

To our customers,

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## Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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# SH7216 CPU Board R0K572167 SCHEMATICS

## TITLE

## PAGE

INDEX  
 SH7216  
 SDRAM-Ether/AUD,H-UDI,Reset  
 USB/SERIAL/RCAN/Power  
 Connectors,PUSH/DIP\_SW,LED

1  
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 3  
 4  
 5

### Note:

5VCC = Digital 5V  
 3VCC = 3.3V  
 AVCC = CPU Analog 5V  
 AVREF = CPU Analog 5V Reference  
 VccQ = CPU/etc. 3.3V  
 3AVCC = Ether Analog 3.3V  
 DrVCC = USB 3.3V  
 3VCC\_SDRAM = SDRAM 3.3V  
 PLLVCC = CPU PLL 3.3V

R = Fixed Resistors  
 RA = Resister Array  
 C = Ceramic Caps  
 CE = Electrolytic Caps  
 CP = Decoupling Caps  
 (Put one cap per each source pin)  
 CQ = Demitasse resonance Caps  
 L = Inductor

## Default settings

Page 2 Mode switches	Page 3 JP-1 jumper
1-OFF	1-2
2-OFF	
3-ON	
4-ON	
Page 3 PHY switches	Page 4 JP-2 jumper
1-ON	1-2
2-ON	
3-OFF	Page 4 JP-3 jumper
4-OFF	1-2
5-OFF	
6-ON	
Page 5 User switches	Page 4 JP-4 jumper
1-OFF	1-2
2-OFF	
3-OFF	Page 4 JP-5 jumper
4-OFF	1-2

:not mounted

Ver. 0.09 ISS01 U1 Vcc --> VCL  
 JN5 15 - 16 exchanged seven pins changed  
 USER SW VccQ > AVCC R5F72167D100FP > R5F72167ADFA  
 Demitasse resonance Caps Changed  
 ASEBRKAK#/ASEBRK# > FWE/ASEBRKAK#/ASEBRK#  
 JN2 16 - 17 exchanged Extension > Expansion

RENESAS SOLUTIONS CORPORATION

R0K572167C001BR

SCALE

DRAWN CHECKED DESIGNED APPROVED

INDEX

( 1 / 5 )

DATE

09-12-07

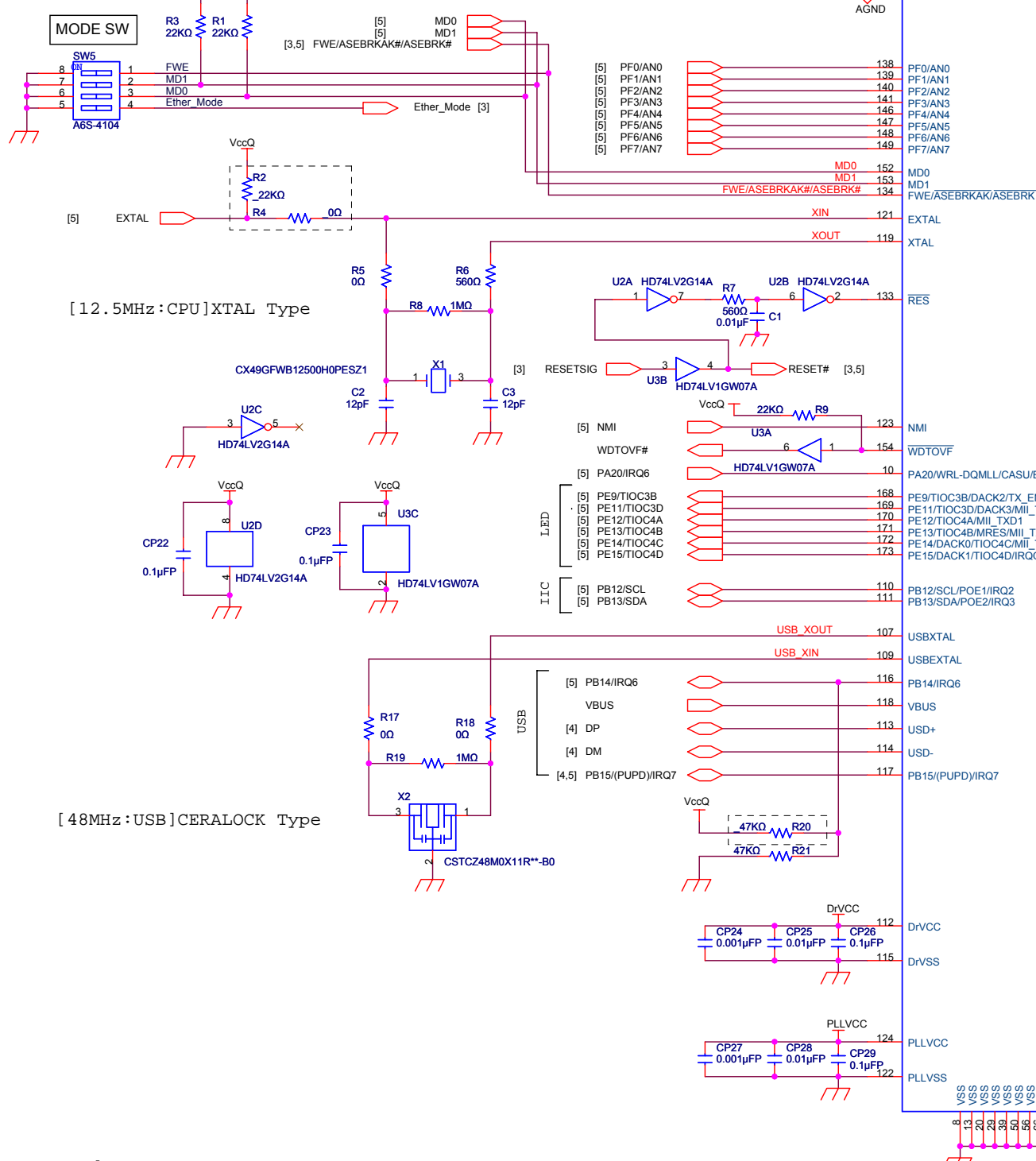
DK30812-B

Mode Switch 1-3  
 Ether Mode Switch 4

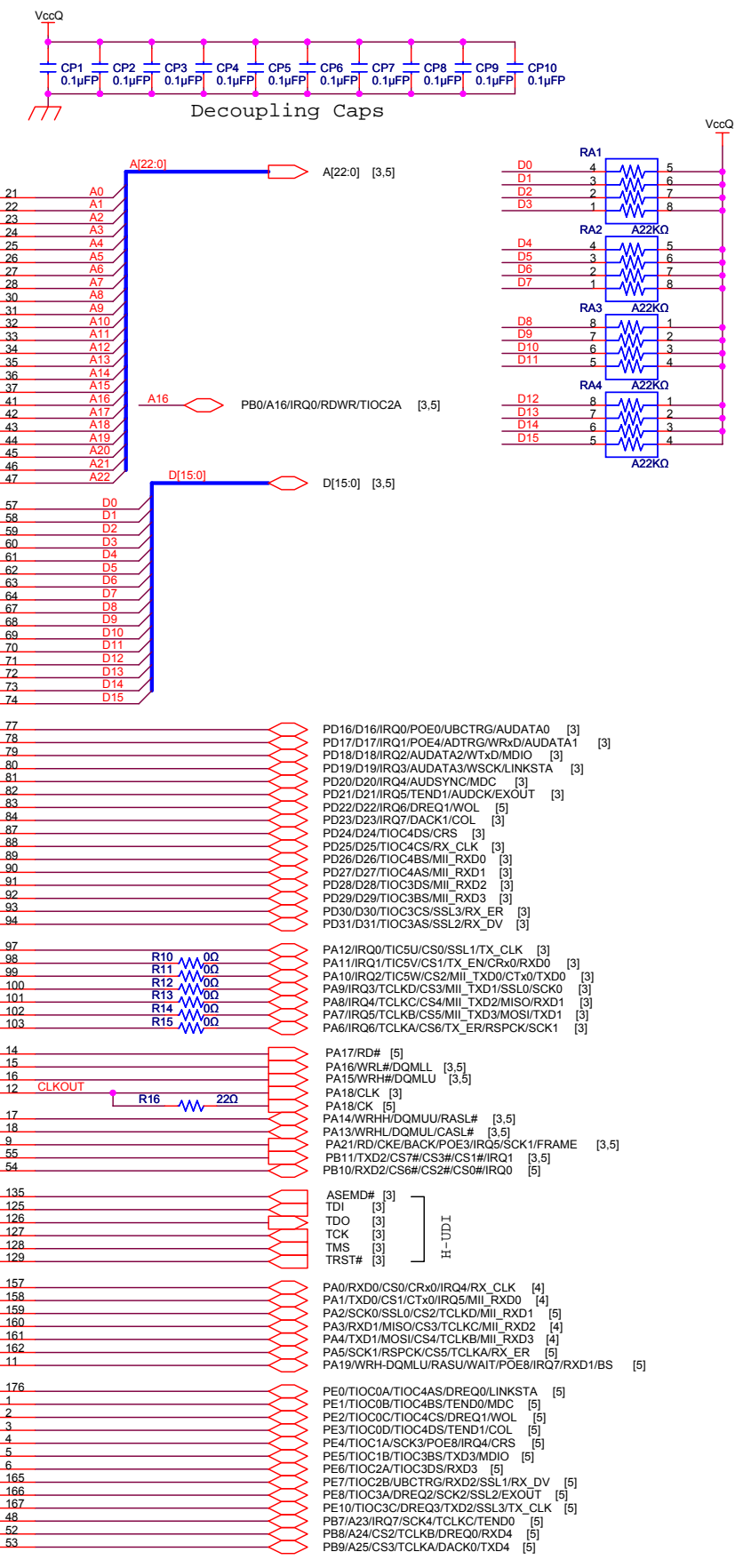
MODE	FWE	MD1	MD0
0	L	L	L
1	L	L	H
2	L	H	L
3	L	H	H
4	H	L	L
5	H	L	H
6	H	H	L
7	H	H	H

Ether Mode	
ON	Ether Mode
OFF	AUD Mode



SH7216

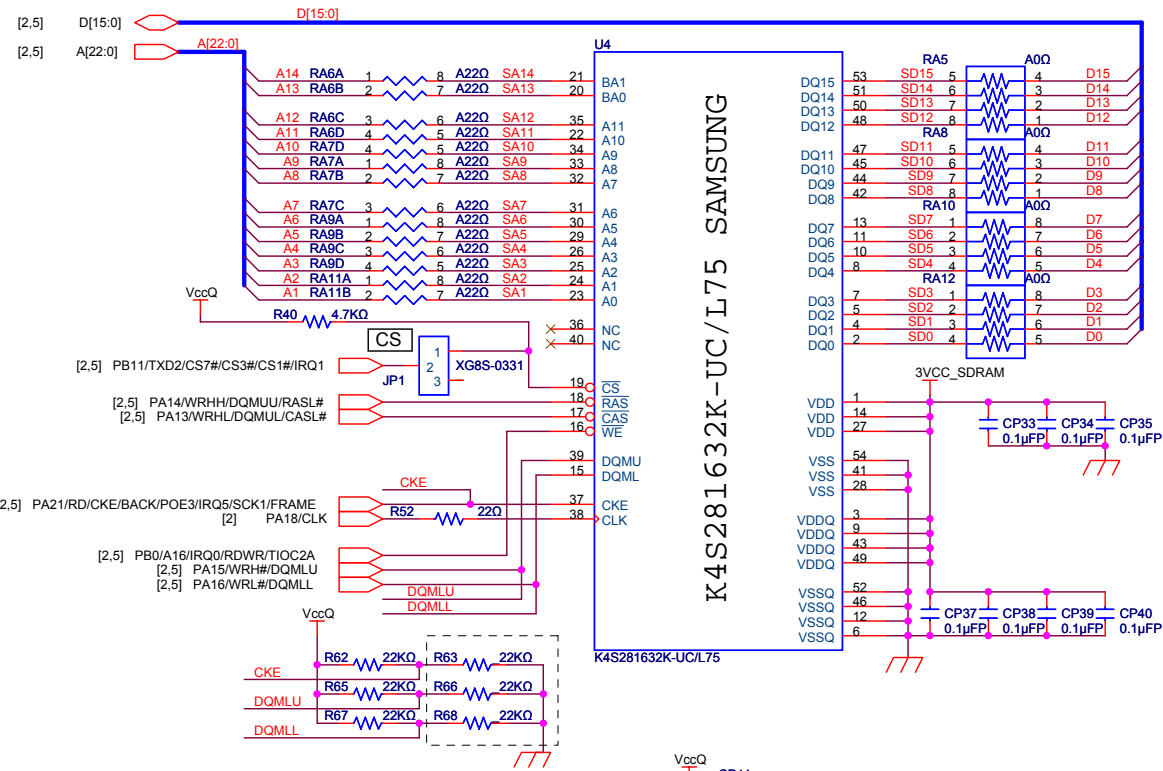


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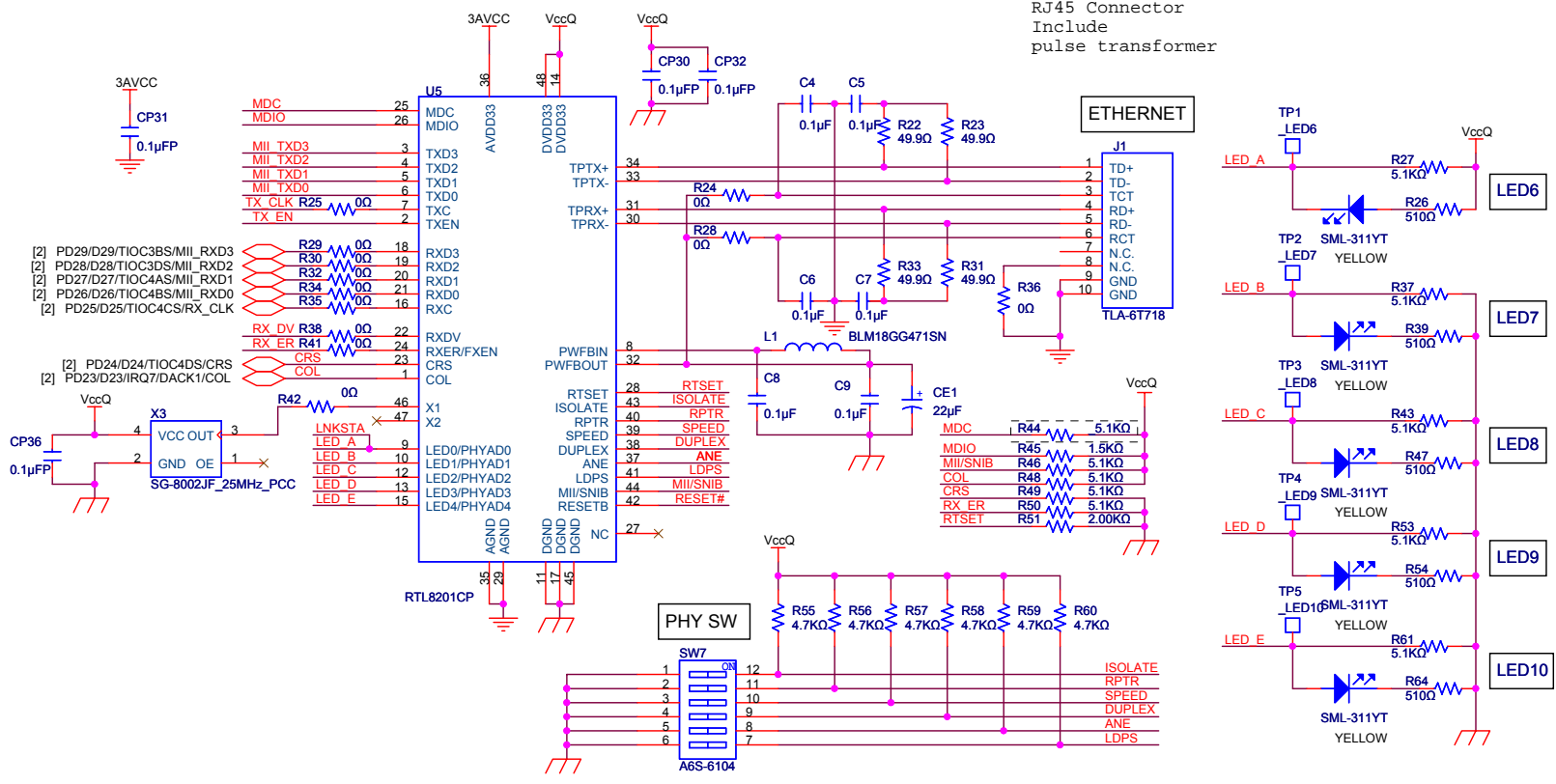
CHANGE	Ver. 0.09 ISS01	RENESAS SOLUTIONS CORPORATION				R0K572167C001BR
	U1 Vcc --> VCL seven pins changed	DRAWN	CHECKED	DESIGNED	APPROVED	CPU_SH7216 ( 2 / 5 )
	R5F72167D100FP > R5F72167ADFA	DATE	09-12-07			DK30812-B

# SDRAM

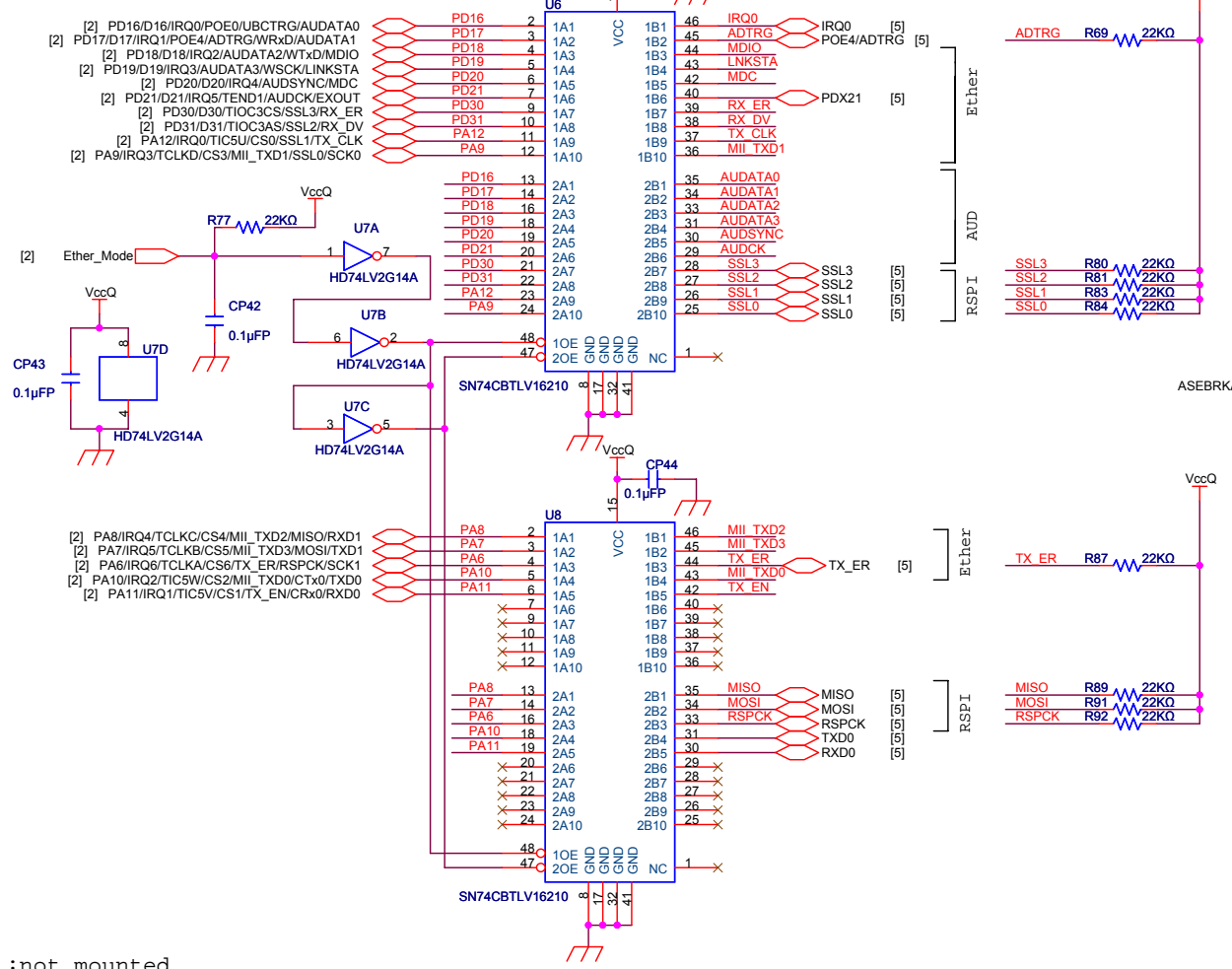
SDRAM  
16bit access = 16MB



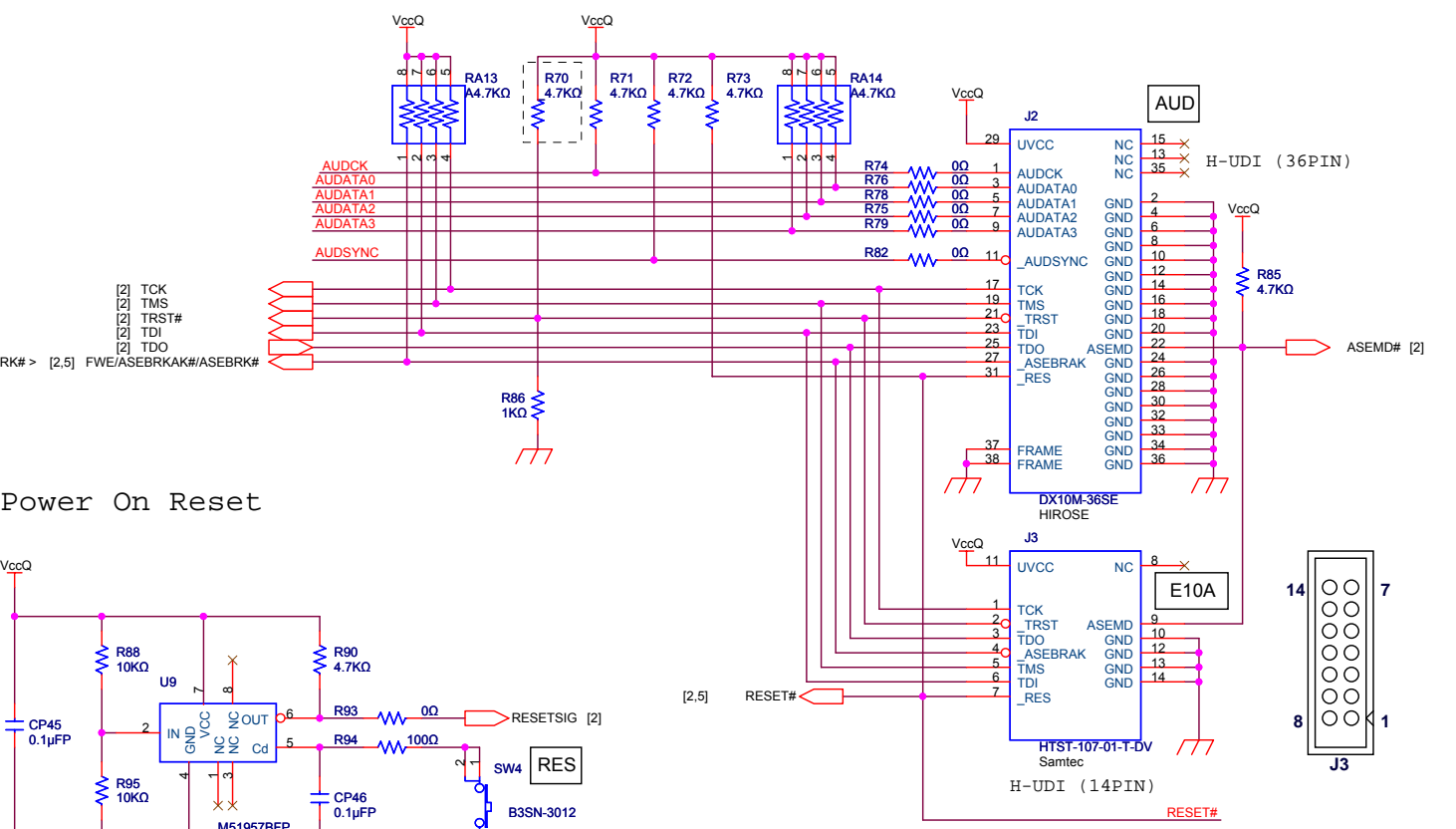
# ETHER PHY-LSI



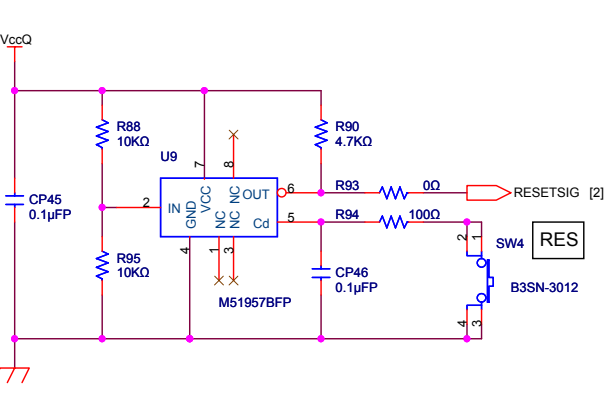
# Signal Switch



# H-UDI Interface



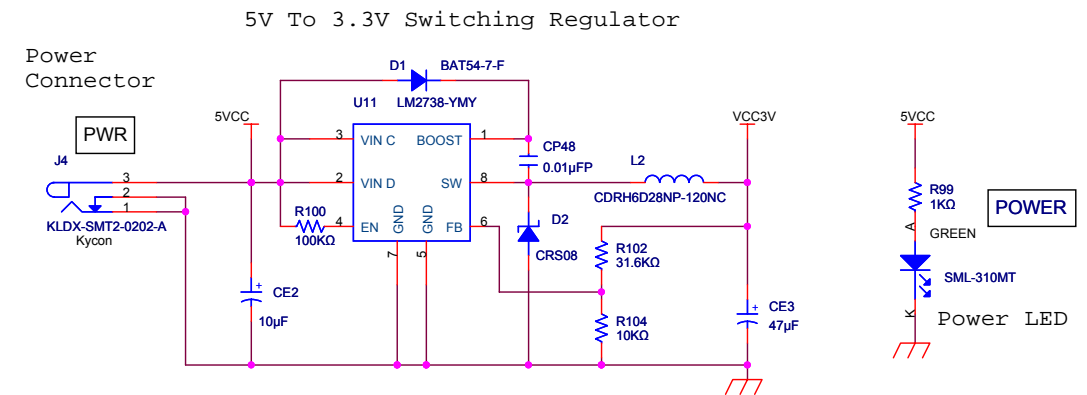
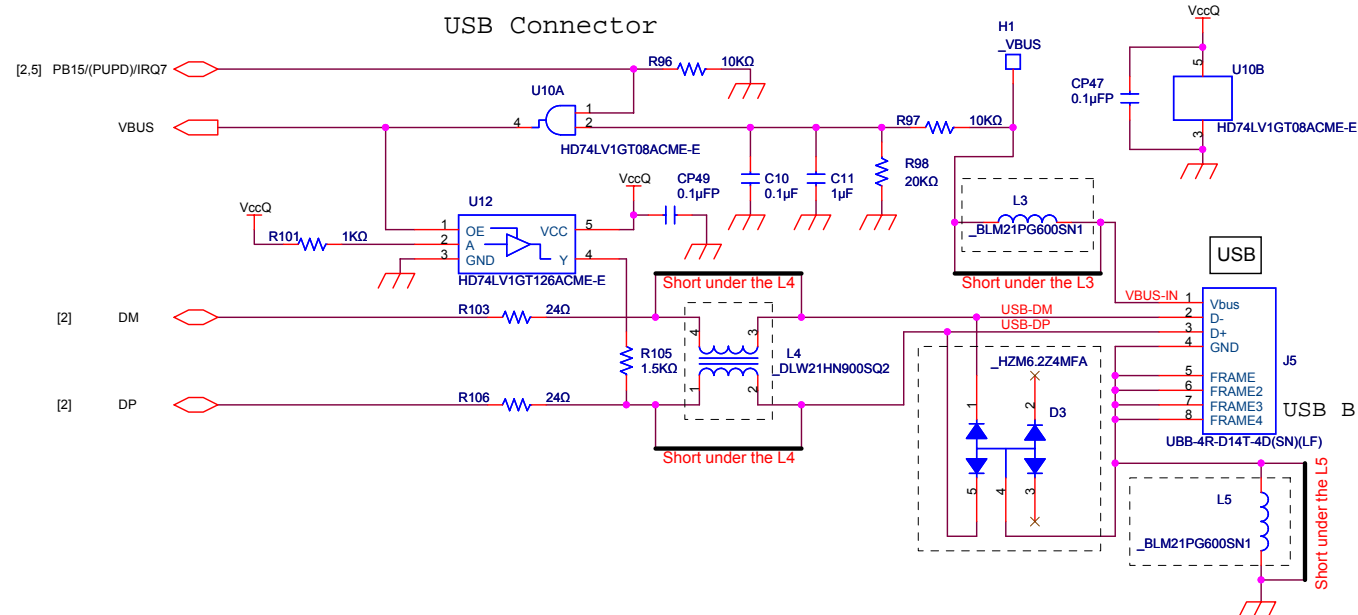
# Power On Reset



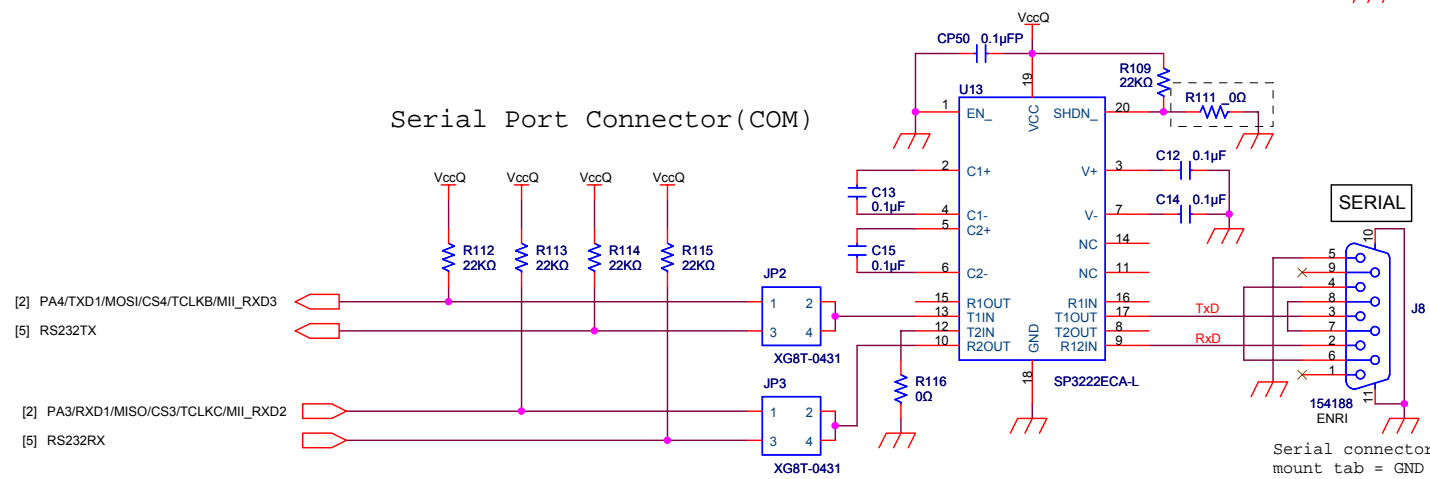
□ : not mounted

CHANGE	Ver. 0.09 ISS01				RENASAS SOLUTIONS CORPORATION				R0K572167C001BR					
	ASEBRKAK#/ASEBRK# > FWE/ASEBRKAK#/ASEBRK#				SCALE		DRAWN	CHECKED	DESIGNED	APPROVED	SDRAM-Ether/AUD,H-UDI,Reset			
					DATE	09-12-07					( 3 / 5 )			
									DK30812-B					

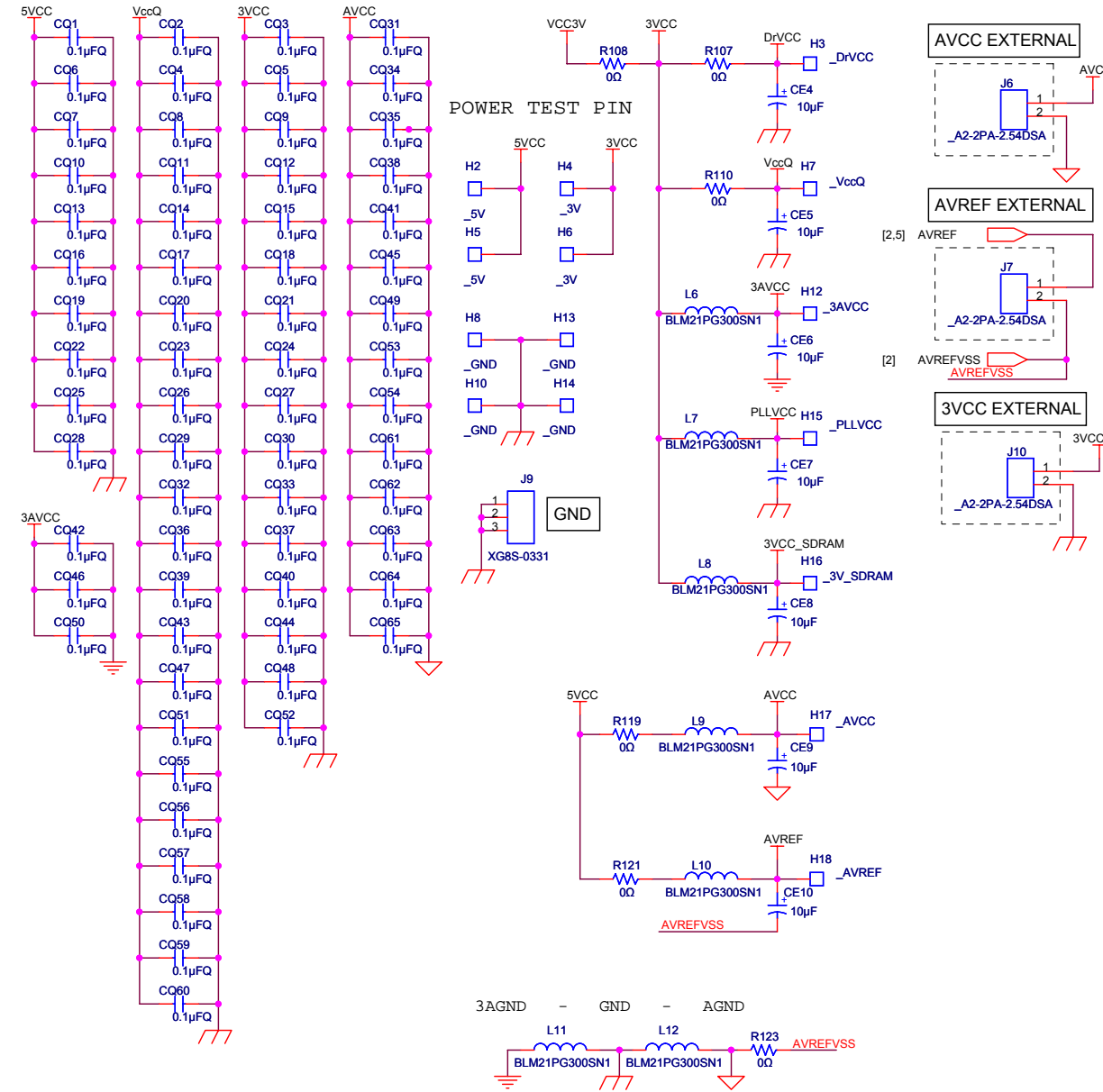
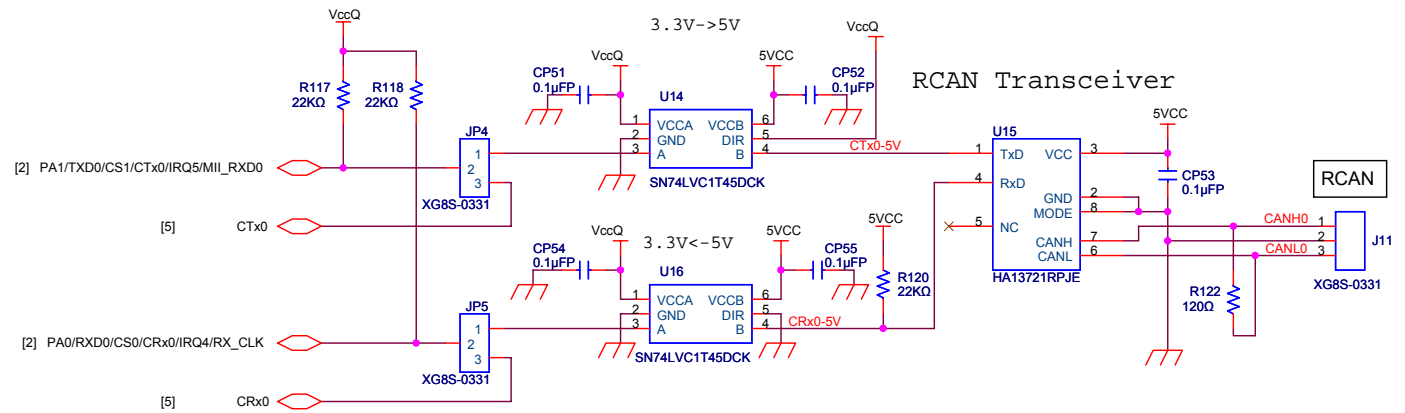




### Serial Port Connector (COM)



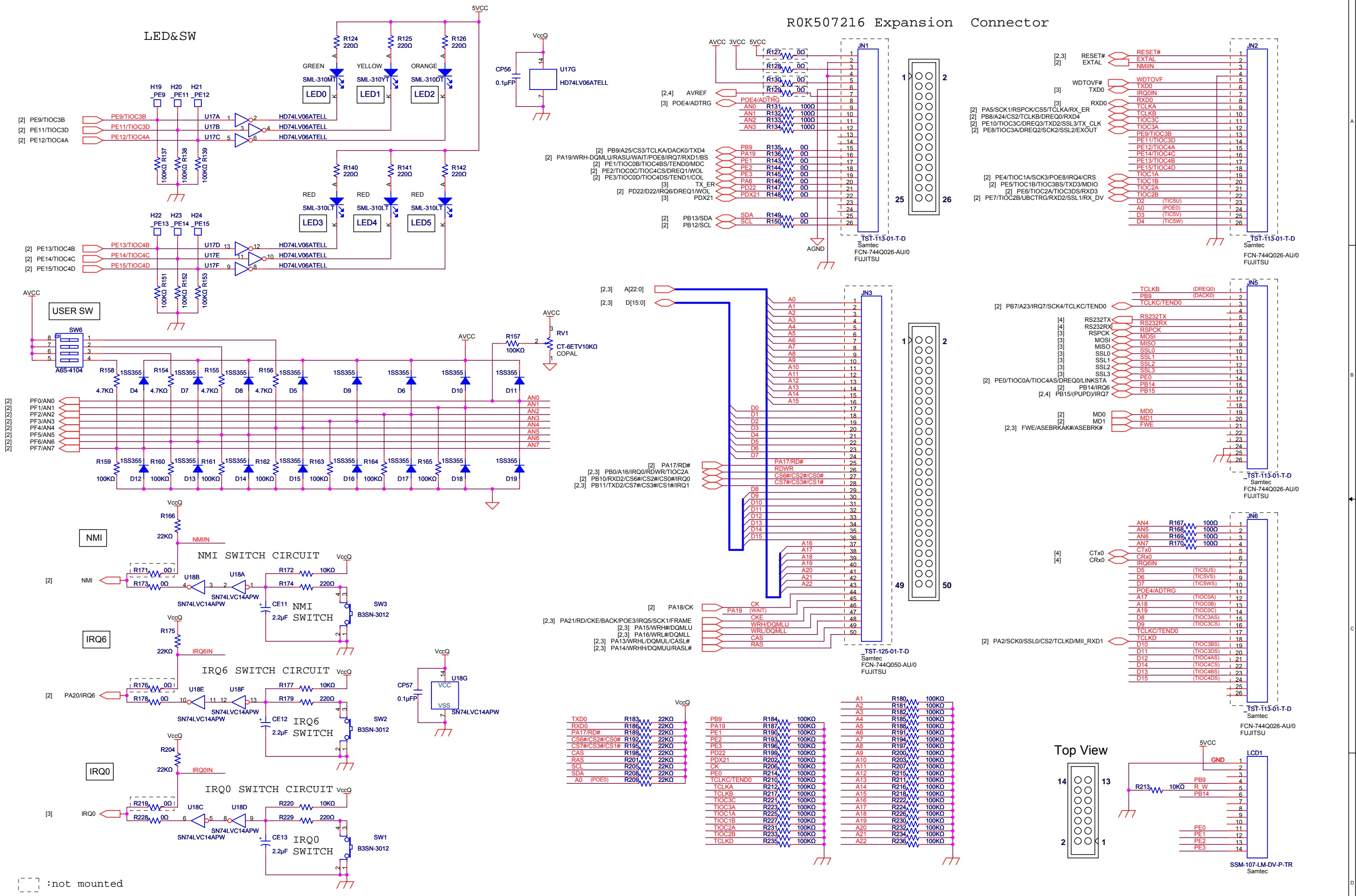
### Voltage Level Shifter 3.3V<->5V



□ :not mounted

CHANGE	Ver. 0.09 ISS01 Demitasse resonance Caps Changed		RENESAS SOLUTIONS CORPORATION				R0K572167C001BR
	SCALE		DRAWN	CHECKED	DESIGNED	APPROVED	USB/SERIAL/RCAN/Power ( 4 / 5 )
	DATE	09-12-07					DK30812-B

# R0K507216 Expansion Connector



CHANGE	Ver. 0.09 ISS01	Extension > Expansion	RENESAS SOLUTIONS CORPORATION				R0K572167C001BR
	JN5 15 - 16 exchanged		DRAWN	CHECKED	DESIGNED	APPROVED	Connectors, PUSH/DIP_SW, LED
	USER SW VccQ > AVCC						( 5 / 5 )
	JN2 16 - 17 exchanged		DATE	09-12-07			DK30812-B