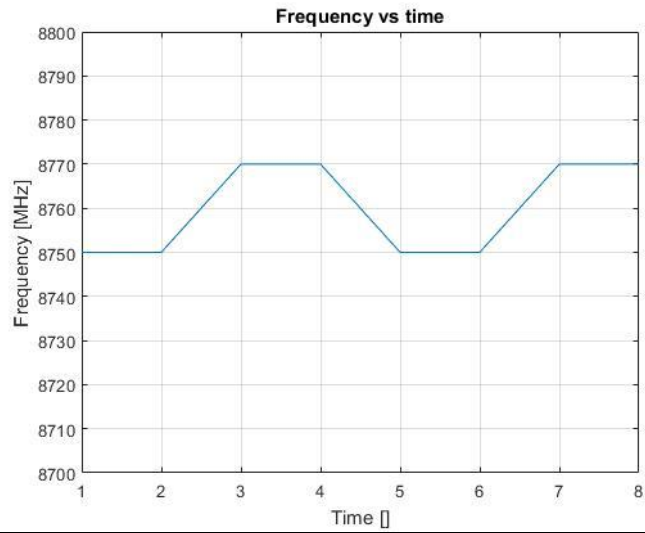
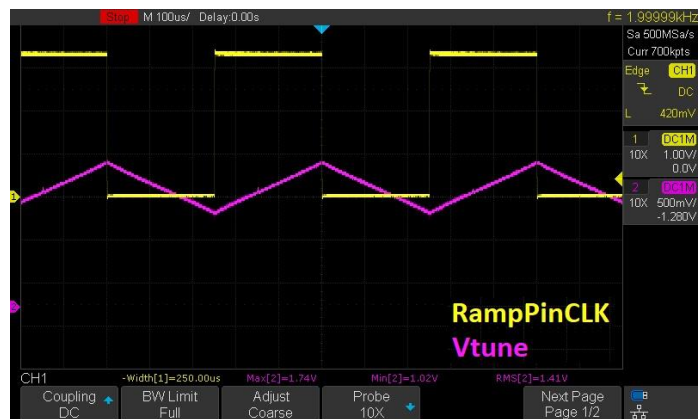
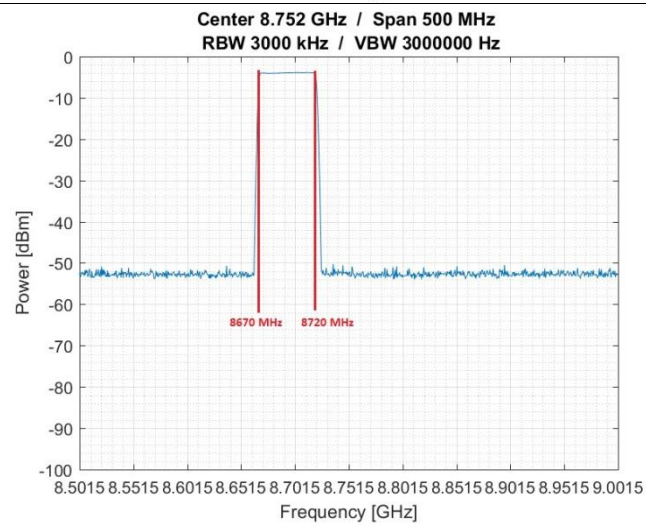


Expected frequency ramp



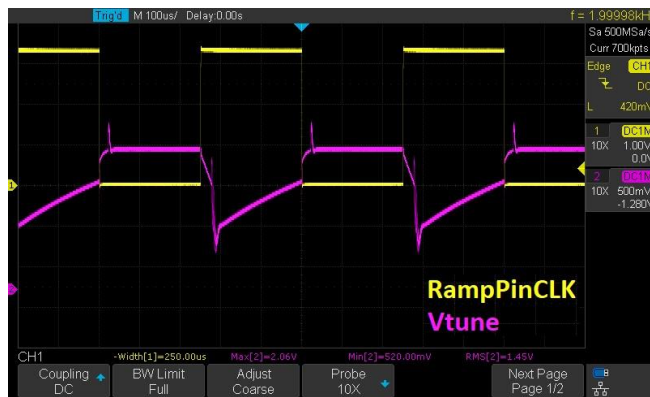
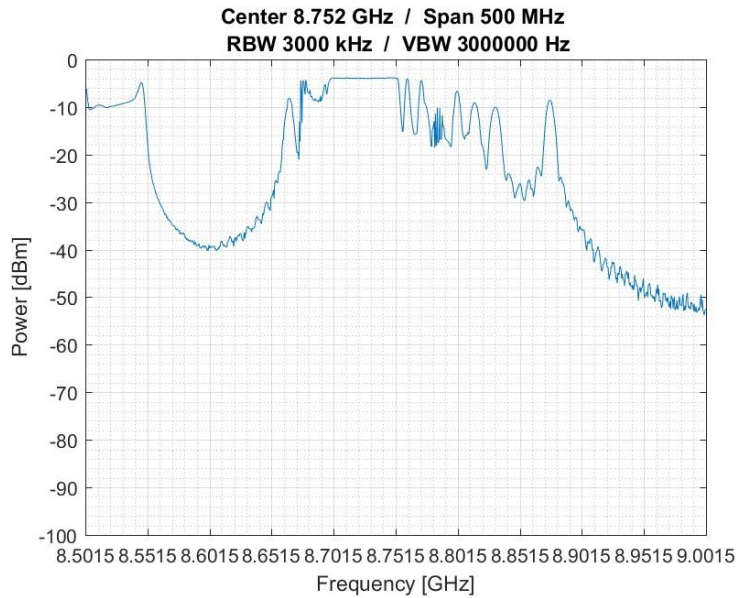
Reality
(with RAMP0_RST = 0)

→ Frequency is out of range and span is too big.
(no limitation in frequency)



Reality
(with RAMP_RST = 1)

→Totally bad signal



TICS Pro

File USB Communications Select Device Options Tools Default Configurations Help

LMX2595
User Controls
Raw Registers
PLL
RAMP
Burst Mode

From PLL Tab VCO Start (MHz) 8750.000000 Phase Detector (MHz) 100 Accumulator Start 1468006400
Ensure that the PLL denominator is set to a value of 4294967295 on the PLL tab as it is forced to this in ramping mode.

RAMP_EN Update Ramp GUI

Ramp Limits

VCO Output Limit
High 8770 MHz
Low 8750 MHz

RAMP_LIMIT Register Programming
Decimal Value 3355443 2's Complement 3355443
0 8589934592

VCO Calibration

Threshold 4000 MHz RAMP_TRIG_CAL Min VCO Calibration Time 0 us

RAMP_THRESH 671088640 RAMP_DLY_CNT 0
RAMP_SCALE_CNT 1

Manual Ramping Mode

RAMP_MANUAL

Ramp	Step Frequency (MHz)
RAMP0	100
RAMP1	-100

Trigger Definitions

Trigger A RampClk Pin Rising E
Trigger B RampClk Pin Falling E
RAMP0_NEXT_TRIG Trigger A
RAMP1_NEXT_TRIG Trigger B

Ramp Increments

RAMPx_INC	(decimal)	(2s complement)
336	336	
-336		1073741488

Automatic Ramping Mode

Ramp	Actual Start Frequency (MHz)	Desired End Frequency (MHz)	Desired Duration (us)	Dly	Next Ramp	Actual End Frequency (MHz)	RAMPx_LEN	Actual Length With VCO Calibration (us)
RAMP0	8750.00000001	8770	100		RAMP1	8770.0271606E	10000	100
RAMP1	8770.0271606E	8750	100		RAMP0	8750.00000001	10000	100

Burst Ramping Mode

RAMP_BURST_EN Ramp Count 0 Next Ramp Trigger Ramp Transition

Wrote Register R0 (0x0) as 0x00 A418
Wrote Register R0 (0x0) as 0x00 2418
Wrote Register R0 (0x0) as 0x00 A418

Connection Mode: USB2ANY
Protocol: SPI_CLKLOW
Serial #: C5636C511A000300

TEXAS INSTRUMENTS