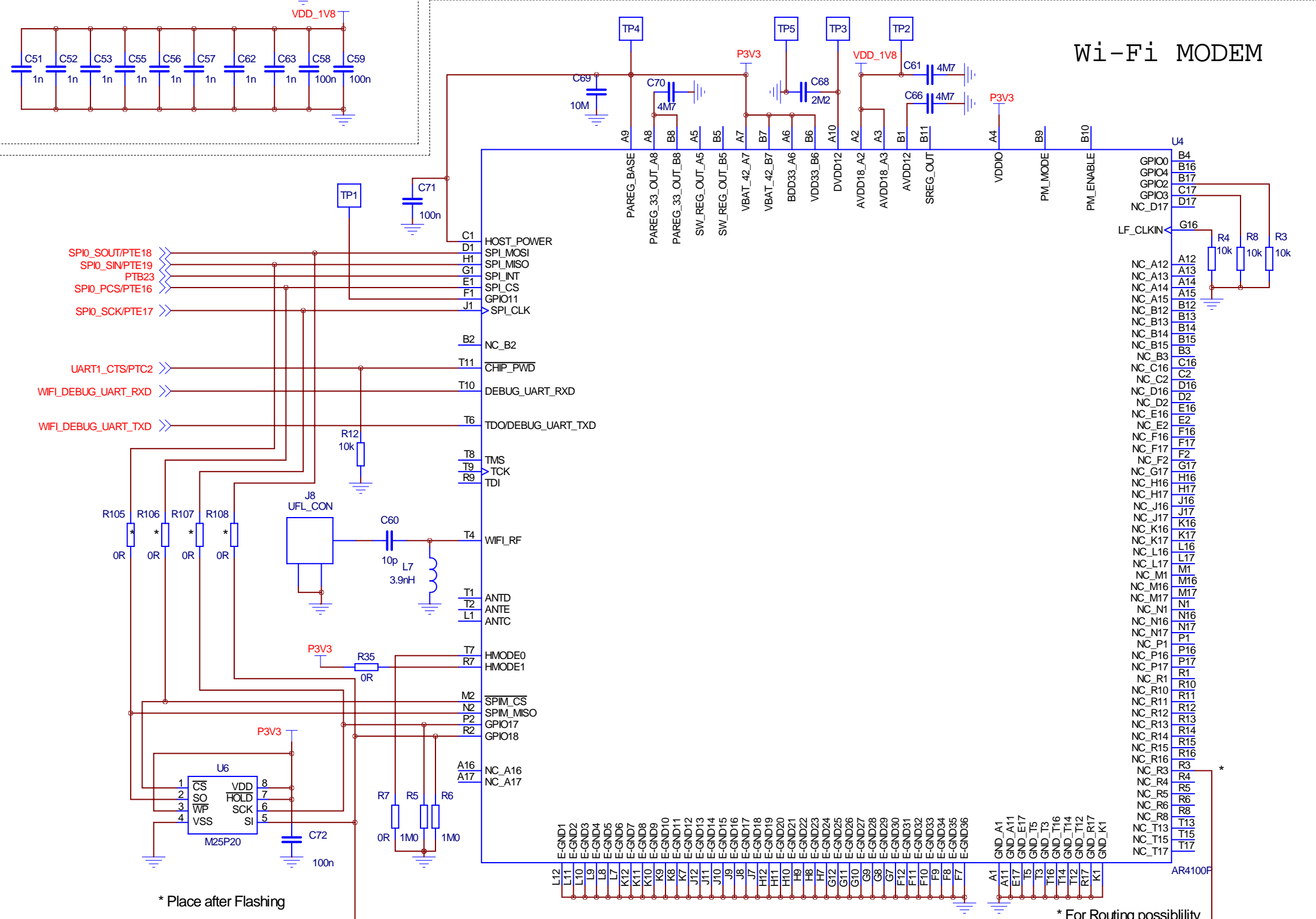
NAND FLASH



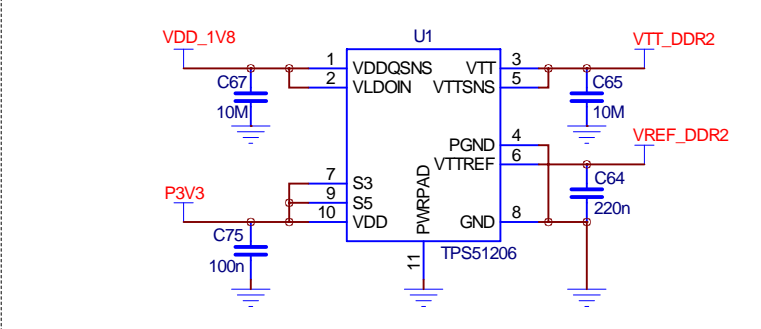
DDR-2 CAPACITORS



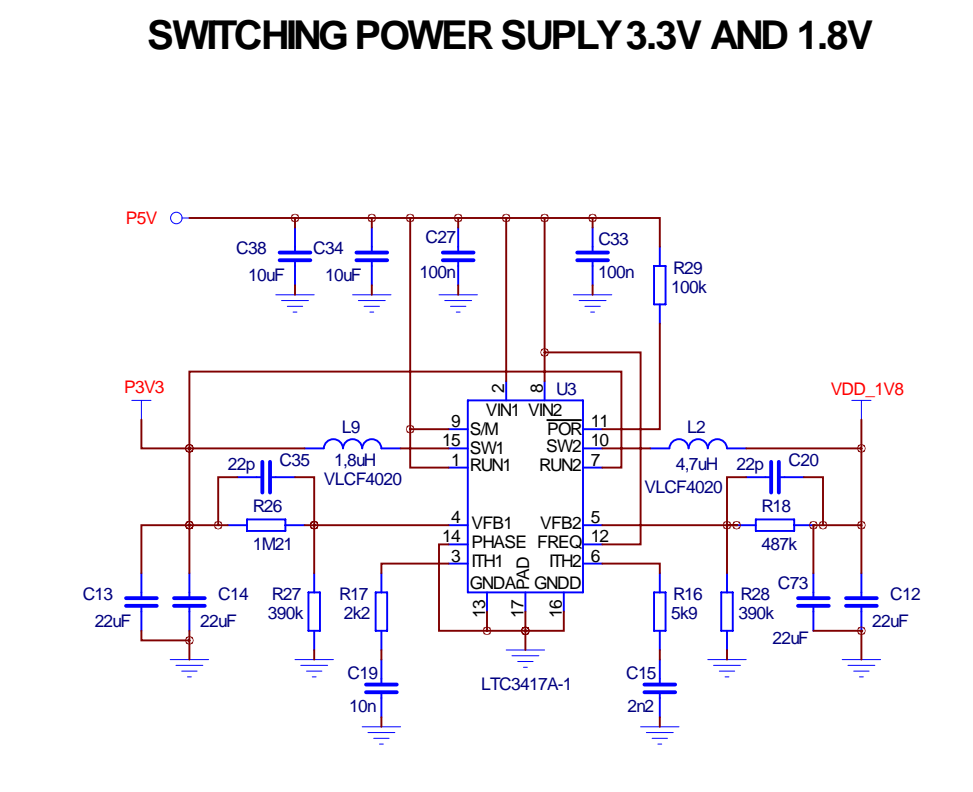
Wi-Fi MODEM



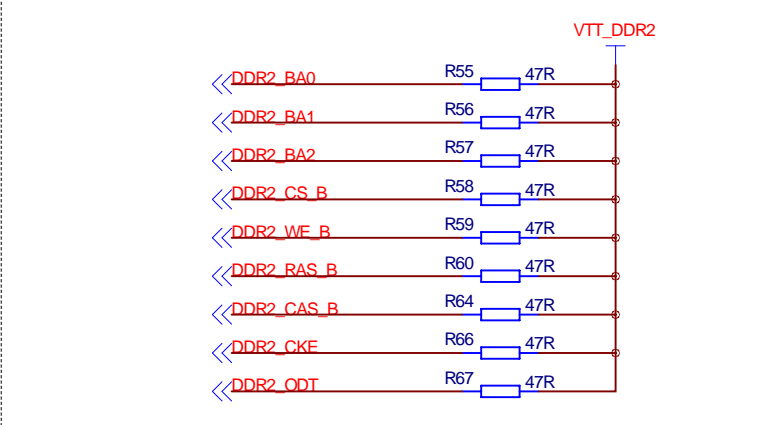
DDR-2 TERMINATION SUPPLY



SWITCHING POWER SUPPLY 3.3V AND 1.8V



DDR-2 TERMINATION RESISTORS



List číslo / Celkový počet 3/3	Nazev: DDR2-NAND-POWER-PHY
Dne: 11/2013	Platnost od: 11/2013
Kreslil: ELNICO	Cislo verze: V2.2
Projekt: SQM4-K70	