

Title TMC5130-HBS-REF Driver

Size: A4

Revision: V1.0

[No Variations]

Date: 16-Mar-21

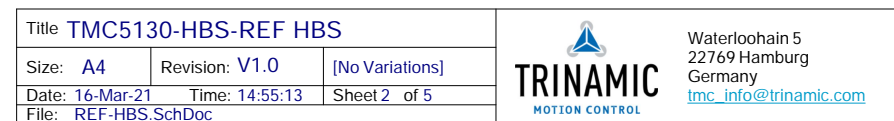
Time: 14:55:13

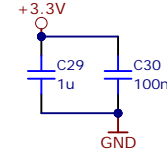
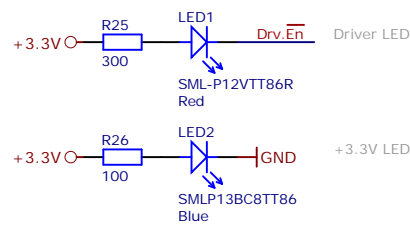
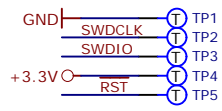
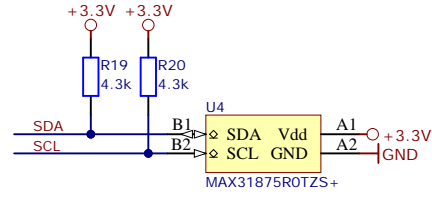
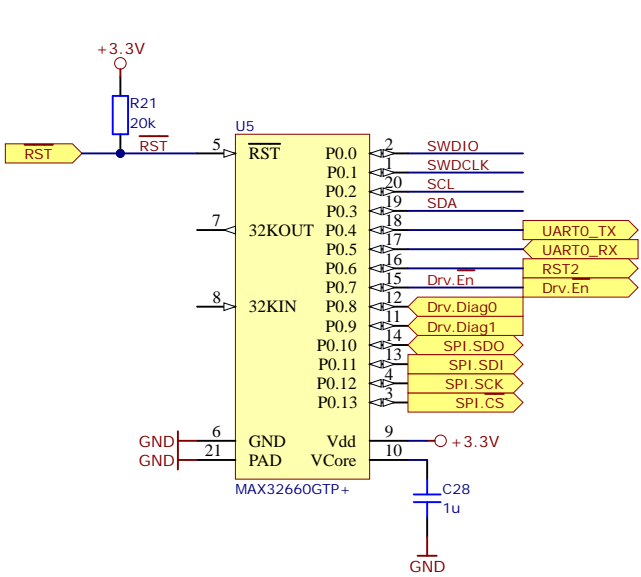
Sheet 1 of 5

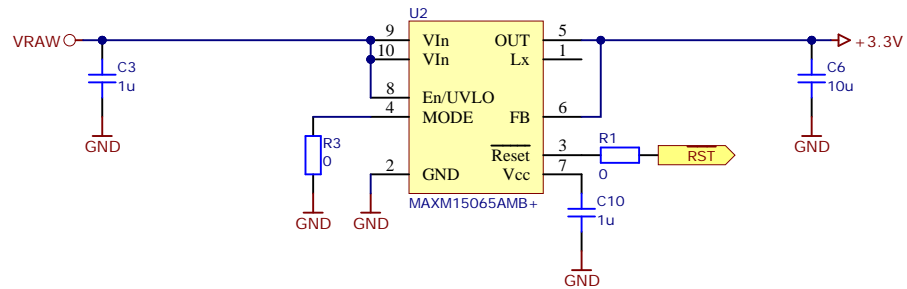
File: REF-Driver.SchDoc






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A	<div>Changelog:</div> <div>From V1.0A to V1.0B:</div> <div>- Replace electrolytic capacitor with 4x 10u ceramic</div> <div>From V1.0pre1 to V1.0A:</div> <div>- Red LED label to DRV_EN. Changed label size to fit the copper area</div> <div>- Added J3 mating connector to the BOM</div> <div>From V0.9 to V1.0pre1:</div> <div>- Added Driver (R) and Power (B) LEDs</div> <div>- Added VRAW test point</div> <div>From V0.9pre4 to V0.9:</div> <div>- Added board name to top soldermask</div> <div>Form V0.9pre3 to V0.9pre4:</div> <div>- Board size to 32x28mm</div> <div>- Adjusted the bulk capacitance to 220u+20u</div> <div>From V0.9pre2 to V0.9pre3:</div> <div>- Changed motor current sense resistors to 750m</div> <div>- Replaced the programming connector with P100 pogo test pads</div> <div>- Removed Excess SPI pull-ups</div> <div>- Connected driver SPI_MODE to +3.3V</div> <div>- Removed R25 from driver ENCN_DCO, now floating</div> <div>- Connected driver SWSEL to GND</div> <div>- Connected driver DIAG1/0 to MCU</div> <div>- Changed 3.3V PSU to MAXM15065AMB+</div> <div>- Changed HBS connector to JST 2-pin PH</div> <div>- Changed D1 TVS from SMBJ to SMAJ</div> <div>- Changed D3/D4 TVS to PESD5V0L1UB</div> <div>- Reduced the bulk capacitance on VRAW to 30u</div> <div>- Removed 10u capacitor from +5V</div> <div>- Reduced the board size to 28x28mm</div>			A																	
B				B																	
C				C																	
D				D																	
		<table><tr><td colspan="3">Title TMC5130-HBS-REF LOG</td></tr><tr><td>Size: A4</td><td>Revision: V1.0</td><td>[No Variations]</td></tr><tr><td>Date: 16-Mar-21</td><td>Time: 14:55:13</td><td>Sheet 5 of 5</td></tr><tr><td colspan="3">File: REF-LOG.SchDoc</td></tr></table>		Title TMC5130-HBS-REF LOG			Size: A4	Revision: V1.0	[No Variations]	Date: 16-Mar-21	Time: 14:55:13	Sheet 5 of 5	File: REF-LOG.SchDoc			<table><tr><td rowspan="2"></td><td colspan="2">Waterloohain 5 22769 Hamburg Germany</td></tr><tr><td colspan="2">tmc_info@trinamic.com</td></tr></table>		Waterloohain 5 22769 Hamburg Germany		tmc_info@trinamic.com	
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