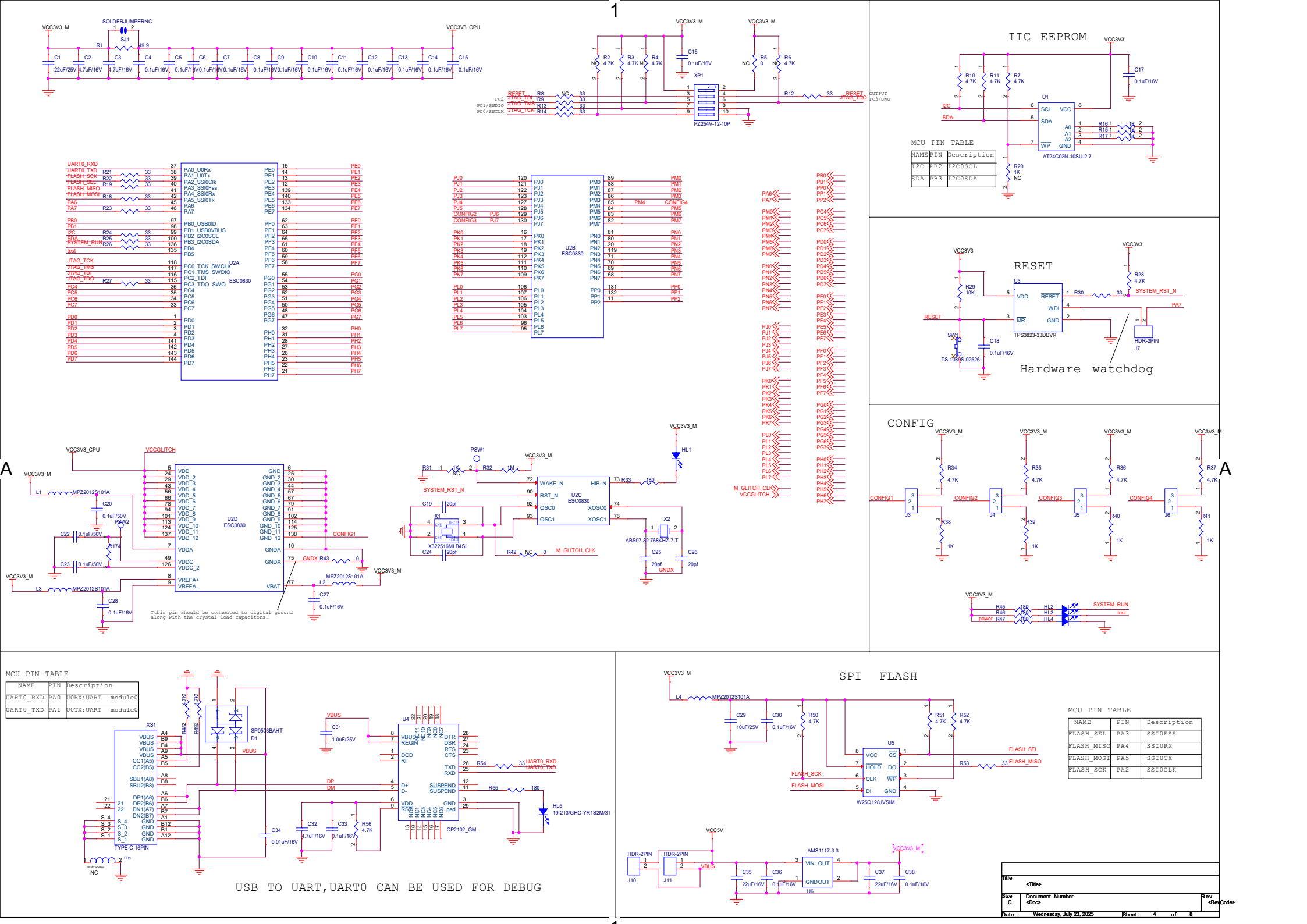
IIC EEPROM
MCU PIN TABLE
NAME PIN Description
I2C PB2 I2C0SCL
SDA PB3 I2C0SDA
AT24C02N-10SU-2.7
RESET
Hardware watchdog
TPS3823-33DBVR
CONFIG
SPI FLASH
W25Q128JVSIM
MCU PIN TABLE
NAME PIN Description
UART0_RXD PA0 U0RX:UART module0
UART0_TXD PA1 U0TX:UART module0
USB TO UART,UART0 CAN BE USED FOR DEBUG
MCU PIN TABLE
NAME PIN Description
FLASH_SEL PA3 SSI0FSS
FLASH_MISO PA4 SSI0RX
FLASH_MOSI PA5 SSI0TX
FLASH_SCK PA2 SSI0CLK
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LCD signal sharing, daisy-chain routing

LCD1602

LCD12864

3.3V POWER LCD

TFT signal sharing, daisy-chain routing

TFT LCD/OLED

TOUCH TFT

Multiplexed 7-Segment Display Module

LED MODULE

CAMERA MODULE

ATK-OV5640-AF

WiFi MODULE

ESP32 WIFI

RFID MODULE

MFRC522 CARD

Bluetooth MODULE

CC2541 airsync iBeacon1
JDY-23

RESERVED MODULE

RESERVED
CC2531 ZIGBEE
Reserved for Funtual Atom's Module

Temperature Detection Module

IR Detection Module

Matrix Keyboard Module

DS1302 CLOCK Module

DAC Module

ADC Module

Independent Button Module

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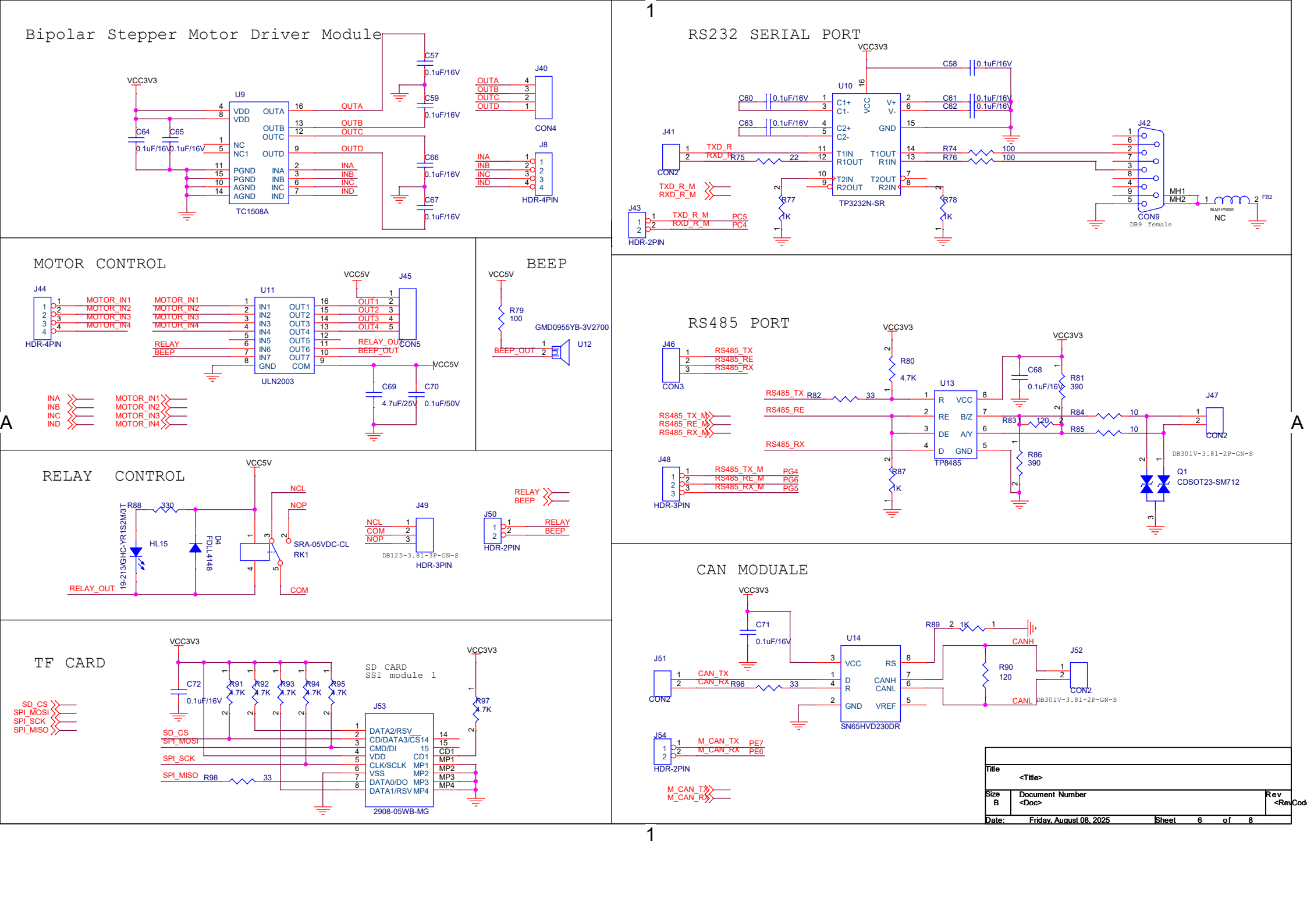
Bipolar Stepper Motor Driver Module
VCC3V3
U9
TC1508A
C64
C65
C57
C59
C66
C67
0.1uF/16V
J40
CON4
J8
HDR-4PIN
MOTOR CONTROL
J44
HDR-4PIN
MOTOR_IN1
MOTOR_IN2
MOTOR_IN3
MOTOR_IN4
U11
ULN2003
VCC5V
J45
CON5
RELAY
BEEP
RELAY_OUT
BEEP_OUT
C69
C70
4.7uF/25V
0.1uF/50V
INA
INB
INC
IND
BEEP
R79
100
GMD0955YB-3V2700
U12
RELAY CONTROL
R88
330
HL15
D4
FDLL4148
19-213/GHC-YR1S2M/3T
SRA-05VDC-CL
RK1
NCL
NOP
COM
RELAY_OUT
J49
DB125-3.81-3P-GN-S
HDR-3PIN
J50
HDR-2PIN
TF CARD
SD_CS
SPI_MOSI
SPI_SCK
SPI_MISO
C72
R91
R92
R93
R94
R95
R97
4.7K
SD CARD
SSI module 1
J53
2908-05WB-MG
DATA2/RSV
CD/DATA3/CS
CMD/DI
VDD
CLK/SCLK
VSS
DATA0/DO
DATA1/RSV
CD1
MP1
MP2
MP3
MP4
R98
33
RS232 SERIAL PORT
U10
TP3232N-SR
C58
C60
C61
C62
C63
0.1uF/16V
J41
CON2
TXD_R
RXD_R
R75
22
R74
R76
100
TXD_R_M
RXD_R_M
J43
HDR-2PIN
PC5
PC4
R77
R78
1K
J42
CON9
DB9 female
MH1
MH2
NC
FB2
BLM31P500S
RS485 PORT
J46
CON3
RS485_TX
RS485_RE
RS485_RX
U13
TP8485
R80
4.7K
R82
33
C68
0.1uF/16V
R81
390
R84
R85
10
R83
120
R86
390
J47
CON2
RS485_TX_M
RS485_RE_M
RS485_RX_M
J48
HDR-3PIN
PG4
PG6
PG5
R87
1K
DB301V-3.81-2P-GN-S
Q1
CDSOT23-SM712
CAN MODUALE
U14
SN65HVD230DR
C71
0.1uF/16V
R89
1K
R90
120
CANH
CANL
J51
CON2
CAN_TX
CAN_RX
R96
33
J52
J54
HDR-2PIN
M_CAN_TX
M_CAN_RX
PE7
PE6
Title
<Title>
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B
Document Number
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Rev
<RevCod
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FPGA

Control MCU Voltage Glitch Attack

For voltage glitch attack experiments

EARTHNET

RX_DV	RXD3	Mode
0	0	MII
0	1	RsMII, Reverse MII Mode
1	0	RMII2, TXC 50Mhz reference clock is output by default
1	1	RMII1, TXC 50Mhz reference clock is input

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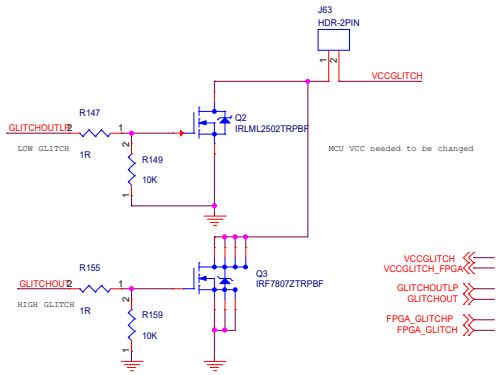
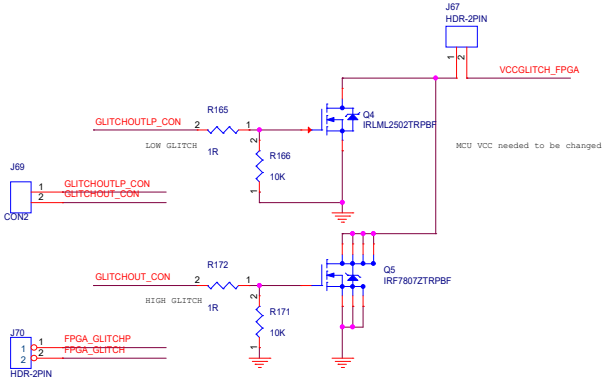
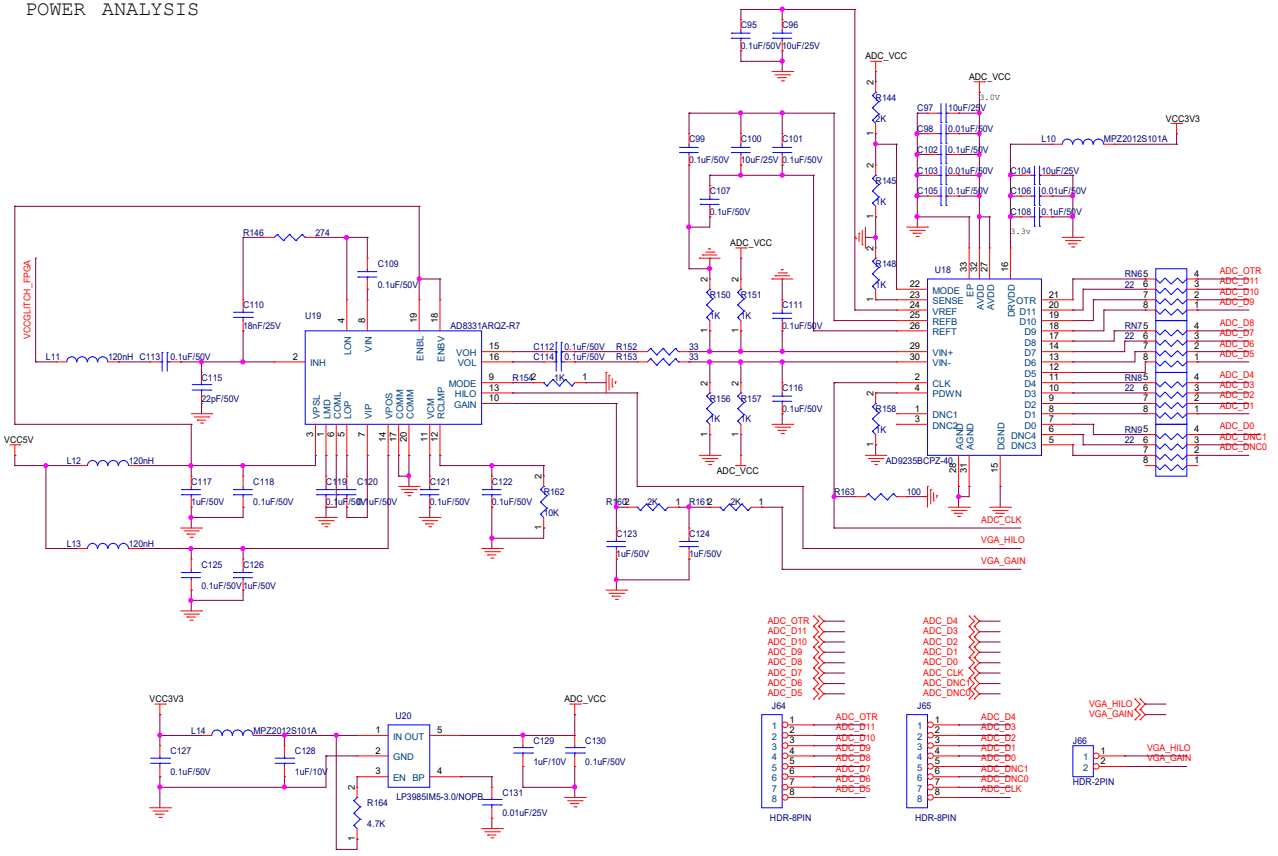
MCU POWER GLITCH, CONTROLED BY FPGA



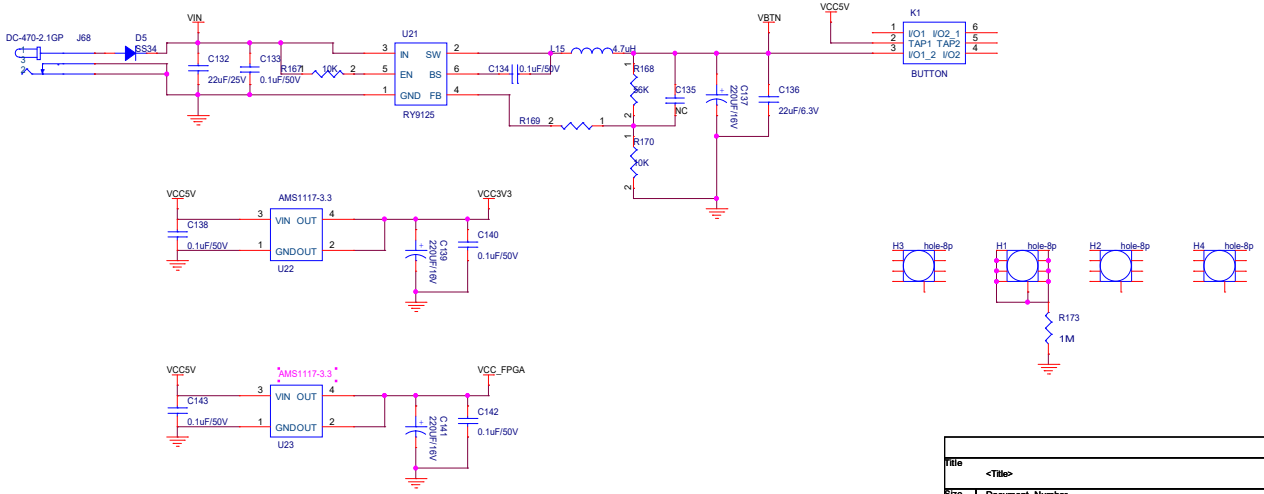
FPGA POWER GLITCH, CONTROLED BY MCU



POWER ANALYSIS



POWER



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