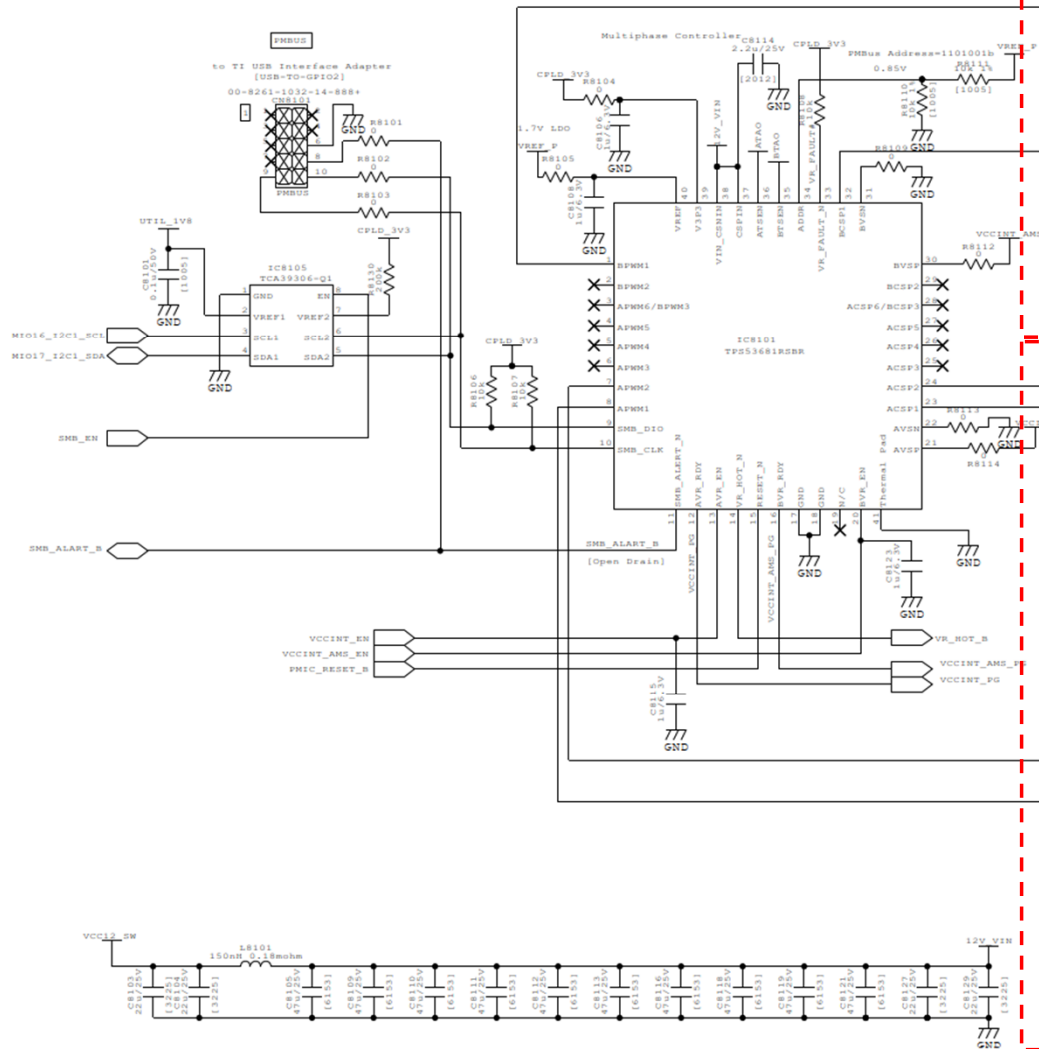
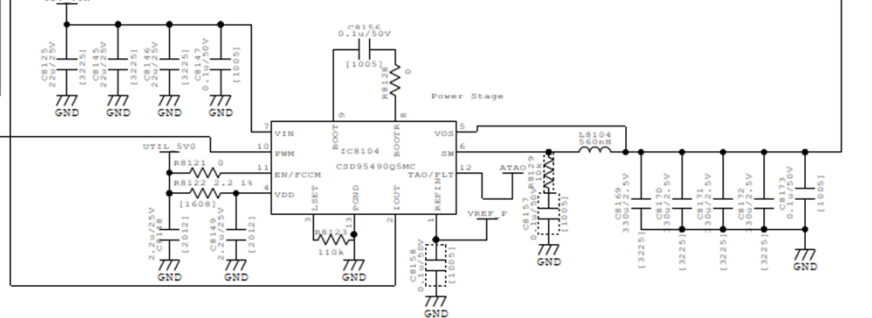
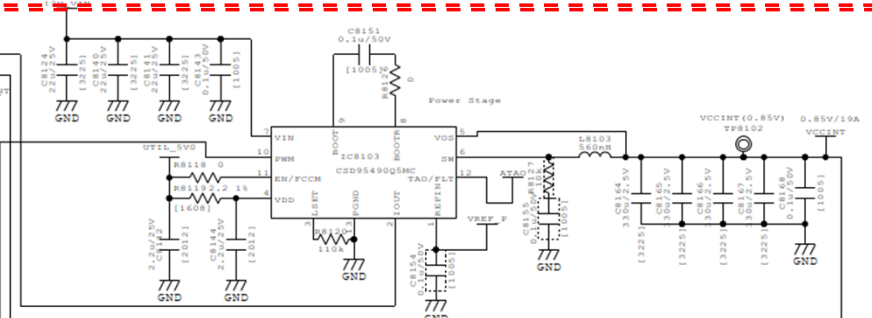
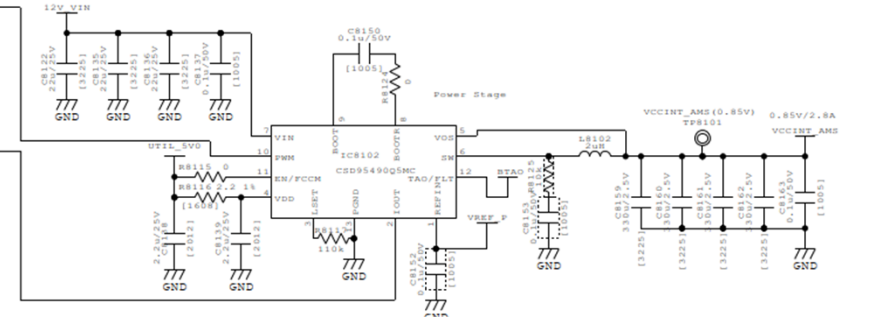


Circuit_Design



Rail#2



Rail#1

Add New...

- Cursors
- Callout
- Measure
- Search
- Results Table
- Plot
- More...

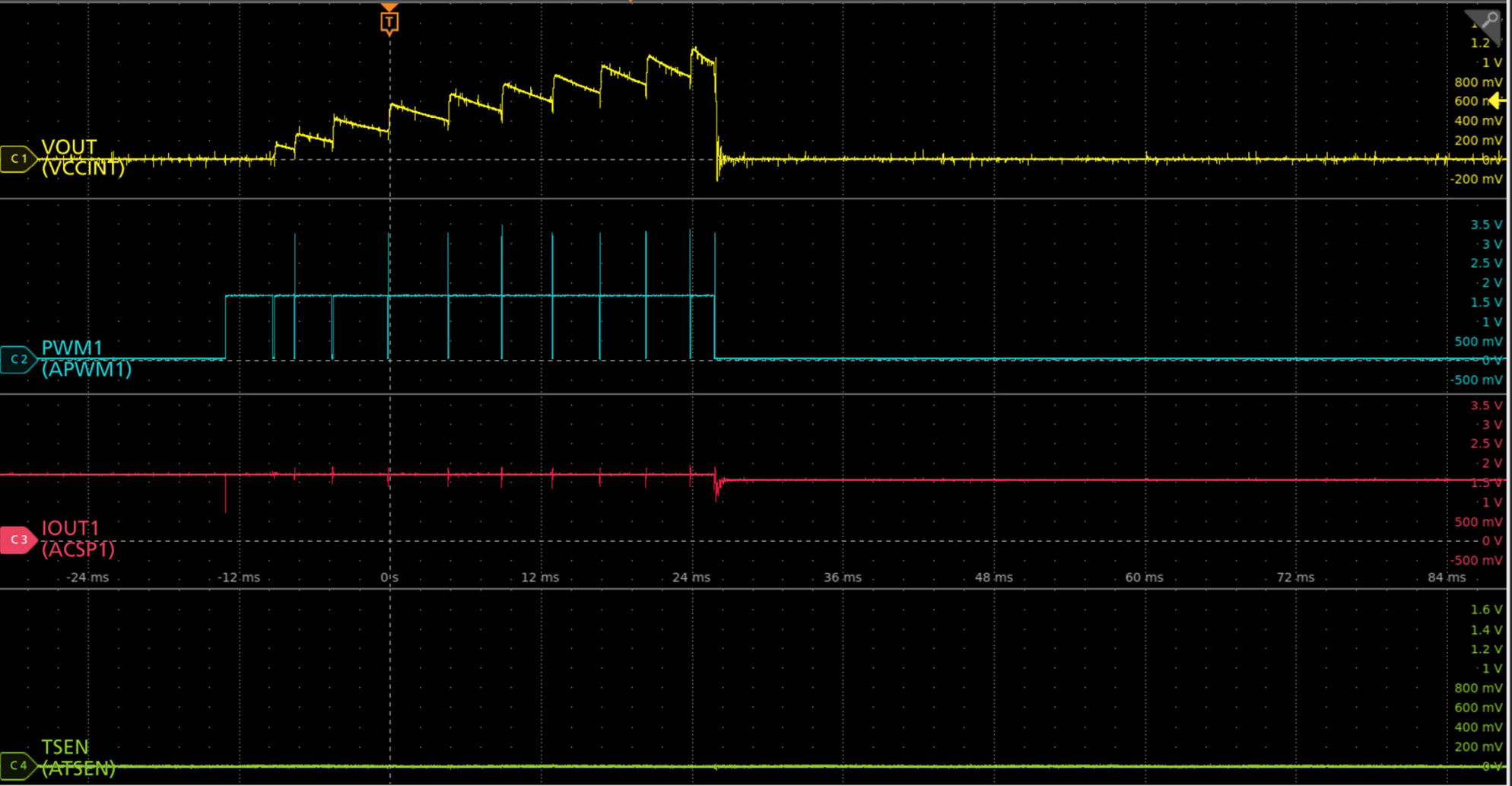
Meas 1 4
Period
μ': --
Low amplitude

Stopped

18 Mar 2025
4:25:32 PM

Channel_A(Rail#1)

Waveform View



| Ch 1 | Ch 2 | Ch 3 | Ch 4 |
|---------------|---------------|---------------|------------|
| 200 mV/div | 500 mV/div | 500 mV/div | 200 mV/div |
| 250 MHz B_w | 250 MHz B_w | 250 MHz B_w | 1 GHz |

- Add New Math
- Add New Ref
- Add New Bus
- DVM

Horizontal
12 ms/div 120 ms
SR: 1.25 MS/s 800 ns/pt
RL: 150 kpts 26%

Trigger
1 600 mV

Acquisition
Auto, Analyze
Sample: 12 bits
Single: 1 / 1

Channel_A(Rail#1)

Configuration TPS53681 @ PMBus Addr 105d (69h) / I2C Addr 210d (D2h) - Rail #1

File Device Tools Rail #1

Write to Hardware Discard Changes Store Config to NVM Auto Write Stop Polling

Stop Polling

Clear Faults

None

ARA

Status Registers

STATUS_VOUT Rail #1

| | |
|---|---------------------|
| 7 | Vout OV Fault |
| 6 | Vout OV Warning |
| 5 | Vout UV Warning |
| 4 | Vout UV Fault |
| 3 | VOUT_MAX Warn |
| 2 | TON_MAX Fault |
| 1 | TOFF_MAX Warn |
| 0 | Vout Tracking Error |

STATUS_IOUT Rail #1

| | |
|---|--------------------------------|
| 7 | IOUT OC Fault |
| 6 | IOUT OC Fault with LV Shutdown |
| 5 | IOUT OC Warning |
| 4 | IOUT UC Fault |
| 3 | Current Share Fault |
| 2 | Power Limiting Mode |
| 1 | POUT OP Fault |
| 0 | POUT OP Warning |

STATUS_TEMPERATURE Rail #1

| | |
|---|------------|
| 7 | OT Fault |
| 6 | OT Warning |
| 5 | UT Fault |
| 4 | UT Warning |

STATUS_WORD Rail #1

| | |
|----|--------------------------|
| 15 | VOUT |
| 14 | IOUT / POUT |
| 13 | INPUT |
| 12 | MFR |
| 11 | POWER_GOOD# |
| 10 | FANS |
| 9 | OTHER |
| 8 | Unknown |
| 7 | Busy |
| 6 | Output Off |
| 5 | Vout OV Fault |
| 4 | IOUT OC Fault |
| 3 | Vin UV Fault |
| 2 | TEMPERATURE |
| 1 | CML |
| 0 | More faults in high byte |

STATUS_CML Rail #1

| | |
|---|-----------------|
| 7 | Invalid Command |
| 6 | Invalid Data |
| 5 | PEC Fault |
| 4 | Memory Fault |
| 3 | Processor Fault |

STATUS_INPUT Rail #1

| | |
|---|----------------------------|
| 7 | Vin OV Fault |
| 6 | Vin OV Warning |
| 5 | Vin UV Warning |
| 4 | Vin UV Fault |
| 3 | Unit off: Insufficient Vin |
| 2 | IIN OC Fault |
| 1 | IIN OC Warning |
| 0 | PIN OP Warning |

STATUS_MFR_SPECIFIC Rail #1

| | |
|---|-----------|
| 7 | FAULT_PS |
| 6 | VSNS_OPEN |
| 5 | Reserved |
| 4 | TSEN_LOW |
| 3 | Reserved |
| 2 | Reserved |
| 1 | Reserved |
| 0 | Reserved |

Configure

Monitor

Status

Security

16:46:35.477: TPS53681 @ 105d: OPERATION [0x01,Rail #1]: wrote Unit: ImmediateOff; Margin: None [0x00] to RAM

16:46:49.130: TPS53681 @ 105d: OPERATION [0x01,Rail #1]: wrote Unit: On (10b); Margin: None [0x80] to RAM

16:46:53.648: TPS53681 @ 105d: OPERATION [0x01,Rail #1]: wrote Unit: ImmediateOff; Margin: None [0x00] to RAM

16:47:17.655: TPS53681 @ 105d: OPERATION [0x01,Rail #1]: wrote Unit: On (10b); Margin: None [0x80] to RAM

Add New...

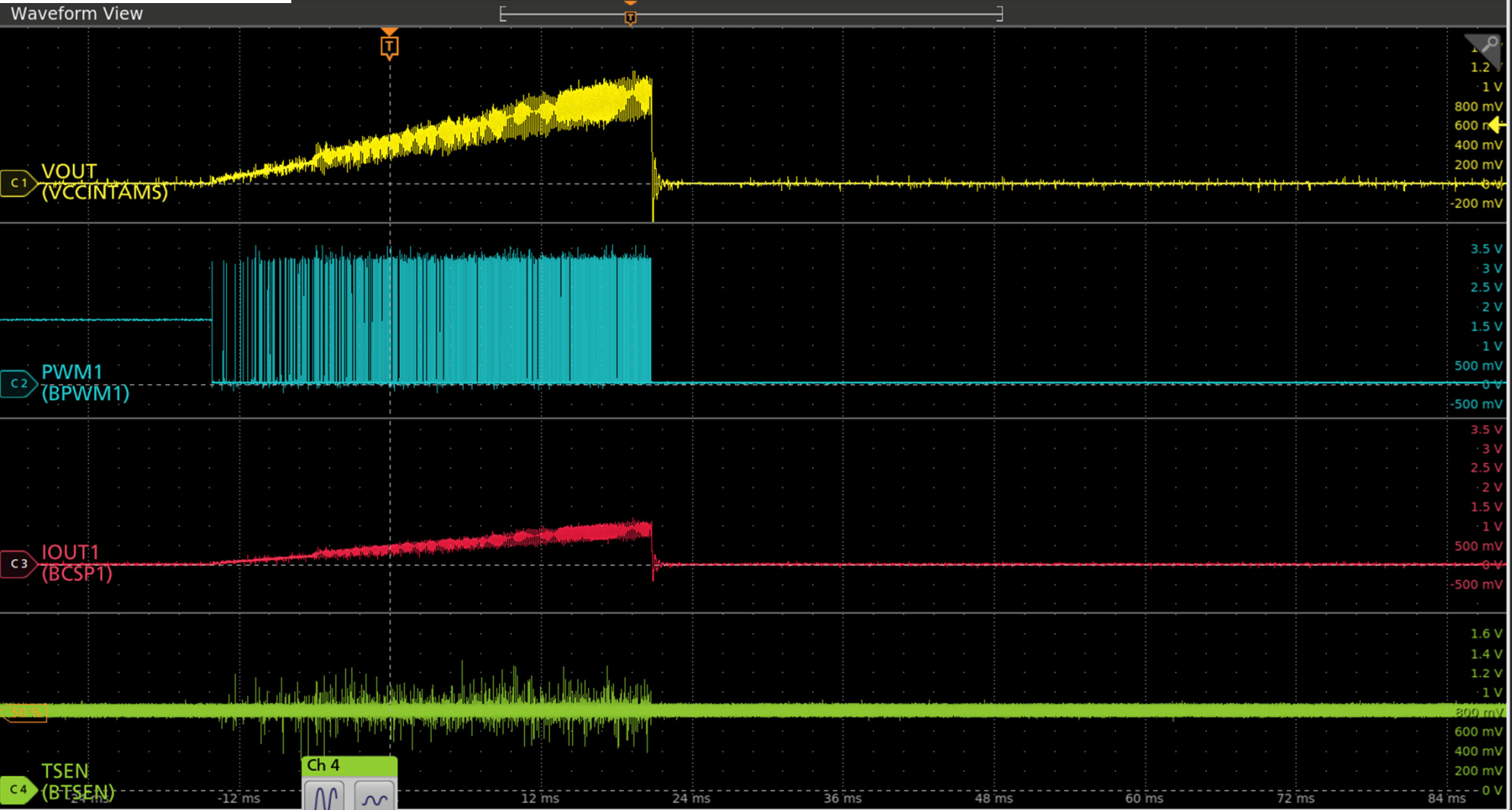
- Cursors
- Callout
- Measure
- Search
- Results Table
- Plot
- More...

Meas 1 4
Period
 μ : 3.224 μ s
Low amplitude

Stopped

18 Mar 2025
4:36:10 PM

Channel_B(Rail#2)



| Ch 1 | Ch 2 | Ch 3 | Ch 4 |
|---------------|---------------|---------------|------------|
| 200 mV/div | 500 mV/div | 500 mV/div | 200 mV/div |
| 250 MHz B_w | 250 MHz B_w | 250 MHz B_w | 1 GHz |

- Add New Math
- Add New Ref
- Add New Bus
- DVM

Channel_B(Rail#2)

FileDeviceTools

Rail #2

Write to HardwareDiscard ChangesStore Config to NVMAuto WriteStop Polling

Status

Stop Polling

Clear Faults

None

ARA

Status Registers

STATUS_VOUT Rail #2

7Vout OV Fault

6Vout OV Warning

5Vout UV Warning

4Vout UV Fault

3VOUT_MAX Warn

2TON_MAX Fault

1TOFF_MAX Warn

0Vout Tracking Error

STATUS_IOUT Rail #2

7IOUT OC Fault

6IOUT OC Fault with LV Shutdown

5IOUT OC Warning

4IOUT UC Fault

3Current Share Fault

2Power Limiting Mode

1POUT OP Fault

0POUT OP Warning

STATUS_TEMPERATURE Rail #2

7OT Fault

6OT Warning

5UT Fault

4UT Warning

STATUS_WORD Rail #2

15VOUT

14IOUT / POUT

13INPUT

12MFR

11POWER_GOOD#

10FANS

9OTHER

8Unknown

7Busy

6Output Off

5Vout OV Fault

4IOUT OC Fault

3Vin UV Fault

2TEMPERATURE

1CML

0More faults in high byte

STATUS_CML Rail #2

7Invalid Command

6Invalid Data

5PEC Fault

4Memory Fault

3Processor Fault

STATUS_INPUT Rail #2

7Vin OV Fault

6Vin OV Warning

5Vin UV Warning

4Vin UV Fault

3Unit off: Insufficient Vin

2IIN OC Fault

1IIN OC Warning

0PIN OP Warning

STATUS_MFR_SPECIFIC Rail #2

7FAULT_PS

6VSNS_OPEN

5Reserved

4VCCIO_LOW

3Reserved

2Reserved

1Reserved

0Reserved

Configure

Monitor

Status

Security

16:35:44.887: TPS53681 @ 105d: OPERATION [0x01,Rail #2]: wrote Unit: On (10b); Margin: None [0x80] to RAM