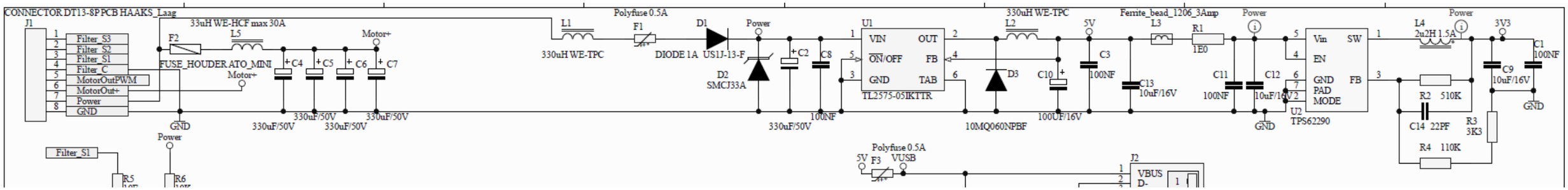
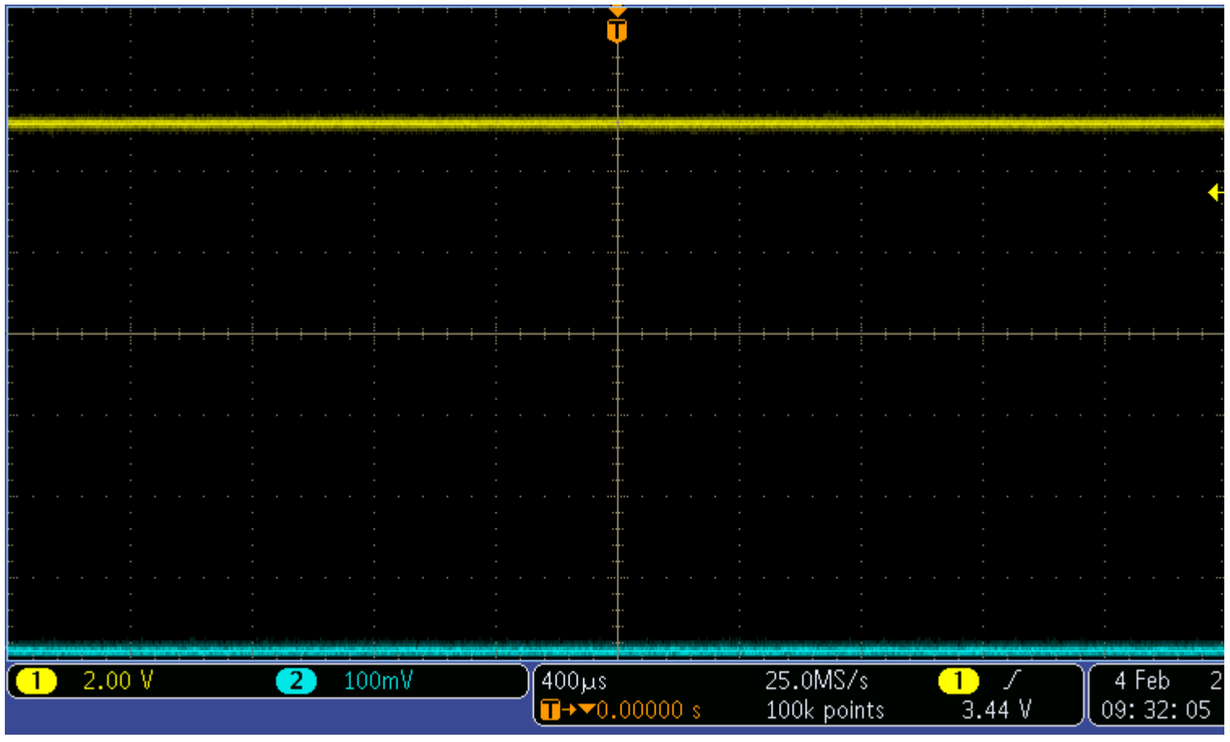
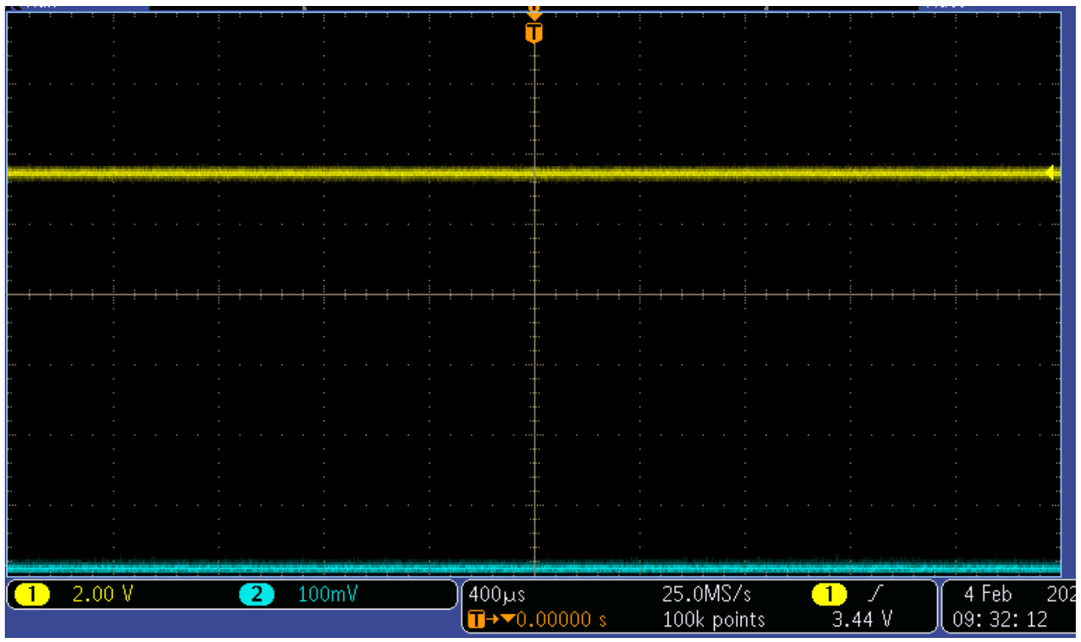

CONNECTOR DT13-8P PCB HAAKS_Laag
J1
Filter_S3
Filter_S2
Filter_S1
Filter_C
MotorOutPWM
MotorOut+
Power
GND
33uH WE-HCF max 30A
F2
FUSE_HOUDER ATO_MINI
L5
Motor+
C4
C5
C6
C7
330uF/50V
L1
330uH WE-TPC
Polyfuse 0.5A
F1
D1
DIODE 1A US1J-13-F
D2
SMCJ33A
Power
C2
C8
100NF
U1
VIN
OUT
ON/OFF
FB
GND
TAB
TL2575-05IKTTR
L2
330uH WE-TPC
D3
10MQ060NPBF
C10
100UF/16V
5V
C3
100NF
L3
Ferrite_bead_1206_3Amp
C13
10uF/16V
R1
1E0
C11
100NF
C12
10uF/16V
U2
Vin
SW
EN
GND
PAD
FB
MODE
TPS62290
L4
2u2H 1.5A
3V3
C1
100NF
C9
10uF/16V
R2
510K
C14
22PF
R3
3K3
R4
110K
Filter_S1
R5
R6
Polyfuse 0.5A
F3
VUSB
J2
VBUS

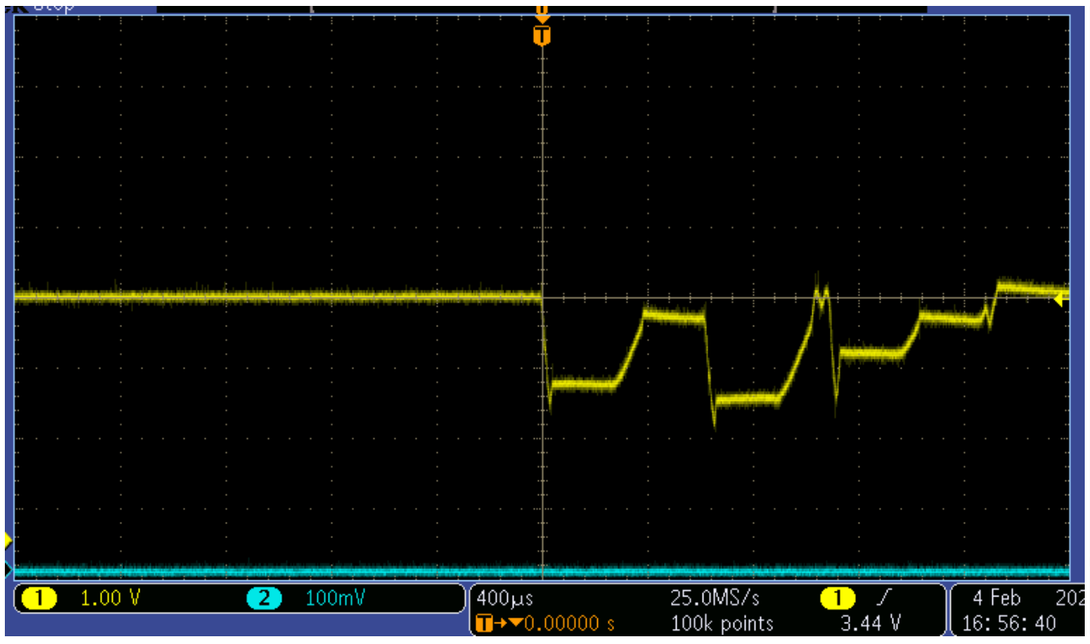
V_in 5VDC

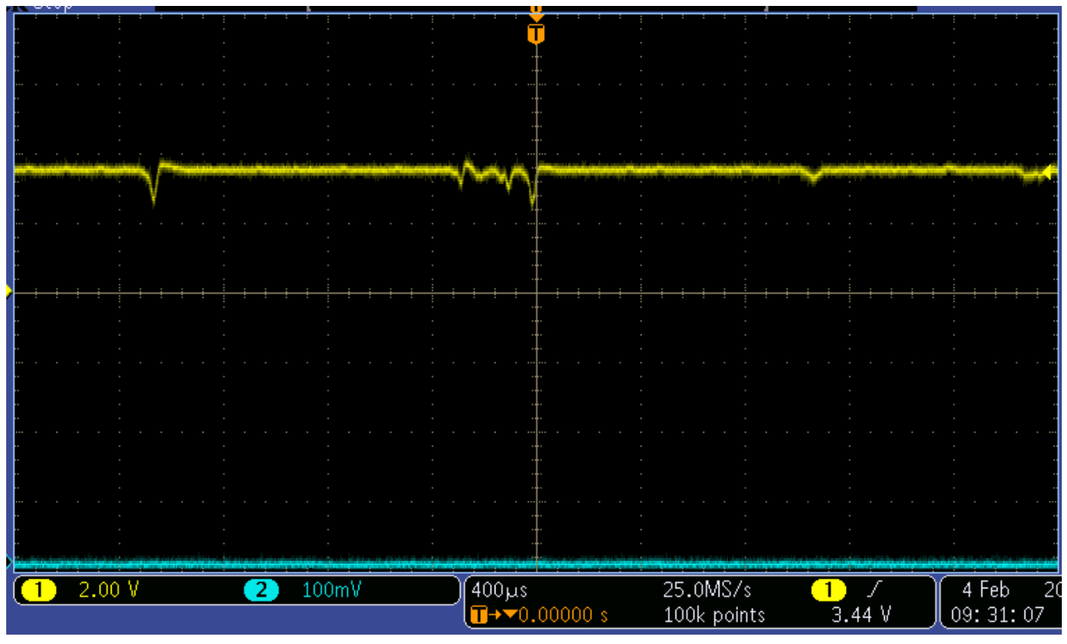

1 2.00 V
2 100mV
400µs
25.0MS/s
0.00000 s
100k points
1 3.44 V
4 Feb
09: 32: 05

V-03 3V3 out > only CPU load, display not active



V-03 3V3 out >, display active





I did already send you the video file.
- ripple / power drop on 3V3
- this causes the processor “ to get stuck” in routine software

Without adjustment the 22pF in the output 3V3 will be defective
By soldering an Elco of approx. 820uF on the 5V, the 22pF remains intact.

When I check in this situation I see;

- a stable 5VDC (also without an extra Elco)
- a stable 3V3 without a display
- a power drop / reaction 3V3 on which the CPU crashes
- the Cff C14 that becomes defective
- an extra buffer 820uF on the 5VDC, which prevents the C14 from failing

The power drops remain present, but do not solve the problem for the CPU
- the display does not cause any visible interference on the 5VDC, the scope line remains flat 5VDC
- an extra capacitor / Elco on the out 3V3 does not work, the charging current makes the TPS defective.

The display draws a manageable current on the 5VDC ...

Electronic Characteristics

	Test Conditions	Min	Typical	Max	Unit
Operating Voltage		4.65	5	6.5	V
Operating Current	VCC=+5V, Brightness is 100%	–	220	–	mA
	SLEEP Mode	–	170	–	mA
Power supply recommend: **5V, 1.0A, DC**					

It seems that the TPS "hiccups", I do not immediately see why / what causes it ....