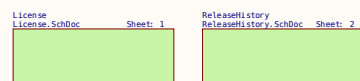
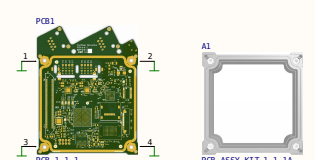
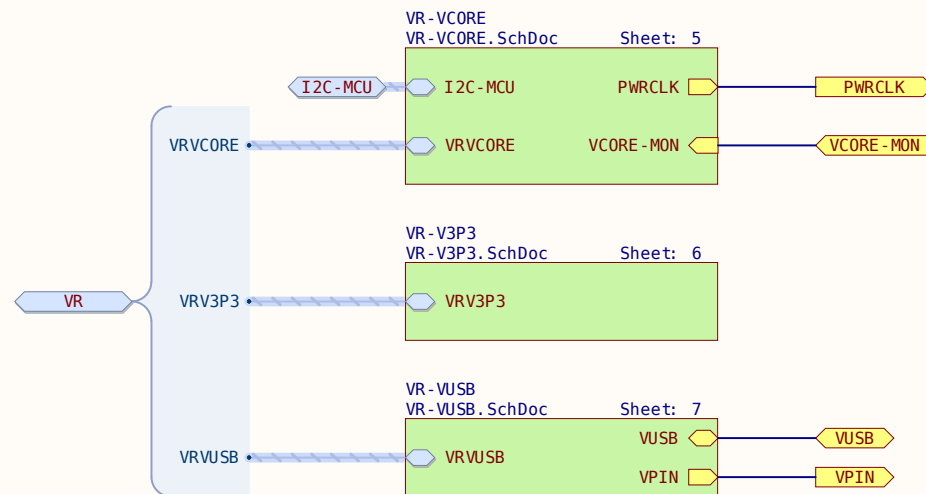


1		2		3		4	
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	1	2	3	4
	Release	Date	Description	
	P-1-1-1	2016-10-12	files released for prototype manufacturing	
	P-1-1-1	2017-01-07	formating and appearance improvements for github publishing	
A	P-1-1-1A	***	patches added during prototype validation: 1.	
B				
C				
D	***	pending release		
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Sheet Title: Revision History			Circuit Card: Root 1V1	
File: ReleaseHistory.SchDoc			Project Name: Salix-Arctica	
Developer: md.agathisproject@gmail.com			Release Code: P-1-1-1	Release Date: 2017-01-07
			Sheet No: 2. of 17	
			Sheet Size: A(11"x8.5")	
	1	2	3	4

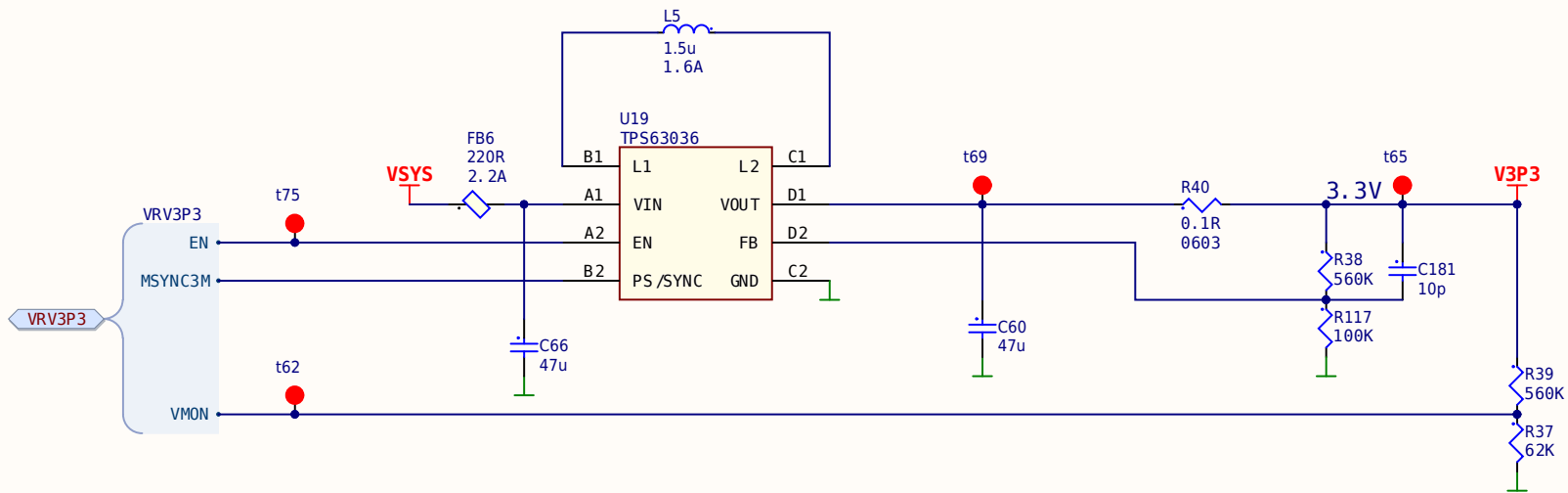


Sheet Title: Top Level		Circuit Card: Root 1V1	
File: Top_SchDoc		Project Name: Salix-Artica	Sheet No: 3 of 17
Developer: md_waahidproject@gmail.com		Release Code: P-1-1-1	Sheet Size: (122"x17")
		Release Date: 2017-01-07	



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Sheet Title: Voltage Regulators		Circuit Card: Root 1V1		
File:	VoltReg.SchDoc	Project Name:	Salix-Arctica	Sheet No: 4. of 17
Developer:	md.agathisproject@gmail.com	Release Code:	P-1-1-1	Release Date: 2017-01-07
				Sheet Size: A(11"x8.5")



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Circuit Card: **Root 1V1**

File: VR-V3P3.SchDoc

Project Name: Salix-Arctica

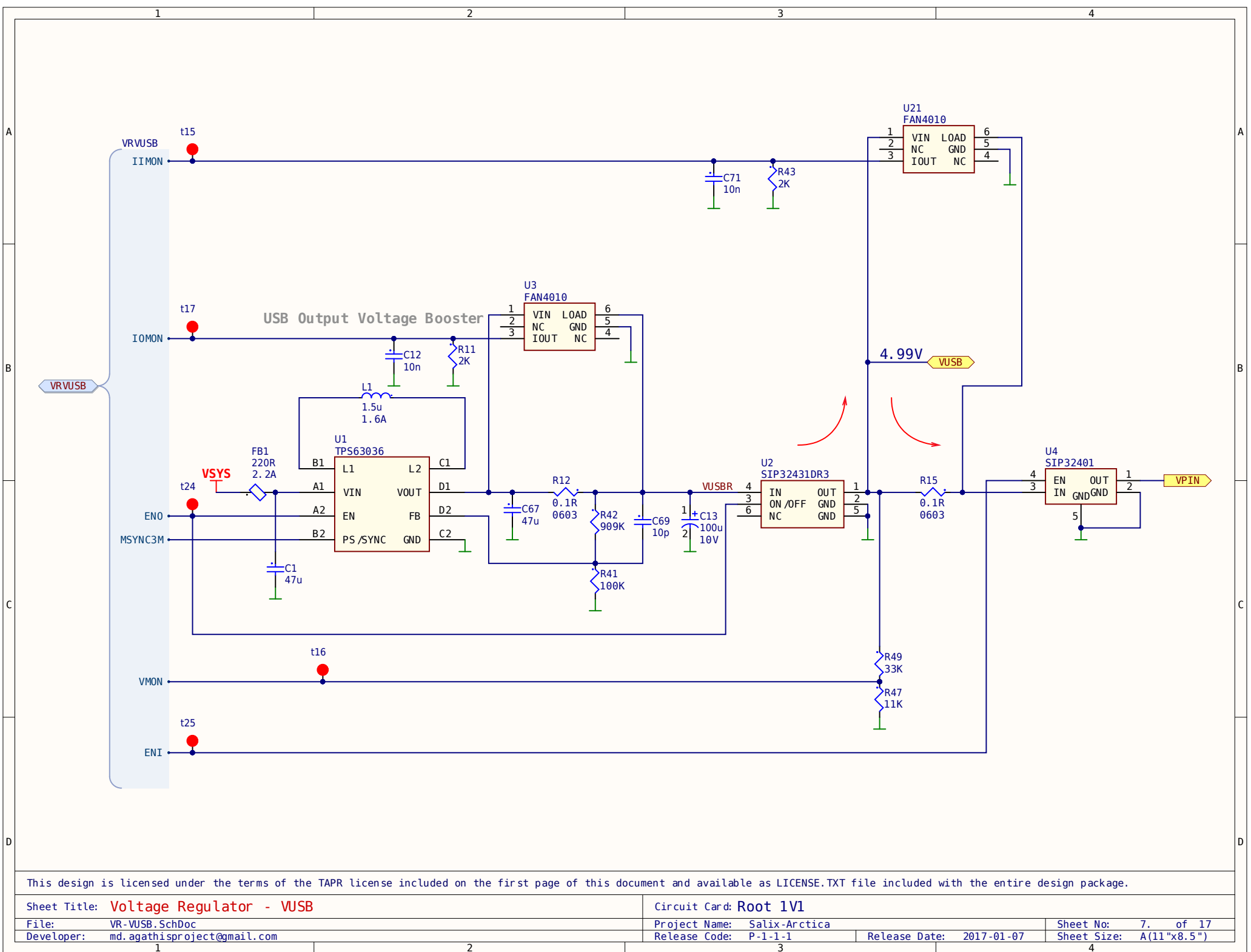
Sheet No: 6. of 17

Developer: md.agathisproject@gmail.com

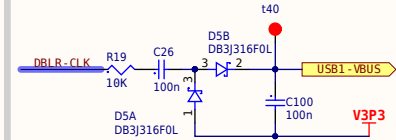
Release Code: P-1-1-1

Release Date: 2017-01-07

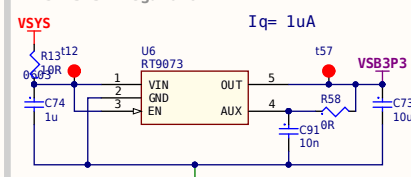
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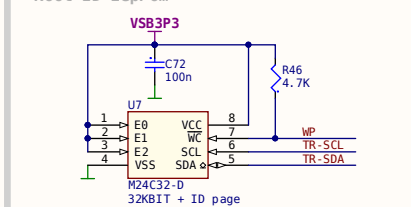
VBUS HOST VOLTAGE DOUBLER



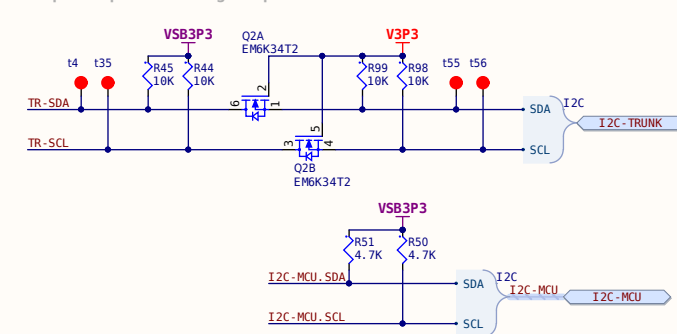
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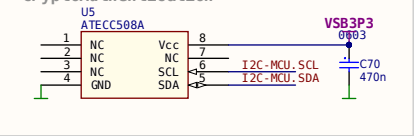
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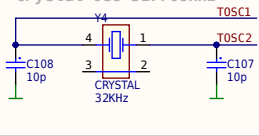
I2C pull-up and voltage separation



CryptoAuthentication



Crystal Osc 32.768kHz



I2C addresses (LSB is the w/r bit)

=====

MCU root I2C

=====

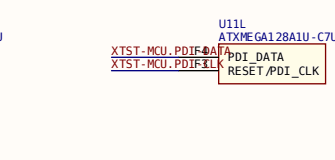
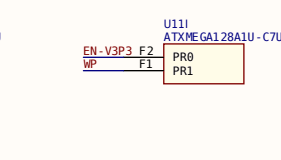
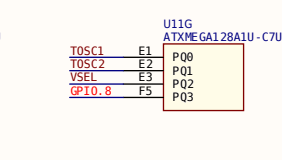
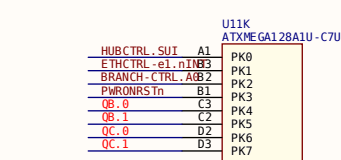
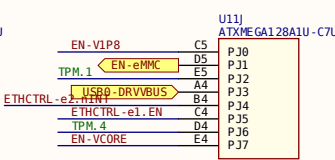
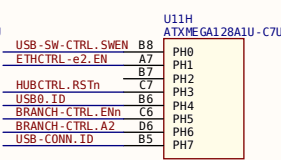
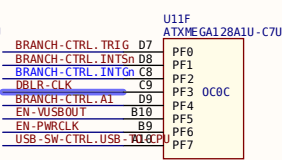
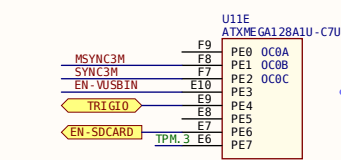
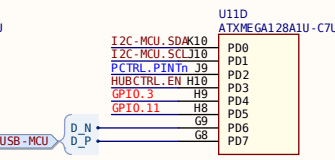
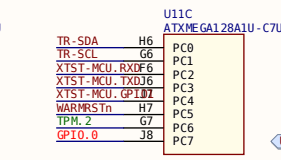
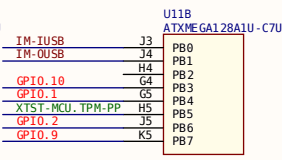
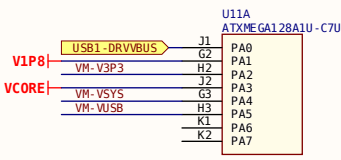
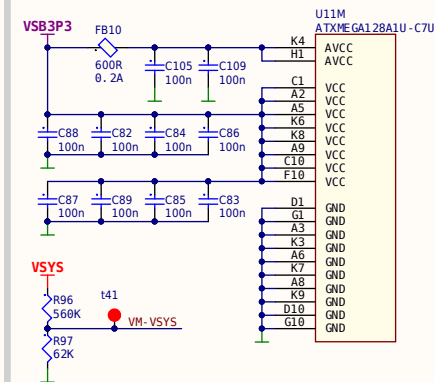
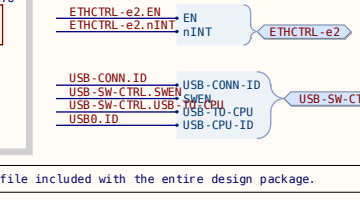
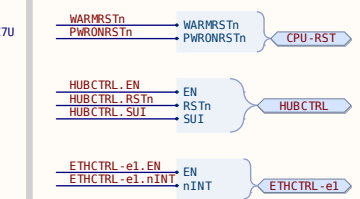
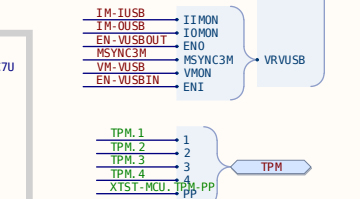
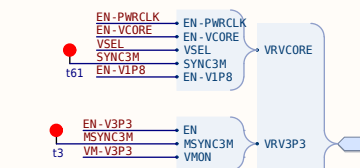
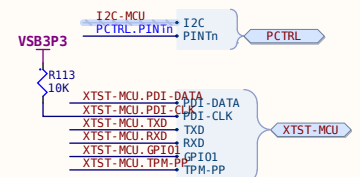
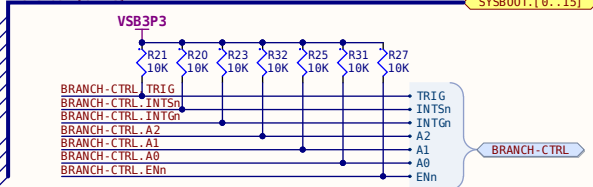
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ATEC508A : 0xC0
AT975C320ST : 0x28
FAN535UC03X (VIP8) : 0x90
FAN535UC03X (VCORE) : 0x94

Trunk I2C

=====

MC24C32 : 0xAE (mem space), 0xBE (id space)

3.3V
SYS800T.[0..15]
SYS800T.[0..15]



MICROCONTROLLER

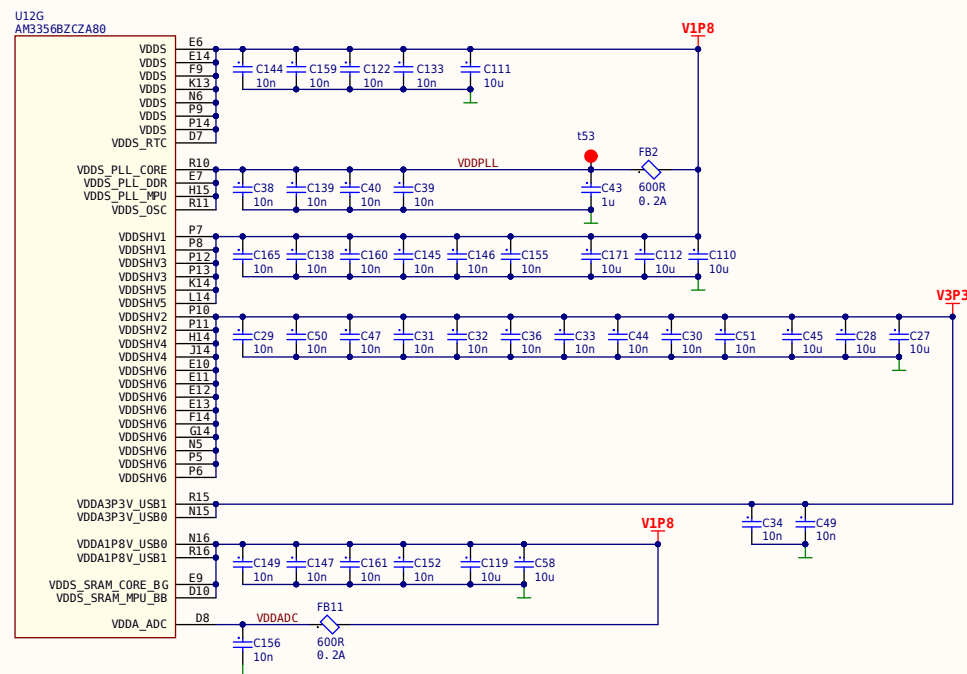
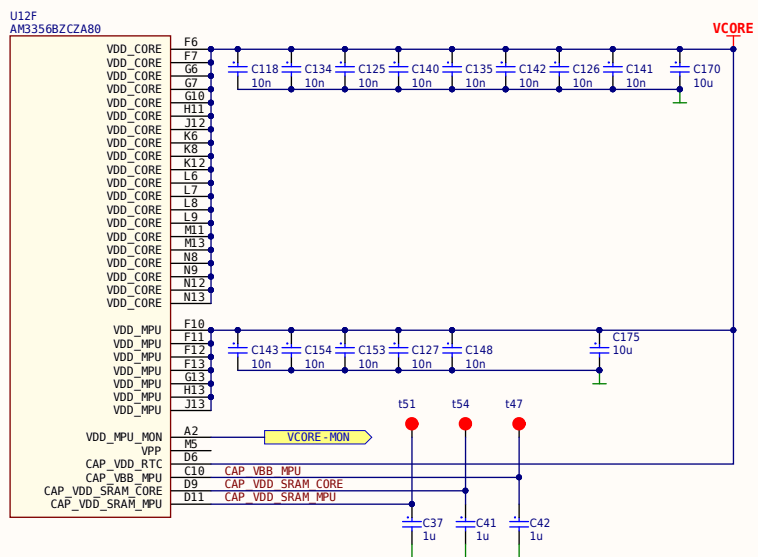
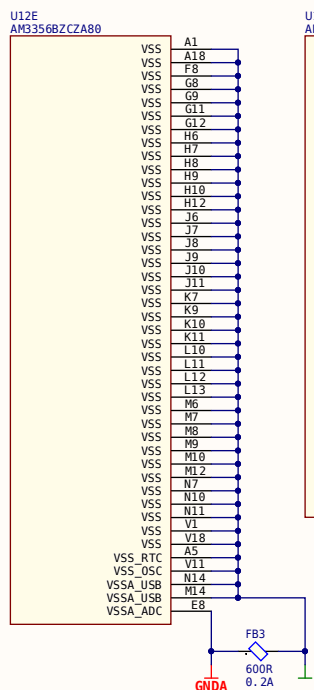
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Sheet Title: Microcontroller

File: MCU_SchDoc
Developer: md.agathisproject@gmail.com

Circuit Card: Root IV1

Project Name: Salix-Artica
Release Code: P-1-1-1
Release Date: 2017-01-07
Sheet No: 8. of 17
Sheet Size: B(17"x11")



Sheet Size: B (17"x11")

CPU

U12D
AM3356BZCZA80

DDR_A0 F3 DDR-A0
DDR_A1 H1 DDR-A1
DDR_A2 E4 DDR-A2
DDR_A3 C3 DDR-A3
DDR_A4 C2 DDR-A4
DDR_A5 B1 DDR-A5
DDR_A6 D5 DDR-A6
DDR_A7 E2 DDR-A7
DDR_A8 D4 DDR-A8
DDR_A9 C1 DDR-A9
DDR_A10 F4 DDR-A10
DDR_A11 F2 DDR-A11
DDR_A12 E3 DDR-A12
DDR_A13 H3 DDR-A13
DDR_A14 H4
DDR_A15 D3
DDR_BA0 C4 DDR-BA0
DDR_BA1 E1 DDR-BA1
DDR_BA2 B3

DDR_D0 M3 DDR-D0
DDR_D1 M4 DDR-D1
DDR_D2 N1 DDR-D2
DDR_D3 N2 DDR-D3
DDR_D4 N3 DDR-D4
DDR_D5 N4 DDR-D5
DDR_D6 P3 DDR-D6
DDR_D7 P4 DDR-D7
DDR_D8 J1 DDR-D8
DDR_D9 K1 DDR-D9
DDR_D10 K2 DDR-D10
DDR_D11 K3 DDR-D11
DDR_D12 K4 DDR-D12
DDR_D13 L3 DDR-D13
DDR_D14 L4 DDR-D14
DDR_D15 M1 DDR-D15

DDR_CK D2
DDR_CKn D1
DDR_CKE G3
DDR_CSn0 H2
DDR_CASn F1
DDR_RASn G4
DDR_WEn B2

DDR_DQM0 M2 DDR-DQM0
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DDR_DQSn1 L1
DDR_DQSn1 L2

DDR_ODT G1
DDR_RESETh G2

DDR_VREF J4
DDR_VTP J3

VDD5_DDR E5
VDD5_DDR F5
VDD5_DDR G5
VDD5_DDR H5
VDD5_DDR J5
VDD5_DDR K5
VDD5_DDR L5

C117 100n
C120 100n
C123 100n
C128 100n
C129 100n
C136 100n
C130 100n
C124 100n
C163 100n
C164 100n
C162 10u

LPDDR 128M16

U18
MT46H128M16LFDD

A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10 /AP
A11
A12
A13

BA0
BA1

DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15

CK
CK#
CKE
CS#
CAS#
RAS#
WE#

LDQM
LDQS
UDM
UDQS

NC F3
TEST D9

VDDQ B1
VDDQ A7
VDDQ D1
VDDQ E9
VDDQ C9

VDD A9
VDD F9
VDD K9

VSS A1
VSS F1
VSS K1

VSS A3
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VSS C1
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VSS C1
VSS E1

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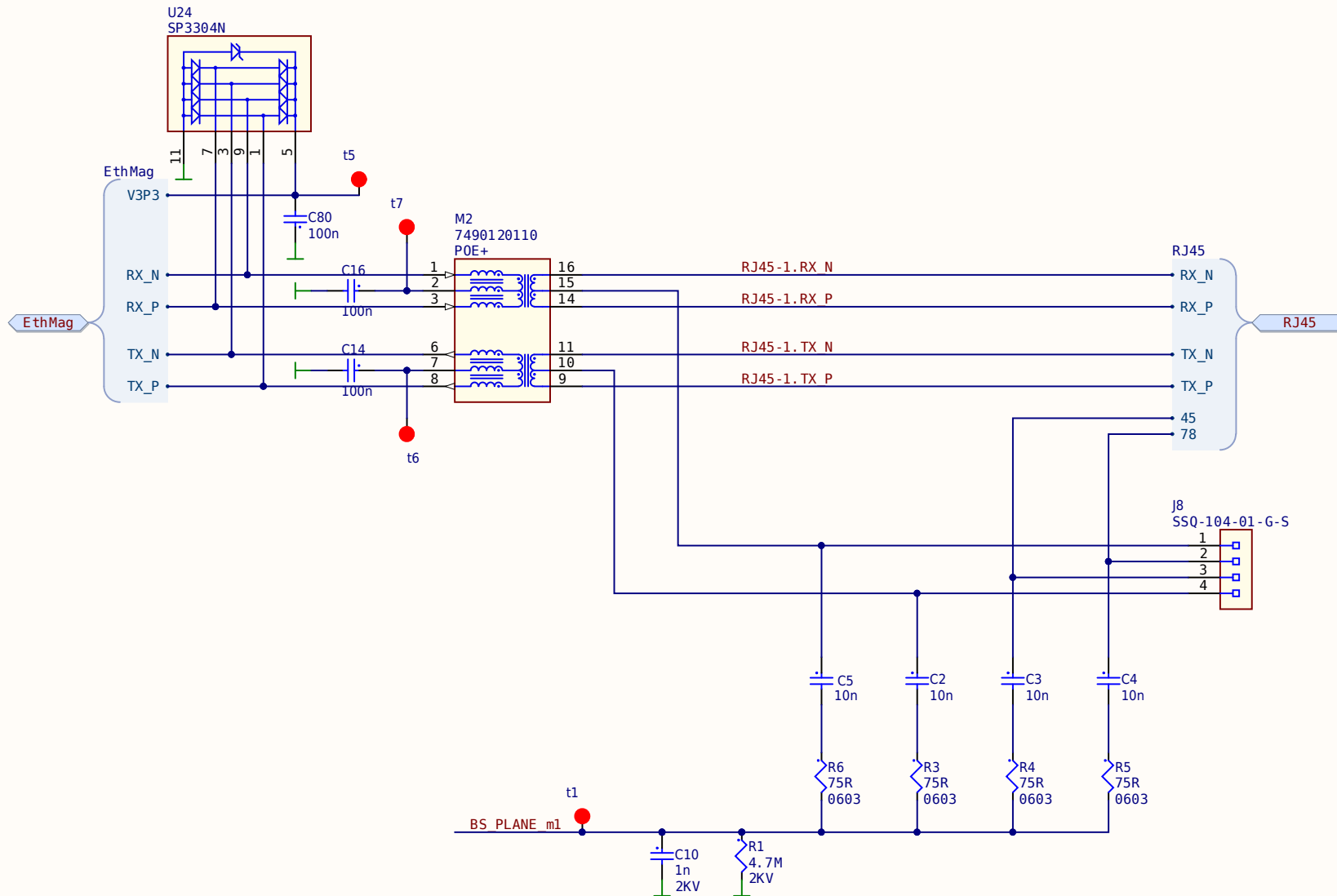
Sheet Title: Low Power DDR		Circuit Card: Root IV1	
File: LPDDR.SchDoc	Developer: md.agathisproject@gmail.com	Project Name: Salix-Artica	Sheet No: 12 of 17
		Release Code: P-1-1-1	Release Date: 2017-01-07
		Sheet Size: B(17"x11")	



Sheet No:	13.1 of 17
Sheet Size:	A(11"x8.5")



Sheet No:	13.2 of 17
Sheet Size:	A(11"x8.5")



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Sheet Title: **Ethernet Magnetics**

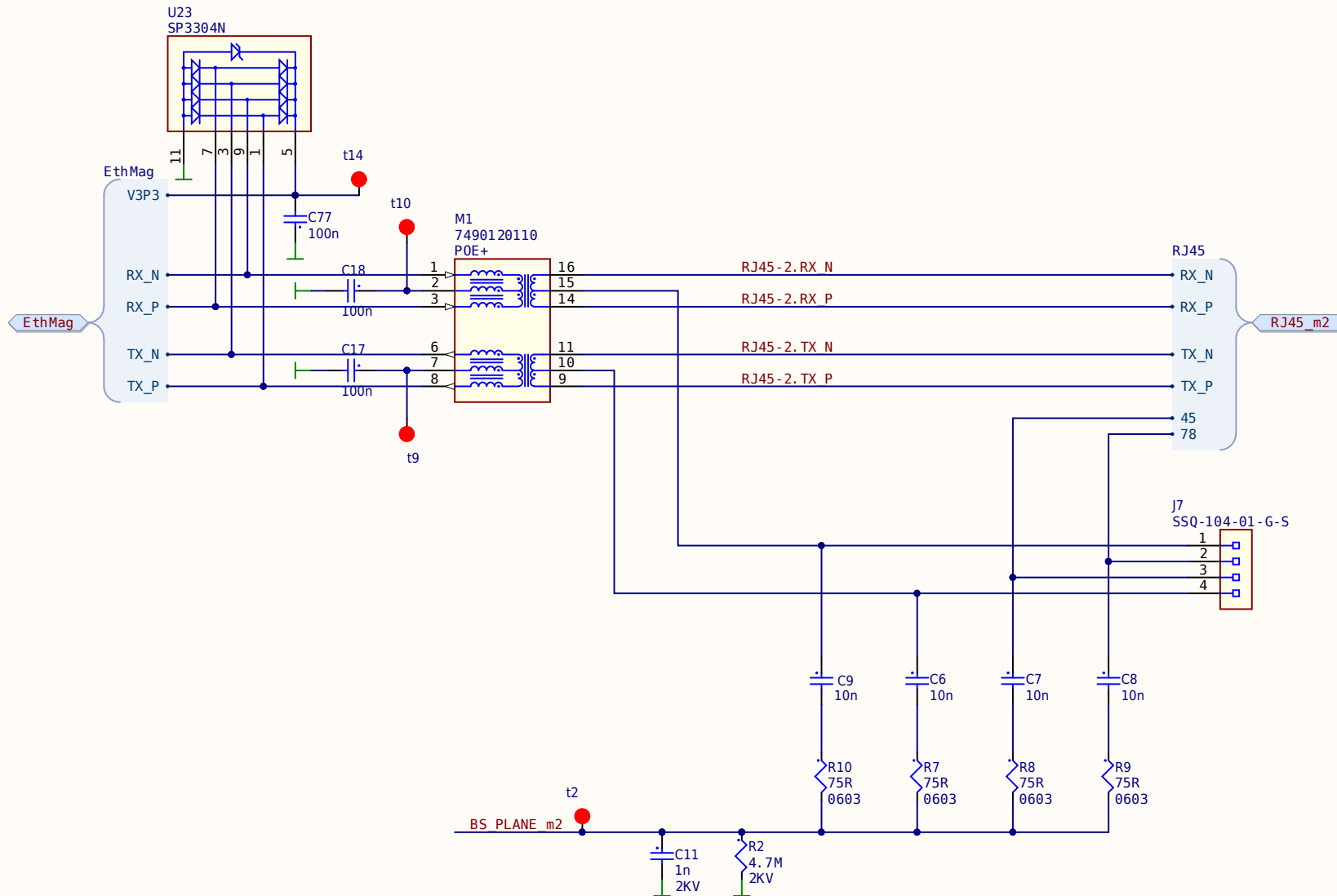
Circuit Card: **Root 1V1**

File: EthMag.SchDoc
Developer: md.agathisproject@gmail.com

Project Name: Salix-Arctica
Release Code: P-1-1-1

Release Date: 2017-01-07

Sheet No: 14.1 of 17
Sheet Size: A(11"x8.5")



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Sheet Title: **Ethernet Magnetics**

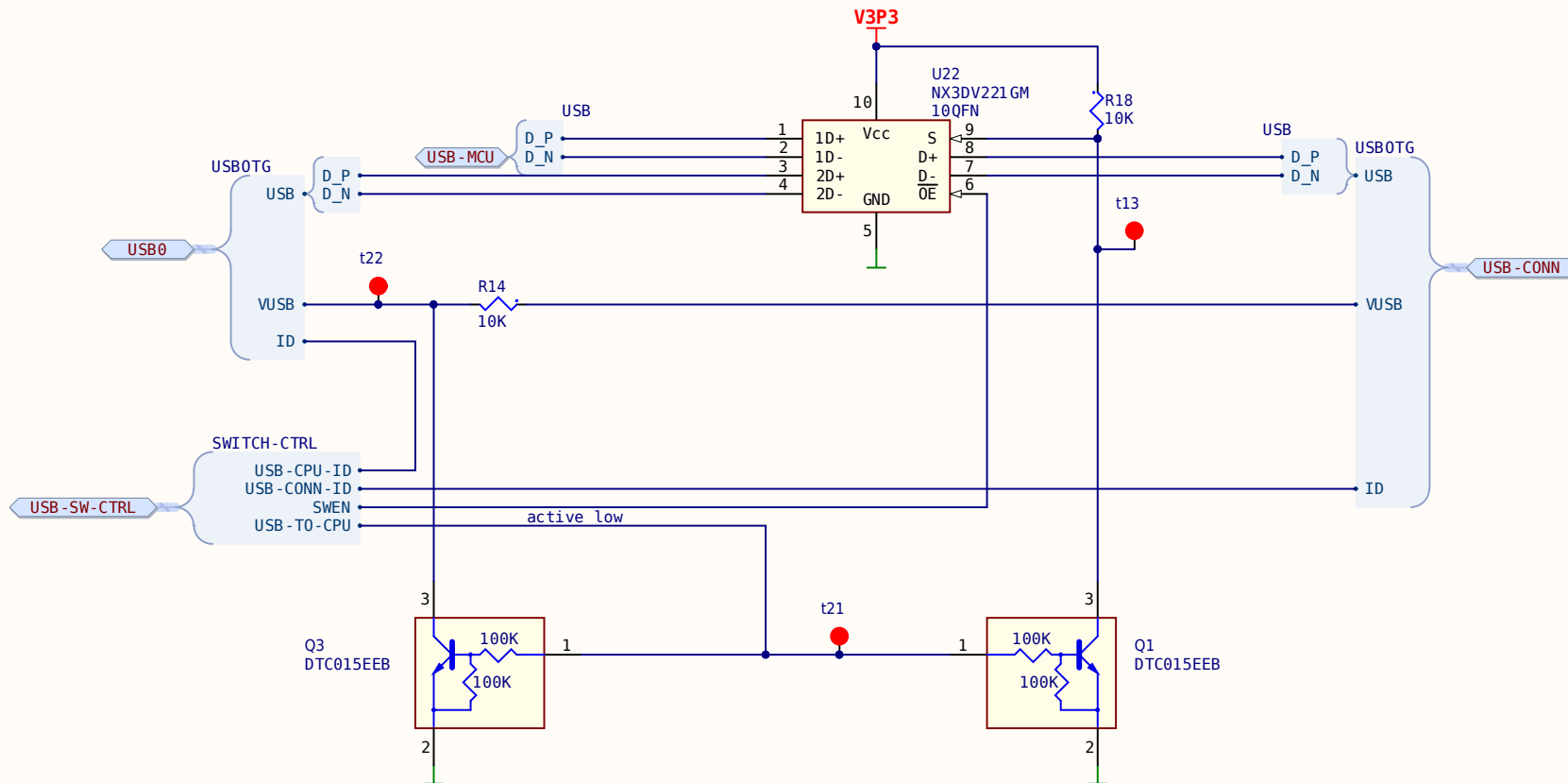
Circuit Card: **Root 1V1**

File: EthMag.SchDoc
Developer: md.agathisproject@gmail.com

Project Name: Salix-Arctica
Release Code: P-1-1-1

Release Date: 2017-01-07

Sheet No: 14.2 of 17
Sheet Size: A(11"x8.5")



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Sheet Title: **USB Switch**

Circuit Card: **Root 1V1**

File: USBswitch.SchDoc

Project Name: Salix-Artica

Sheet No: 16. of 17

Developer: md.agathisproject@gmail.com

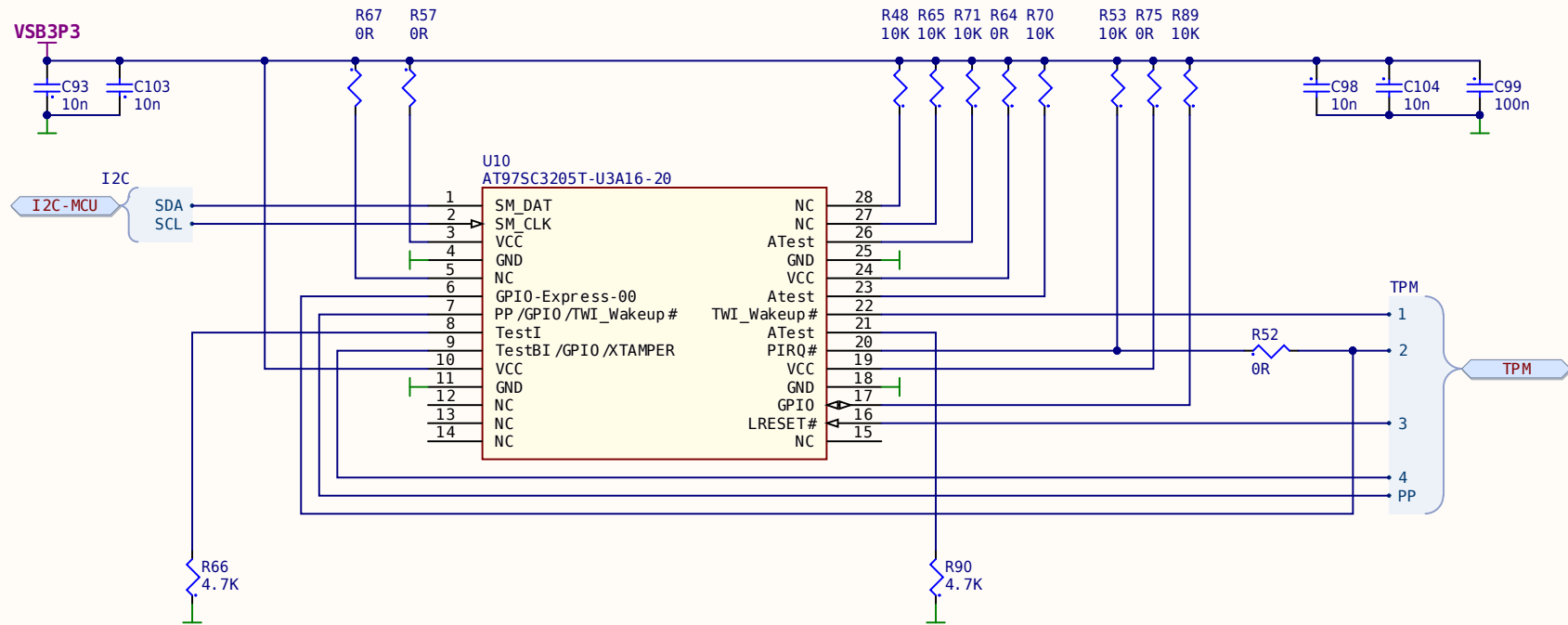
Release Code: P-1-1-1

Release Date: 2017-01-07

Sheet Size: A(11"x8.5")

TPM harness signal mapping for alternate parts:

	AT97SC3205T (Atmel)	ST19NP18 (STMicro)	SLB9645 (Infineon)
1	TWI_WakeUp.22	pu	nc
2	GPIO-EXPRESS-00 AND PIRQ#	DataAvailable	DataAvailable
3	LRESET#	LRESET#	nc
4	GPIO /XTamper	AcceptCmd	RESET#
PP	PP /TWI_Wakeup.7	PP	PP



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Sheet Title: **Trusted Platform Module (TPM)**

Circuit Card: **Root 1V1**

File: TPM.SchDoc
Developer: md.agathisproject@gmail.com

Project Name: Salix-Arctica
Release Code: P-1-1-1

Release Date: 2017-01-07

Sheet No: 17. of 17
Sheet Size: A(11"x8.5")