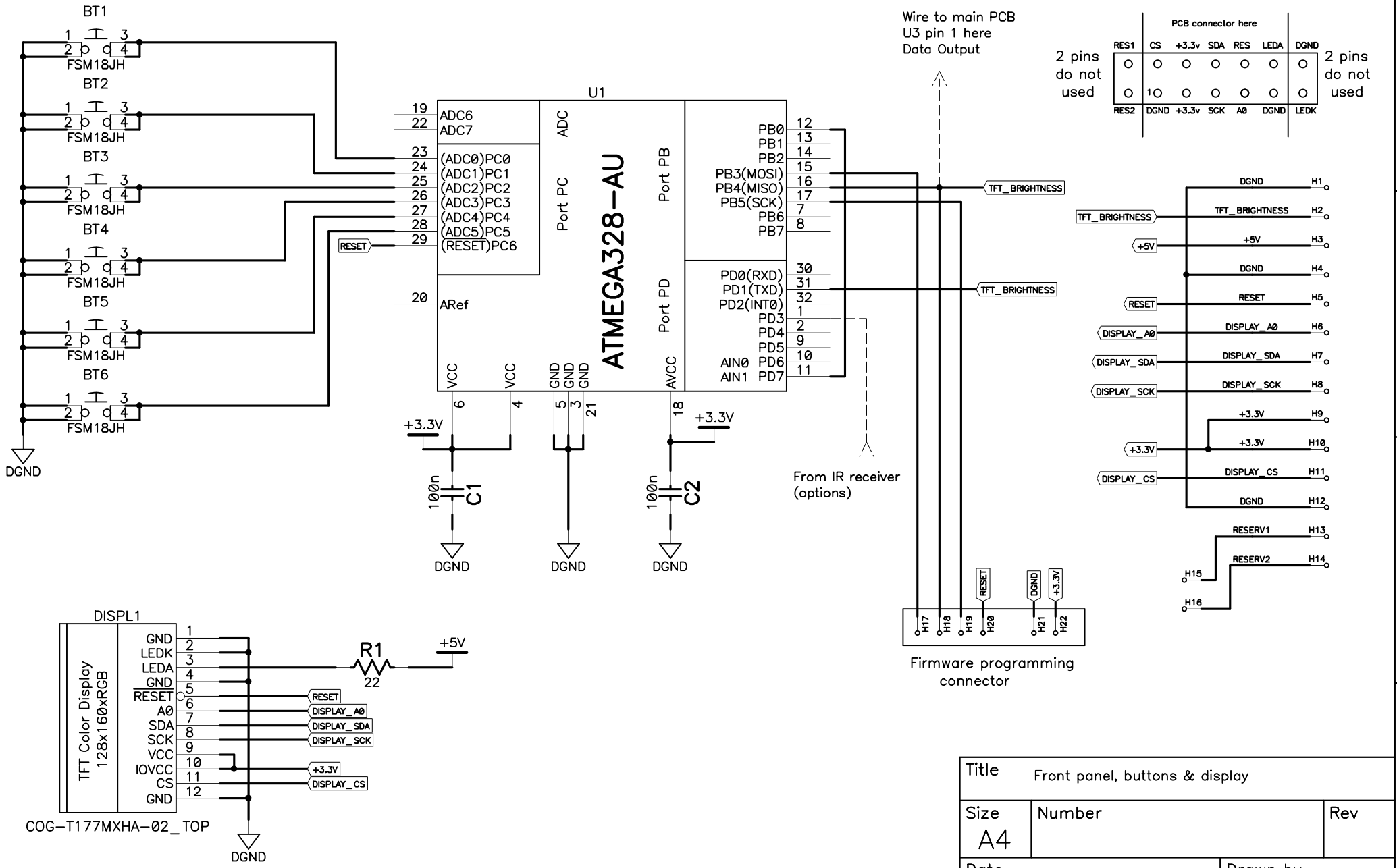
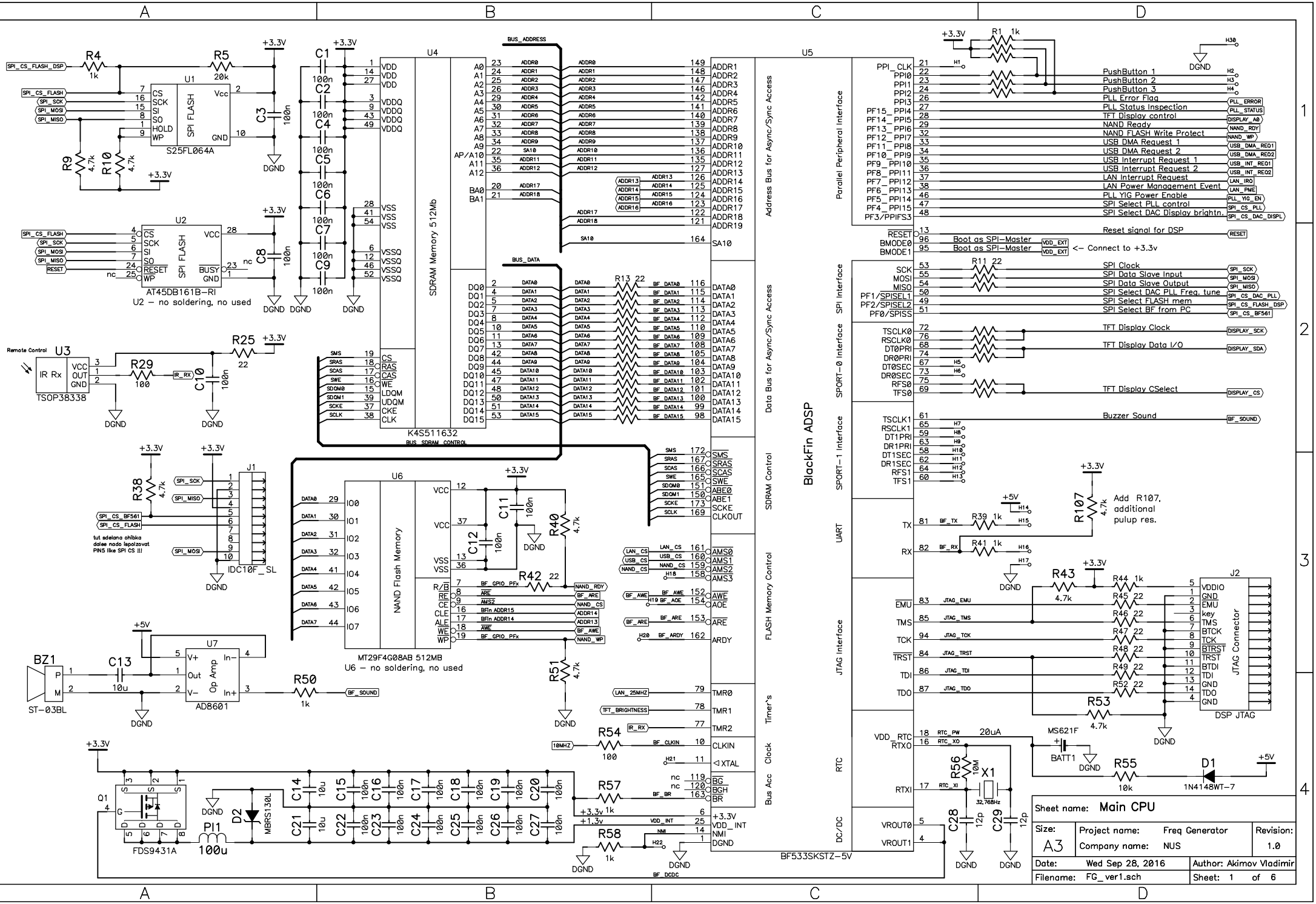
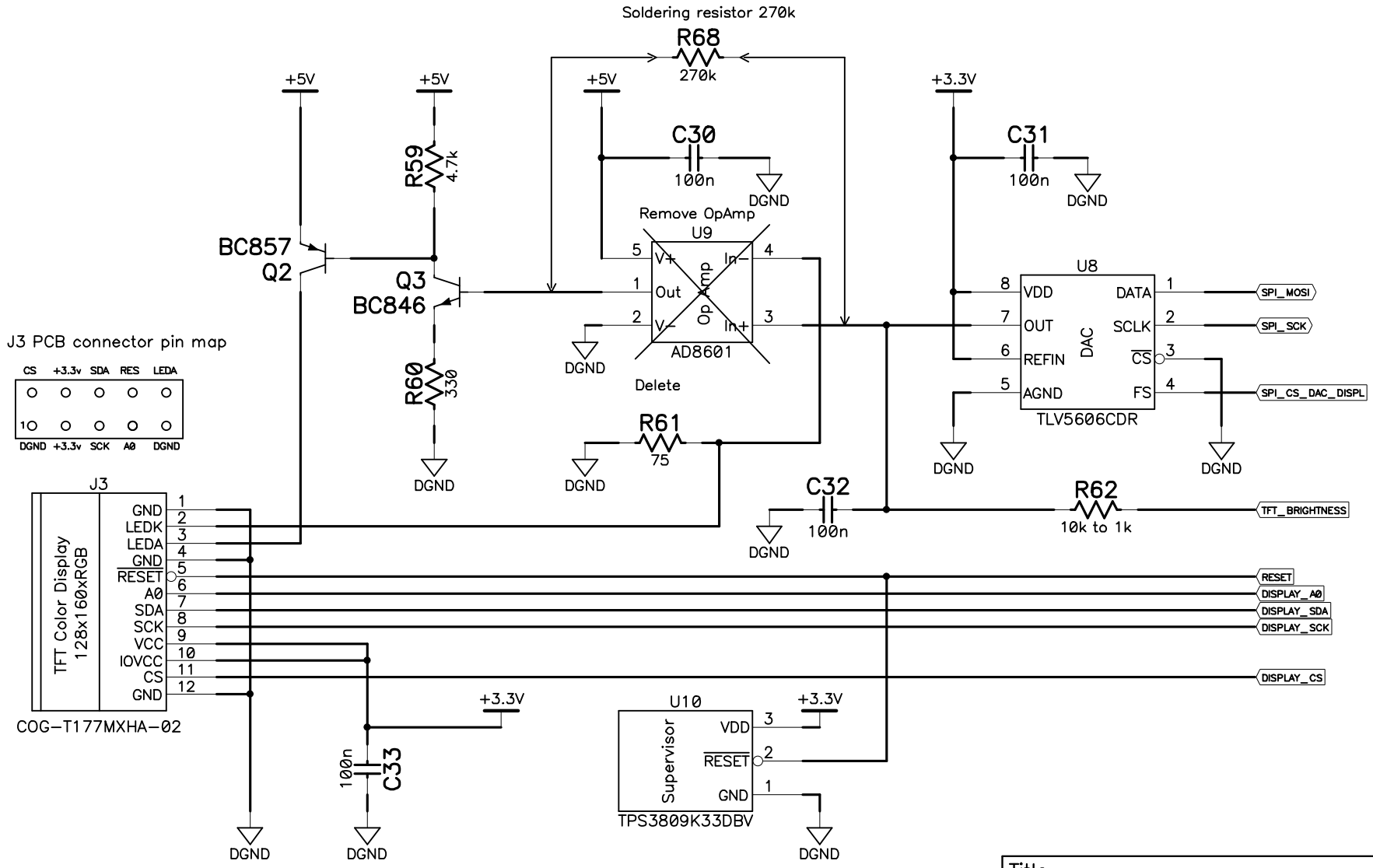
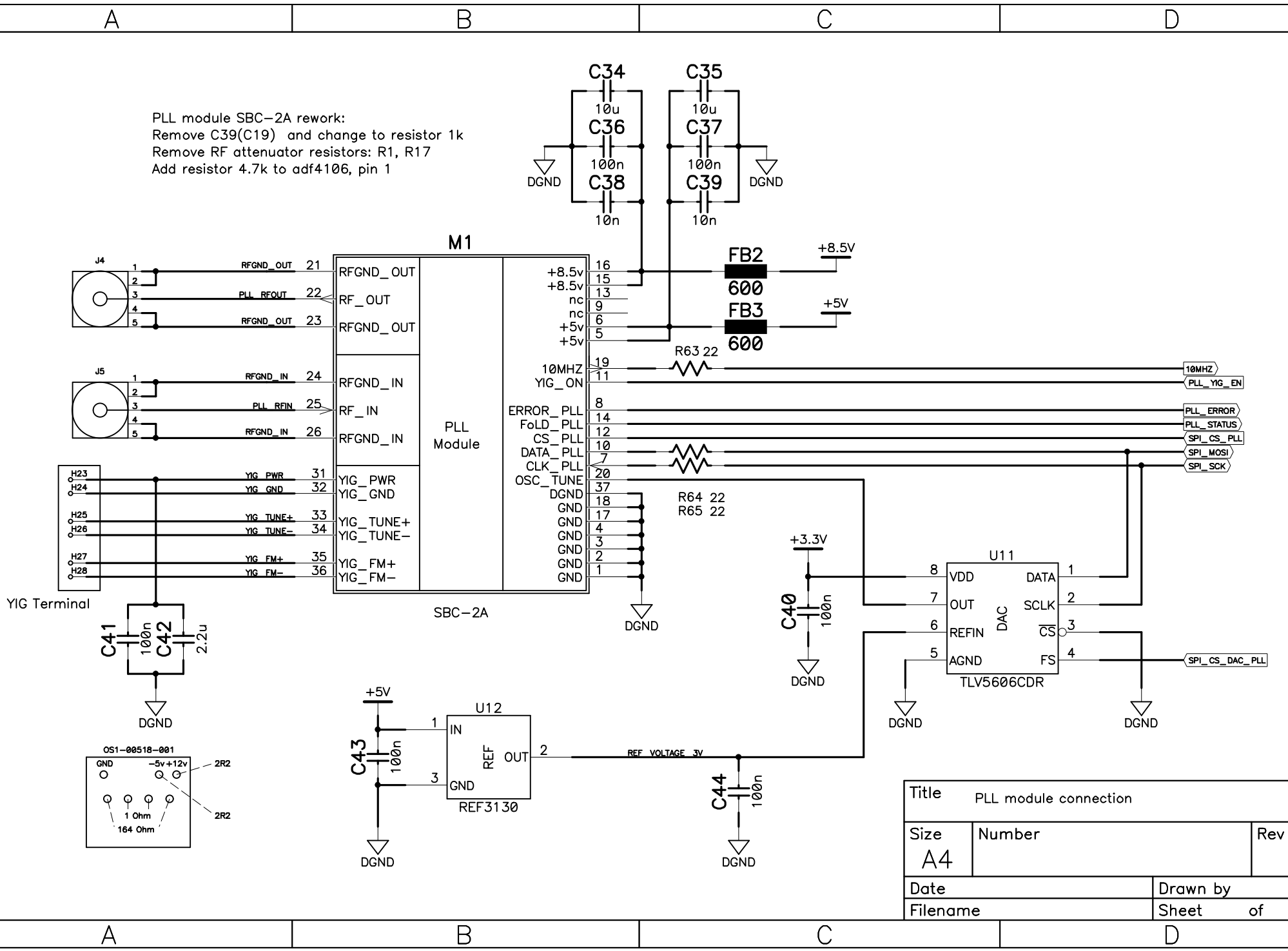


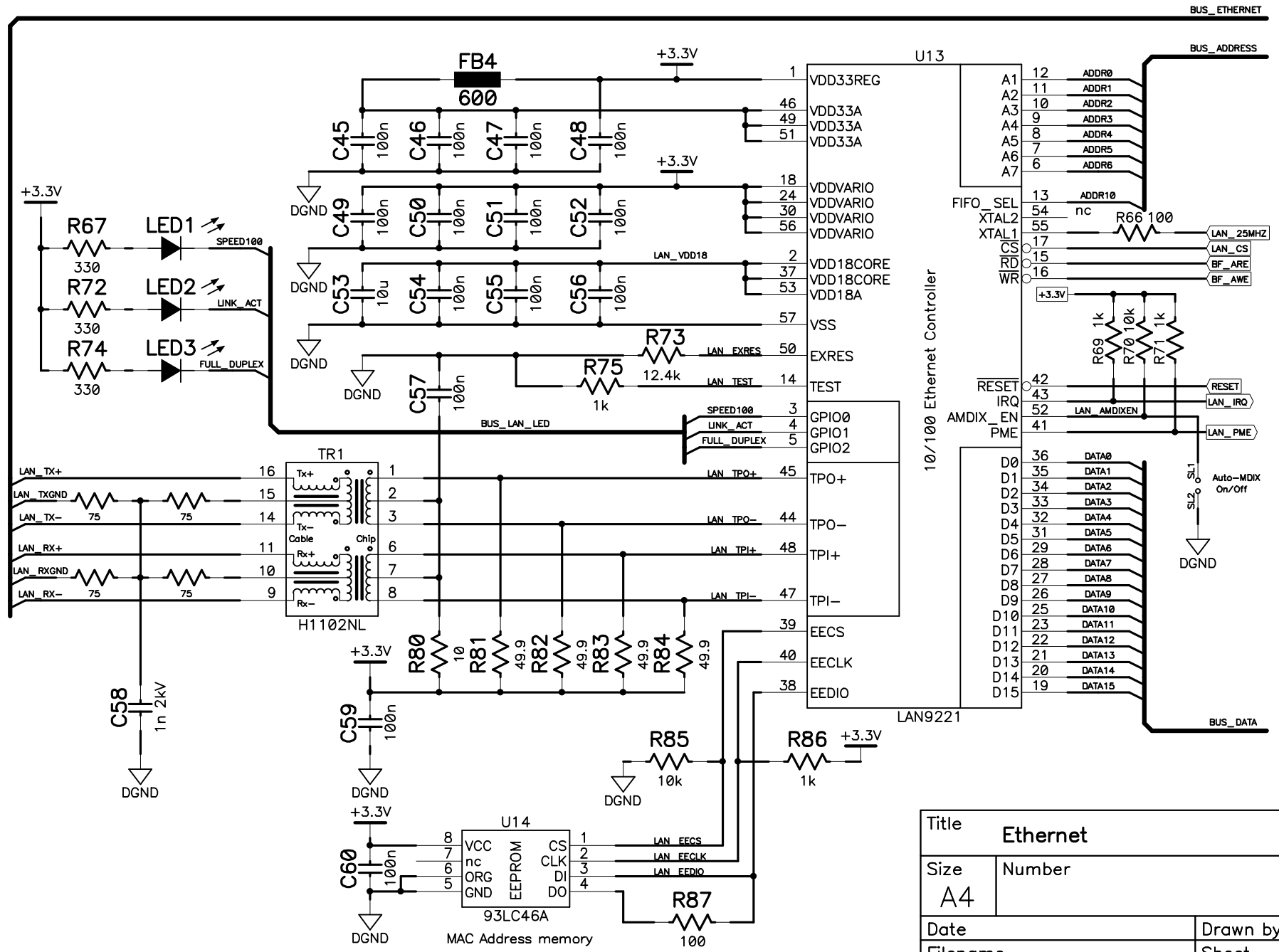
Title	Front panel, buttons & display	
Size A4	Number	Rev
Date		Drawn by
Filename		Sheet of

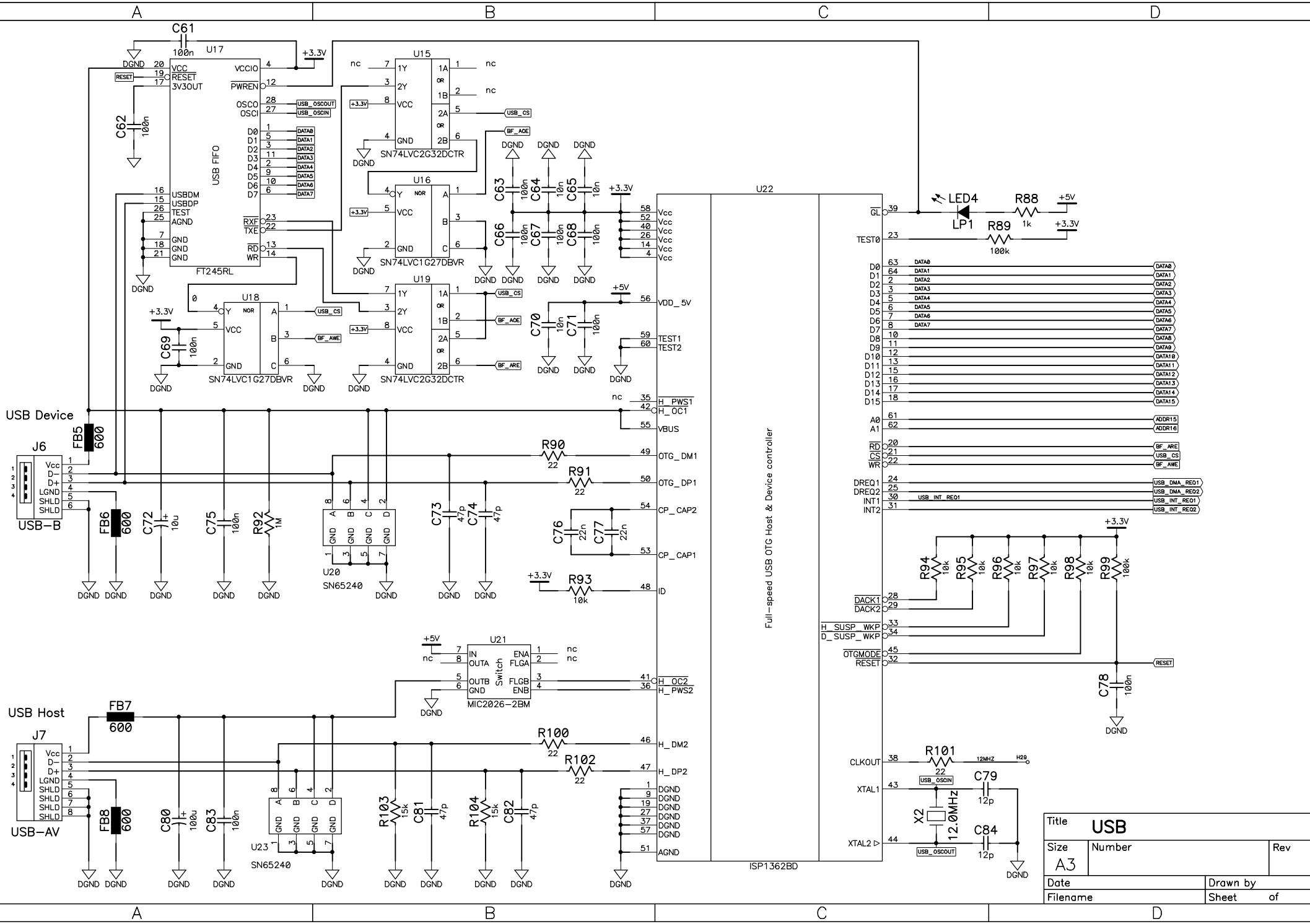

S25FL064A
AT45DB161B-RI
U2 – no soldering, no used
TSOP38338
IDC10F_SL
tut sdelana ohibka
dalee nado ispolzovat
PIN5 like SPI CS !!!
ST-03BL
AD8601
FDS9431A
MBRS130L
K4S511632
MT29F4G08AB 512MB
U6 – no soldering, no used
BF533SKSTZ-5V
BlackFin ADSP
Address Bus for Async/Sync Access
Data Bus for Async/Sync Access
SDRAM Control
FLASH Memory Control
Timer's
Clock
Bus Acc
Parallel Peripheral Interface
SPI Interface
SPORT-0 Interface
SPORT-1 Interface
UART
JTAG Interface
RTC
DC/DC
DSP JTAG
Add R107, additional pulup res.
Reset signal for DSP
Boot as SPI-Master
<- Connect to +3.3v
PushButton 1
PushButton 2
PushButton 3
PLL Error Flag
PLL Status Inspection
TFT Display control
NAND Ready
NAND FLASH Write Protect
USB DMA Request 1
USB DMA Request 2
USB Interrupt Request 1
USB Interrupt Request 2
LAN Interrupt Request
LAN Power Management Event
PLL YIG Power Enable
SPI Select PLL control
SPI Select DAC Display brightn.
SPI Clock
SPI Data Slave Input
SPI Data Slave Output
SPI Select DAC PLL Freq. tune
SPI Select FLASH mem
SPI Select BF from PC
TFT Display Clock
TFT Display Data I/O
TFT Display CSelect
Buzzer Sound
Sheet name: Main CPU
Size: A3
Project name: Freq Generator
Company name: NUS
Revision: 1.0
Date: Wed Sep 28, 2016
Author: Akimov Vladimir
Filename: FG_ver1.sch
Sheet: 1 of 6



Title	Display connection	
Size A4	Number	Rev
Date		Drawn by
Filename		Sheet of


PLL module SBC-2A rework:
Remove C39(C19) and change to resistor 1k
Remove RF attenuator resistors: R1, R17
Add resistor 4.7k to adf4106, pin 1
C34
10u
C36
100n
C38
10n
C35
10u
C37
100n
C39
10n
DGND
DGND
M1
J4
J5
RFGND_OUT
PLL_RFOUT
RFGND_OUT
RFGND_IN
PLL_RFIN
RFGND_IN
RFGND_OUT
RF_OUT
RFGND_IN
RF_IN
RFGND_IN
PLL Module
SBC-2A
+8.5v
+8.5v
nc
nc
+5v
+5v
10MHZ
YIG_ON
ERROR_PLL
FoLD_PLL
CS_PLL
DATA_PLL
CLK_PLL
OSC_TUNE
DGND
GND
FB2
600
FB3
600
+8.5V
+5V
R63 22
R64 22
R65 22
10MHZ
PLL_YIG_EN
PLL_ERROR
PLL_STATUS
SPI_CS_PLL
SPI_MOSI
SPI_SCK
H23
H24
H25
H26
H27
H28
YIG_PWR
YIG_GND
YIG_TUNE+
YIG_TUNE-
YIG_FM+
YIG_FM-
YIG Terminal
C41
100n
C42
2.2u
DGND
OS1-00518-001
GND
-5v+12v
2R2
1 Ohm
164 Ohm
2R2
+5V
U12
IN
REF
OUT
GND
REF3130
C43
100n
DGND
REF_VOLTAGE_3V
C44
100n
DGND
+3.3V
C40
100n
DGND
U11
VDD
OUT
REFIN
AGND
DATA
SCLK
CS
FS
DAC
TLV5606CDR
SPI_CS_DAC_PLL
DGND
DGND
Title
PLL module connection
Size
A4
Number
Rev
Date
Drawn by
Filename
Sheet of


BUS_ETHERNET
BUS_ADDRESS
BUS_DATA
U13
LAN9221
10/100 Ethernet Controller
FB4
600
+3.3V
DGND
C45 100n
C46 100n
C47 100n
C48 100n
C49 100n
C50 100n
C51 100n
C52 100n
C53 10u
C54 100n
C55 100n
C56 100n
C57 100n
C58 1n 2kV
C59 100n
C60 100n
R67 330
R72 330
R74 330
LED1
LED2
LED3
SPEED100
LINK_ACT
FULL_DUPLEX
R73 LAN_EXRES
R75 12.4k
LAN_TEST
LAN_VDD18
BUS_LAN_LED
TR1
H1102NL
LAN_TX+
LAN_TXGND
LAN_TX−
LAN_RX+
LAN_RXGND
LAN_RX−
75
R80 10
R81 49.9
R82 49.9
R83 49.9
R84 49.9
R85 10k
R86 1k
R87 100
U14
93LC46A
EEPROM
MAC Address memory
VCC
nc
ORG
GND
CS
CLK
DI
DO
LAN_EECS
LAN_EECLK
LAN_EEDIO
VDD33REG
VDD33A
VDDVARIO
VDD18CORE
VDD18A
VSS
EXRES
TEST
GPIO0
GPIO1
GPIO2
TPO+
TPO−
TPI+
TPI−
EECS
EECLK
EEDIO
A1
A2
A3
A4
A5
A6
A7
FIFO_SEL
XTAL2
XTAL1
CS
RD
WR
RESET
IRQ
AMDIX_EN
PME
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
ADDR0
ADDR1
ADDR2
ADDR3
ADDR4
ADDR5
ADDR6
ADDR10
nc
R66 100
LAN_25MHZ
LAN_CS
BF_ARE
BF_AWE
R69 1k
R70 10k
R71 1k
LAN_IRQ
LAN_AMDIXEN
LAN_PME
DATA0
DATA1
DATA2
DATA3
DATA4
DATA5
DATA6
DATA7
DATA8
DATA9
DATA10
DATA11
DATA12
DATA13
DATA14
DATA15
SL1
SL2
Auto−MDIX On/Off
Title
Ethernet
Size
A4
Number
Rev
Date
Drawn by
Filename
Sheet of


C61
100n
U17
+3.3V
DGND
VCC
RESET
3V3OUT
VCCIO
PWREN
OSCO
OSCI
USB_OSCOUT
USB_OSCIN
D0
D1
D2
D3
D4
D5
D6
D7
DATA0
DATA1
DATA2
DATA3
DATA4
DATA5
DATA6
DATA7
USB FIFO
C62
100n
USBDM
USBDP
TEST
AGND
GND
RXF
TXE
RD
WR
FT245RL
U15
SN74LVC2G32DCTR
U16
SN74LVC1G27DBVR
U19
U18
C63
C64
C65
C66
C67
C68
C69
C70
C71
BF_AOE
BF_ARE
BF_AWE
USB_CS
U22
Full-speed USB OTG Host & Device controller
ISP1362BD
Vcc
VDD_5V
TEST1
TEST2
H_PWS1
H_OC1
VBUS
OTG_DM1
OTG_DP1
CP_CAP2
CP_CAP1
ID
H_OC2
H_PWS2
H_DM2
H_DP2
AGND
LED4
LP1
R88
1k
R89
100k
GL
TEST0
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
A0
A1
RD
CS
WR
DREQ1
DREQ2
INT1
INT2
USB_DMA_REQ1
USB_DMA_REQ2
USB_INT_REQ1
USB_INT_REQ2
R94
R95
R96
R97
R98
R99
10k
100k
DACK1
DACK2
H_SUSP_WKP
D_SUSP_WKP
OTGMODE
RESET
C78
100n
R101
22
12MHZ
CLKOUT
XTAL1
XTAL2
X2
12.0MHz
C79
C84
12p
USB_OSCIN
USB_OSCOUT
USB Device
J6
USB-B
FB5
FB6
600
C72
10u
C75
100n
R92
1M
U20
SN65240
R90
R91
22
C73
C74
47p
C76
C77
22n
R93
10k
U21
MIC2026-2BM
Switch
USB Host
J7
USB-AV
FB7
FB8
C80
C83
U23
R100
R102
R103
15k
C81
R104
C82
Title
USB
Size
A3
Number
Rev
Date
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Filename
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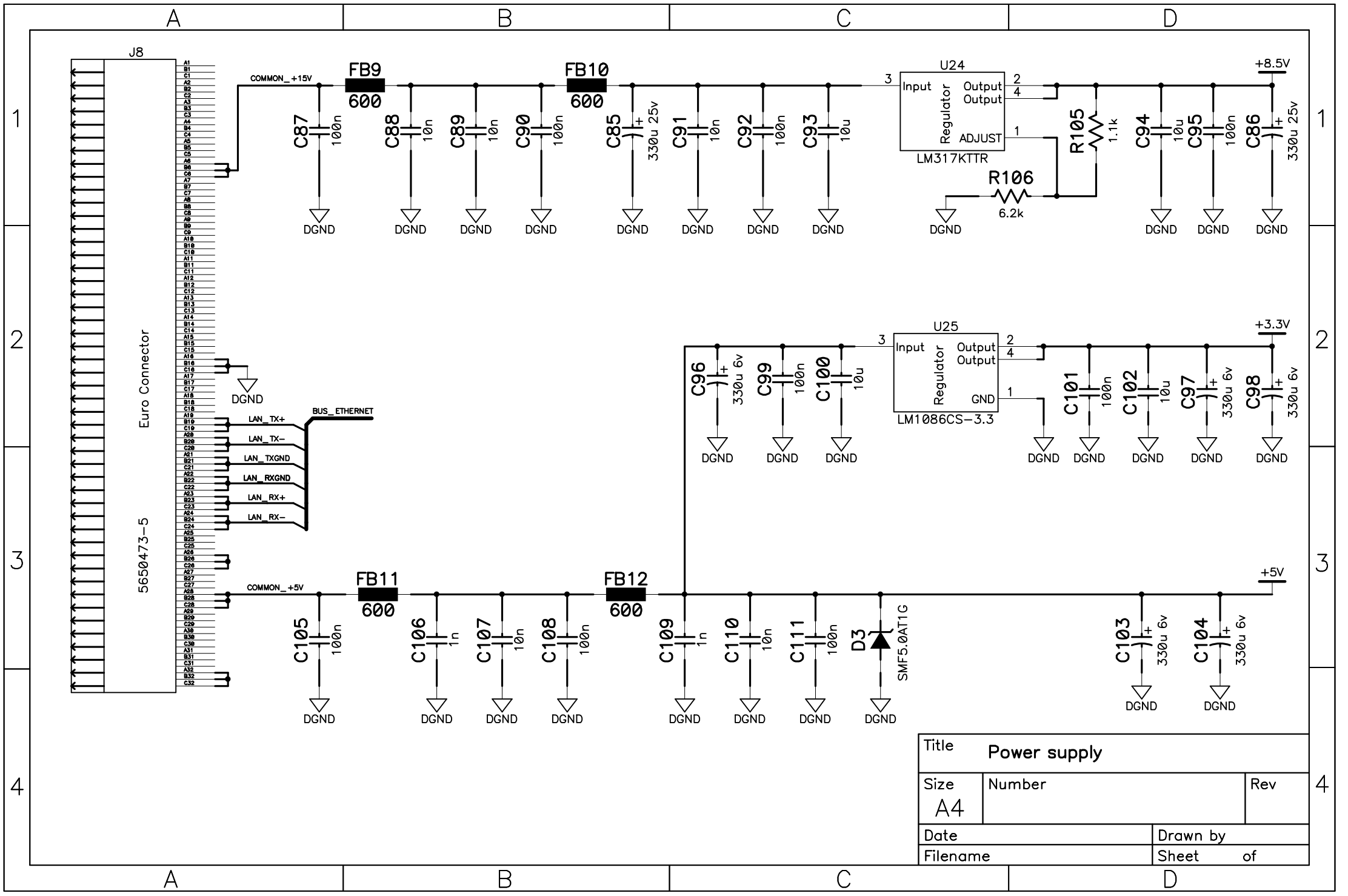
of


J8
Euro Connector
5650473-5
COMMON_+15V
FB9
600
FB10
600
C87 100n
C88 10n
C89 10n
C90 100n
C85 330u 25v
C91 10n
C92 100n
C93 10u
U24
Input
Regulator
Output
Output
ADJUST
LM317KTTR
R105 1.1k
R106 6.2k
C94 10u
C95 100n
C86 330u 25v
+8.5V
DGND
BUS_ETHERNET
LAN_TX+
LAN_TX-
LAN_TXGND
LAN_RXGND
LAN_RX+
LAN_RX-
C96 330u 6v
C99 100n
C100 10u
U25
Input
Regulator
Output
Output
GND
LM1086CS-3.3
C101 100n
C102 10u
C97 330u 6v
C98 330u 6v
+3.3V
COMMON_+5V
FB11
600
FB12
600
C105 100n
C106 1n
C107 10n
C108 100n
C109 1n
C110 10n
C111 100n
D3
SMF5.0AT1G
C103 330u 6v
C104 330u 6v
+5V
Title
Power supply
Size
A4
Number
Rev
Date
Drawn by
Filename
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