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RDDRONE-FMUK66E

Revisions

Rev	Description	Date	Approved
X1	First Release	14FEB18	IAIN GALLOWAY
X2	Project Rename & A7102CH IC	SEP18	IAIN GALLOWAY
B	Reference Designator are sync with NXP_NXPhlite 3.0RC18	23OCT18	IAIN GALLOWAY
BX1		11NOV18	IAIN GALLOWAY
BX2			IAIN GALLOWAY
BX3			IAIN GALLOWAY
BX4			IAIN GALLOWAY
BX5	-Added J28 for external sensors -Added PX4FMU baro sensor	14NOV18	IAIN GALLOWAY
BX6			IAIN GALLOWAY
BX7		23NOV18	IAIN GALLOWAY
BX8	-Added ESD diodes	24NOV18	IAIN GALLOWAY
BX9	- Added MS621FE-FL11E Batery - BMM150 SPI to I2C mode	28NOV18	IAIN GALLOWAY
BX10	- Removed duplicate pullup / down resistors from I2C1_SDA_INTERNAL & I2C1_SCL_INTERNAL - On-Board sensors moved to 'SENSORS' page	03DEC18	IAIN GALLOWAY
C	Diagram added/A085 release	18DEC18	IAIN GALLOWAY
C1	BOM updated	21JAN19	IAIN GALLOWAY
CX1	NTB0104GU12 OE pin pull up./ D50 to DNP /J4.1 to GND / Obsolete components updated.	21JAN19	IAIN GALLOWAY
D	Release A085	30JUL19	IAIN GALLOWAY
DX1	*PWM OUT from 6 to 8 channels. *SERIAL 2 from 4 to 6 channels added CTS & RST *FXAS21002CQ replaced by BMI088 *PRESSURE SENSOR removed *FXOS8700CQ replaced by ICM-42688 *SE050C2HQ1(--Added antenna plug 2 pins JST-GH, solder-pads or internal Ferrite Coil.--Pins 18 and 12 wapped.--Added Enable and Reset control signals) *ETHERNET - PIN strapping added *BLOCK DIAGRAM updtaed	04AUG20	IAIN GALLOWAY
E	Release A085	21OCT20	IAIN GALLOWAY
F	P10 Updated (from BM02B-GHS-TBT(LF)(SN)(N) to SM02B-GHS-TB(LF)(SN))	8APRIL21	IAIN GALLOWAY

ICAP Classification: CP: ___ IUO: X PUBI: ___

Drawing Title: **RDDRONE-FMUK66E**

Page Title: **TITLE, TOC & REV**

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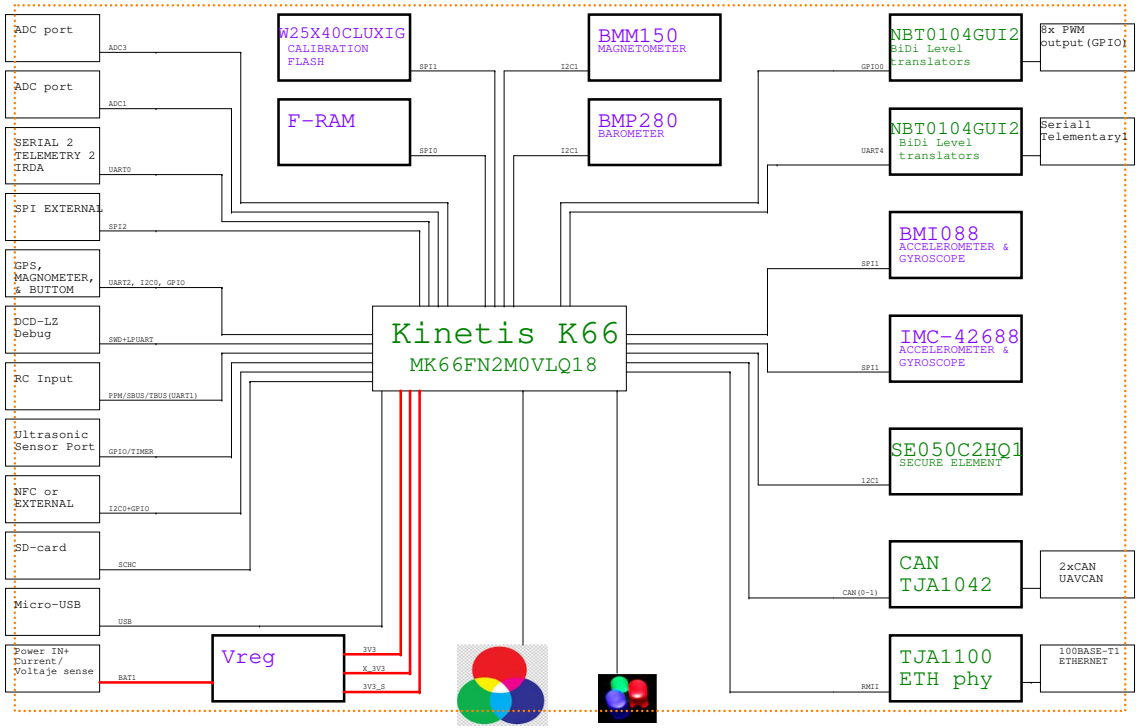
REF DES	JUMPER	PAGE NAME
J25,J29,J26	Default 1:2	8. CAN & ETHERNET
J28	Default 2:3	8. CAN & ETHERNET

REF DES	ASSY_OPT	PAGE NAME
R61,R60,R114,R115,C103,R121	DNP	3. MCU
R45,R140,U50	DNP	5. CONNECTORS
R132,R131	DNP	6. SENSORS
R111,C108,R120	DNP	7. SDCARD & MEMORY
R144,R143,R675,R672,R32,R30	DNP	8. CAN & ETHERNET

RDDRONE-FMUK66E Modular and flexible Drone development platform



NXP part

Non-NXP part

Interface

POWER

SIGNAL

ICAP Classification: CP: IUO: X PUBI:

Drawing Title: RDDRONE-FMUK66E

Page Title: BLOCK DIAGRAM

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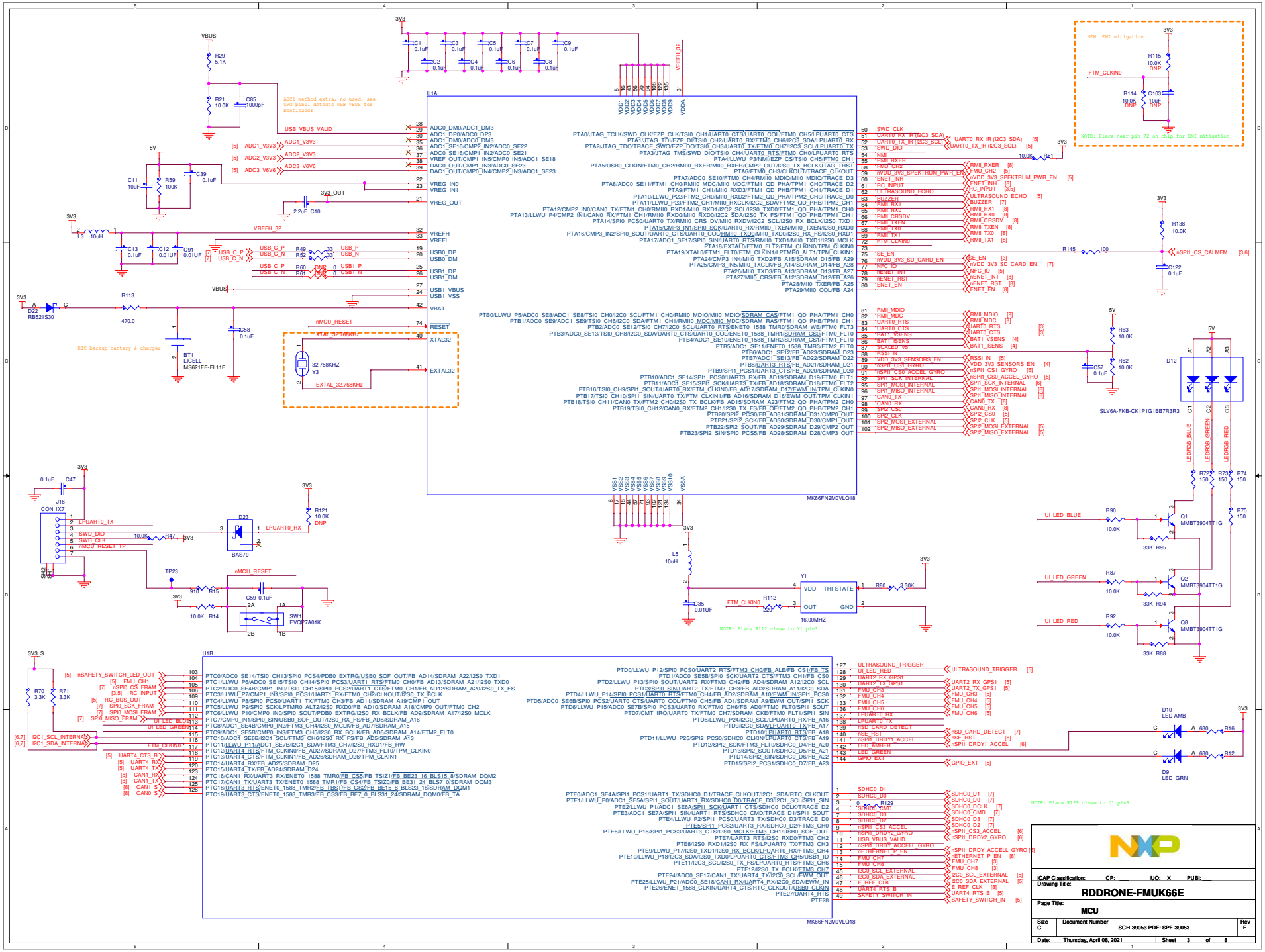
U1A
MK66FN2M0VLQ18
U1B
MK66FN2M0VLQ18
VBUS
3V3
5V
R29 5.1K
R21 10.0K
C85 1000pF
ADC1 method extra, no used, see GPO pin1 detects USB VBUS for bootloader
USB_VBUS_VALID
ADC1_V3V3
ADC2_V3V3
ADC3_V6V6
C11 10uF
R59 100K
C39 0.1uF
3V3_OUT
2.2uF C10
L3 10uH
C13 0.1uF
C12 0.01UF
C91 0.01UF
VREFH_32
USB_C_P
USB_C_N
R49 33
R52 33
USB_P
USB_N
R60 0
R61 DNP
USB1_P
USB1_N
BT1
LICELL
MS621FE-FL11E
RTC backup battery & charger
R113 470.0
C58 0.1uF
nMCU_RESET
XTAL_32.768KHZ
Y3
32.768KHZ
EXTAL_32.768KHz
C1 0.1uF
C2 0.1uF
C3 0.1uF
C4 0.1uF
C5 0.1uF
C6 0.1uF
C7 0.1uF
C8 0.1uF
C9 0.1uF
VREFH_32
VDD1 VDD2 VDD3 VDD4 VDD5 VDD6 VDD7 VDD8 VDD9 VDDA
ADC0_DM0/ADC1_DM3
ADC1_DP0/ADC0_DP3
ADC1_DM0/ADC0_DM3
ADC1_SE16/CMP2_IN2/ADC0_SE22
ADC0_SE16/CMP1_IN2/ADC0_SE21
VREF_OUT/CMP1_IN5/CMP0_IN5/ADC1_SE18
DAC0_OUT/CMP1_IN3/ADC0_SE23
DAC1_OUT/CMP0_IN4/CMP2_IN3/ADC1_SE23
VREG_IN0
VREG_IN1
VREG_OUT
VREFH
VREFL
USB0_DP
USB0_DM
USB1_DP
USB1_DM
USB1_VBUS
USB1_VSS
VBAT
RESET
XTAL32
EXTAL32
PTA0/JTAG_TCLK/SWD_CLK/EZP_CLK/TSI0_CH1/UART0_CTS/UART0_COL/FTM0_CH5/LPUART0_CTS
PTA1/JTAG_TDI/EZP_DI/TSI0_CH2/UART0_RX/FTM0_CH6/I2C3_SDA/LPUART0_RX
PTA2/JTAG_TDO/TRACE_SWO/EZP_DO/TSI0_CH3/UART0_TX/FTM0_CH7/I2C3_SCL/LPUART0_TX
PTA3/JTAG_TMS/SWD_DIO/TSI0_CH4/UART0_RTS/FTM0_CH0/LPUART0_RTS
PTA4/LLWU_P3/NMI/EZP_CS/TSI0_CH5/FTM0_CH1
PTA5/USB0_CLKIN/FTM0_CH2/RMII0_RXER/MII0_RXER/CMP2_OUT/I2S0_TX_BCLK/JTAG_TRST
PTA6/FTM0_CH3/CLKOUT/TRACE_CLKOUT
PTA7/ADC0_SE10/FTM0_CH4/RMII0_MDIO/MII0_MDIO/TRACE_D3
PTA8/ADC0_SE11/FTM1_CH0/RMII0_MDC/MII0_MDC/FTM1_QD_PHA/TPM1_CH0/TRACE_D2
PTA9/FTM1_CH1/MII0_RXD3/FTM1_QD_PHB/TPM1_CH1/TRACE_D1
PTA10/LLWU_P22/FTM2_CH0/MII0_RXD2/FTM2_QD_PHA/TPM2_CH0/TRACE_D0
PTA11/LLWU_P23/FTM2_CH1/MII0_RXCLK/I2C2_SDA/FTM2_QD_PHB/TPM2_CH1
PTA12/CMP2_IN0/CAN0_TX/FTM1_CH0/RMII0_RXD1/MII0_RXD1/I2C2_SCL/I2S0_TXD0/FTM1_QD_PHA/TPM1_CH0
PTA13/LLWU_P4/CMP2_IN1/CAN0_RX/FTM1_CH1/RMII0_RXD0/MII0_RXD0/I2C2_SDA/I2S0_TX_FS/FTM1_QD_PHB/TPM1_CH1
PTA14/SPI0_PCS0/UART0_TX/RMII0_CRS_DV/MII0_RXDV/I2C2_SCL/I2S0_RX_BCLK/I2S0_TXD1
PTA15/CMP3_IN1/SPI0_SCK/UART0_RX/RMII0_TXEN/MII0_TXEN/I2S0_RXD0
PTA16/CMP3_IN2/SPI0_SOUT/UART0_CTS/UART0_COL/RMII0_TXD0/MII0_TXD0/I2S0_RX_FS/I2S0_RXD1
PTA17/ADC1_SE17/SPI0_SIN/UART0_RTS/RMII0_TXD1/MII0_TXD1/I2S0_MCLK
PTA18/EXTALO/FTM0_FLT2/FTM_CLKIN0/TPM_CLKIN0
PTA19/XTALO/FTM1_FLT0/FTM_CLKIN1/LPTMR0_ALT1/TPM_CLKIN1
PTA24/CMP3_IN4/MII0_TXD2/FB_A15/SDRAM_D15/FB_A29
PTA25/CMP3_IN5/MII0_TXCLK/FB_A14/SDRAM_D14/FB_A28
PTA26/MII0_TXD3/FB_A13/SDRAM_D13/FB_A27
PTA27/MII0_CRS/FB_A12/SDRAM_D12/FB_A26
PTA28/MII0_TXER/FB_A25
PTA29/MII0_COL/FB_A24
PTB0/LLWU_P5/ADC0_SE8/ADC1_SE8/TSI0_CH0/I2C0_SCL/FTM1_CH0/RMII0_MDIO/MII0_MDIO/SDRAM_CAS/FTM1_QD_PHA/TPM1_CH0
PTB1/ADC0_SE9/ADC1_SE9/TSI0_CH6/I2C0_SDA/FTM1_CH1/RMII0_MDC/MII0_MDC/SDRAM_RAS/FTM1_QD_PHB/TPM1_CH1
PTB2/ADC0_SE12/TSI0_CH7/I2C0_SCL/UART0_RTS/ENET0_1588_TMR0/SDRAM_WE/FTM0_FLT3
PTB3/ADC0_SE13/TSI0_CH8/I2C0_SDA/UART0_CTS/UART0_COL/ENET0_1588_TMR1/SDRAM_CS0/FTM0_FLT0
PTB4/ADC1_SE10/ENET0_1588_TMR2/SDRAM_CS1/FTM1_FLT0
PTB5/ADC1_SE11/ENET0_1588_TMR3/FTM2_FLT0
PTB6/ADC1_SE12/FB_AD23/SDRAM_D23
PTB7/ADC1_SE13/FB_AD22/SDRAM_D22
PTB8/UART3_RTS/FB_AD21/SDRAM_D21
PTB9/SPI1_PCS1/UART3_CTS/FB_AD20/SDRAM_D20
PTB10/ADC1_SE14/SPI1_PCS0/UART3_RX/FB_AD19/SDRAM_D19/FTM0_FLT1
PTB11/ADC1_SE15/SPI1_SCK/UART3_TX/FB_AD18/SDRAM_D18/FTM0_FLT2
PTB16/TSI0_CH9/SPI1_SOUT/UART0_RX/FTM_CLKIN0/FB_AD17/SDRAM_D17/EWM_IN/TPM_CLKIN0
PTB17/TSI0_CH10/SPI1_SIN/UART0_TX/FTM_CLKIN1/FB_AD16/SDRAM_D16/EWM_OUT/TPM_CLKIN1
PTB18/TSI0_CH11/CAN0_TX/FTM2_CH0/I2S0_TX_BCLK/FB_AD15/SDRAM_A23/FTM2_QD_PHA/TPM2_CH0
PTB19/TSI0_CH12/CAN0_RX/FTM2_CH1/I2S0_TX_FS/FB_OE/FTM2_QD_PHB/TPM2_CH1
PTB20/SPI2_PCS0/FB_AD31/SDRAM_D31/CMP0_OUT
PTB21/SPI2_SCK/FB_AD30/SDRAM_D30/CMP1_OUT
PTB22/SPI2_SOUT/FB_AD29/SDRAM_D29/CMP2_OUT
PTB23/SPI2_SIN/SPI0_PCS5/FB_AD28/SDRAM_D28/CMP3_OUT
SWD_CLK
UART0_RX_IR (I2C3_SDA)
UART0_TX_IR (I2C3_SCL)
SWD_DIO
NMI
RMII_RXER
FMU_CH2
nVDD_3V3_SPEKTRUM_PWR_EN
ENET_INH
RC_INPUT
ULTRASOUND_ECHO
BUZZER
RMII_RX1
RMII_RX0
RMII_CRSDV
RMII_TXEN
RMII_TX0
RMII_TX1
FTM_CLKIN0
SE_EN
nVDD_3V3_SD_CARD_EN
NFC_IO
nENET_INT
nENET_RST
ENET_EN
RMII_MDIO
RMII_MDC
UART0_RTS
UART0_CTS
BAT1_VSENS
BAT1_ISENS
SCALED_V5
RSSI_IN
VDD_3V3_SENSORS_EN
nSPI1_CS1_GYRO
nSPI1_CS0_ACCEL_GYRO
SPI1_SCK_INTERNAL
SPI1_MOSI_INTERNAL
SPI1_MISO_INTERNAL
CAN0_TX
CAN0_RX
SPI2_CS0
SPI2_CLK
SPI2_MOSI_EXTERNAL
SPI2_MISO_EXTERNAL
R145 100
R138 10.0K
nSPI1_CS_CALMEM [3,6]
C122 0.1uF
R63 10.0K
R62 10.0K
C57 0.1uF
SLV6A-FKB-CK1P1G1BB7R3R3
D12
LEDRGB_BLUE
LEDRGB_GREEN
LEDRGB_RED
R72 150
R73 150
R74 150
R75 150
UI_LED_BLUE
UI_LED_GREEN
UI_LED_RED
R90 10.0K
R87 10.0K
R92 10.0K
Q1 MMBT3904TT1G
Q2 MMBT3904TT1G
Q8 MMBT3904TT1G
33K R95
33K R94
33K R88
J16
CON 1X7
LPUART0_TX
LPUART0_RX
SWD_DIO
SWD_CLK
nMCU_RESET_TP
R47 10.0K
D23 BAS70
R121 10.0K DNP
TP23
R15 910
R14 10.0K
nMCU_RESET
C59 0.1uF
SW1 EVQP7A01K
L5 10uH
Y1
16.00MHZ
VDD TRI-STATE OUT GND
R80 3.30K
C35 0.01UF
FTM_CLKIN0
R112 220
NOTE: Place R112 close to Y1 pin3
NEW EMI mitigation
R115 10.0K DNP
R114 10.0K DNP
C103 10uF DNP
NOTE: Place near pin 72 on chip for EMI mitigation
R51 10.0K
3V3_S
R70 3.3K
R71 3.3K
nSAFETY_SWITCH_LED_OUT
FMU_CH1
nSPI0_CS_FRAM
RC_INPUT
RC_BUS_OUT
SPI0_SCK_FRAM
SPI0_MOSI_FRAM
SPI0_MISO_FRAM
UI_LED_BLUE
UI_LED_GREEN
FTM_CLKIN0
I2C1_SCL_INTERNA
I2C1_SDA_INTERNA
UART4_CTS_B
UART4_RX
UART4_TX
CAN1_RX
CAN1_TX
CAN1_S
CAN0_S
PTC0/ADC0_SE14/TSI0_CH13/SPI0_PCS4/PDB0_EXTRG/USB0_SOF_OUT/FB_AD14/SDRAM_A22/I2S0_TXD1
PTC1/LLWU_P6/ADC0_SE15/TSI0_CH14/SPI0_PCS3/UART1_RTS/FTM0_CH0/FB_AD13/SDRAM_A21/I2S0_TXD0
PTC2/ADC0_SE4B/CMP1_IN0/TSI0_CH15/SPI0_PCS2/UART1_CTS/FTM0_CH1/FB_AD12/SDRAM_A20/I2S0_TX_FS
PTC3/LLWU_P7/CMP1_IN1/SPI0_PCS1/UART1_RX/FTM0_CH2/CLKOUT/I2S0_TX_BCLK
PTC4/LLWU_P8/SPI0_PCS0/UART1_TX/FTM0_CH3/FB_AD11/SDRAM_A19/CMP1_OUT
PTC5/LLWU_P9/SPI0_SCK/LPTMR0_ALT2/I2S0_RXD0/FB_AD10/SDRAM_A18/CMP0_OUT/FTM0_CH2
PTC6/LLWU_P10/CMP0_IN0/SPI0_SOUT/PDB0_EXTRG/I2S0_RX_BCLK/FB_AD9/SDRAM_A17/I2S0_MCLK
PTC7/CMP0_IN1/SPI0_SIN/USB0_SOF_OUT/I2S0_RX_FS/FB_AD8/SDRAM_A16
PTC8/ADC1_SE4B/CMP0_IN2/FTM3_CH4/I2S0_MCLK/FB_AD7/SDRAM_A15
PTC9/ADC1_SE5B/CMP0_IN3/FTM3_CH5/I2S0_RX_BCLK/FB_AD6/SDRAM_A14/FTM2_FLT0
PTC10/ADC1_SE6B/I2C1_SCL/FTM3_CH6/I2S0_RX_FS/FB_AD5/SDRAM_A13
PTC11/LLWU_P11/ADC1_SE7B/I2C1_SDA/FTM3_CH7/I2S0_RXD1/FB_RW
PTC12/UART4_RTS/FTM_CLKIN0/FB_AD27/SDRAM_D27/FTM3_FLT0/TPM_CLKIN0
PTC13/UART4_CTS/FTM_CLKIN1/FB_AD26/SDRAM_D26/TPM_CLKIN1
PTC14/UART4_RX/FB_AD25/SDRAM_D25
PTC15/UART4_TX/FB_AD24/SDRAM_D24
PTC16/CAN1_RX/UART3_RX/ENET0_1588_TMR0/FB_CS5/FB_TSIZ1/FB_BE23_16_BLS15_8/SDRAM_DQM2
PTC17/CAN1_TX/UART3_TX/ENET0_1588_TMR1/FB_CS4/FB_TSIZ0/FB_BE31_24_BLS7_0/SDRAM_DQM3
PTC18/UART3_RTS/ENET0_1588_TMR2/FB_TBST/FB_CS2/FB_BE15_8_BLS23_16/SDRAM_DQM1
PTC19/UART3_CTS/ENET0_1588_TMR3/FB_CS3/FB_BE7_0_BLS31_24/SDRAM_DQM0/FB_TA
PTD0/LLWU_P12/SPI0_PCS0/UART2_RTS/FTM3_CH0/FB_ALE/FB_CS1/FB_TS
PTD1/ADC0_SE5B/SPI0_SCK/UART2_CTS/FTM3_CH1/FB_CS0
PTD2/LLWU_P13/SPI0_SOUT/UART2_RX/FTM3_CH2/FB_AD4/SDRAM_A12/I2C0_SCL
PTD3/SPI0_SIN/UART2_TX/FTM3_CH3/FB_AD3/SDRAM_A11/I2C0_SDA
PTD4/LLWU_P14/SPI0_PCS1/UART0_RTS/FTM0_CH4/FB_AD2/SDRAM_A10/EWM_IN/SPI1_PCS0
PTD5/ADC0_SE6B/SPI0_PCS2/UART0_CTS/UART0_COL/FTM0_CH5/FB_AD1/SDRAM_A9/EWM_OUT/SPI1_SCK
PTD6/LLWU_P15/ADC0_SE7B/SPI0_PCS3/UART0_RX/FTM0_CH6/FB_AD0/FTM0_FLT0/SPI1_SOUT
PTD7/CMT_IRO/UART0_TX/FTM0_CH7/SDRAM_CKE/FTM0_FLT1/SPI1_SIN
PTD8/LLWU_P24/I2C0_SCL/LPUART0_RX/FB_A16
PTD9/I2C0_SDA/LPUART0_TX/FB_A17
PTD10/LPUART0_RTS/FB_A18
PTD11/LLWU_P25/SPI2_PCS0/SDHC0_CLKIN/LPUART0_CTS/FB_A19
PTD12/SPI2_SCK/FTM3_FLT0/SDHC0_D4/FB_A20
PTD13/SPI2_SOUT/SDHC0_D5/FB_A21
PTD14/SPI2_SIN/SDHC0_D6/FB_A22
PTD15/SPI2_PCS1/SDHC0_D7/FB_A23
ULTRASOUND_TRIGGER
UI_LED_RED
UART2_RX_GPS1
UART2_TX_GPS1
FMU_CH3
FMU_CH4
FMU_CH5
FMU_CH6
LPUART0_RX
LPUART0_TX
nSD_CARD_DETECT
nSE_RST
nSPI1_DRDY1_ACCEL
LED_AMBER
LED_GRN
GPIO_EXT1
GPIO_EXT
PTE0/ADC1_SE4A/SPI1_PCS1/UART1_TX/SDHC0_D1/TRACE_CLKOUT/I2C1_SDA/RTC_CLKOUT
PTE1/LLWU_P0/ADC1_SE5A/SPI1_SOUT/UART1_RX/SDHC0_D0/TRACE_D3/I2C1_SCL/SPI1_SIN
PTE2/LLWU_P1/ADC1_SE6A/SPI1_SCK/UART1_CTS/SDHC0_DCLK/TRACE_D2
PTE3/ADC1_SE7A/SPI1_SIN/UART1_RTS/SDHC0_CMD/TRACE_D1/SPI1_SOUT
PTE4/LLWU_P2/SPI1_PCS0/UART3_TX/SDHC0_D3/TRACE_D0
PTE5/SPI1_PCS2/UART3_RX/SDHC0_D2/FTM3_CH0
PTE6/LLWU_P16/SPI1_PCS3/UART3_CTS/I2S0_MCLK/FTM3_CH1/USB0_SOF_OUT
PTE7/UART3_RTS/I2S0_RXD0/FTM3_CH2
PTE8/I2S0_RXD1/I2S0_RX_FS/LPUART0_TX/FTM3_CH3
PTE9/LLWU_P17/I2S0_TXD1/I2S0_RX_BCLK/LPUART0_RX/FTM3_CH4
PTE10/LLWU_P18/I2C3_SDA/I2S0_TXD0/LPUART0_CTS/FTM3_CH5/USB1_ID
PTE11/I2C3_SCL/I2S0_TX_FS/LPUART0_RTS/FTM3_CH6
PTE12/I2S0_TX_BCLK/FTM3_CH7
PTE24/ADC0_SE17/CAN1_TX/UART4_TX/I2C0_SCL/EWM_OUT
PTE25/LLWU_P21/ADC0_SE18/CAN1_RX/UART4_RX/I2C0_SDA/EWM_IN
PTE26/ENET_1588_CLKIN/UART4_CTS/RTC_CLKOUT/USB0_CLKIN
PTE27/UART4_RTS
PTE28
SDHC0_D1
SDHC0_D0
SDHC0_DCLK
SDHC0_CMD
SDHC0_D3
SDHC0_D2
nSPI1_CS3_ACCEL
nSPI1_DRDY2_GYRO
USB_VBUS_VALID
nSPI1_DRDY_ACCELL_GYRO
nETHERNET_P_EN
FMU_CH7
FMU_CH8
I2C0_SCL_EXTERNAL
I2C0_SDA_EXTERNAL
E_REF_CLK
UART4_RTS_B
SAFETY_SWITCH_IN
R129 0
NOTE: Place R129 close to U1 pin3
D10 LED AMB
D9 LED_GRN
R16 680
R12 680
ICAP Classification:
CP:
IUO: X
PUBI:
Drawing Title:
RDDRONE-FMUK66E
Page Title:
MCU
Size C
Document Number SCH-39053 PDF: SPF-39053
Rev F
Date: Thursday, April 08, 2021
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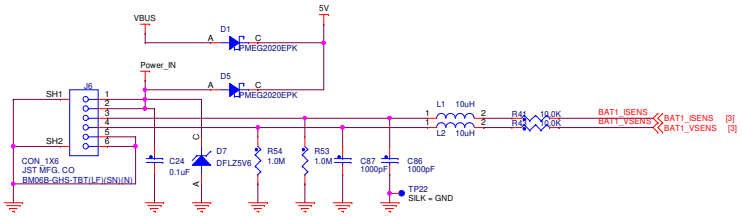
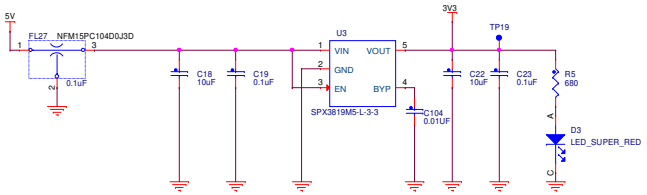
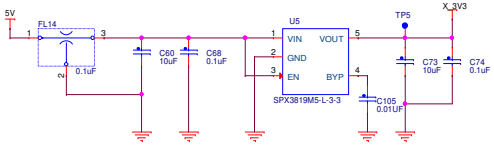
Power_IN



VCC to 3.3V for MCU

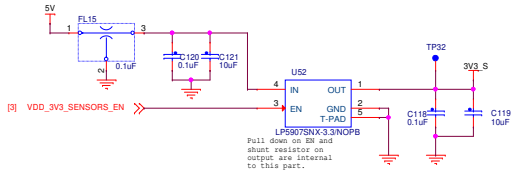


VCC to 3.3V for Ethernet, CAN, FRAM, SDCARD



VCC to 3.3V for Sensors / "Extra low noise"

NOTE: Extra Low Noise



ICAP Classification:	CP: ___ IUO: X PUBI: ___	
Drawing Title:	RDDRONE-FMUK66E	
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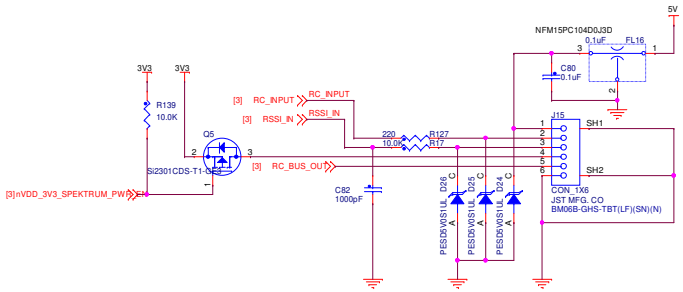
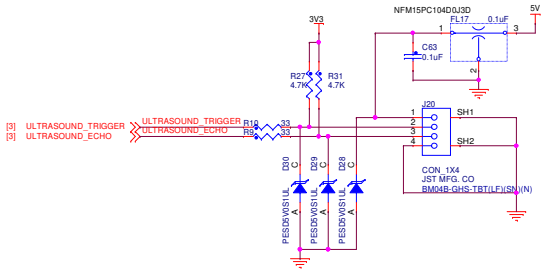
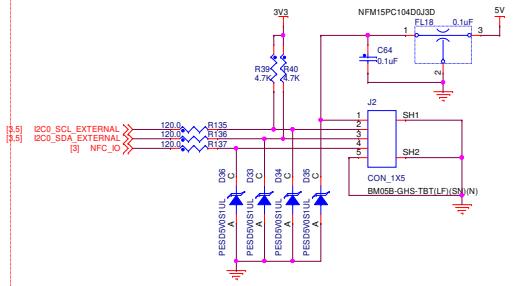
PPM-RSSI-SBUS-SPEKTRUM SERIAL4/FrSky



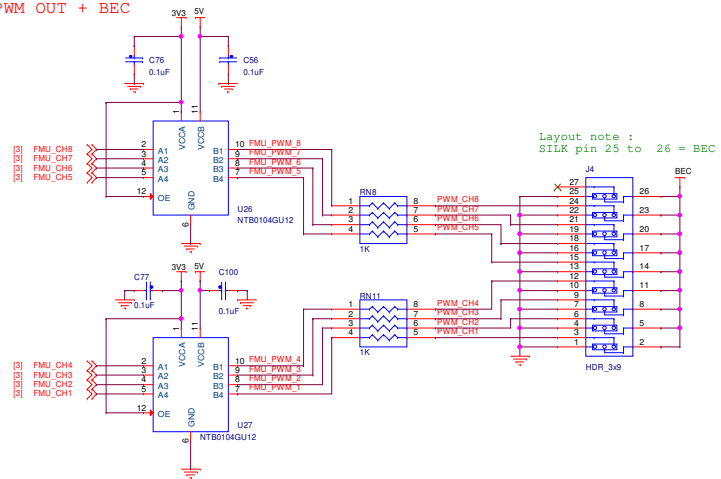
Ultrasonic Sensor



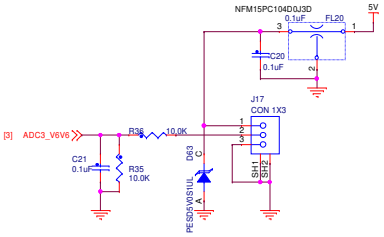
I2C0. Also for NTAG+ NFC Tag or NFC Controller



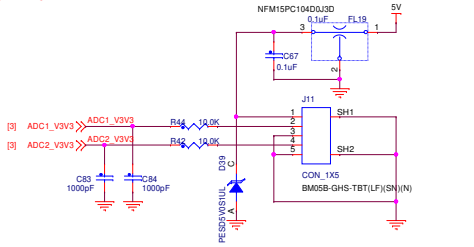
PWM OUT + BEC



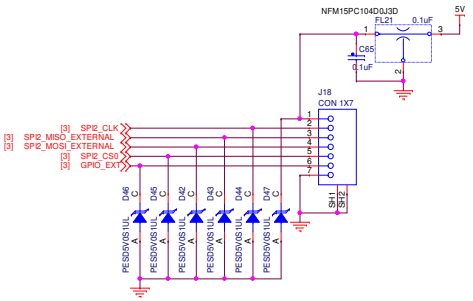
ADC3 PORT



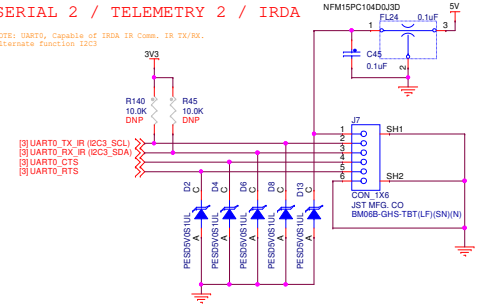
ADC1 PORT



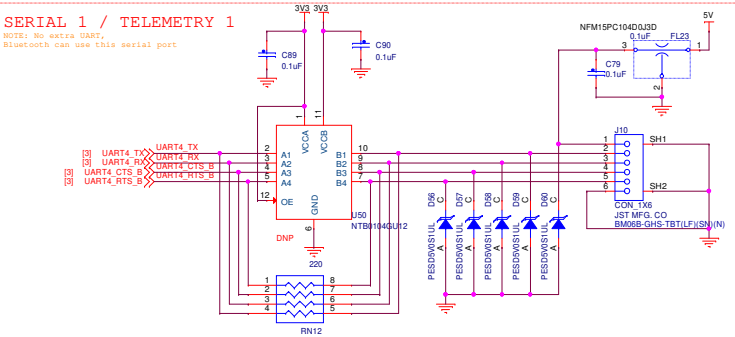
SPI EXTERNAL



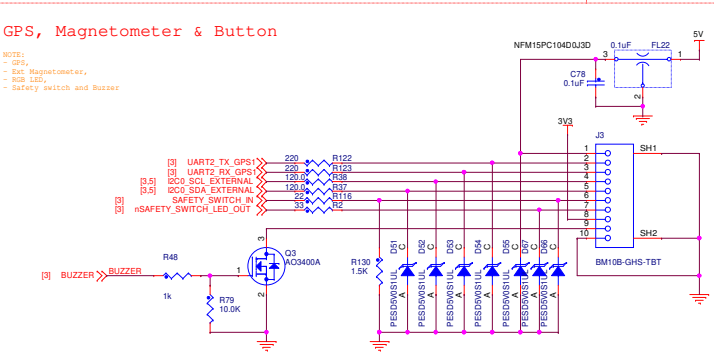
SERIAL 2 / TELEMETRY 2 / IRDA



SERIAL 1 / TELEMETRY 1



GPS, Magnetometer & Button



ICAP Classification:	CP: ___ IUO: X PUBI: ___
Drawing Title:	RDDRONE-FMUK66E
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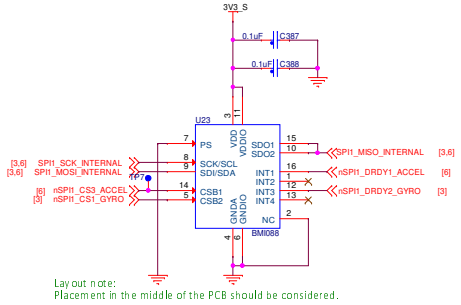
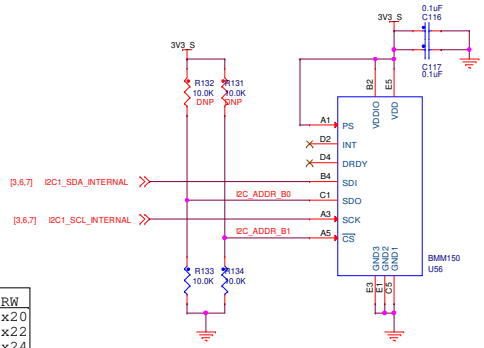
ACCELEROMETER & GYRO BMI1088



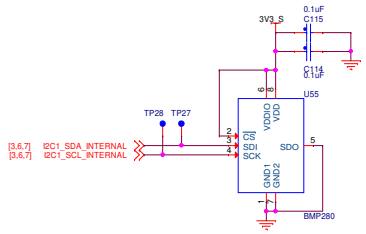
Layout note:
Placement in the middle of the PCB should be considered.

MAGNETOMETER BMM150



B1/B0	001	0	0XXn	I2C Addr	RW
L L	001	0	000n	0x10	0x20
L H	001	0	001n	0x11	0x22
H L	001	0	010n	0x12	0x24
H H	001	0	011n	0x13	0x26

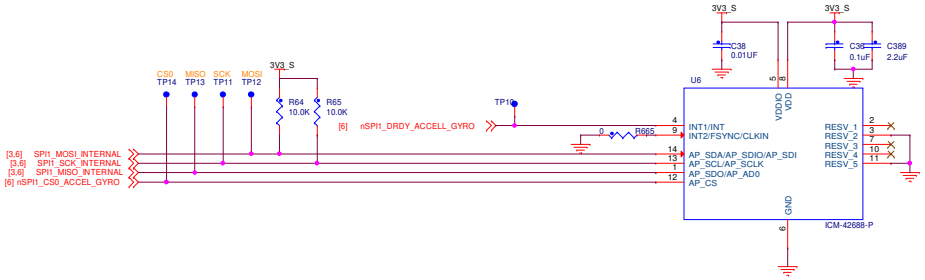
BAROMETER BMP280



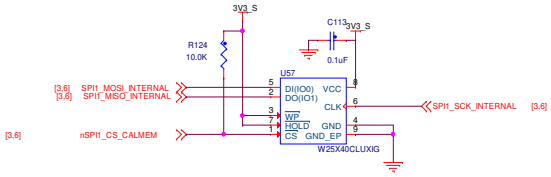
SDO	111 0 11Xn	I2C	RW
L	111 0 110n	0x76	0xEC
H	111 0 111n	0x77	0xEE

ACCELEROMETER & GYRO ICM-42688

Layout note:
Try to place as close to the middle of the PCB as possible for best performance.



SENSOR CALIBRATION FLASH



ICAP Classification: CP: ___ IUO: X PUBI: ___
Drawing Title: **RDDRONE-FMUK66E**
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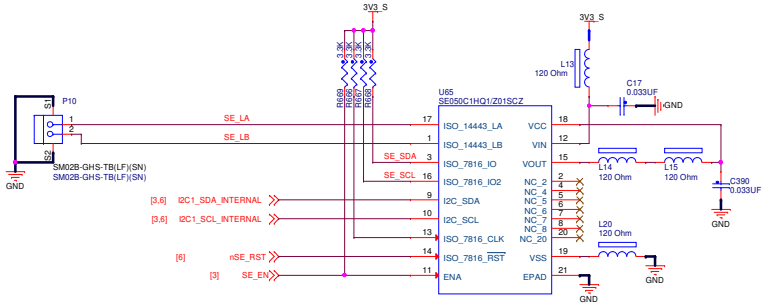
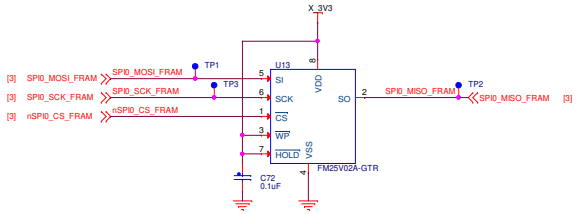
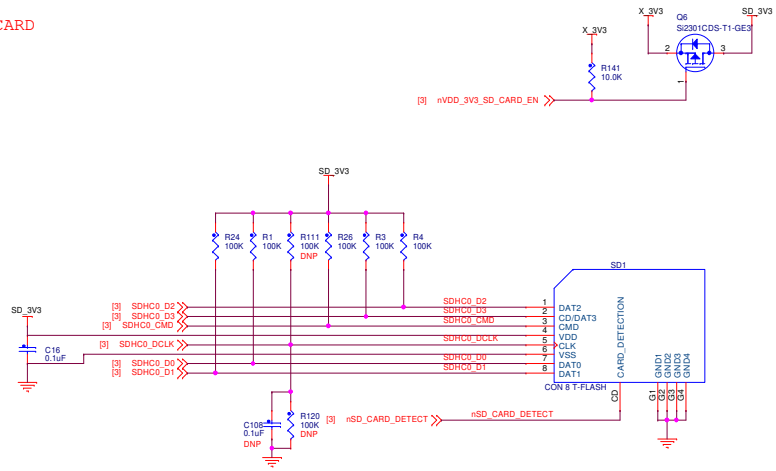
SECURE ELEMENT



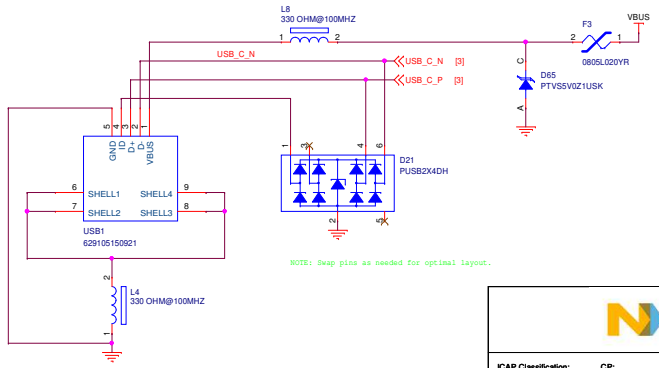
FRAM



SD CARD



MICRO USB



ICAP Classification: CP: ___ IUO: X PUBI: ___

Drawing Title: **RDDRONE-FMUK66E**

Page Title: **SD CARD & MEMORY**

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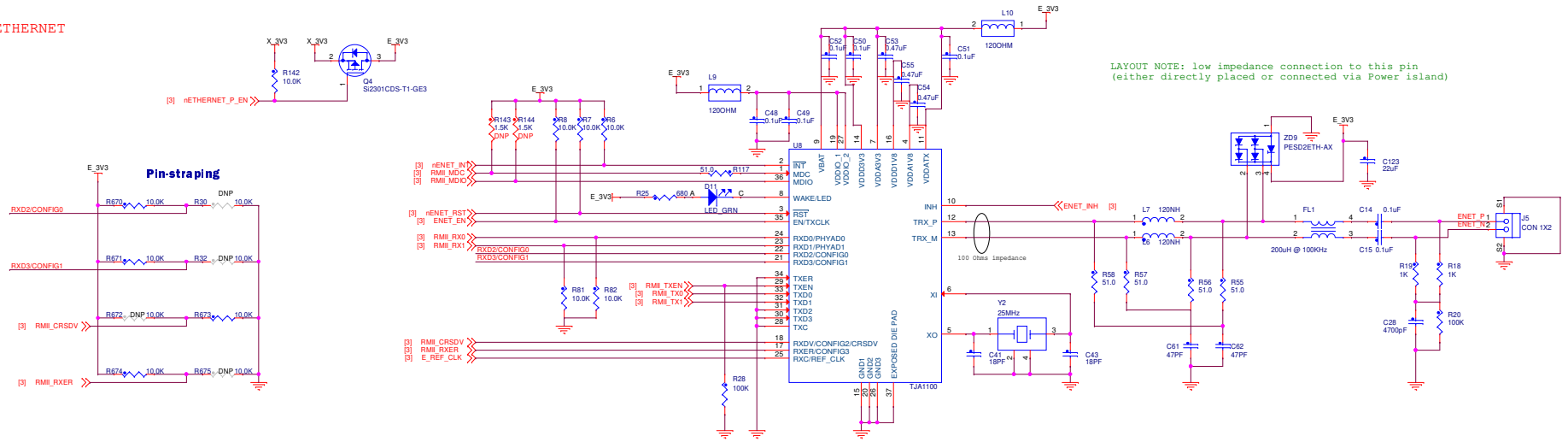
ETHERNET



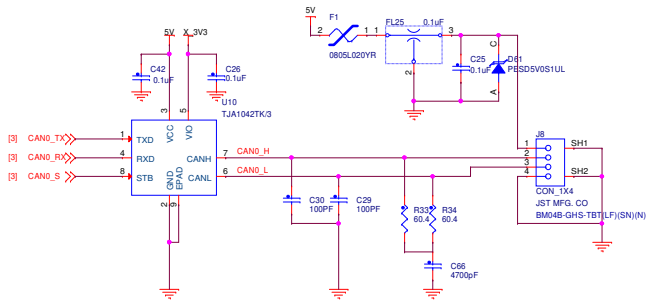
NOTE: - Re-check FL1 with TJA1100 datasheet or design that this part is ok.
Slightly different part number from the previous schematic (ACT45L-101-2P)
-The L is the ethernet version, and the B is CAN version.
It may still be allowed - need to check with the BL

NOTE: Review app note or have apps engineer look at the. AN
for TJA1101 shows additional ferrite and filtering for VDDA, VBAT and other signals.
Could add optional components in case they are needed for EMI mitigation.

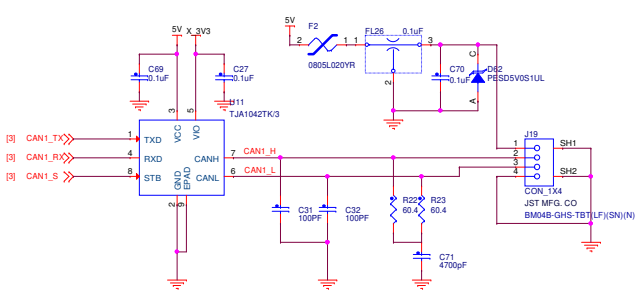
NOTE: App note for TJA1100 shows optimal protection diode layout

CAN

CAN_0 TRANSCEIVER



CAN_1 TRANSEIVER



LAYOUT NOTE: Mounting holes 96mil PLATE
(top-bottom)

BH1 MOUNTING HOLE
BH2 MOUNTING HOLE
BH3 MOUNTING HOLE
BH4 MOUNTING HOLE

ICAP Classification:	CP:	IUO: X	PUBI:
Drawing Title:	RDDRONE-FMUK66E		
Page Title:	CAN & Ethernet		
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