

Analog Devices ADF4355, ADF4355-2, ADF4355-3, ADF5355, ADF4356, and ADF5356 Evaluation Board Control Software

File Tools Help

Select Device and Connection Main Controls Sweep and Hop Other Functions VCO Calibration Bypass

RF Settings

Set Reference and PFD frequency

Reference freq: 10.000000 MHz Divider: 1 Doubler: ☒ /2: ☒ ☒ Automatic ☐ Manual

$$\left( \frac{\text{INT}}{401} + \left( \frac{\text{FRAC1}}{1,341,660} + \frac{\text{FRAC2}}{16,383} \right) \right) \times \frac{\text{PFD (MHz)}}{10} = \frac{\text{VCOout (MHz)}}{4010.799692}$$

N = 401.079969199998383

Actual VCO output: 4010.799691999983832650311 MHz

VCO output error: -0.00001616735 Hz

Output divider: /4 = RFoutA (MHz) = 1002.699923

VCOout \* 2 (MHz) = 8021.59984

Register 0: Autocal: ☒ Enabled Prescaler: 4/5

Register 3: SD Load Reset: ☐ SIM re Phase Resync: ☐ Disabl Phase Adjus: ☐ Disabl Phase: 0

Register 4: Muxout: Digital Lo Double buff: isabled CP current: 900 REFin Mode: Differenti Mux level: 0 V PD Polarity: sitive Powerdown: Disabled CP 3-state: isabled Counter reset: sabled

Register 7: LE Sync: 1. REFin LD Cycles: 1024 LOL Mode: 1. Enable Frac-N LD Pres: 12 ns LD Mode: 0. Frac-N

Register 9: Autoset fastest calibration VCO Band Div: 5 Timeout: 17 ALC Timeout: 30 Synth. Lock Timeout: 12 Total cal. time: 2893.000 µs Show/hide

Register 6: Feedback: 1. Fundame Bleed Current: ☒ 2 × 3.75 = 7.5 µA MTLD: 0. Disable RFoutB Select: isabled

Register 10: ADC Clock: 25 Frequency: 98.039 kHz ADC Conversion: 1. Enab ADC Enable: Enabled

Registers

0x 201910 Write R0	0x 3 Write R3	0x 35404076 Write R6	0x 5047CC9 Write R9	0x 1041C Write R12
0x 1478DC1 Write R1	0x 36008B84 Write R4	0x 120000E7 Write R7	0x C0067A Write R10	
0x 8AAFFFF2 Write R2	0x 800025 Write R5	0x 102D0428 Write R8	0x 61300B Write R11	

Write Init. Write Freq. Device in u: ADF5355 Software vers: 1.4.4

SDP board connected. Using connector A

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$$\left( \frac{\text{INT}}{350} + \left( \frac{\text{FRAC1}}{0} + \frac{\text{FRAC2}}{1} \right) \right) \times \frac{\text{PFD (MHz)}}{10} = \frac{\text{VCOout (MHz)}}{3500.000000}$$

N = 350

Actual VCO output: 3500 MHz

VCO output error: 0 Hz

Output divider: /4 = RFoutA (MHz) = 875.000000

VCOout \* 2 (MHz) = 7000.000000

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Register 6: Feedback: 1. Fundame Bleed Current: ☒ 3 × 3.75 = 11.25 µA MTLD: 0. Disable RFoutB Select: isabled

Register 10: ADC Clock: 25 Frequency: 98.039 kHz ADC Conversion: 1. Enab ADC Enable: Enabled

Registers

0x 2015E0 Write R0	0x 3 Write R3	0x 35406076 Write R6	0x 5047CC9 Write R9	0x 1041C Write R12
0x 1 Write R1	0x 36008B84 Write R4	0x 120000E7 Write R7	0x C0067A Write R10	
0x 12 Write R2	0x 800025 Write R5	0x 102D0428 Write R8	0x 61300B Write R11	

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