

PicoZed FMC Carrier

Avnet Engineering Services

www.PicoZed.org

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PicoZed FMC Carrier

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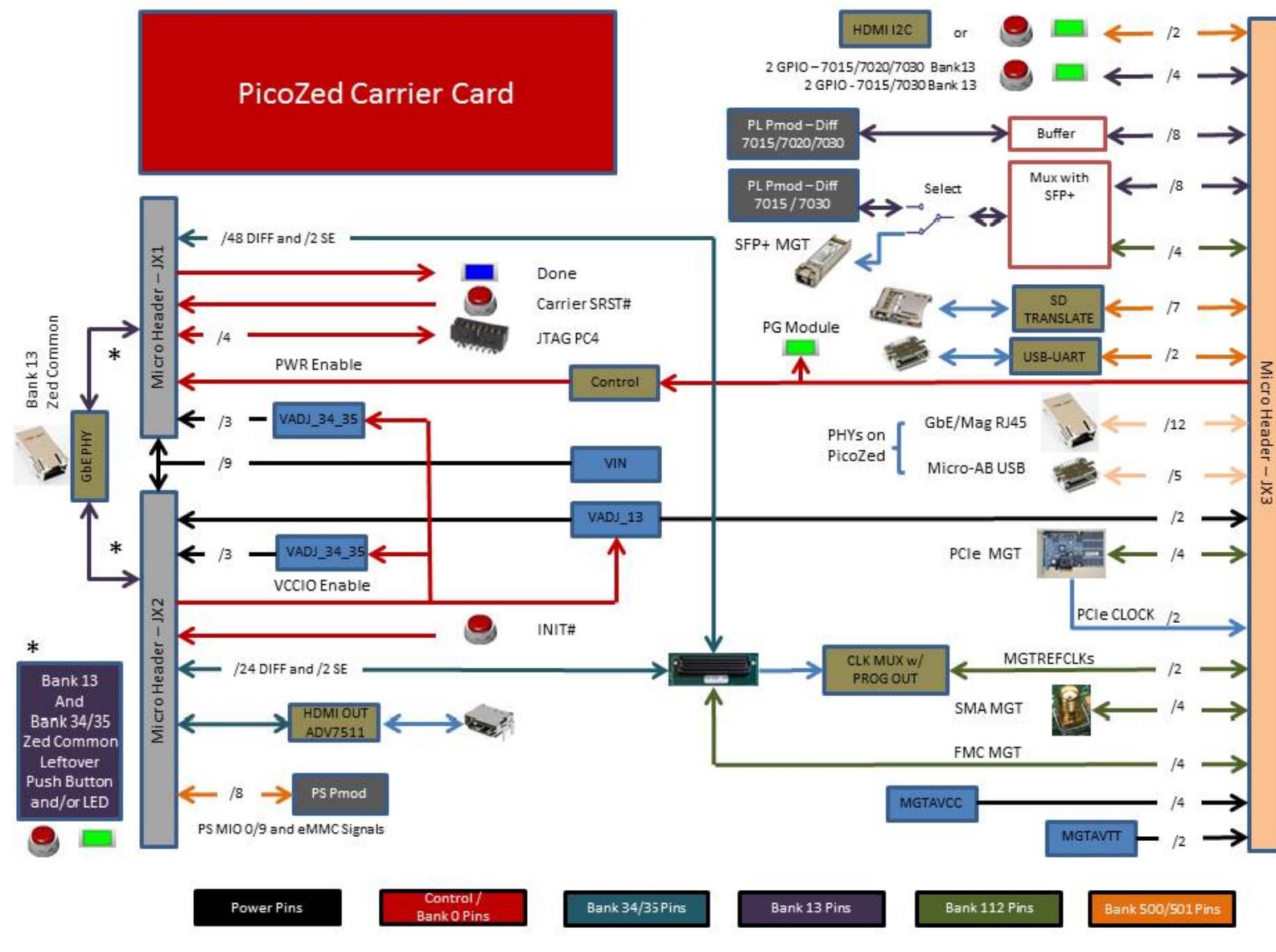
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	Avnet Engineering Services
Title:	01 - Avnet Lead Sheet_B.SchDoc
Size:	Project Name: PicoZed FMC Carrier
B	Rev: C

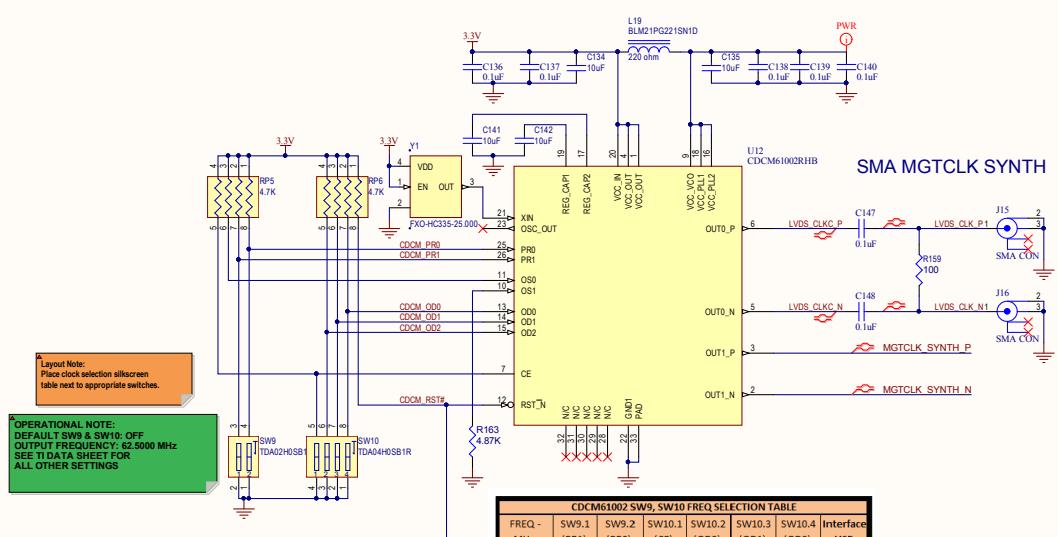
Date: 2/10/2015 Sheet 1 of 11

Topology

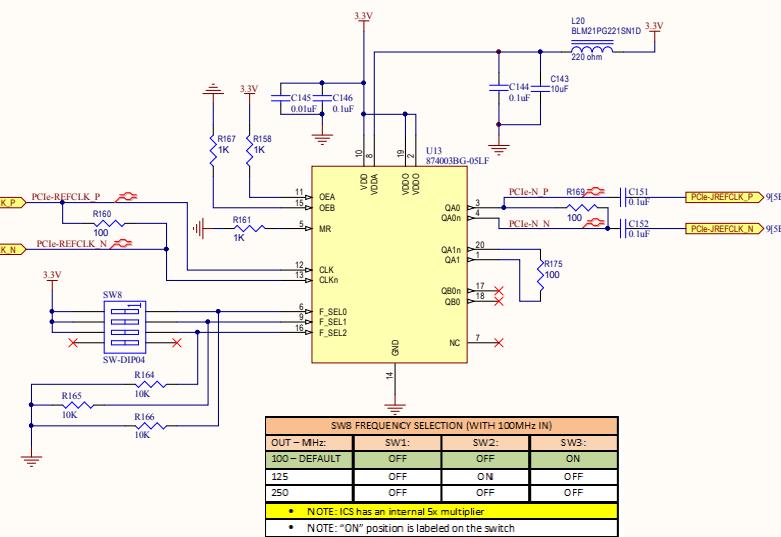


CLOCKS & USB OTG

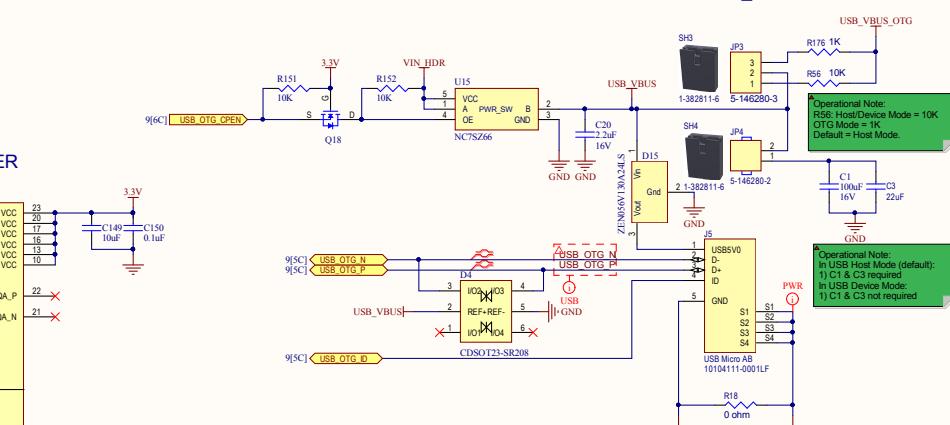
PCIe CLOCK SYNTHESIZER



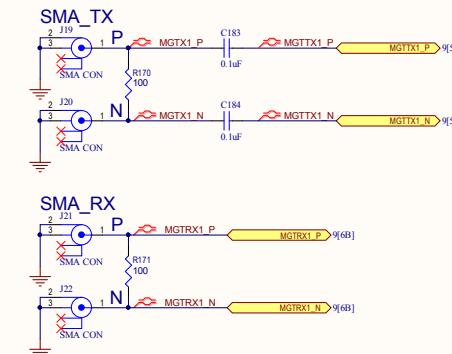
PCIe JITTER ATTENUATOR



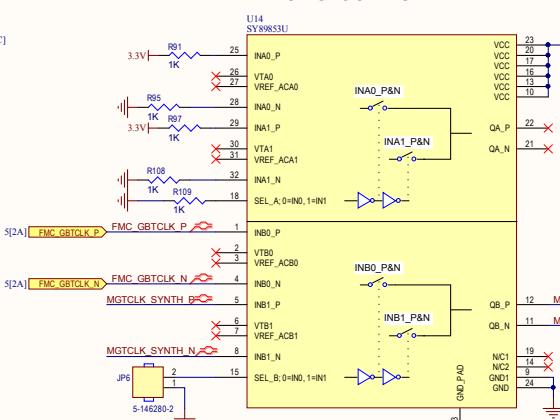
USB_OTG



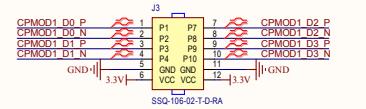
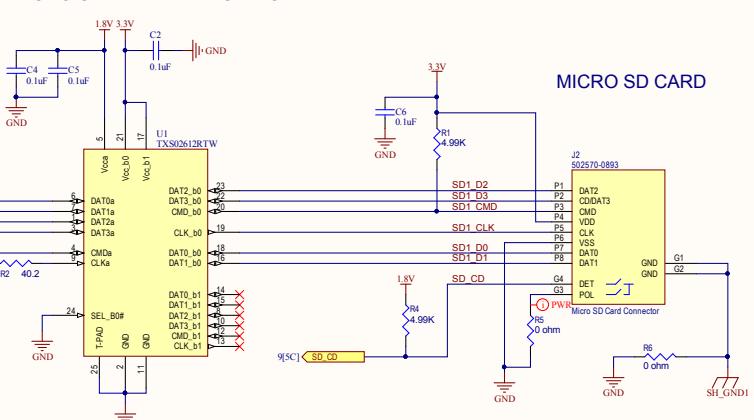
SMA MGT DATA INPUTS



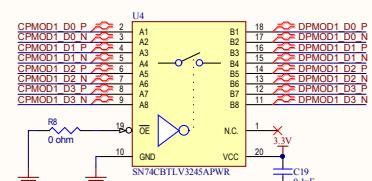
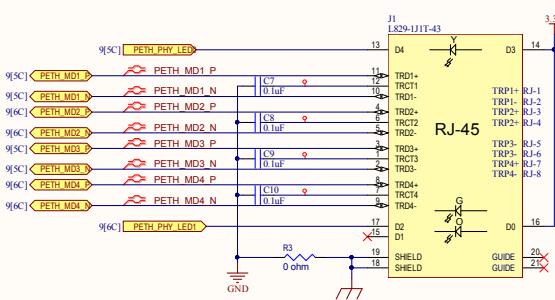
MGT CLOCK MULTIPLEXER



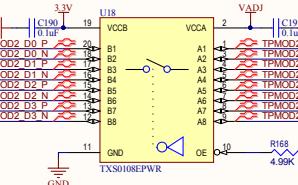
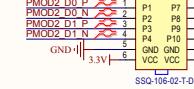
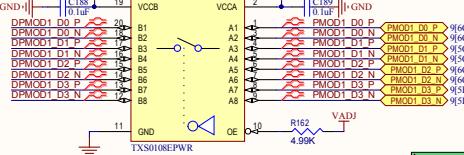
Peripherals - 1



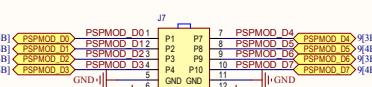
Layout Note:
ALL PMOD P/N signals
routed differentially.



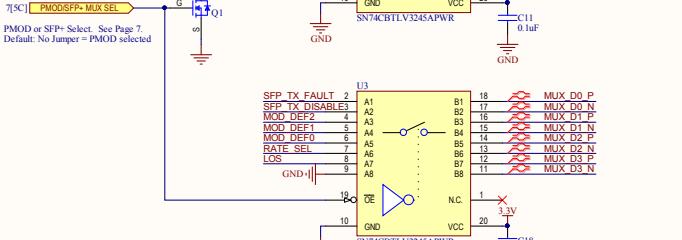
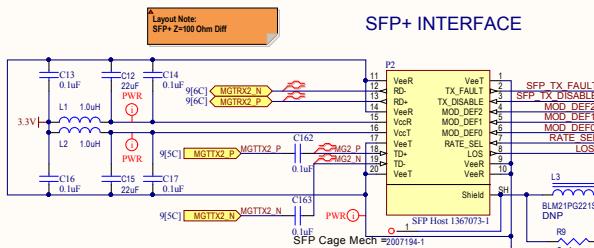
Operational Note:
PL PMOD data rates
Open Drain: 2 Mb/s
Push-Pull: 60 Mb/s

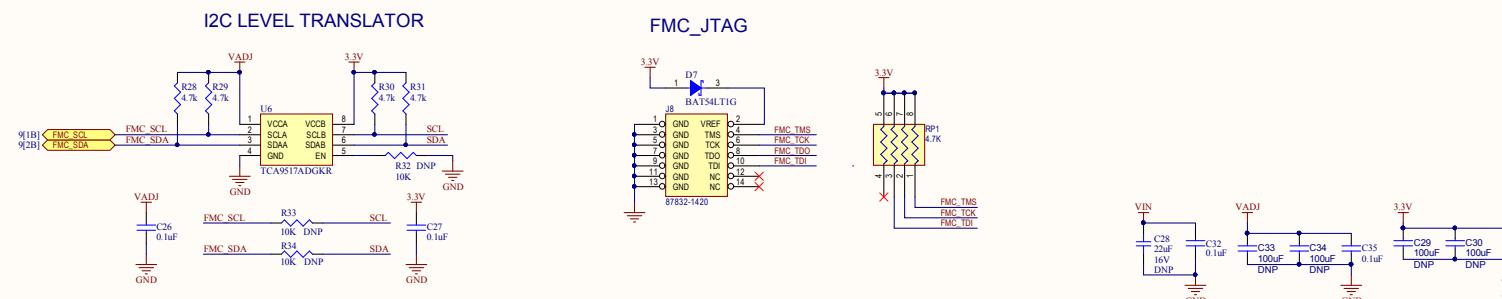
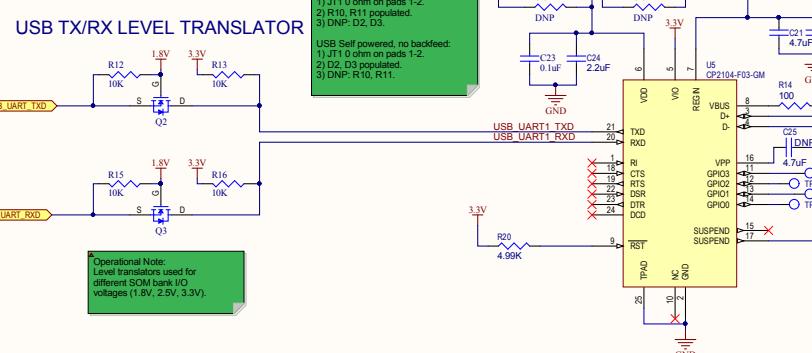
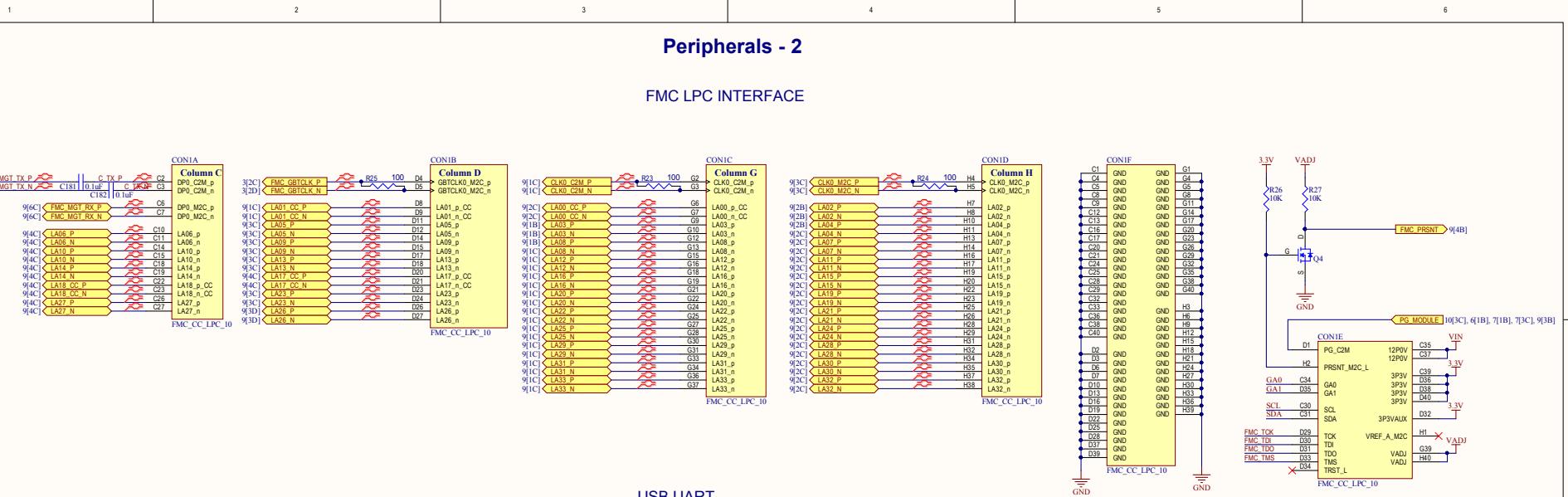


PS PMOD Interface



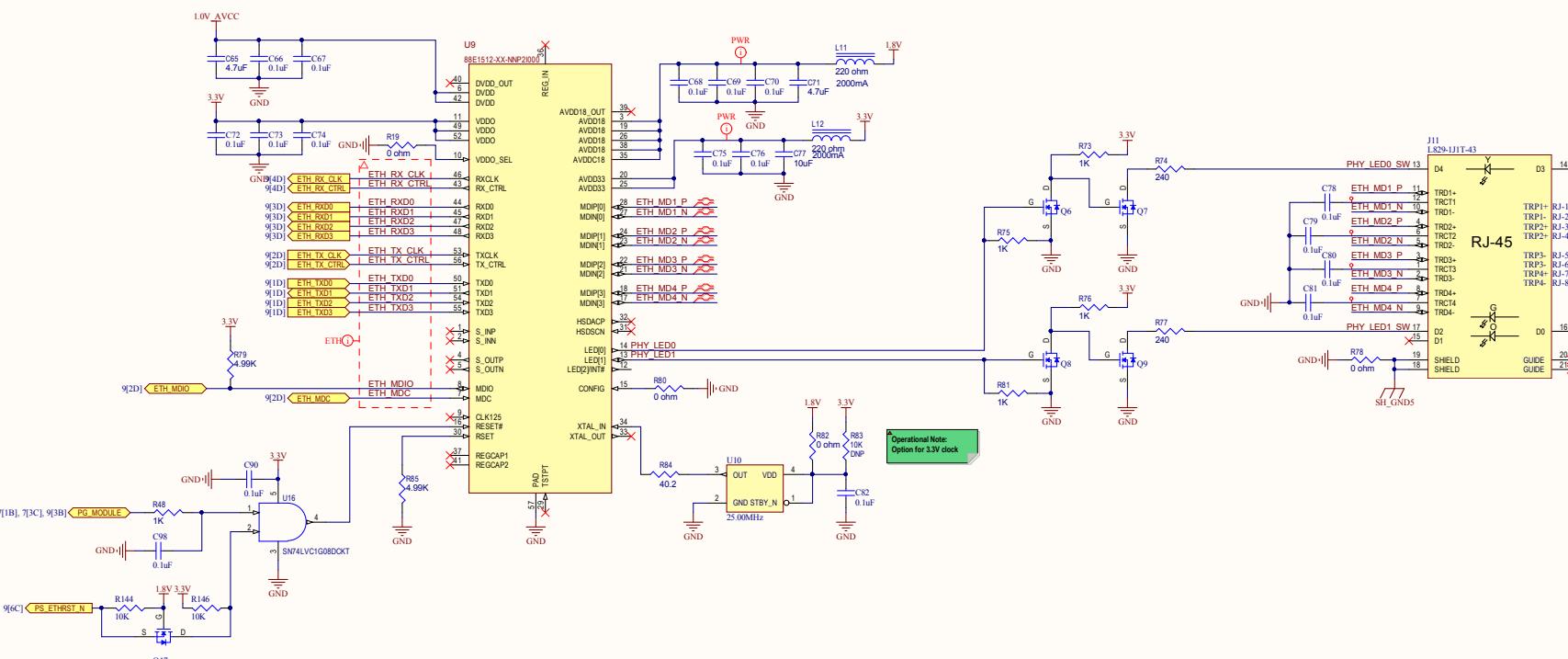
Layout Note:
SFP+ Z=100 Ohm Diff



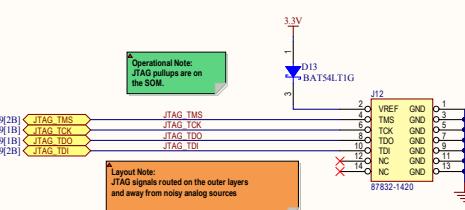


Peripherals - 3

ETHERNET PHY



PC4 JTAG

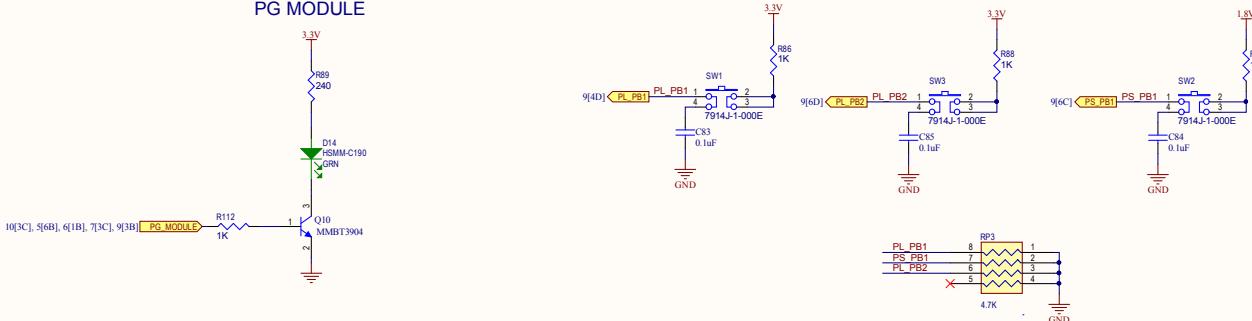


SWITCHES & LEDs

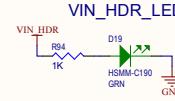
USER_PUSH_BUTTONS

Operational Notes:
1) All PBs and SWs are available on the 7015/2030 SOMs.

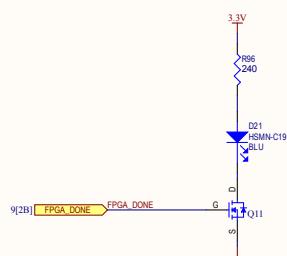
PG MODULE



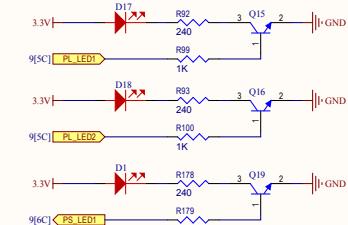
VIN_HDR_LED



FPGA DONE LED

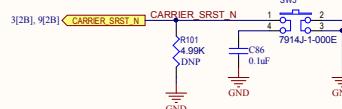


USER LEDs, 2 PL, 1 PS

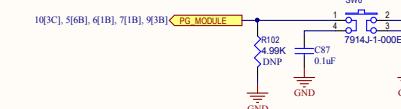


CONFIGURATION & CONTROL SWITCHES/JUMPERS

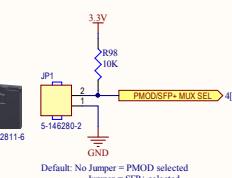
CARRIER_RST_N



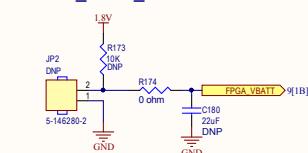
PG_MODULE_N



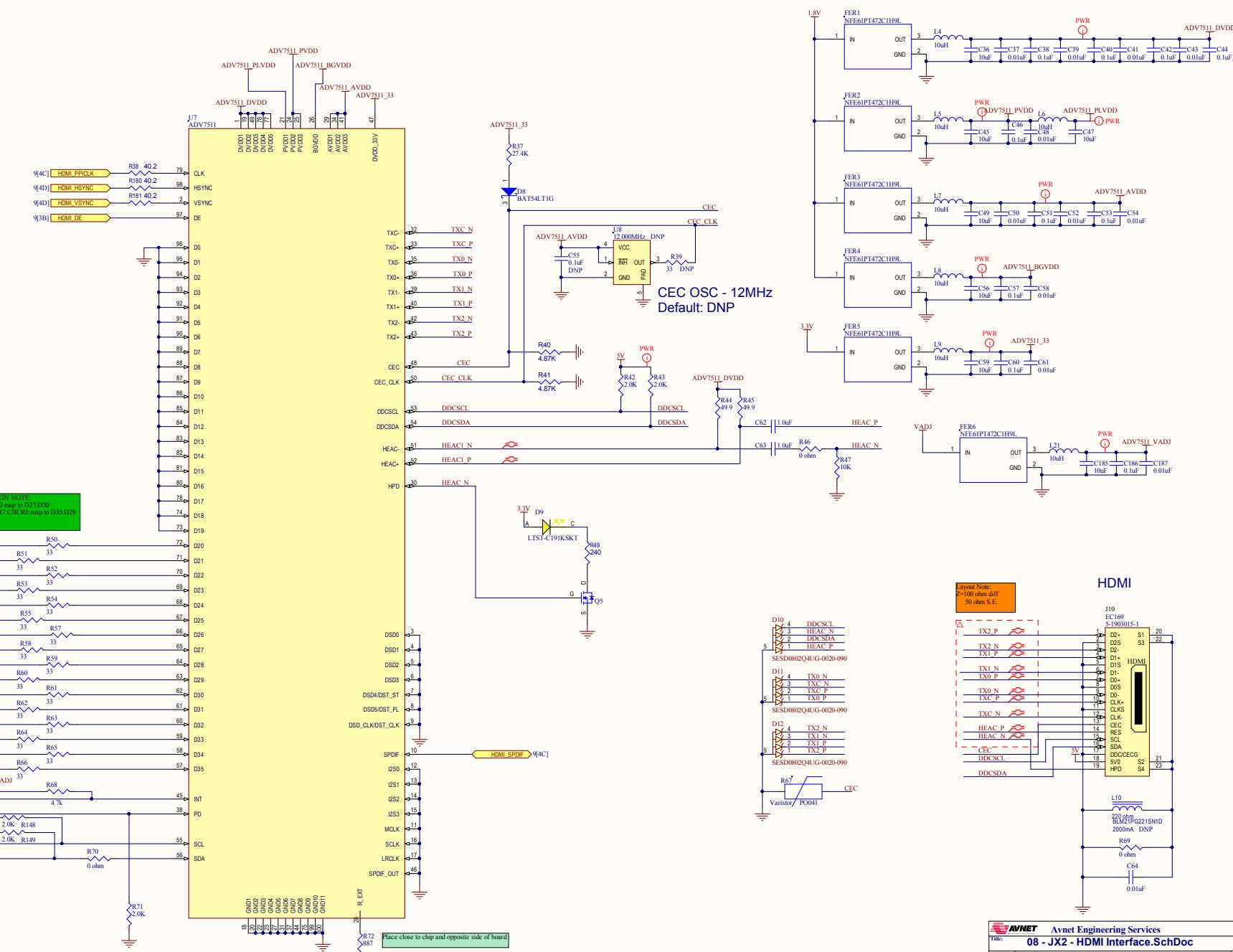
PMOD or SFP+ Select



FPGA_VBAT_TEST

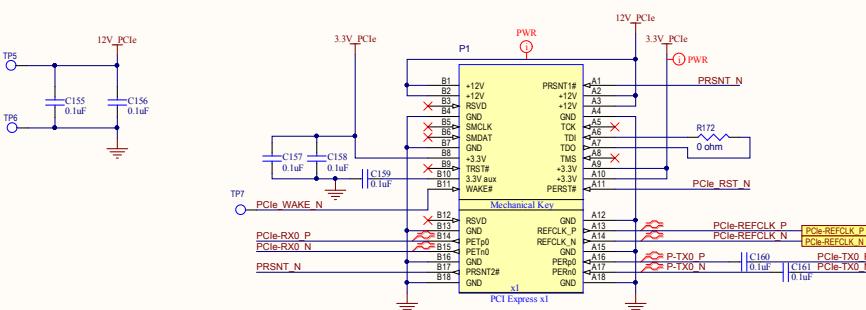


JX2 - HDMI Video Encoder



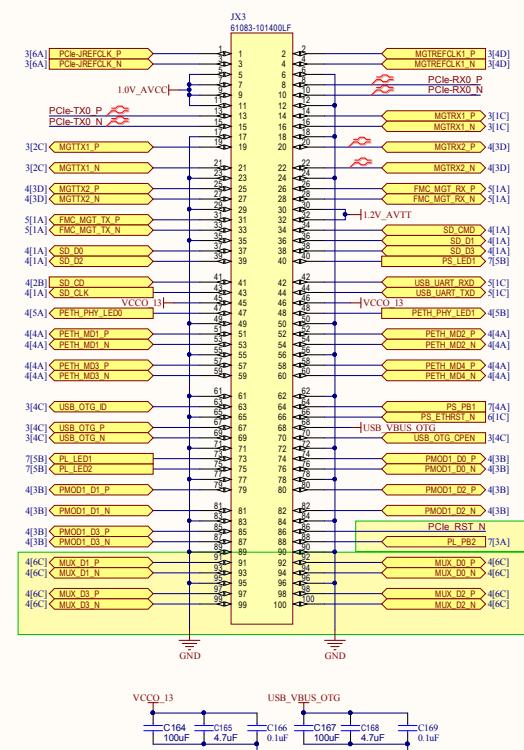
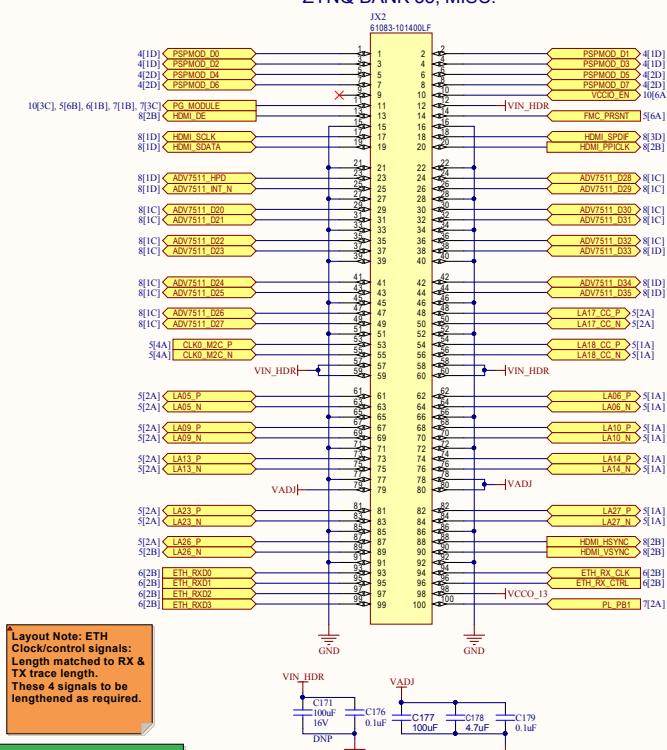
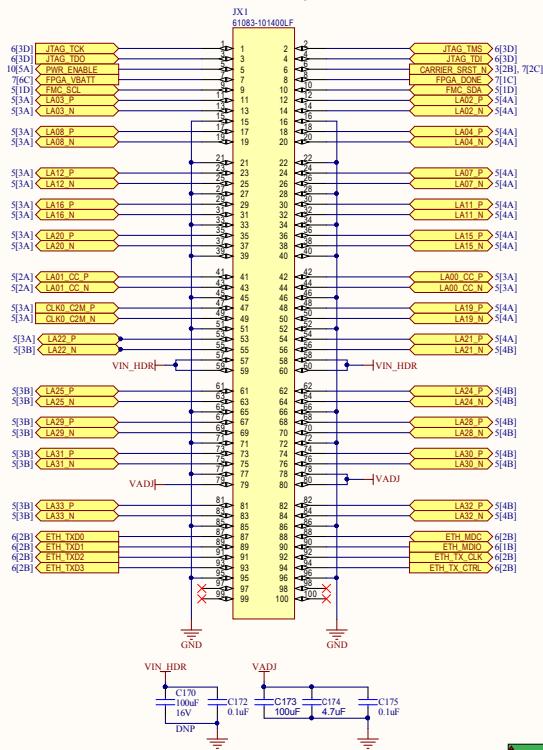
PCIe & SOM Connectors

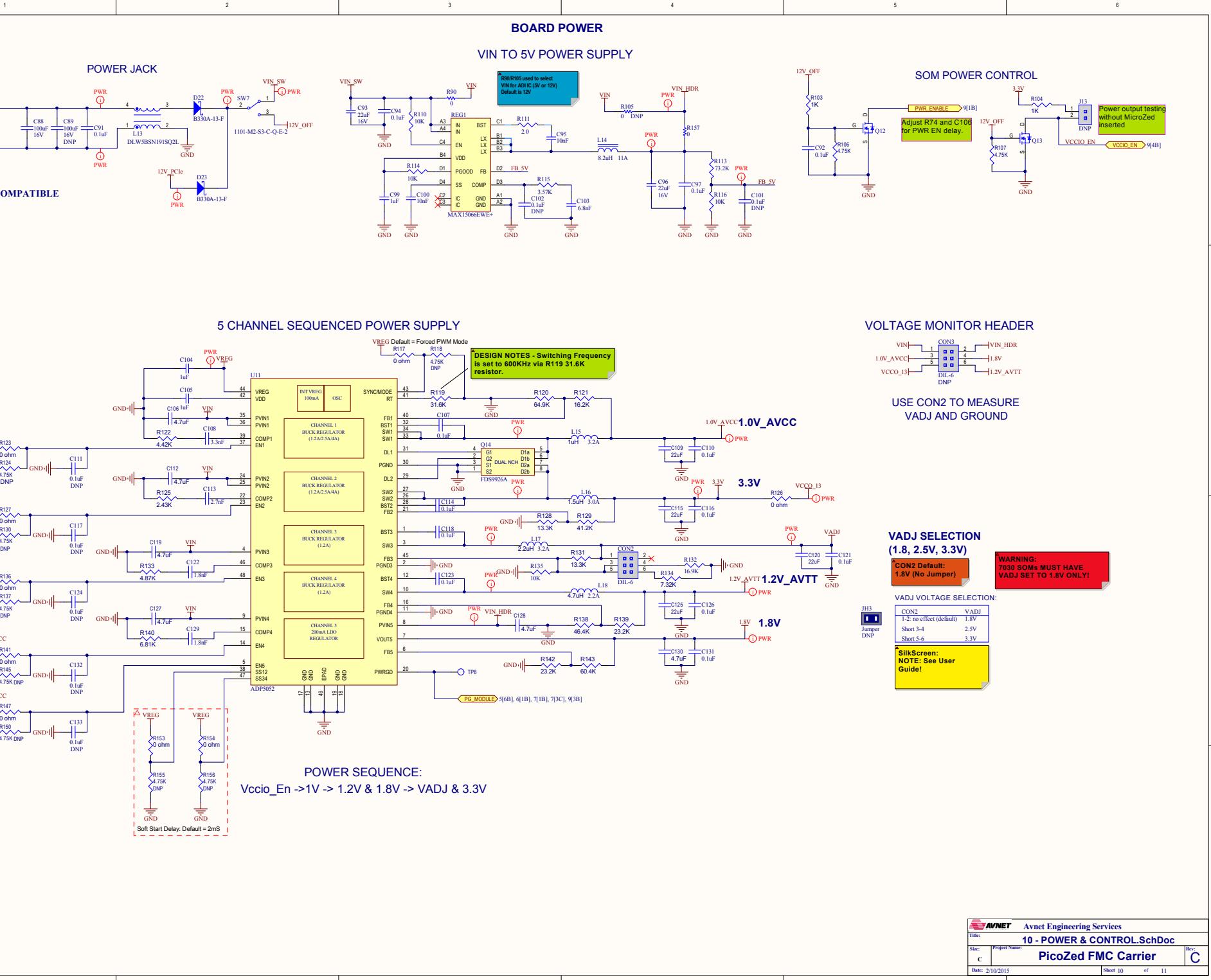
PCIe x 1 EDGE CONNECTOR



Layout Note:
Route ALL PIN pairs differentially on all JX connectors.

ZYNQ BANK 34, MISC.





Revision Notes:

Revision A:
1) Initial design

Revision B:
1) Updated BOM
2) Updated power circuit
3) Added EV1
3) Added UI5: USB CPEN control

Revision C:
1) Production 1st run
2) Updated Clock Capable pins
3) Added PLI PMOD translators
4) Updated J1 position
5) Updated GND note
7) Updated BOM
8) Added Frequency tables
9) Reorganized pages
10) Added USB OTG control translator

Mechanicals:



PZCC-FMC-PCB-C

PCB Mounting Holes

MTG1 0	MTG2 0	MTG3 0	MTG4 0	MTG5 0	MTG6 0
MOUNTING HOLE 125mil					
MTG7 0	MTG8 0	MTG9 0	MTG10 0	MTG11 0	MTG12 0
MOUNTING HOLE 125mil					

Bumper Standoffs

BMPR1 0	BMPR2 0	BMPR3 0
S161A4 7.9mm Bumper	S161A4 7.9mm Bumper	S161A4 7.9mm Bumper
BMPR4 0	BMPR5 0	BMPR6 0
S161A4 7.9mm Bumper	S161A4 7.9mm Bumper	S161A4 7.9mm Bumper