Engineer:	Yossi Har-Nov
Drawn By:	*
Checked By:	
Approved By:	

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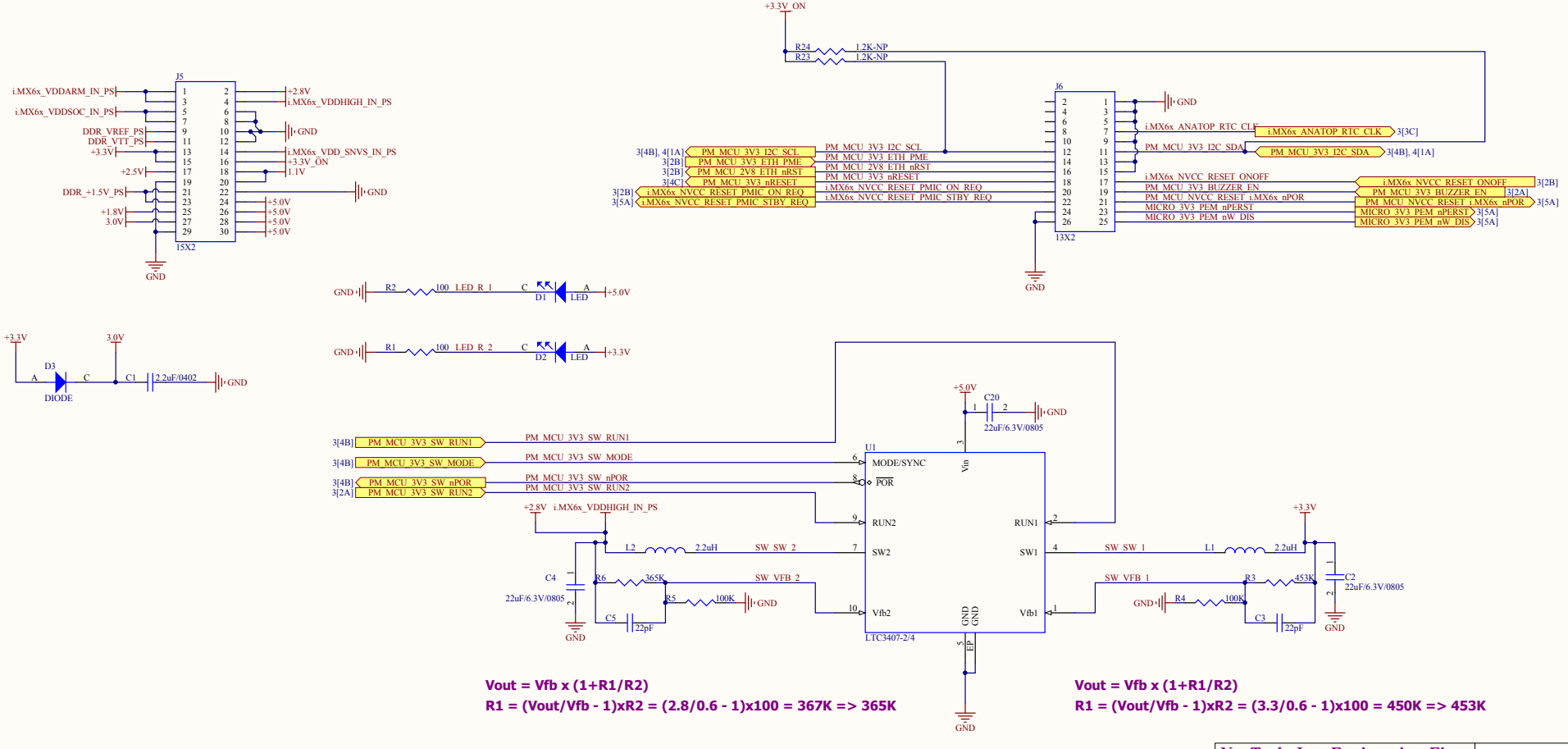
Customer:	LINEAR		
Project:	NOVPEK iMX6x	Board:	Power Module - LINEAR
Size: B	Title: Openning Page	Rev:	1.0
Date: *		Sheet 1 of 5	



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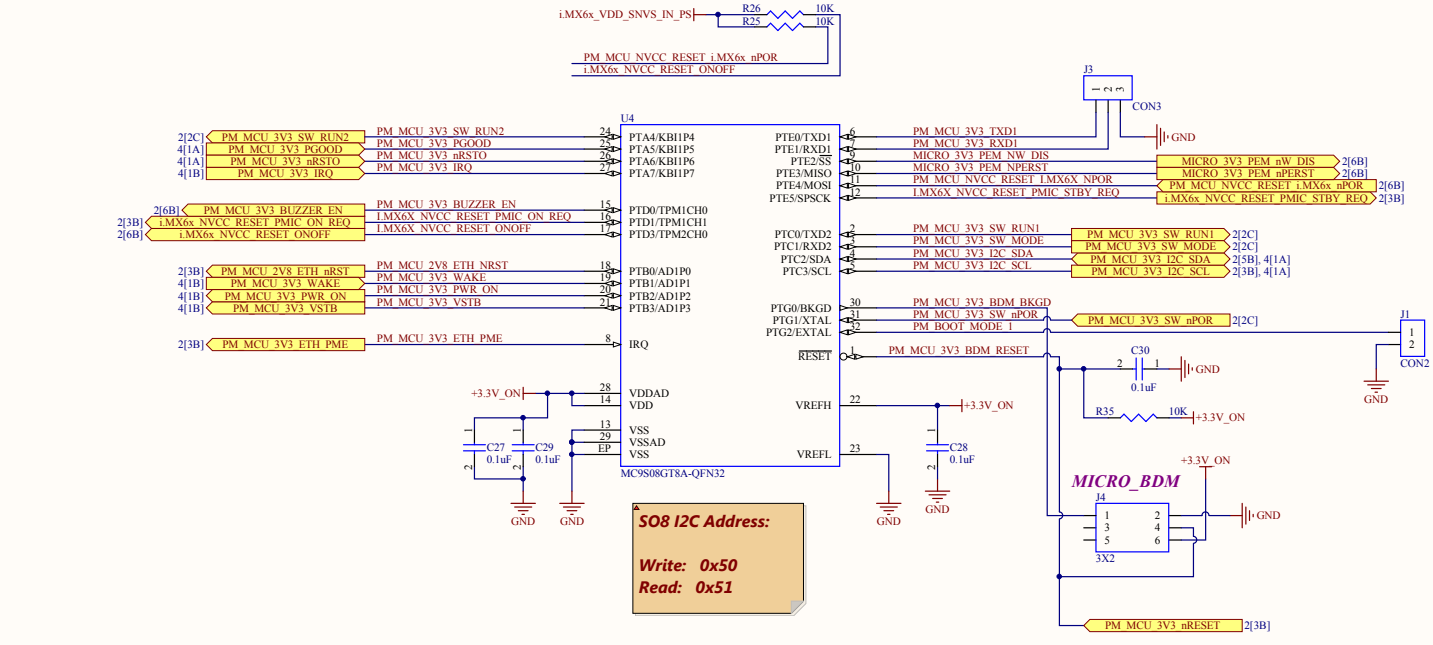
Customer: LINEAR		
Engineer: Yossi Har-Nov	Project: NOVPEK iMX6x	Board: Power Module - LINEAR
Drawn By: *		
Checked By:	Size: B Title: Power Distribution	Rev: 1.0
Approved By:	Date: *	Sheet 2 of 5



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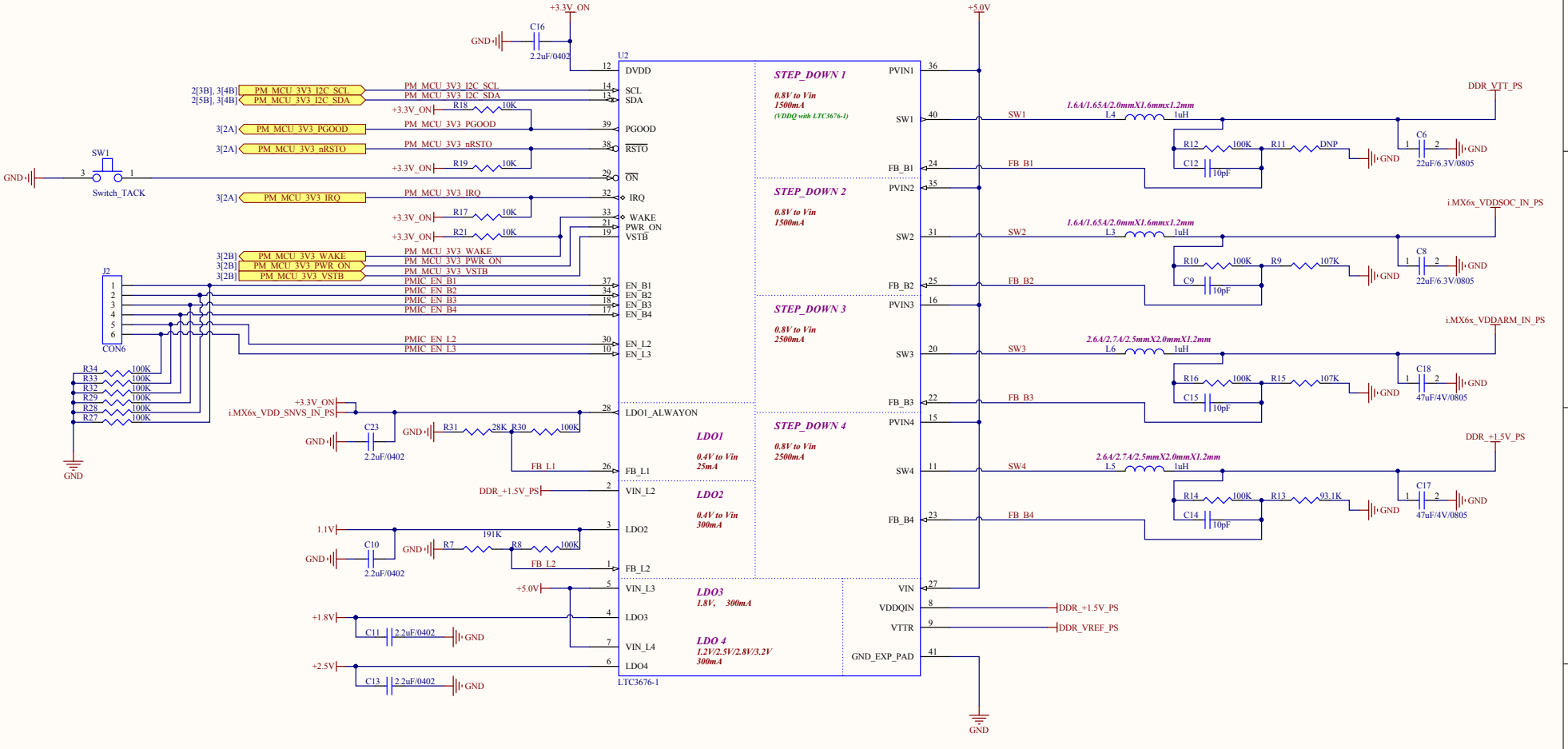
Engineer: Yossi Har-Nov	
Drawn By: *	
Checked By:	
Approved By:	
Project: NOVPEK iMX6x	Board: Power Module - LINEAR
Size: B	Title: MICRO
Rev: 1.0	
Date: *	Sheet 3 of 5



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Customer: LINEAR			
Engineer: Yossi Har-Nov	Project: NOVPEK iMX6x	Board: Power Module - LINEAR	
Drawn By: *			
Checked By:	Size: B	Title: Power Supplies I	Rev: 1.0
Approved By:	Date: *		Sheet 4 of 5

Switcher 2 & 3 - Set to 1.4V with a range of (0.925V to 1.5V)

$$V_{OUT} = \left(1 + \frac{R_1}{R_2}\right) \cdot (0.4125 + DVBx \cdot 0.0125)$$

DVBx default is 11001 => 25

$$1.4 = \left(1 + \frac{100K}{R_2}\right) \cdot 0.725$$

$R_2 = 107.4K$, Use 107K

For 0.925V, DVB $\dfrac{0.925/\left(1 + \frac{100}{107}\right) - 0.4125}{0.0125} = 5.25 \Rightarrow 6$ $V_{OUT} = 0.9431V$ DVB = 00110 (6)

For 1.5V, B1DTV1 = $\dfrac{1.5/\left(1 + \frac{100}{107}\right) - 0.4125}{0.0125} = 29.03 \Rightarrow 29$ $V_{OUT} = 1.499V$ DVB = 11101 (29)

Switcher 4 - Set to 1.5V (need to be 1.2V or 1.3V if using LVDDR)

$$V_{OUT} = \left(1 + \frac{R_1}{R_2}\right) \cdot (0.4125 + DVBx \cdot 0.0125)$$

DVBx default is 11001 => 25

$$1.5 = \left(1 + \frac{100K}{R_2}\right) \cdot 0.725$$

$R_2 = 93.54K$, Use 93.1K => Vout = 1.5037V

Always-On LDO - Set to 3.3V

$$V_{LDO\_STBY} = 0.725 \cdot \left(1 + \frac{R_1}{R_2}\right)$$

$$3.3 = 0.725 \cdot \left(1 + \frac{100K}{R_2}\right)$$

$R_2 = 28.15K \Rightarrow 28K \Rightarrow Vout = 3.314V$

LDO 2 - Set to 1.1V

$$V_{LDO2} = 0.725 \cdot \left(1 + \frac{R_1}{R_2}\right)$$

$$1.1 = 0.725 \cdot \left(1 + \frac{100K}{R_2}\right)$$

$R_2 = 193.33K \Rightarrow 191K \Rightarrow Vout = 1.1045V$

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Engineer: Yossi Har-Nov	Customer: Linear Technology/Arrow		
Drawn By: *	Project: NOVPEK iMX53	Board: Power Add-On Linear	
Checked By:	Size: B	Title: Revs & Notes	Rev: 1.0
Approved By:	Date: *		Sheet 5 of 5