

X557-AT2 B STEP REFERENCE SCHEMATIC
DUAL PORT 1000/10GBASE-T
KX/KR/XFI X 2 FOR USE WITH
INTEL(R) XEON(R) PROCESSOR D-1500 PRODUCT FAMILY

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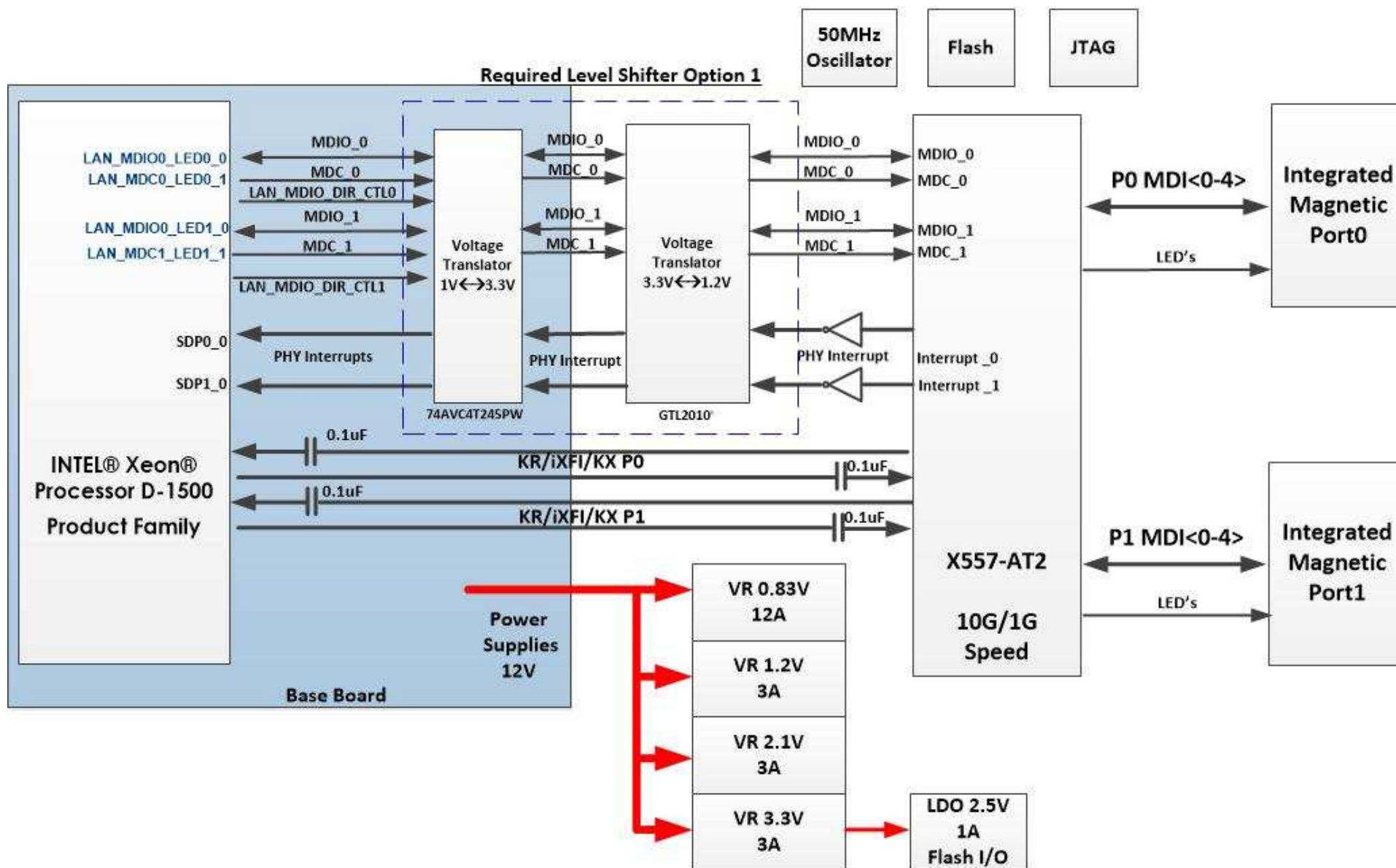
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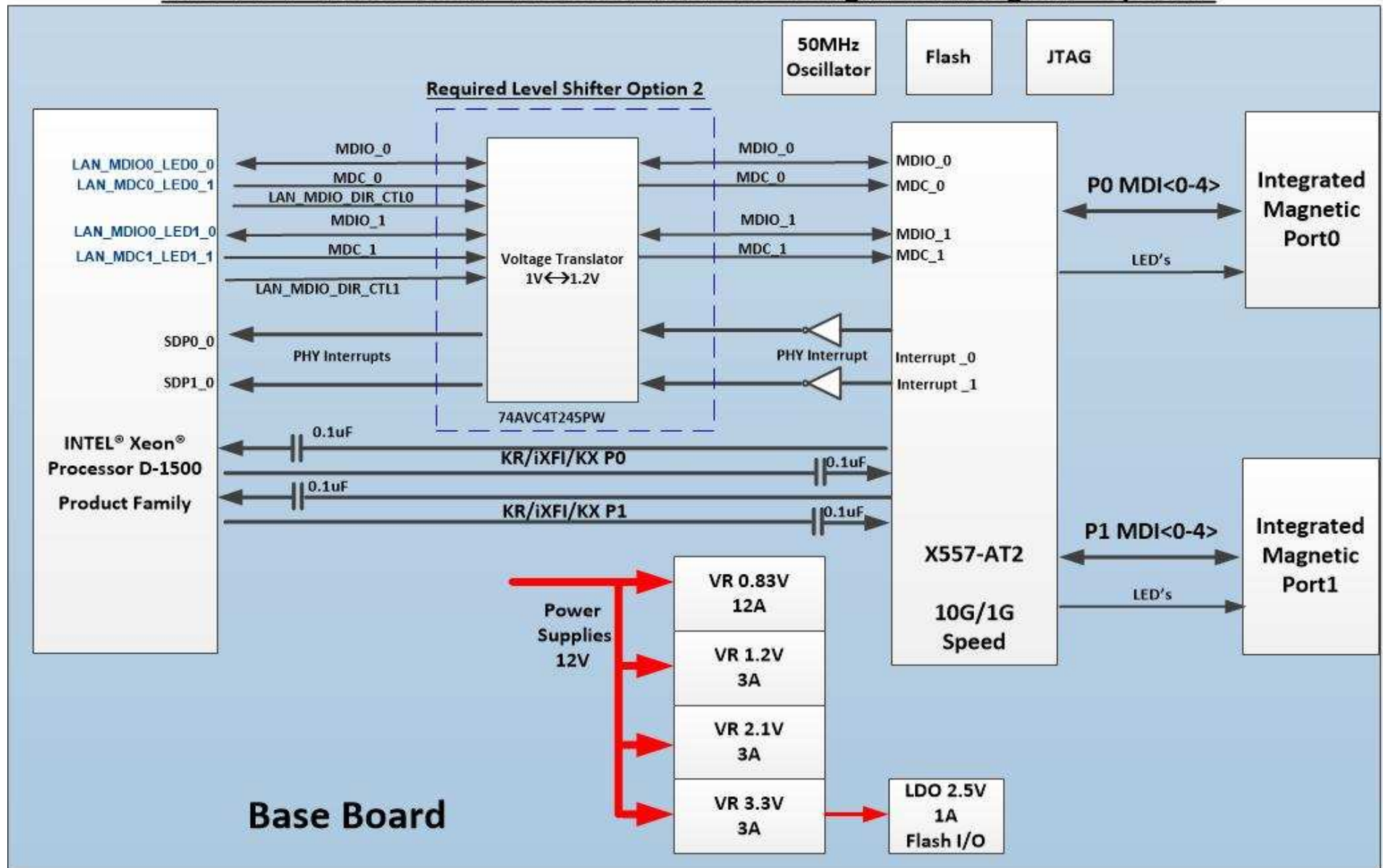
PAGE 13 – Example of VCC0P82 Switching Power Supply

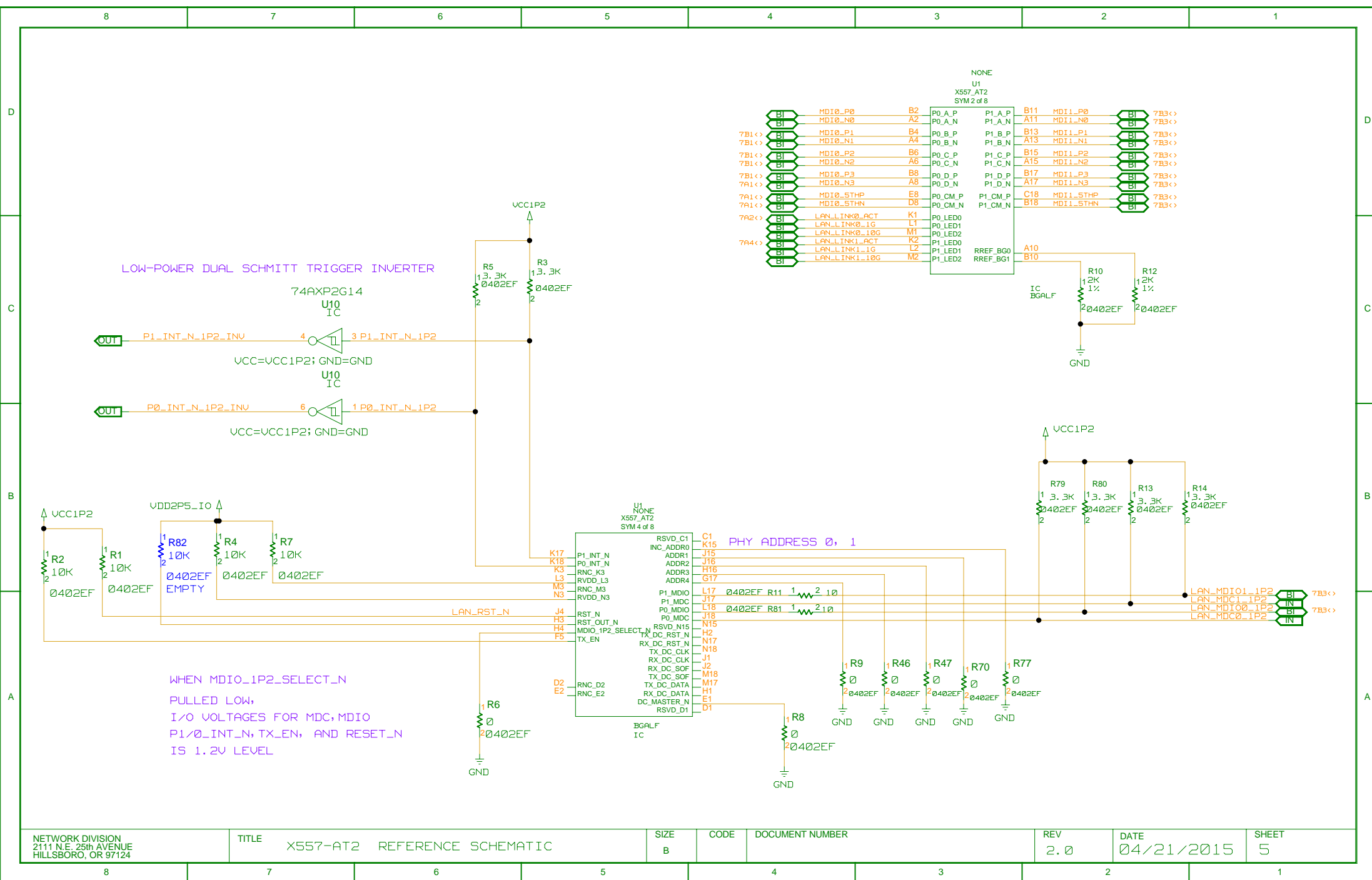
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X557-AT2 + INTEL® Xeon® Processor Reference Design Block Diagram - Option 1

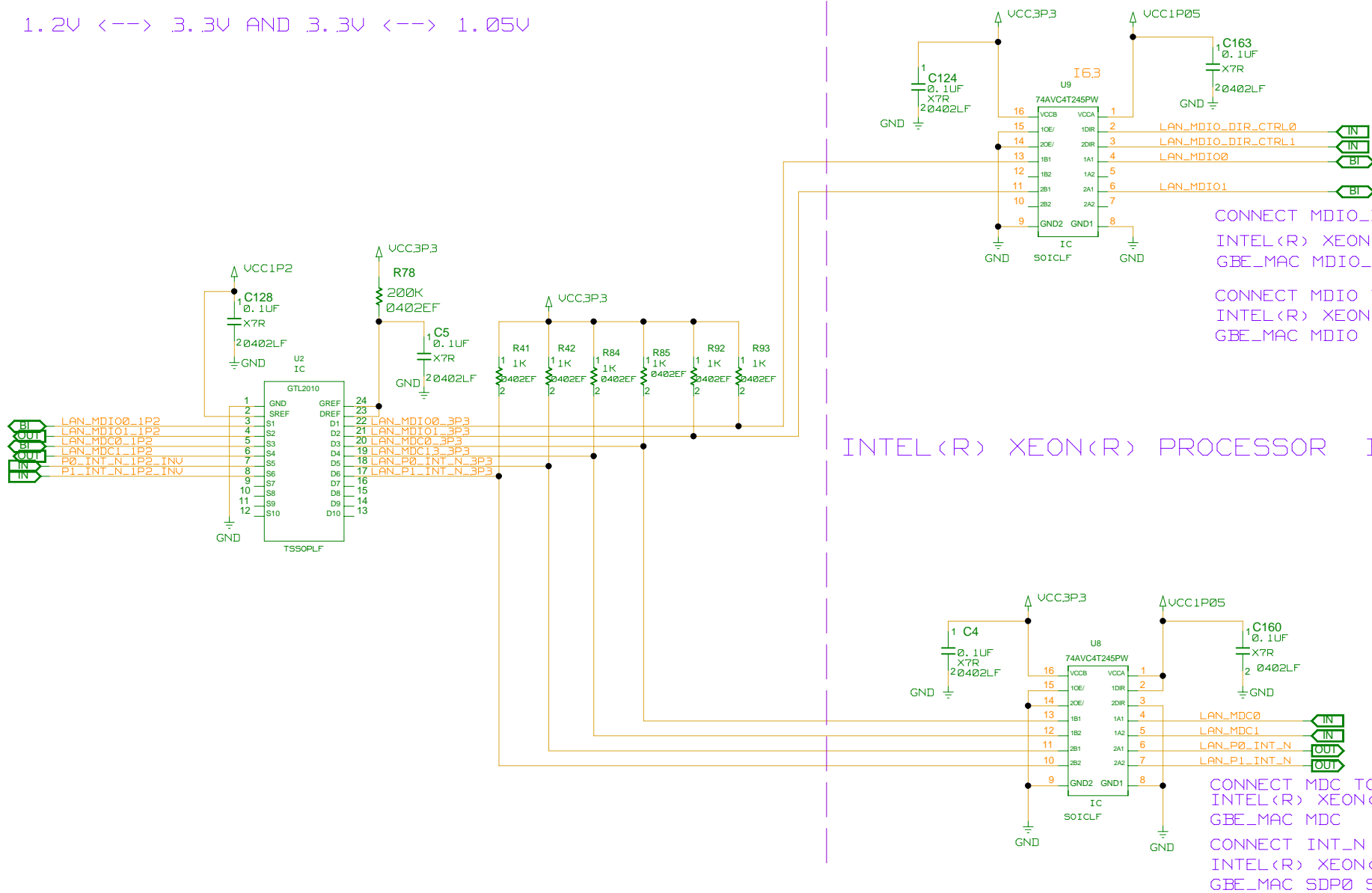


X557-AT2 + INTEL® Xeon® Processor Reference Design Block Diagram - Option 2





REQUIRED LEVEL SHIFTER OPTION 1
1.2V <--> 3.3V AND 3.3V <--> 1.05V

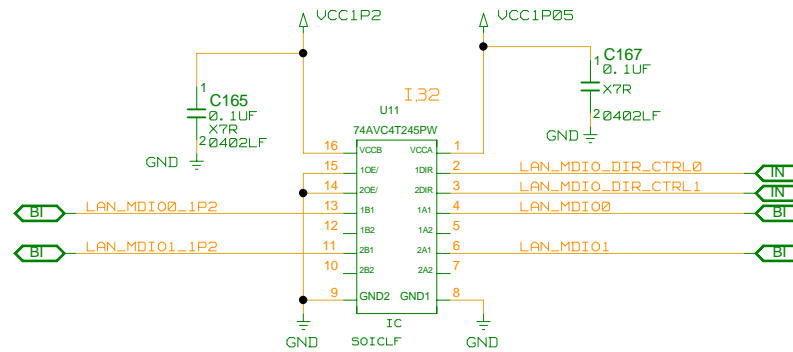


INTEL(R) XEON(R) PROCESSOR BASE BOARD

INTEL(R) XEON(R) PROCESSOR BASE BOARD

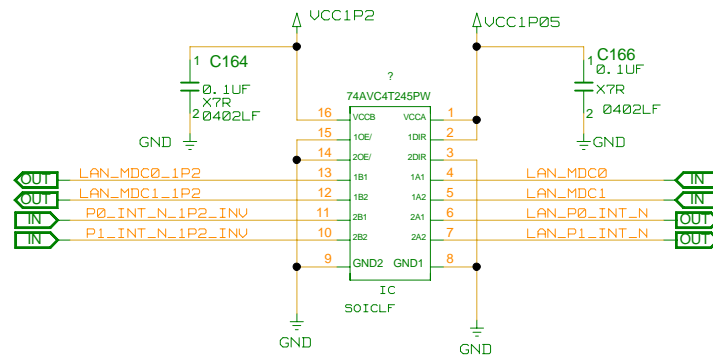
REQUIRED LEVEL SHIFTER OPTION 2

1.2V <--> 1.05V



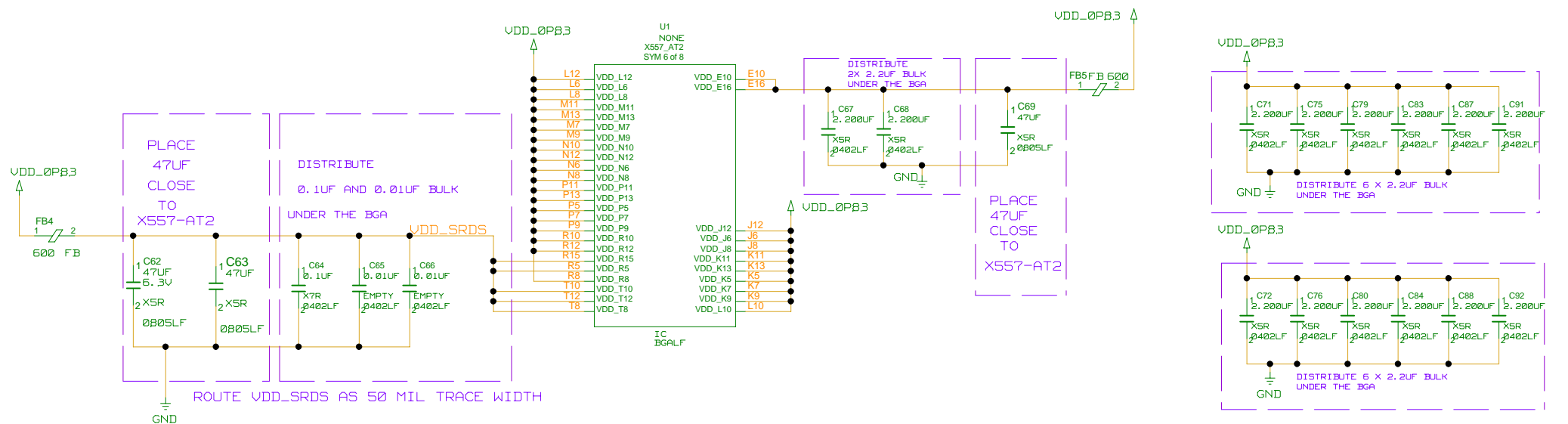
CONNECT MDIO_DIR_CTRL TO
INTEL(R) XEON(R) PROCESSOR
GBE_MAC MDIO_DIR_CTRL

CONNECT MDIO TO
INTEL(R) XEON(R) PROCESSOR
GBE_MAC MDIO

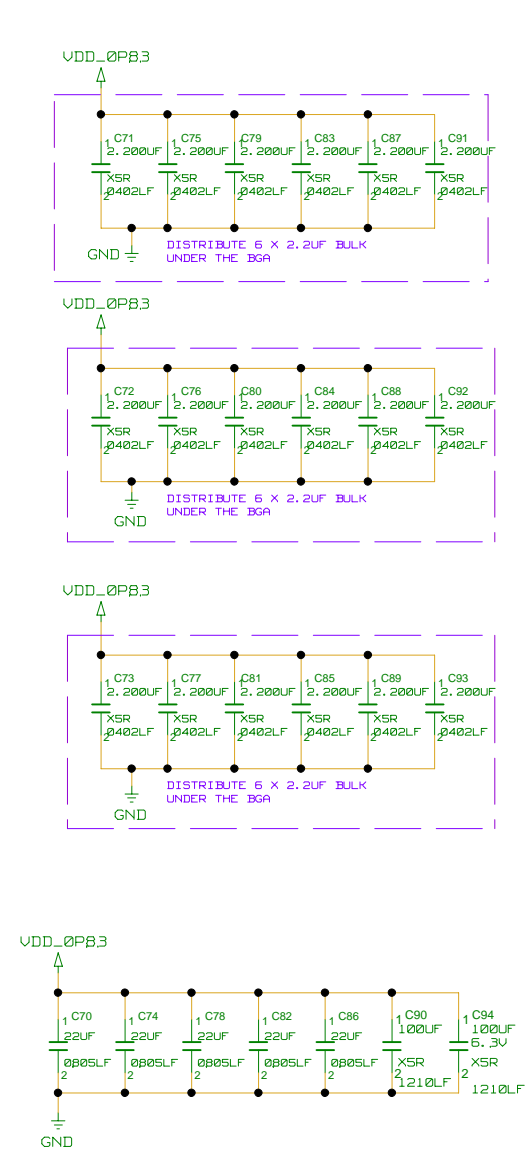
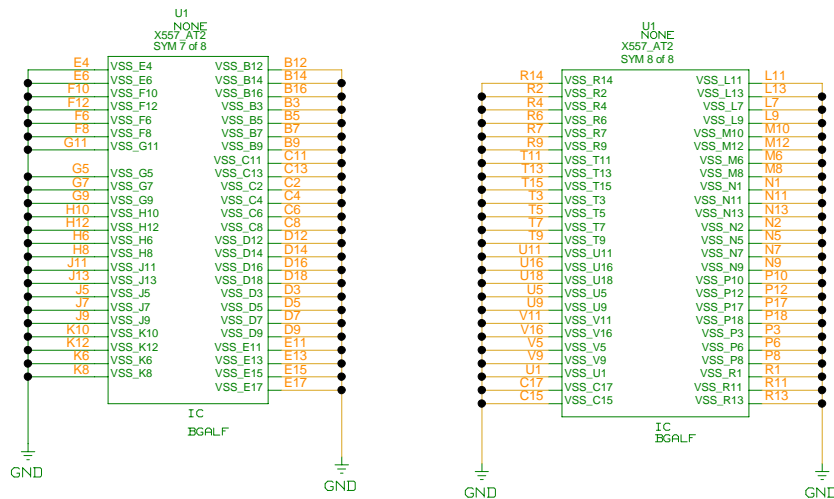


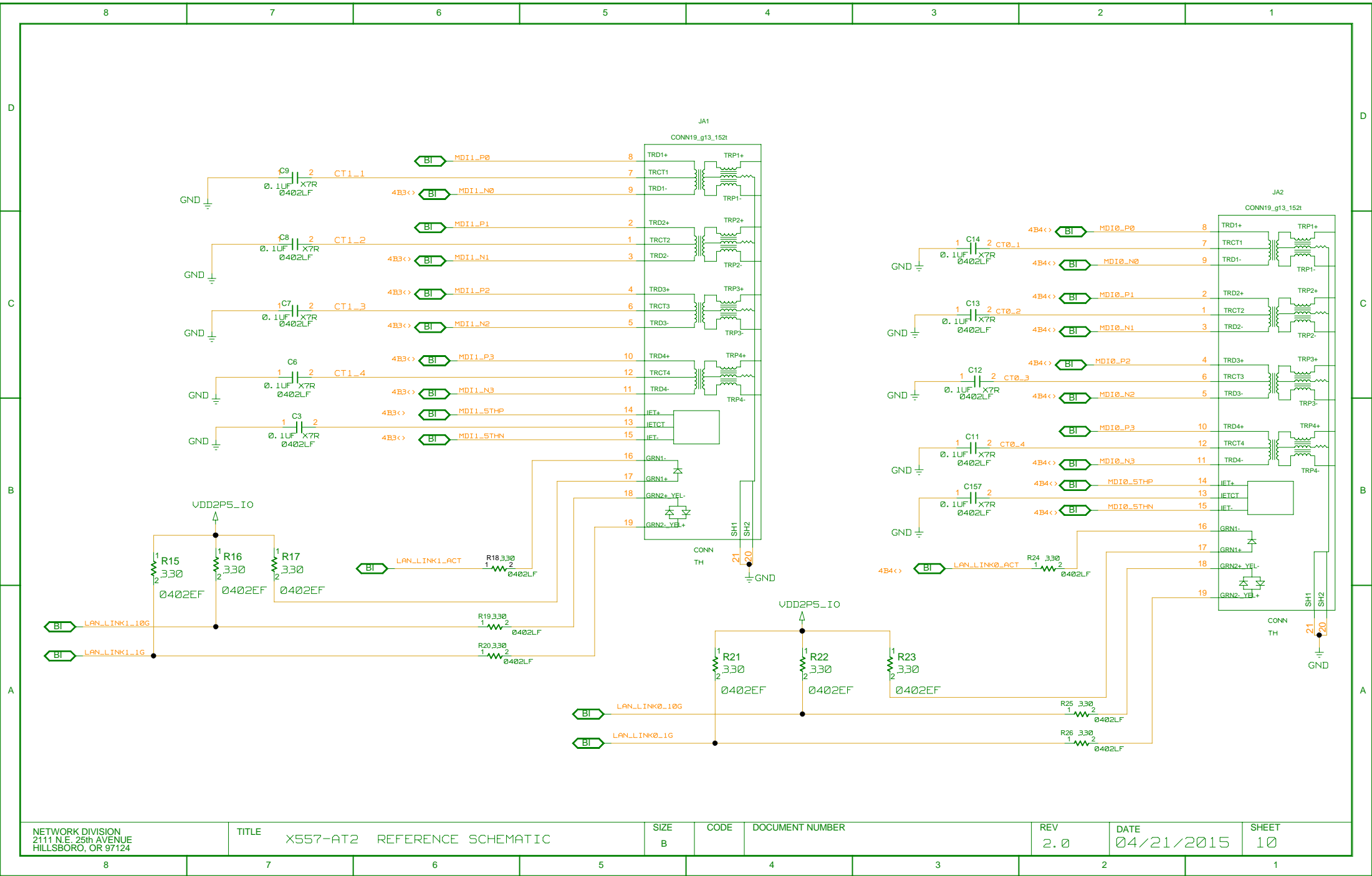
CONNECT MDC TO
INTEL(R) XEON(R) PROCESSOR
GBE_MAC MDC

CONNECT INT_N TO
INTEL(R) XEON(R) PROCESSOR
GBE_MAC SDP0 SIGNALS



LAYOUT NOTE
PINS E6/E15 BGA BALLS MUST NOT BE USED AS
GROUND RETURN FOR BYPASS CAPS ONBOARD

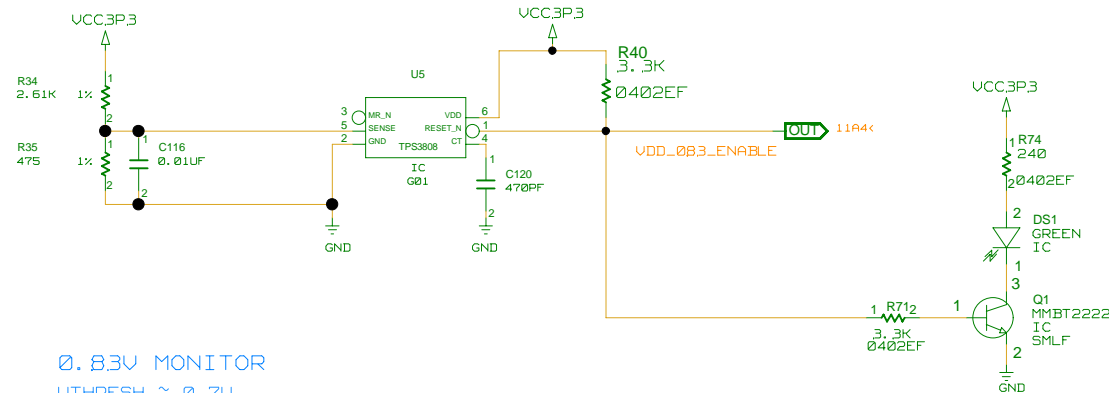




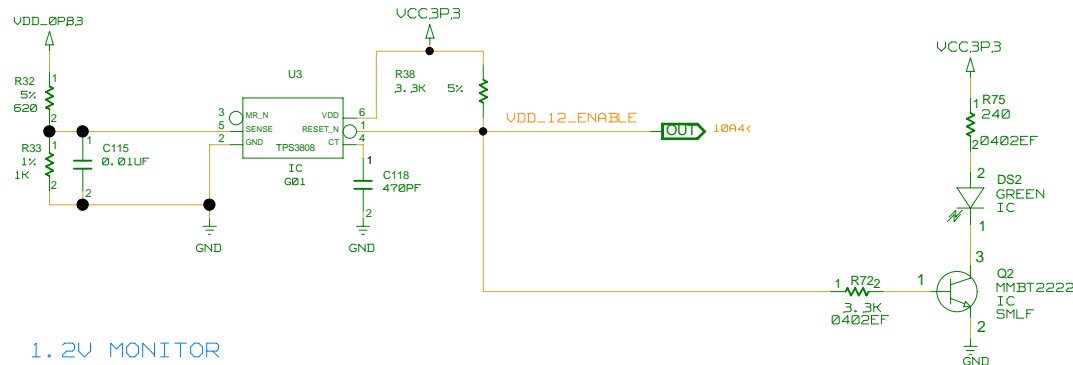
EXAMPLE FOR VOLTAGE MONITORS - SUPPLY ENABLE CHAIN

12V-->.3.3V-->0.83V-->1.2V-->2.1V-->2.5V_IO

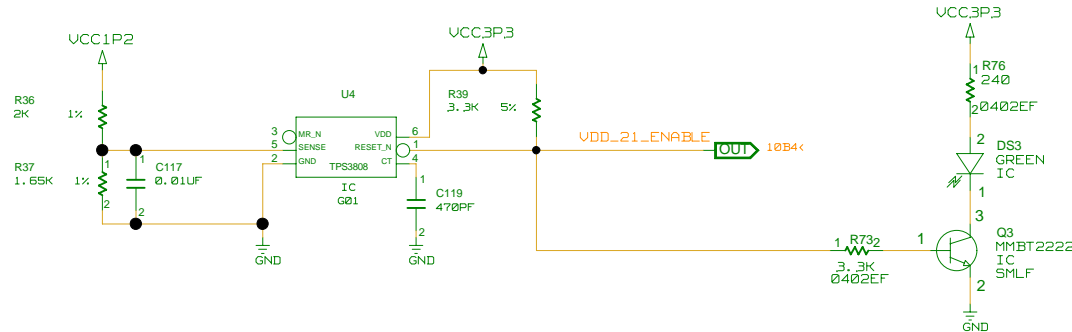
3.3V MONITOR
VTHRESH ~ 2.64V



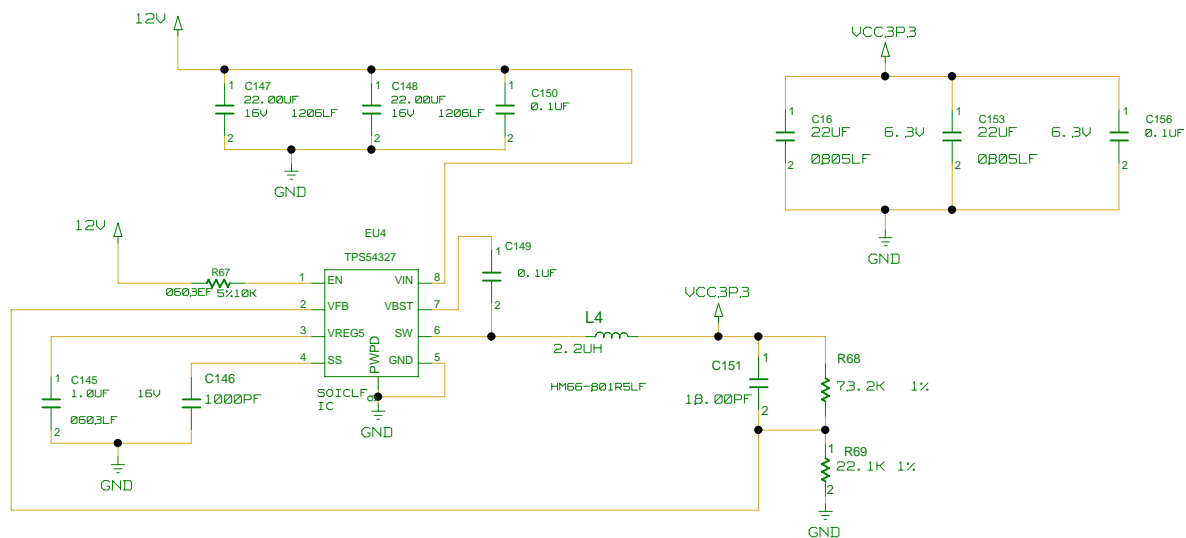
0.83V MONITOR
VTHRESH ~ 0.7V



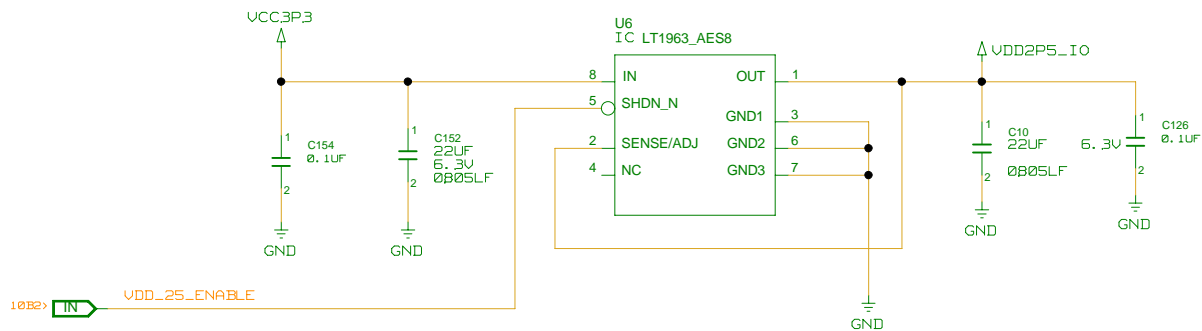
1.2V MONITOR
VTHRESH ~ 0.9V



EXAMPLE FOR 12V -> 3.3V SWITCHING POWER SUPPLY 3A

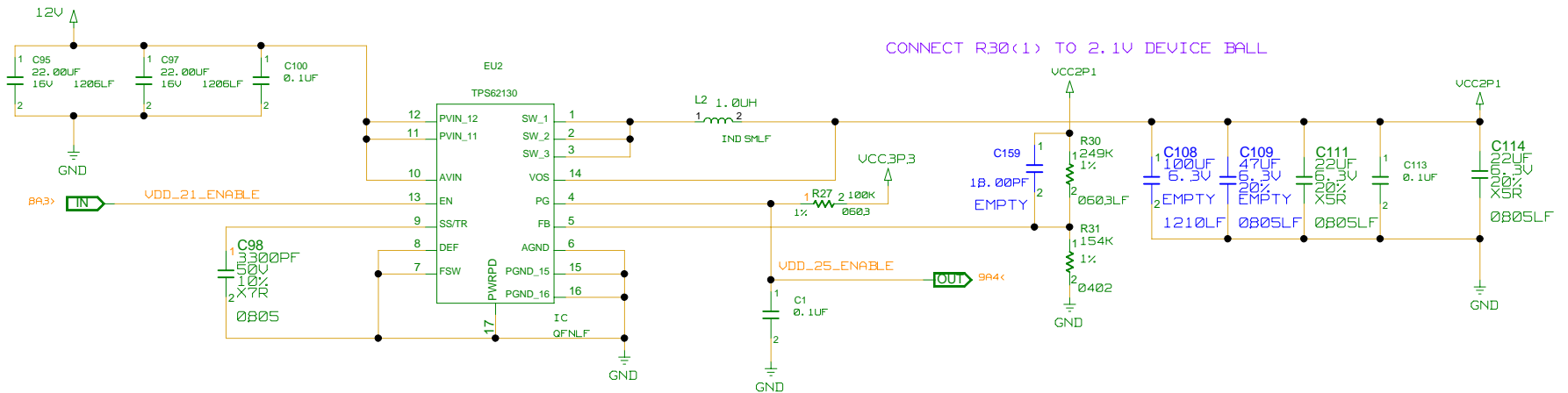


EXAMPLE FOR 3.3V -> 2.5V LDO 1.5A



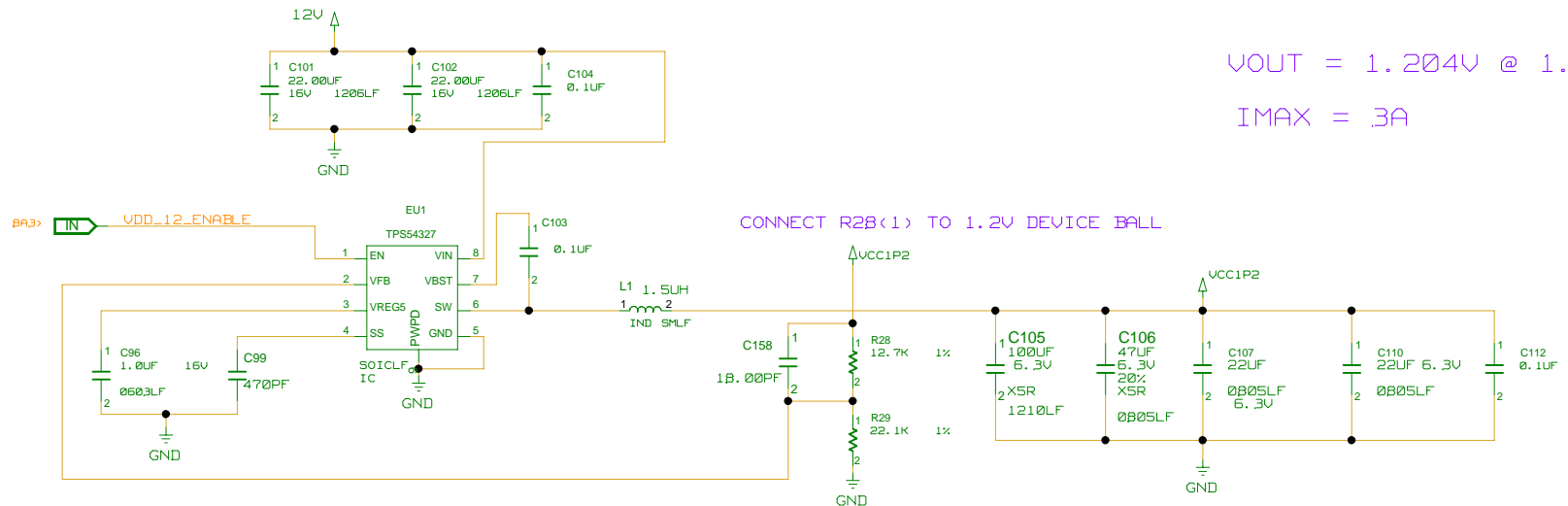
EXAMPLE FOR 12V -> 2.1V SWITCHING POWER SUPPLY

VOUT = 2.094 @ 2.1V
IMAX = .3A



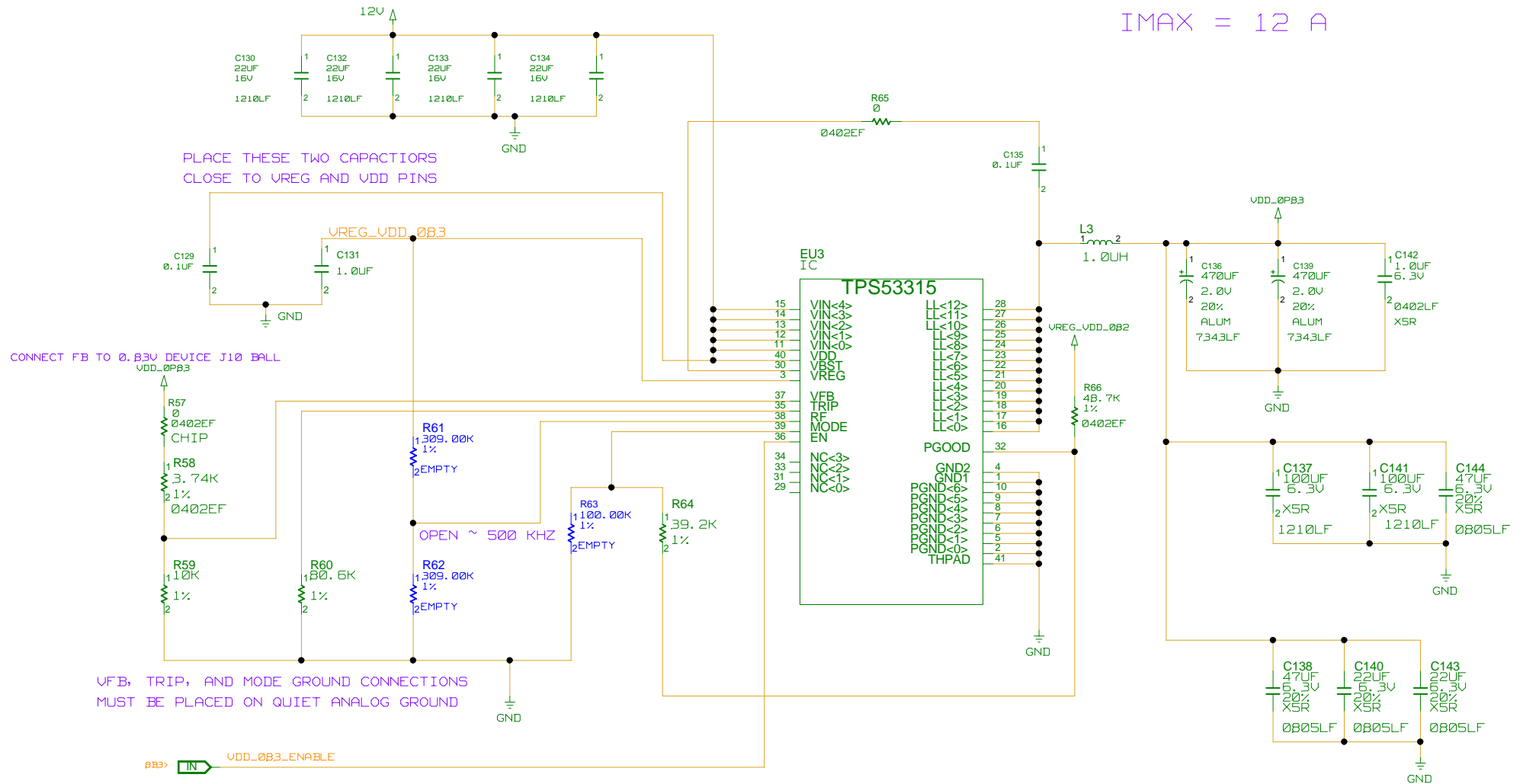
EXAMPLE FOR 12V -> 1.2V SWITCHING POWER SUPPLY

VOUT = 1.204V @ 1.2V
IMAX = .3A



EXAMPLE FOR 12V → 0.83V SWITCHING POWER SUPPLY

VOUT = 0.825V @ 0.82V
IMAX = 12 A



REVISION HISTORY

REVISION 2.0

REVISION 2.0 INITIAL RELEASE (INTEL PUBLIC)

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