

20180321 – LM20144-Q1 – 1Vout 2A – PROBLEMS.odt

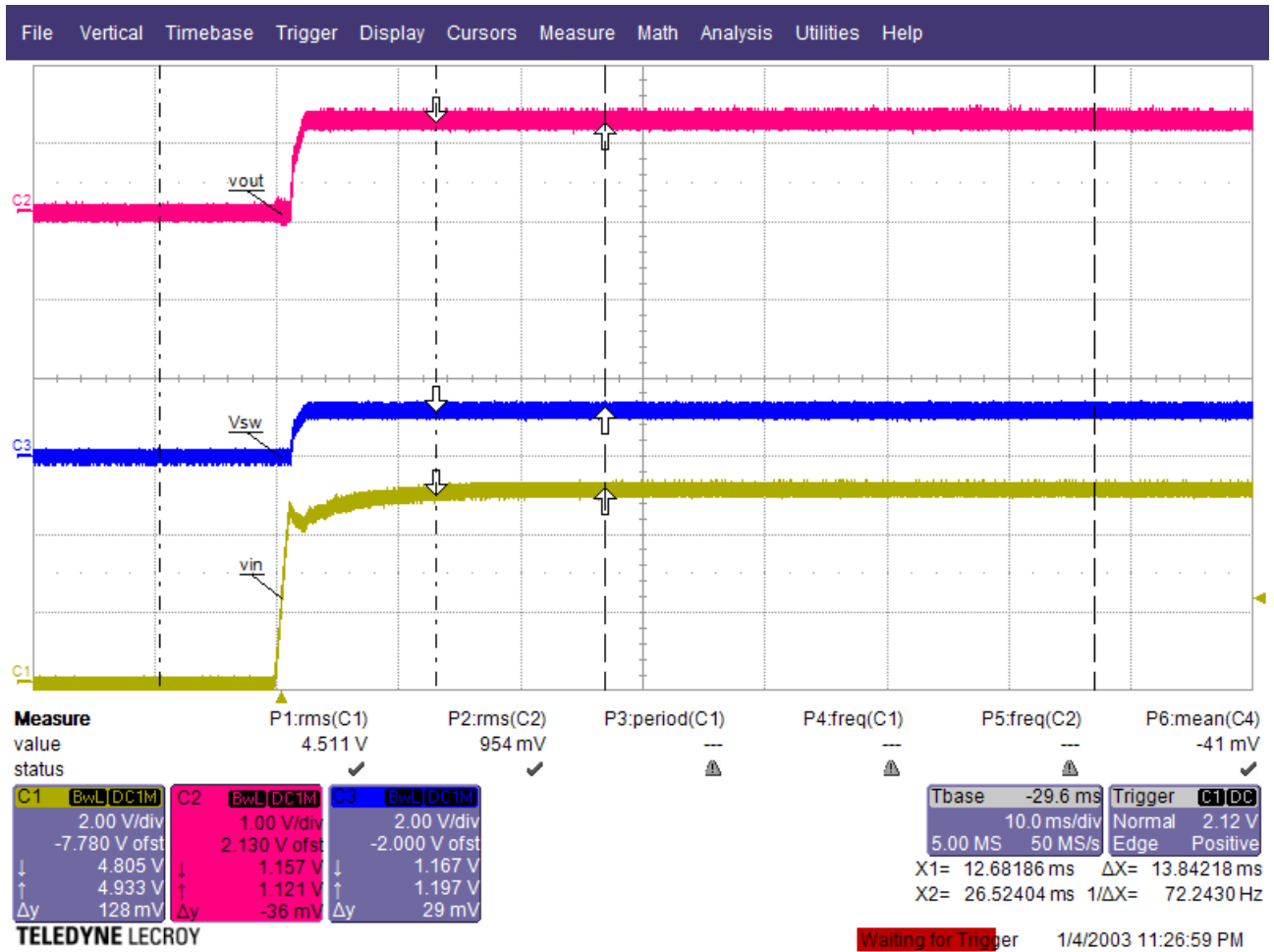


Illustrazione 1: startup - power supply is 5Vin, Vout 1,15V Rload = 0,5ohm

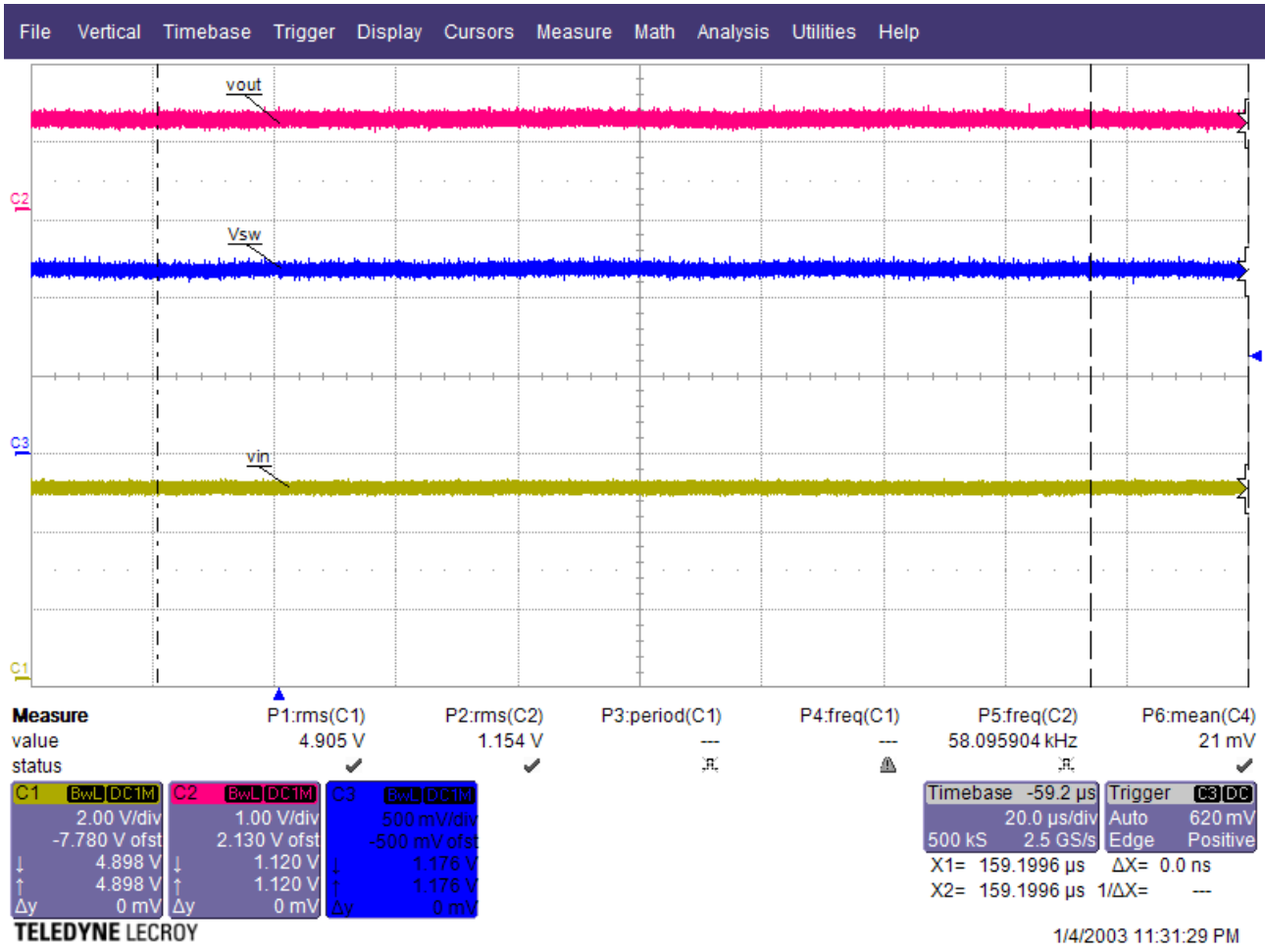


Illustrazione 2: after start transition - it seems that SW doesn't swith never. I can't see switch on SW output -

trigger on SW

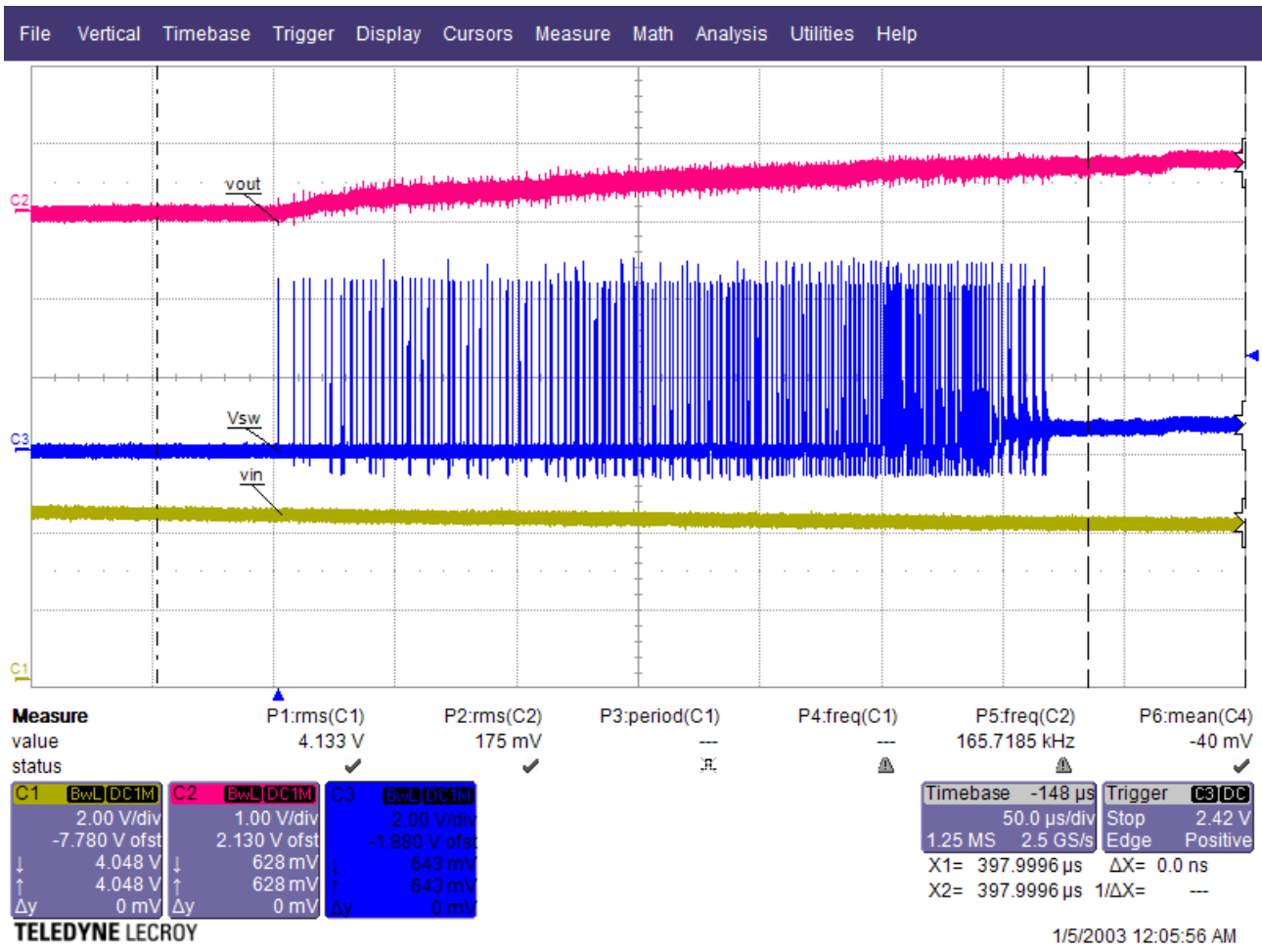
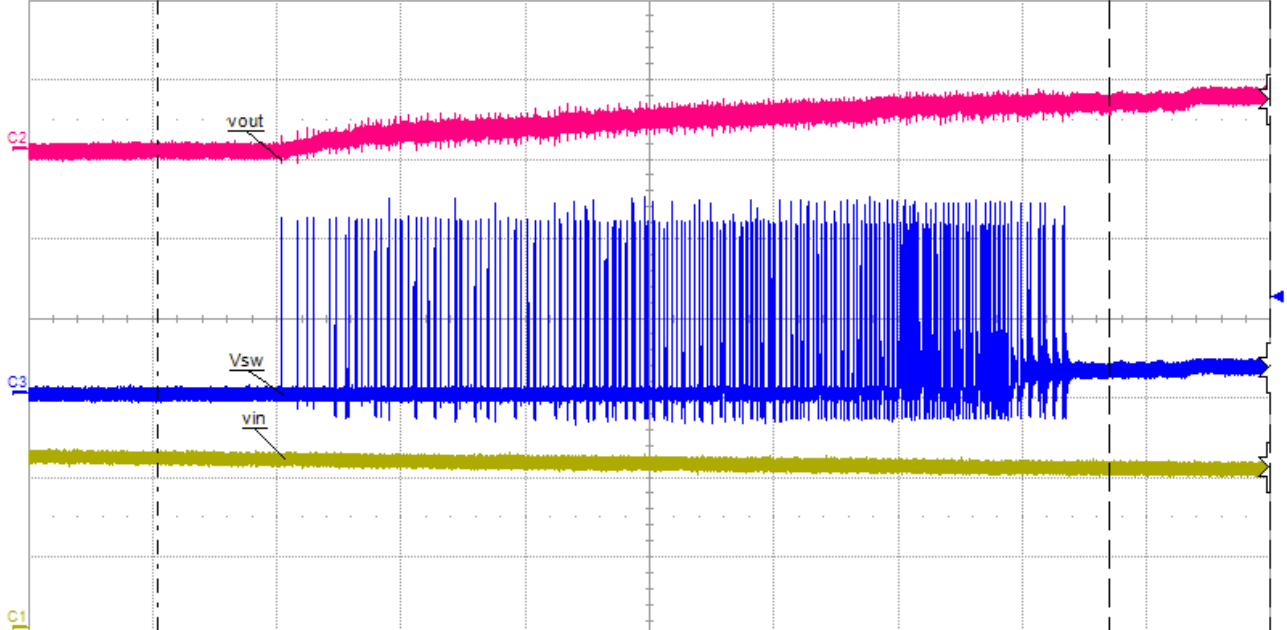


Illustrazione 3: $R_{load} = 0.5\text{ohm}$

next pictures, same load conditions



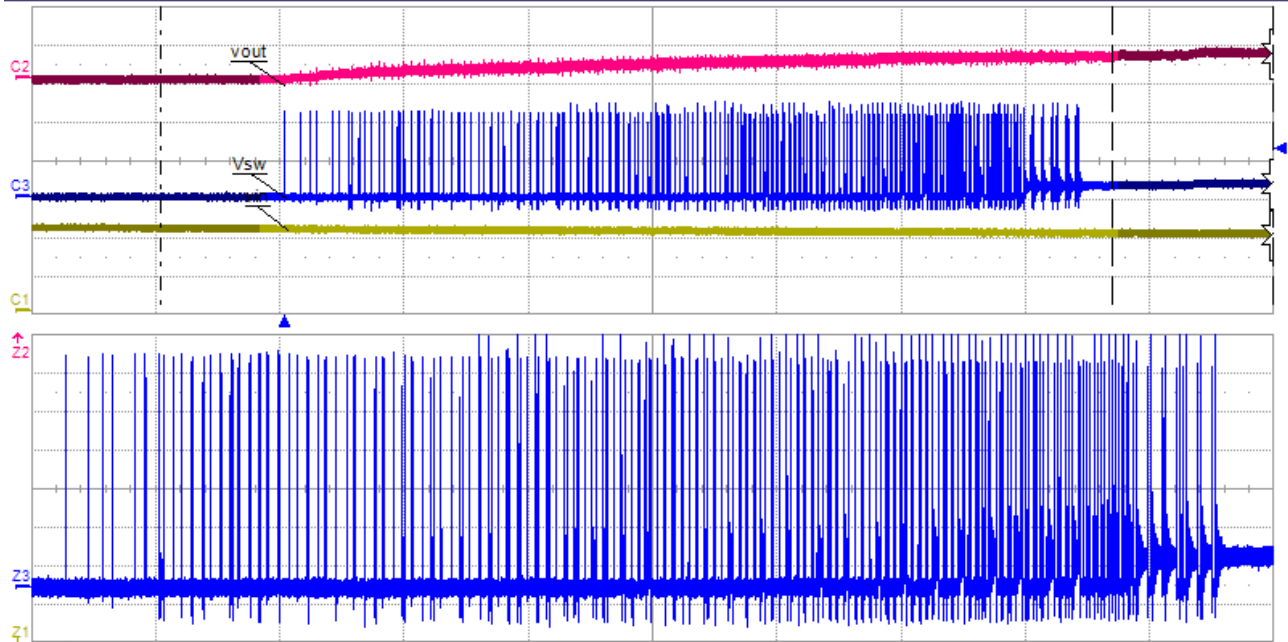
Measure	P1:rms(C1)	P2:rms(C2)	P3:period(C1)	P4:freq(C1)	P5:freq(C2)	P6:mean(C4)
value	4.133 V	175 mV	---	---	165.7185 kHz	-40 mV
status	✓	✓	⚠	⚠	⚠	✓

C1	C2	C3
BwL DC1M	BwL DC1M	BwL DC1M
2.00 V/div	1.00 V/div	2.00 V/div
-7.780 V ofst	2.130 V ofst	-1.880 V ofst
↓ 4.048 V	↓ 628 mV	↓ 643 mV
↑ 4.048 V	↑ 628 mV	↑ 643 mV
Δy 0 mV	Δy 0 mV	Δy 0 mV

Timebase	-148 μs	Trigger	C3 DC
	50.0 μs/div	Stop	2.42 V
	1.25 MS	Edge	Positive
	2.5 GS/s		
X1=	397.9996 μs	ΔX=	0.0 ns
X2=	397.9996 μs	1/ΔX=	---

TELEDYNE LECROY

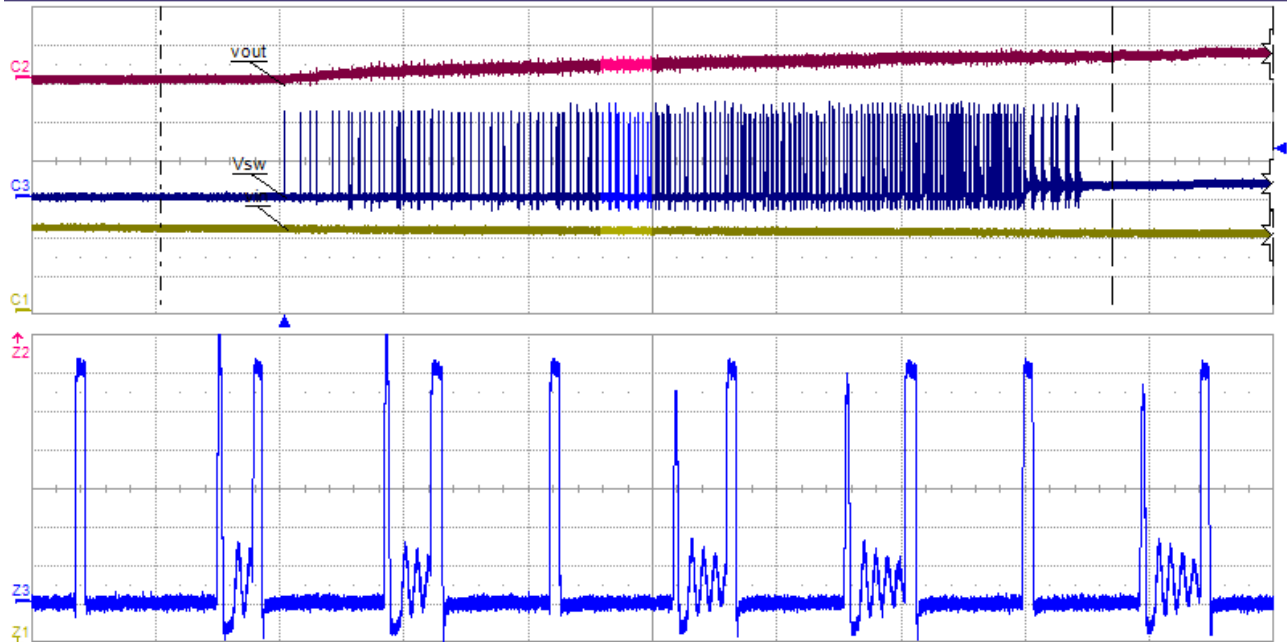
1/5/2003 12:05:56 AM



Measure	P1:rms(C1)	P2:rms(C2)	P3:period(C1)	P4:freq(C1)	P5:freq(C2)	P6:mean(C4)
value	4.131 V	171 mV	---	---	500.9456 kHz	-38 mV
status	✓	✓	⚠	⚠	⚠	✓

C1	B D1	C2	B D1	C3	B D1	Z1 zoom(...)	Z2 zoom(...)	Z3 zoom(...)
2.00 V	1.00 V	2.00 V	730 mV	365 mV	730 mV	730 mV	365 mV	730 mV
-7.78 V	2.130 V	-1.88 V	34.5 μs	34.5 μs	34.5 μs	34.5 μs	34.5 μs	34.5 μs
↓ 3.912 V	↓ 639 mV	↓ 650 mV	↓ ---	↓ ---	↓ ---	↓ ---	↓ ---	↓ ---
↑ 3.912 V	↑ 639 mV	↑ 650 mV	↑ ---	↑ ---	↑ ---	↑ ---	↑ ---	↑ ---
Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV

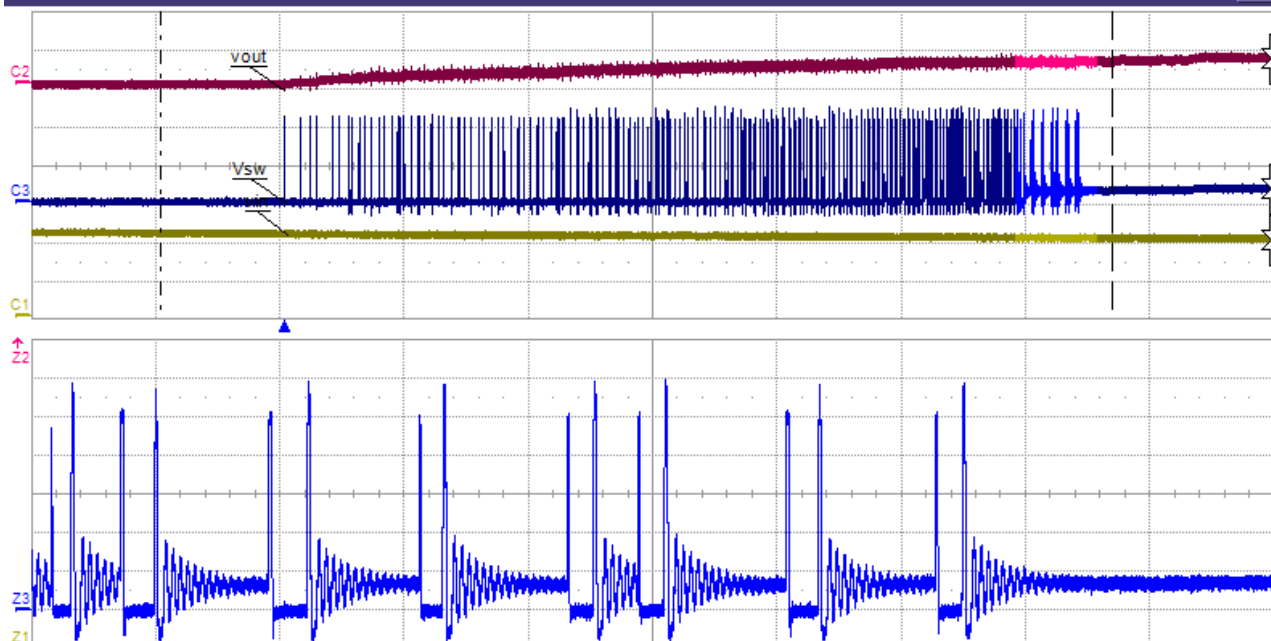
Timebase	-148 μs	Trigger	C3 DC
	50.0 μs/div	Stop	2.42 V
1.25 MS	2.5 GS/s	Edge	Positive
X1=	397.9996 μs	ΔX=	0.0 ns
X2=	397.9996 μs	1/ΔX=	---



Measure	P1:rms(C1)	P2:rms(C2)	P3:period(C1)	P4:freq(C1)	P5:freq(C2)	P6:mean(C4)
value	4.131 V	171 mV	---	---	500.9456 kHz	-38 mV
status	✓	✓	---	---	⚠	✓

C1	B D1	C2	B D1	C3	B D1	Z1 zoom(...)	Z2 zoom(...)	Z3 zoom(...)
2.00 V	1.00 V	2.00 V	690 mV	345 mV	690 mV	690 mV	345 mV	690 mV
-7.78 V	2.130 V	-1.88 V	2.10 μs	2.10 μs	2.10 μs	2.10 μs	2.10 μs	2.10 μs
↓ 3.912 V	↓ 639 mV	↓ 650 mV	↓ ---	↓ ---	↓ ---	↓ ---	↓ ---	↓ ---
↑ 3.912 V	↑ 639 mV	↑ 650 mV	↑ ---	↑ ---	↑ ---	↑ ---	↑ ---	↑ ---
Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV

Timebase	-148 μs	Trigger	C3 DC
	50.0 μs/div	Stop	2.42 V
1.25 MS	2.5 GS/s	Edge	Positive
X1=	397.9996 μs	ΔX=	0.0 ns
X2=	397.9996 μs	1/ΔX=	---



Measure	P1:rms(C1)	P2:rms(C2)	P3:period(C1)	P4:freq(C1)	P5:freq(C2)	P6:mean(C4)
value	4.131 V	171 mV	---	---	500.9456 kHz	-38 mV
status	✓	✓	---	---	▲	✓

C1	B D1	C2	B D1	C3	B D1	Z1 zoom(...)	Z2 zoom(...)	Z3 zoom(...)
2.00 V	1.00 V	2.00 V	810 mV	405 mV	810 mV			
-7.78 V	2.130 V	-1.88 V	3.35 μs	3.35 μs	3.35 μs			
↓ 3.912 V	↓ 639 mV	↓ 650 mV	↓ ---	↓ ---	↓ ---			
↑ 3.912 V	↑ 639 mV	↑ 650 mV	↑ ---	↑ ---	↑ ---			
Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV	Δy 0 mV			

Timebase	-148 μs	Trigger	C3 DC
50.0 μs/div	Stop	2.42 V	
1.25 MS	2.5 GS/s	Edge	Positive
X1= 397.9996 μs	ΔX= 0.0 ns		
X2= 397.9996 μs	1/ΔX= ---		