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9	LPC55S06
10	Jumper & DNP Tables

Revisions

Rev	Description	Date	Approved
X1	Preliminary SCH design	08-JUL-2020	Amish D.
A	Agile Release	06-AUG-2020	Amish D.
A1	Replaced D3 & Y2	20-AUG-2021	Amish D.

LPC55S06-EVK

Niobe4-Nano

This Color is for Silk

This Color is for User Notes

This Color is for CAD Notes

Microcontroller Solutions Group
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Austin, TX 78735-8598

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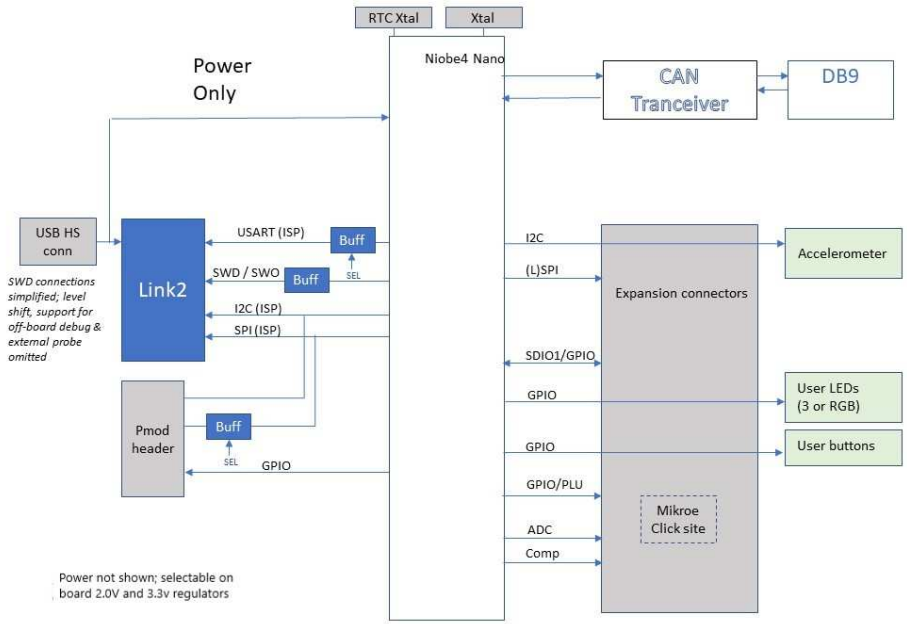
ICAP Classification: CP: IUO: X PUBL

Designer: Fernanda Islas	Drawing Title: LPC55S06-EVK	
Drawn by: Fernanda Islas	Page Title: Title, TOC & Rev	
Approved: Amish D.	Size: C	Document Number: SCH-47516 PDF: SPF-47516 — Rev: A1
	Date: Thursday, August 20, 2020	Sheet 1 of 10

System Block Diagram



Classification: Company Internal/Proprietary		
Drawing Title: LPC55S06-EVK		
Page Title: Block Diagram		
Size C	Document Number SCH-47516 PDF: SPF-47516	Rev A1
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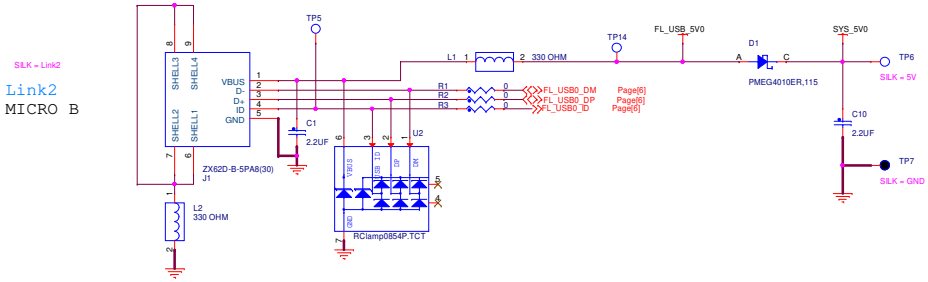
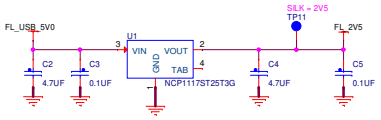
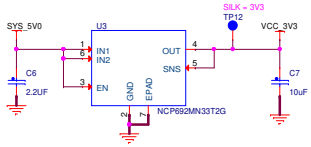


2V5 Regulator

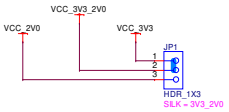


3V3 Regulator

Max output current from NCP692 is 1A

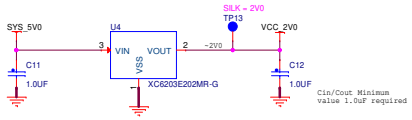


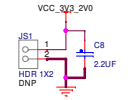
Selector 2V0 || 3V3



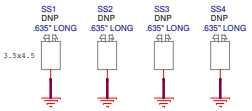
2V0 Regulator

Max output current from XC6203 is 400mA

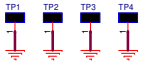




Mounting Holes



GND TestPads



Classification: Company Internal/Proprietary

Drawing Title: **LPC55S06-EVK**

Page Title: **System power**

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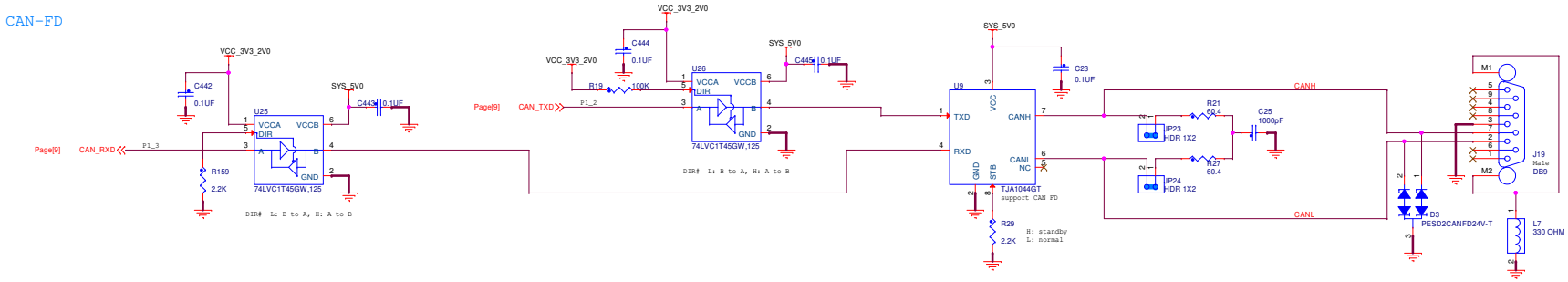
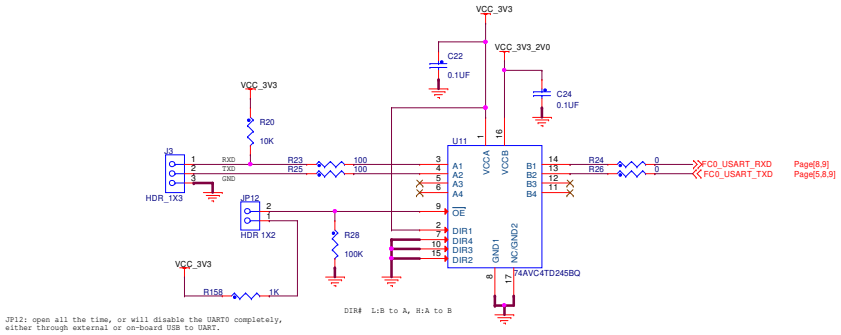
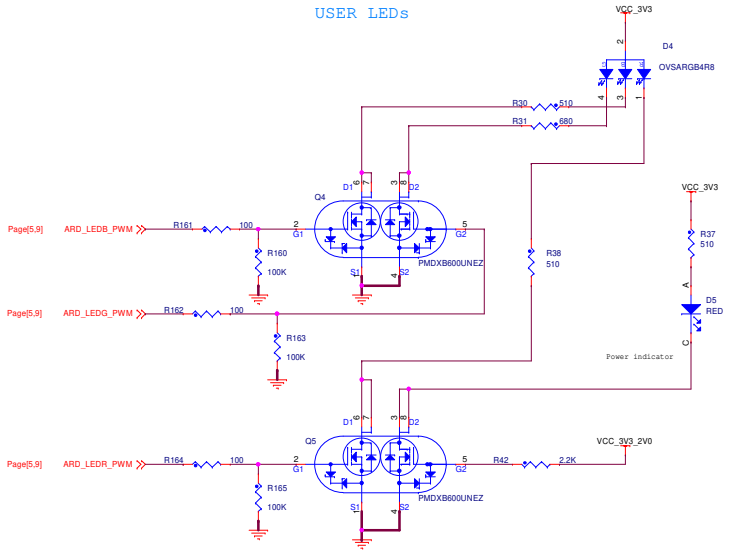
CAN-FD

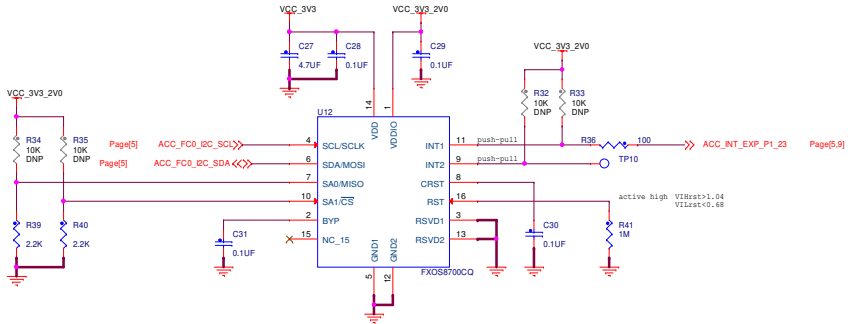




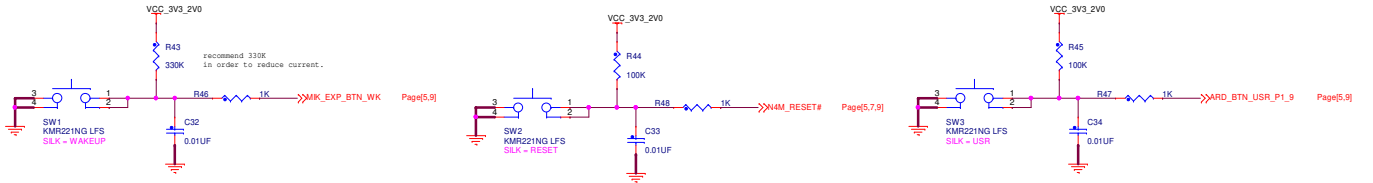
USER LEDs



ACCELEROMETER



I2C Address 0X1E



NXP

Classification: Company Internal/Proprietary

Drawing Title: **LPC55S06-EVK**

Page Title: **Peripheral**

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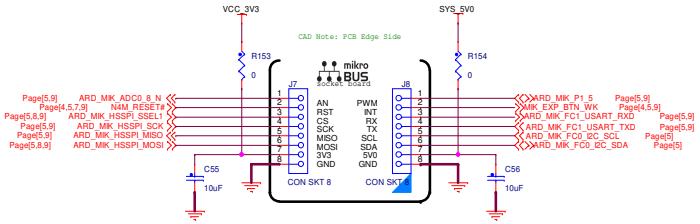
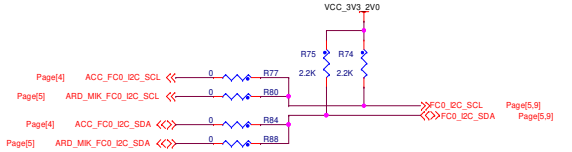
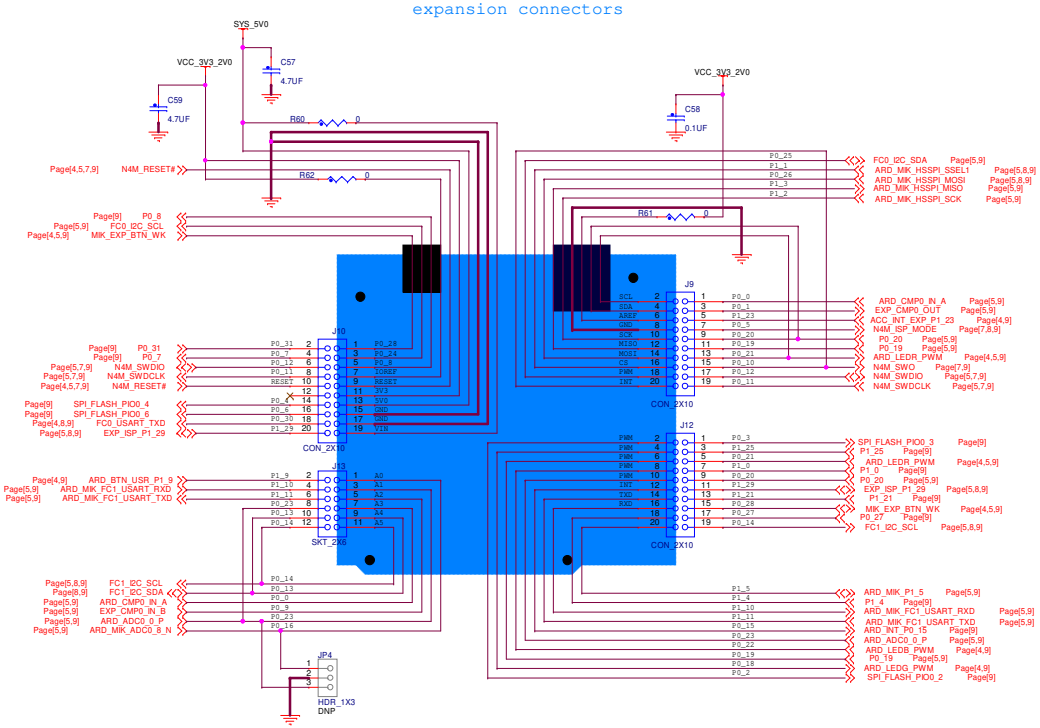
Mikroe Click Board

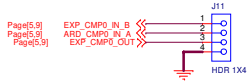




1. mikroBUS™ logo positioned above the socket
2. Pin names corresponding to the routing of the mainboard
3. A line that encloses the socket on all sides except the top, as shown above.
4. A diagonal notch below the right-hand side pinout (serves as a guideline for add-on board insertion)

LPCXpresso V3-style expansion connectors





Classification: Company Internal/Proprietary		
Drawing Title: LPC55S06-EVK		
Page Title: Interface		
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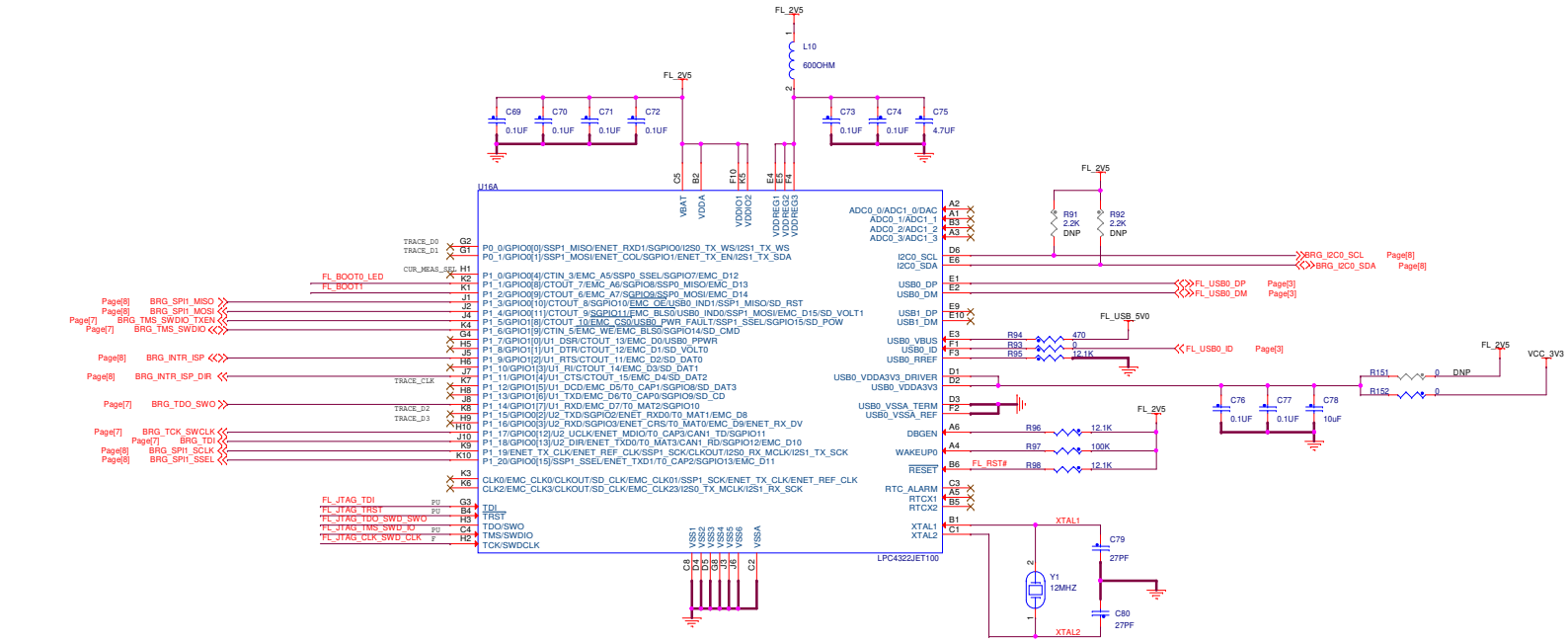
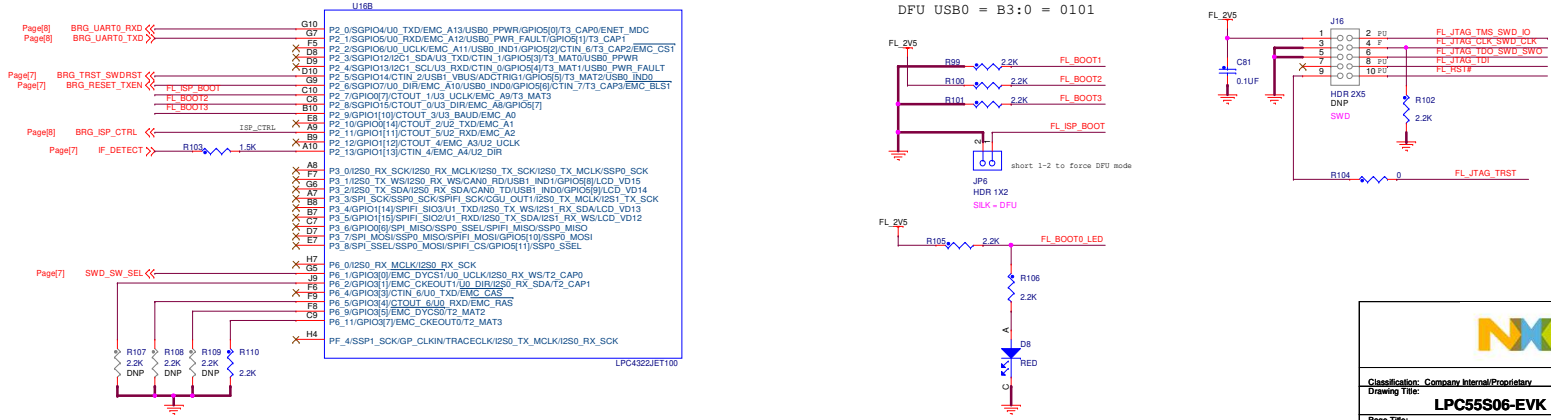
LINK2 MCU





Link2
LPC4322 Boot Mode
DFU USB0 = B3:0 = 0101

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Drawing Title: **LPC55S06-EVK**

Page Title: **Link2 MCU**

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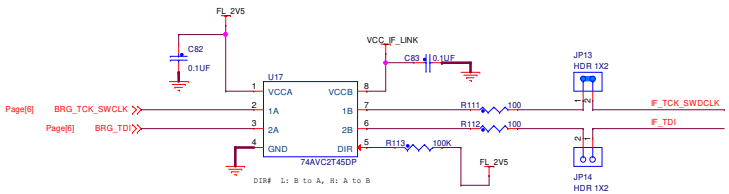
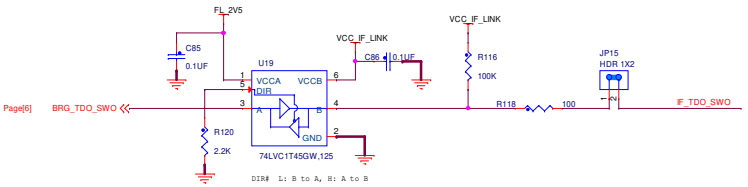
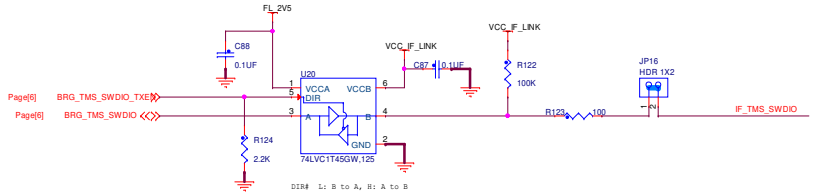
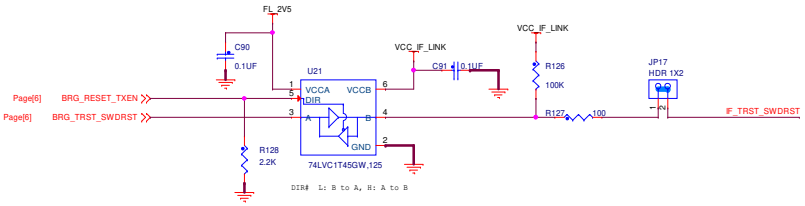
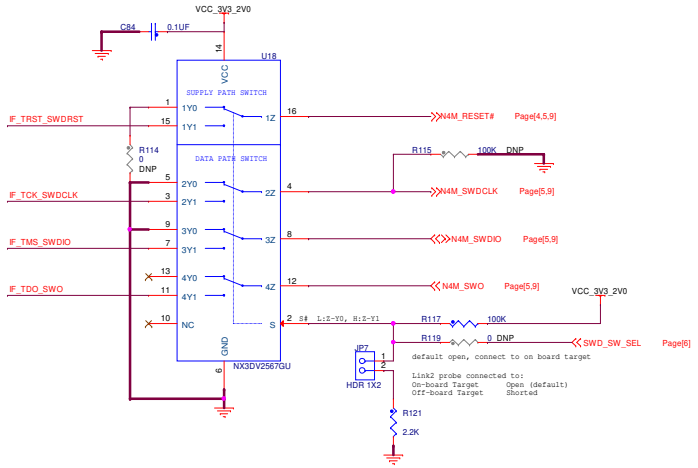


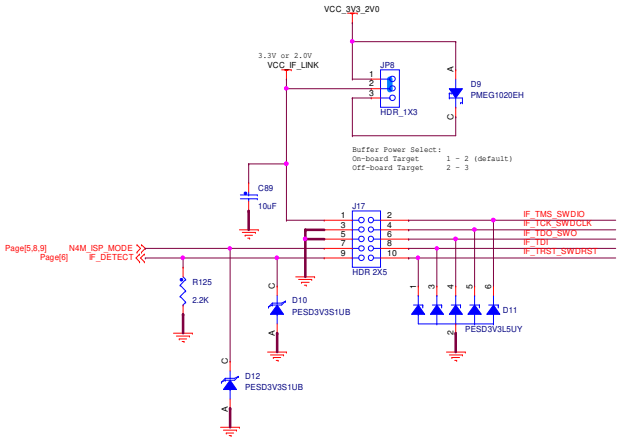








SWD CONN



Classification:	Company Internal/Proprietary
Drawing Title:	LPC55S06-EVK
Page Title:	Link2 SWD
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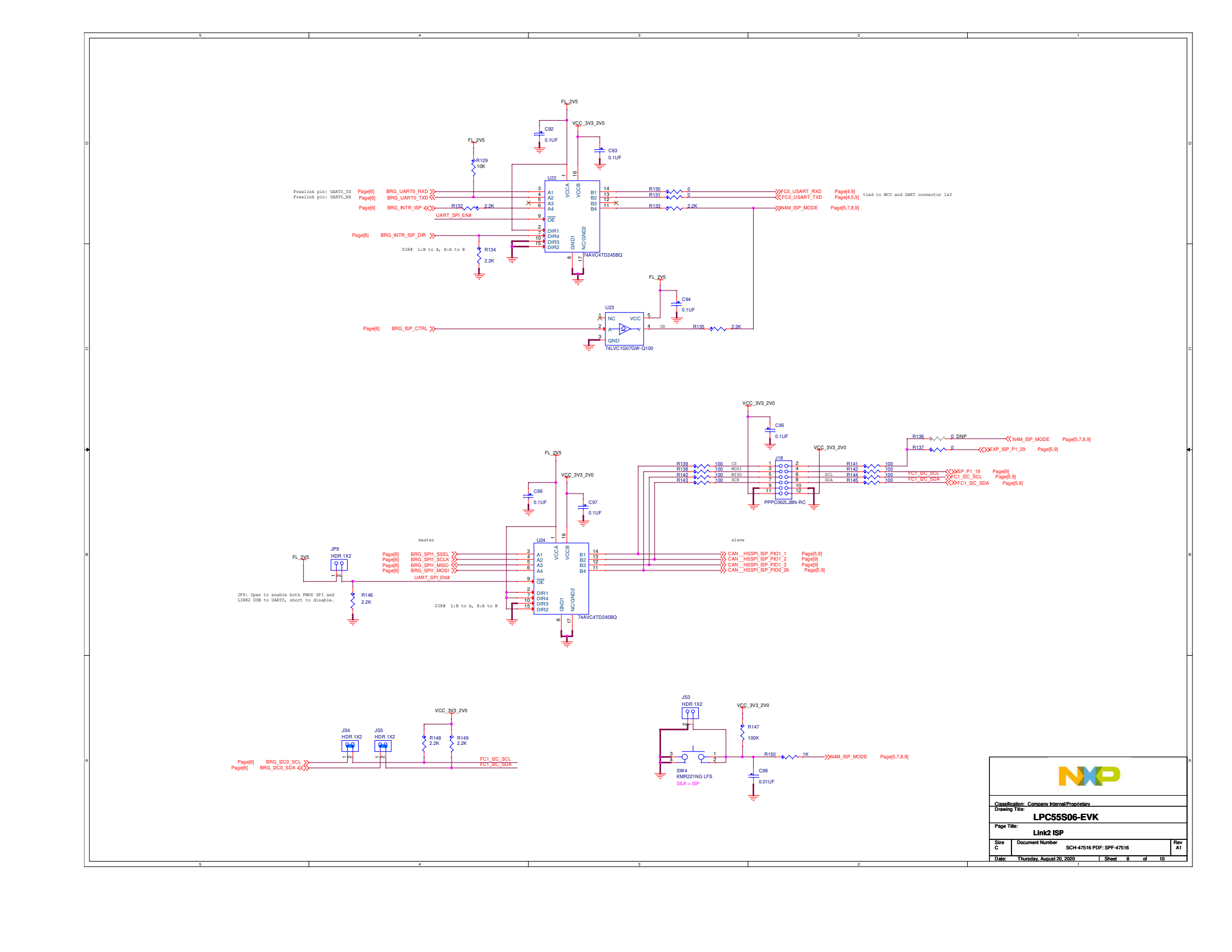
FL_2V5
VCC_3V3_2V0
C92
0.1UF
C93
0.1UF
R129
10K
U22
74AVC4TD245BQ
Freelink pin: UART0_TX
Freelink pin: UART0_RX
BRG_UART0_RXD
BRG_UART0_TXD
BRG_INTR_ISP
R132
2.2K
UART_SPI_EN#
BRG_INTR_ISP_DIR
DIR# L:B to A, H:A to B
R134
2.2K
R130
R131
R133
0
0
2.2K
FC0_USART_RXD
FC0_USART_TXD
N4M_ISP_MODE
tied to MCU and UART connector 1x3
U23
74LVC1G07GW-Q100
C94
0.1UF
BRG_ISP_CTRL
R135
2.2K
C95
0.1UF
R136
R137
0_DNP
0
N4M_ISP_MODE
EXP_ISP_P1_29
J18
PPPC062LJBN-RC
R139
R138
R140
R143
R141
R142
R144
R145
FC1_I2C_SCL
FC1_I2C_SDA
ISP_P1_19
C96
0.1UF
C97
0.1UF
JP9
HDR 1X2
R146
2.2K
master
slave
BRG_SPI1_SSEL
BRG_SPI1_SCLK
BRG_SPI1_MISO
BRG_SPI1_MOSI
UART_SPI_EN#
CAN__HSSPI_ISP_PIO1_1
CAN__HSSPI_ISP_PIO1_2
CAN__HSSPI_ISP_PIO1_3
CAN__HSSPI_ISP_PIO0_26
JP9: Open to enable both PMOD SPI and LINK2 USB to UART0, short to disable.
JS4
JS5
HDR 1X2
R148
2.2K
R149
2.2K
BRG_I2C0_SCL
BRG_I2C0_SDA
JS3
HDR 1X2
R147
100K
R150
1K
SW4
KMR221NG LFS
SILK = ISP
C98
0.01UF
Classification: Company Internal/Proprietary
Drawing Title:
LPC55S06-EVK
Page Title:
Link2 ISP
Size C
Document Number
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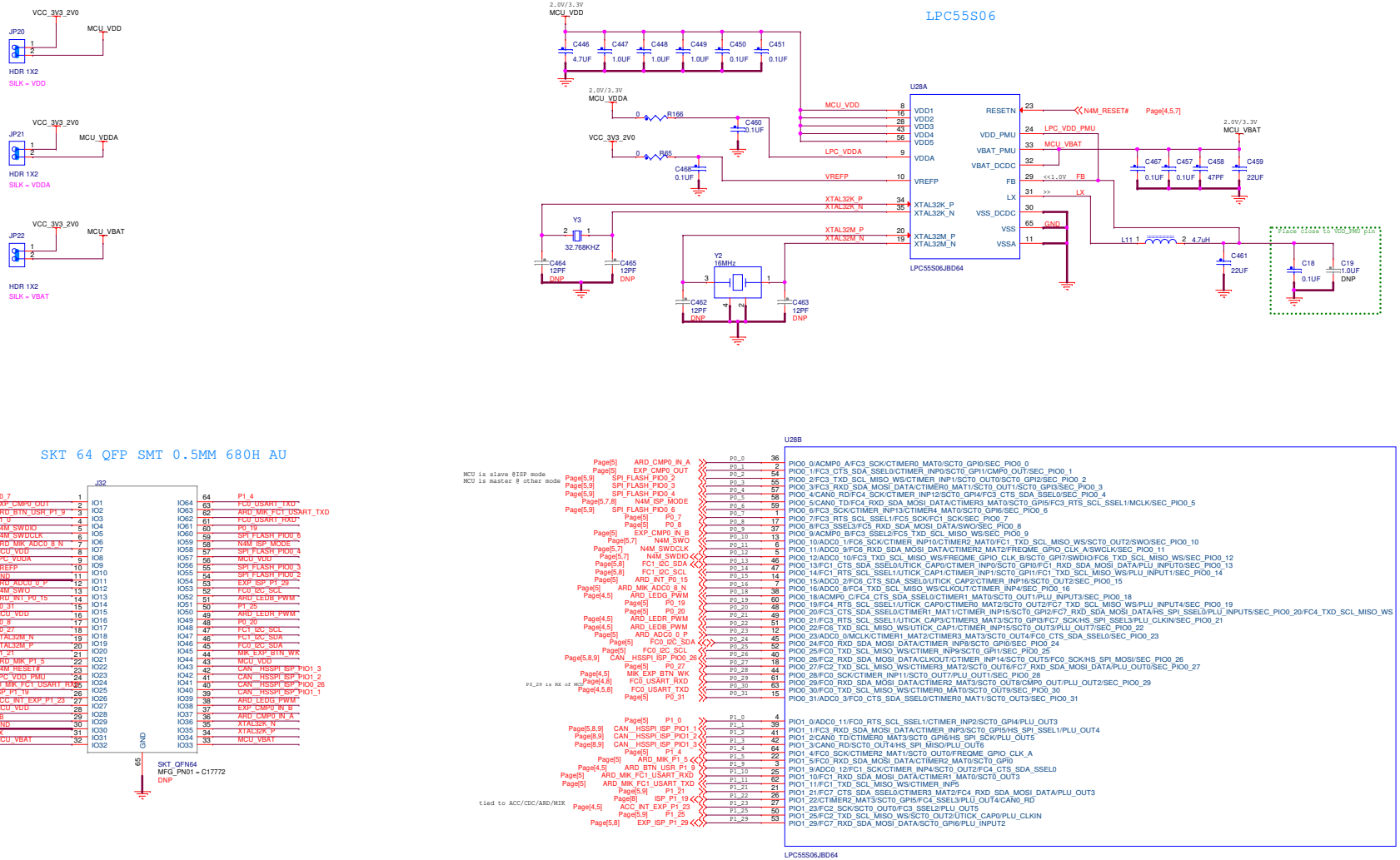
LPC55S06
SKT 64 QFP SMT 0.5MM 680H AU
SPI NOR FLASH
SPI NOR FLASH Mode / SPI Mode
HS SPI / CAN
U28A
U28B
J32
U29
JP20
JP21
JP22
HDR 1X2
SILK = VDD
SILK = VDDA
SILK = VBAT
MCU_VDD
MCU_VDDA
MCU_VBAT
VCC_3V3_2V0
2.0V/3.3V
32.768KHZ
16MHz
LPC55S06JBD64
SKT_QFN64
MFG_PN01 = C17772
DNP
MX25R8035FM2IL0
Package : 8 PIN SOP
HS LSPI Interface
CAN-FD Interface
Classification: Company Internal/Proprietary
Drawing Title:
LPC55S06-EVK
Page Title:
LPC55S06
Size
C
Document Number
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Rev
A1
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Friday, August 21, 2020
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9
of
10

Jumper Table

REF DES	*JUMPER(DEFAULT)*	*PAGE NAME*
JP1	1-2	03 - System Power
JP24,JP23	1-2	04 - Peripheral
J3,JP12	OPEN	04 - Peripheral
J11	OPEN	05 - Other Interface
JP6	OPEN	06 - Link2 MCU
JP16,JP17,JP15,JP8,JP13	1-2	07 - Link2 SWD
JP14,JP7,J17	OPEN	07 - Link2 SWD
JS4,JS5	1-2	08 - Link2 ISP
J18,JS3,JP9	OPEN	08 - Link2 ISP
JP20,JP21,JP22	1-2	09 - LPC55S06
JP25,JP26	2-3	09 - LPC55S06
JP28,JP29,JP30,JP27	OPEN	09 - LPC55S06

DNP Table

REF DES	*ASSY_OPT*	*PAGE NAME*
JS1,SS4,SS3,SS2,SS1	DNP	03 - System Power
R34,R35,R32,R33	DNP	04 - Peripheral
JP4	DNP	05 - Other Interface
R107,R108,R109,R91,R92,J16, R151	DNP	06 - Link2 MCU
R115,R119,R114	DNP	07 - Link2 SWD
R136	DNP	08 - Link2 ISP
C464,C462,C465,C19,C463,U29, C466,J32	DNP	09 - LPC55S06

Classification: Company Internal/Proprietary

Drawing Title: LPC55S06-EVK

Page Title: Jumper & DNP Tables

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