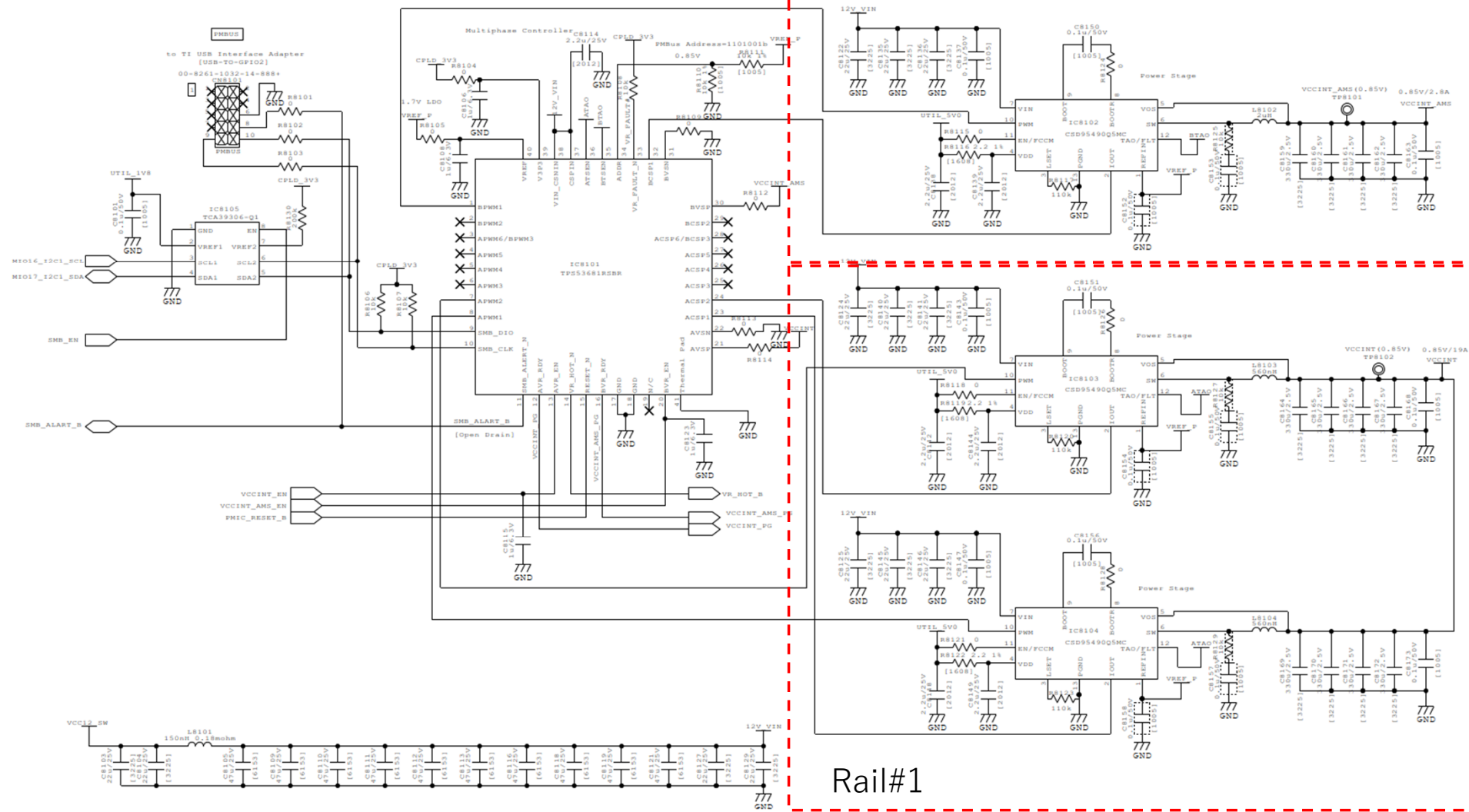


Channel\_A

Circuit\_Design



Channel\_A

Utility Help



Add New...

Cursors Callout

Measure Search

Results Table Plot

More...

Meas 1

Amplitude  
μ: 3.187 V

Meas 2

Period  
μ: --  
Too few edges

Meas 3

Frequency  
μ: --  
Too few edges

Ready

17 Mar 2025  
5:53:06 PM

Ch 1  
1 V/div  
250 MHz BW

Ch 2  
200 mV/div  
20 MHz BW

Ch 3  
1 A/div  
1 MΩ  
50 MHz BW

4

Add New Math

Add New Ref

Add New Bus

DVM

Horizontal  
2 ms/div 20 ms  
SR: 12.5 MS/s 80 ns/pt  
RL: 250 kpts 7%

Trigger  
1 1.32 V

Acquisition  
Auto, Analyze  
Sample: 12 bits  
3 Acqs

Add New...

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

Stopped

18 Mar 2025  
12:00:44 PM

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

Trigger  
1 600 mV

Horizontal  
10 ms/div 100 ms  
SR: 2.5 MS/s 400 ns/pt  
RL: 250 kpts 14%

DVM

Add New Bus

Add New Ref

Add New Math

Ch 4  
Clipping  
100 mV/div  
1 GHz

Ch 3  
2 V/div  
250 MHz BW

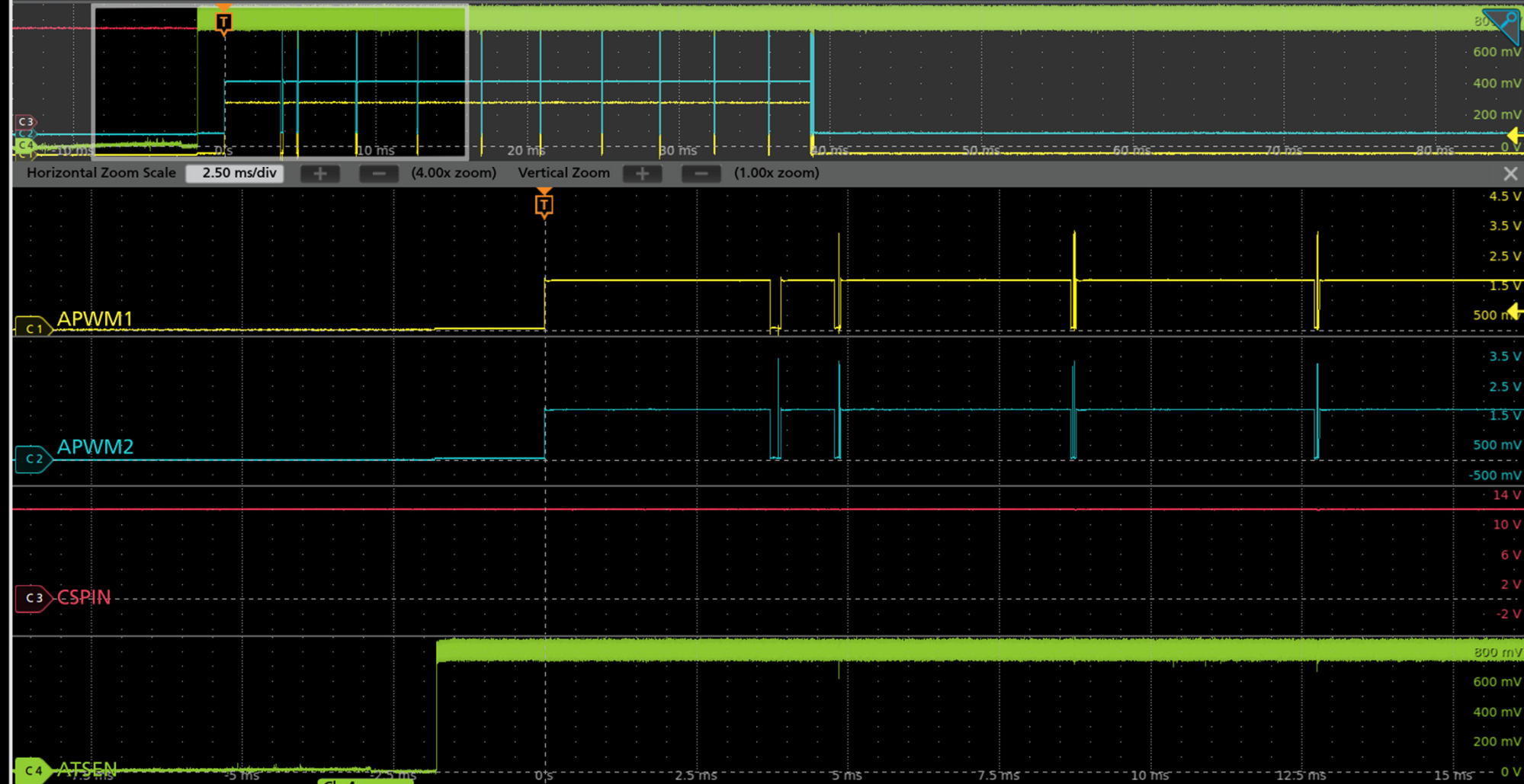
Ch 2  
500 mV/div  
250 MHz BW

Ch 1  
500 mV/div  
250 MHz BW

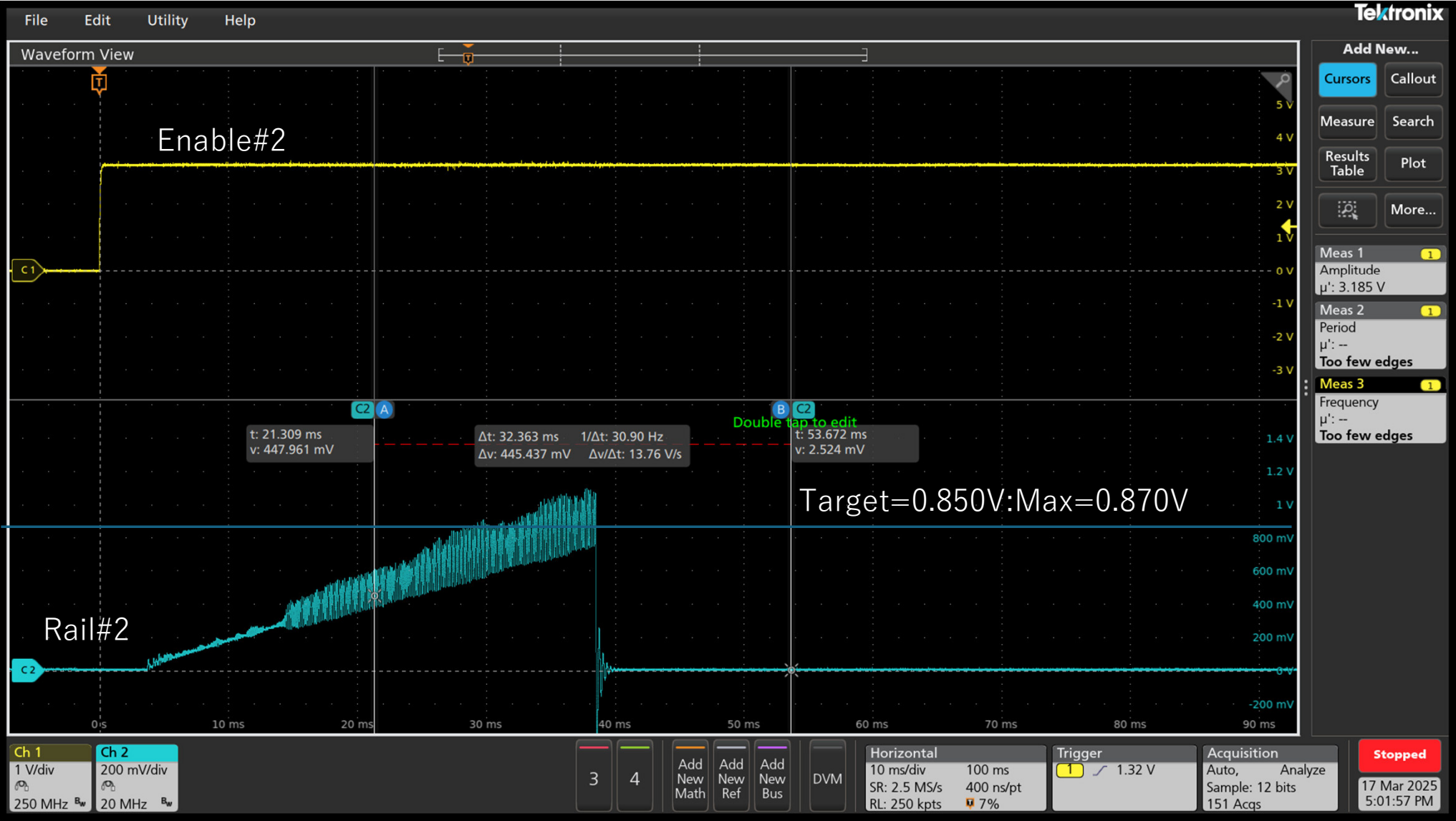
Channel\_A

Utility Help

Waveform View



Channel\_B





Add New...

Cursors Callout

Measure Search

Results Table Plot

More...

Meas 1 4

Period

$\mu'$ : > --

Pos clipping

Stopped

18 Mar 2025  
12:19:10 PM

Channel\_B (CSPIN = Channel\_A)



**Status**

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

DYN\_RAMP\_2PH: False; DYN\_RAMP\_1PH: False; RAMP: 0x0 [40 mVp-p]; [0x0000] to RAM  
17:41:51.144: TPS53681 @ 105d: VOUT\_TRANSITION\_RATE [0x27,Rail #1]: wrote 0.3125 mV/μs [0xE005] to RAM  
17:42:10.806: TPS53681 @ 105d: VOUT\_DROOP [0x28,Rail #1]: wrote 0.125 mΩ [0xD008] to RAM  
11:19:12.472: TPS53681 @ 105d: CLEAR\_FAULTS [0x03]: error executing SendByte: BAD DATA LENGTH; 2 attempts made

PMBus Log