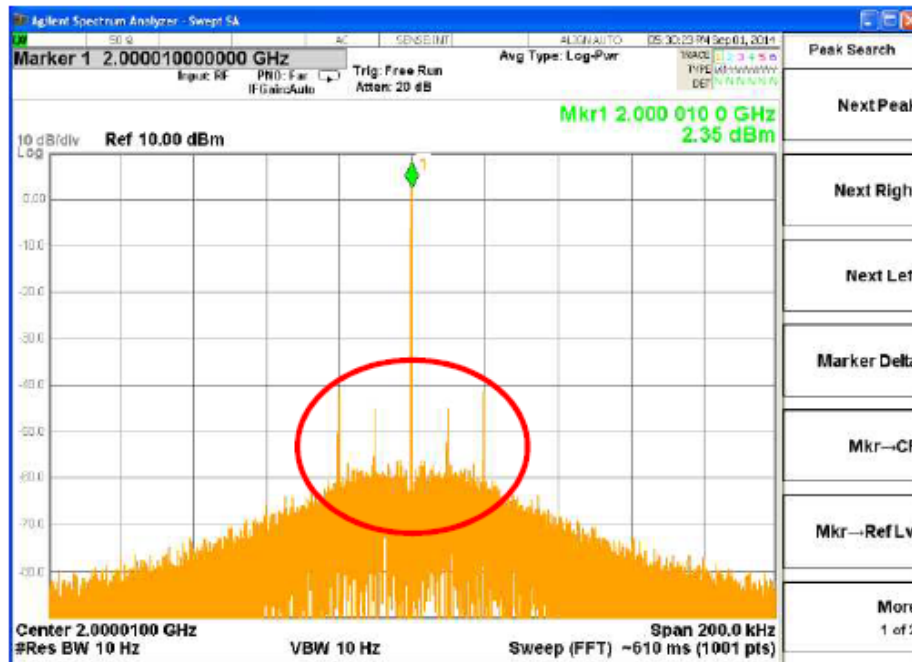
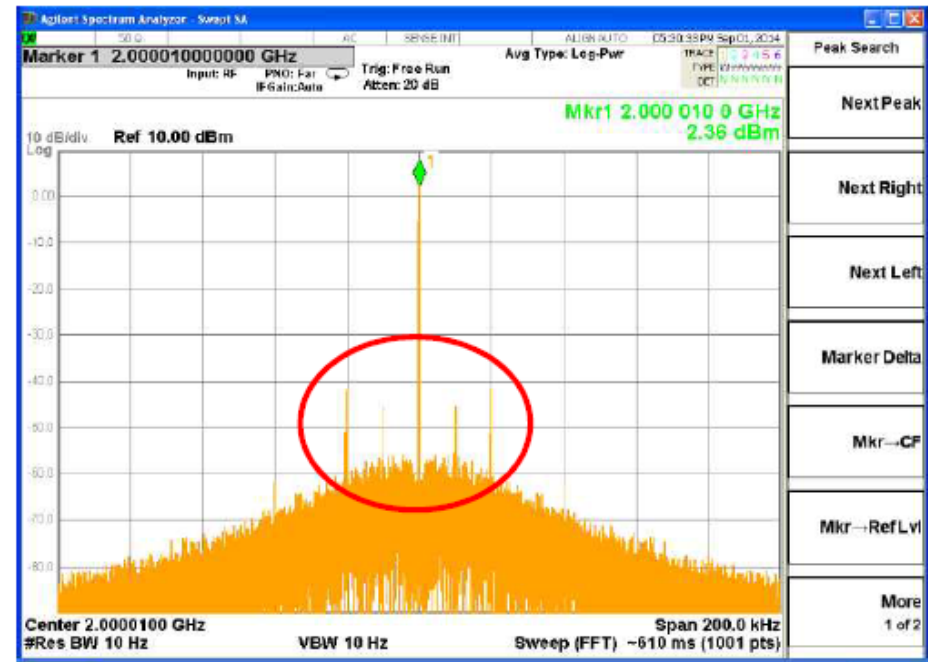


# Test Results

Dither OFF



Dither ON



When they use TRF3765 in fractional mode, they want to enable the dither function because the spurs appeared in the neighborhood. They set it like an attached file in TRF3765GUI, but the spurs does not change.  
Is there the problem with setting ?  
Would you comment why it does not change ?

# TRF3765EVM Setting of dither on

**TEXAS INSTRUMENTS** **TRF3765**

Start Up High Level Low Level Debug

Register Display Pictorial Display

**Register 1** ADDR: 9  
RDIV: 0001  
REF\_INV: 0  
NEG\_VCO: Neg Kv 1  
ICP: 200mA 0  
ICPOUBLE: Normal 0  
CAL\_CLK\_SEL: /128 15  
Readback VALUE: x 79100029

**Register 2** ADDR: 10  
NDIV: 00200  
PLL\_DIV\_SEL: /2 1  
PRSO\_SEL: 8/8 1  
VCO\_SEL: 2  
VCOSEL\_MODE: All 0  
CAL\_AOC: 0  
EN\_CAL: Exec 1  
Readback VALUE: x 8A0190A

**Register 3** ADDR: 11  
NFRAC: 00033554  
Readback VALUE: x 10624B

**Register 4** ADDR: 12  
PWD\_PLL: On 0  
PWD\_CP: On 0  
PWD\_VCO: On 0  
PWD\_VCO\_MUX: On 0  
PWD\_DIV124: On 0  
PWD\_PRESC: On 0  
PWD\_LD\_DIV: On 0  
PWD\_BUFF1: On 0  
PWD\_BUFF2: Off 1  
PWD\_BUFF3: Off 1  
PWD\_BUFF4: Off 1  
EN\_EXTVCO: On 0  
EXT\_VCO\_CTRL: On 0  
EN\_ISOURCE: On 1  
LD\_ANA\_PREC0: High 0  
LD\_ANA\_PREC1: High 0  
OP\_TRISTATE: Off 0  
SPEEDUP: Normal 0  
LD\_DIG\_PREC: Normal 0  
EN\_DITH: On 1  
MOD\_ORD: 3rd 2  
DITH\_SEL: Random 0  
DEL\_SEL\_CLK: 2  
EN\_FRAC: Frac 1  
Readback: x 0A15005

**Register 5** ADDR: 13  
VCOBIAS\_RTRIM: 4  
PLLBIAS\_RTRIM: 2  
VCO\_BIAS: 400uA 5  
VCOBUF\_BIAS: 2  
VCOMUX\_BIAS: 2  
BUFOUT\_BIAS: 500uA 3  
VCO\_CAL\_IB: PTAT 0  
VCO\_CAL\_REF: 1.11V 3  
VCO\_AMPL\_CTRL: 3  
VCO\_VB\_CTRL: 1.35V 1  
VCO\_MUX\_GAIN\_CTRL: Low 0  
EN\_LD\_ISOURCE: EN\_ISO 0  
Readback VALUE: x1D8E968D

**Register 6** ADDR: 14  
VCO\_TRIM: 032  
EN\_LOCKDET: On 0  
VCO\_TEST\_MODE: Off 0  
CAL\_BYPASS: Off 0  
MUX\_CTRL: L-D 1  
ISOURCE\_SINKB: Source 0  
ISOURCE\_TRIM: 7 1  
LD\_DIV\_SEL: DIV2 1  
LD\_DIV\_IB: 50 u 2  
DIV\_MUX\_REF: 400 uA 2  
DIV\_MUX\_OUT: x 32 2  
DIV\_MUX\_BIAS\_OVRD: Off 0  
Readback VALUE: x 54F1100E

**Register 7** ADDR: 15  
SCAN\_EN: 00  
Readback: x F

**Freq Targets**  
Ref Freq[MHz]: 10  
INT Step (MHz): 10  
RF Target [MHz]: 200001  
Int/Frac Select: Fraction  
En Cal Calc

**Freq Calculations**  
VCO Freq Actual[MHz]: 400002  
RF Freq Actual[MHz]: 200001  
Fraction [kHz]: 9.99987  
PFD Freq Actual[MHz]: 10  
CAL\_CLK\_FREQ [MHz]: 0078125

**Readback**  
R\_SAT\_ERR: 0  
VCO\_SEL: 03  
VCO\_TRIM: 35  
MUX\_COUNT: 0  
COUNT\_MODE\_MUX\_SEL: 0

Version: 8 Build date: 11/04/2011 2014/09/01 17:56:41 READY