



# WEBENCH<sup>®</sup> Clock Architect

## Project Report

Project: 1382630/44 Project 44 - [CDCM6208V1]

Created: 3/2/14 9:14:50 PM

## Fixed Outputs

#	Name	Frequency	Format	Count
1.	fixed0	12.88	Any	1
2.	fixed1	27	Any	1
3.	fixed2	25	Any	1

## Options

#	Name	Value
1.	guess_inputs	N
2.	max_solutions	10
3.	part_filter	

## Properties

#	Name	Value
1.	external_sources	none
2.	from_disty	
3.	from_manufacturer	Texas Instruments, Inc.
4.	jitter_fom	800.0
5.	log	
6.	output_fom	-156.0
7.	performance_index	-24.35
8.	pll_fom	-224.0
9.	price_units	\$
10.	score_description	Clock Tree Builder score
11.	total_bom_cost	5.2
12.	total_bom_count	0
13.	total_current	135.0
14.	total_footprint	49.0
15.	vco_fom	-107.0
16.	weighted_score	32.08



User ID = 1382630  
Design Id = 464  
Device = CDCM6208V1  
Created = 3/2/14 9:14:51 PM

## WEBENCH® Clock Design Report

### Operation Values

#	Name	Value
1.	jitter_metric	0.00
2.	noise_floor	0.00
3.	phase_noise	0.00
4.	vco_noise	0.00

## Loop Filter: LOOPFILTER

Bode Plot Scale Y Min:-120.0 Y Max:120.0 X Min:100.0 X Max:1.0E7

### Preferences

#	Name	Value
1.	charge_pump_gain	2.50
2.	filter_order	4.00
3.	filter_type	0.00
4.	pd_frequency	1.00
5.	vco_frequency	2430.00
6.	vco_gain	180.545
7.	vco_input_capacitance	0.00

### Parameters

#	Name	Value	Forced	Actual Value
1.	gamma	0.24	N	0.231
2.	loop_bandwidth	95.798	N	36.262
3.	phase_margin	70.00	N	69.022
4.	t3t1_ratio	50.00	N	0.00
5.	t4t3_ratio	0.00	N	0.00

### BOM

#	Name	Value	Fixed	Forced
1.	C1	0.00	N	N
2.	C2	12.00	N	N
3.	C3	0.242	Y	N
4.	C4	0.00	Y	N
5.	R2	1.20	N	N
6.	R3	0.10	Y	N
7.	R4	0.00	Y	N

## Output Block Id:0 Frequency:27.0

Bode Plot Scale Y Min:NaN Y Max:NaN X Min:NaN X Max:NaN

### Phase Noise Values

#	Name	Value
1.	offset1	12000.00
2.	offset2	100000.00
3.	offset3	20000000.00

### Integrated Noise Metrics

#	Name	Value
1.	trace_high_frequency	20000000.00
2.	trace_low_frequency	12000.00
3.	trace_rms_jitter	875.228

### Integrated Noise Info

#	Name	Value
1.	adenob	12.433
2.	calculated_area	0.00
3.	evm	0.015
4.	jitter_cycle_cycle_pk	12481.621
5.	jitter_cycle_cycle_rms	1237.76
6.	jitter_pk_pk	6240.81
7.	noise_floor	-152.585
8.	rms_jitter	875.228
9.	rms_phase_error_deg	0.009
10.	rms_phase_error_rad	0.148
11.	snr	76.567
12.	spur	-79.567
13.	tie	-0.286
14.	ui	0.00

## Output Block Id:1 Frequency:24+10192152/10192159

Bode Plot Scale Y Min:NaN Y Max:NaN X Min:NaN X Max:NaN

## Phase Noise Values

#	Name	Value
1.	offset1	12000.00
2.	offset2	100000.00
3.	offset3	20000000.00

## Integrated Noise Metrics

#	Name	Value
1.	trace_high_frequency	20000000.00
2.	trace_low_frequency	12000.00
3.	trace_rms_jitter	1191.698

## Integrated Noise Info

#	Name	Value
1.	adenob	12.099
2.	calculated_area	0.00
3.	evm	0.019
4.	jitter_cycle_cycle_pk	16994.799
5.	jitter_cycle_cycle_rms	1685.316
6.	jitter_pk_pk	8497.40
7.	noise_floor	-150.572
8.	rms_jitter	1191.698
9.	rms_phase_error_deg	0.011
10.	rms_phase_error_rad	0.187
11.	snr	74.554
12.	spur	-77.554
13.	tie	-0.286
14.	ui	0.00

Output Block Id:2 Frequency:12+17408964/19782917

Bode Plot Scale Y Min:NaN Y Max:NaN X Min:NaN X Max:NaN

## Phase Noise Values

#	Name	Value
1.	offset1	12000.00
2.	offset2	100000.00
3.	offset3	20000000.00

## Integrated Noise Metrics

#	Name	Value
1.	trace_high_frequency	20000000.00
2.	trace_low_frequency	12000.00
3.	trace_rms_jitter	1300.122

## Integrated Noise Info

#	Name	Value
1.	adenob	12.93
2.	calculated_area	0.00
3.	evm	0.011
4.	jitter_cycle_cycle_pk	18541.026
5.	jitter_cycle_cycle_rms	1838.65
6.	jitter_pk_pk	9270.513
7.	noise_floor	-155.576
8.	rms_jitter	1300.122
9.	rms_phase_error_deg	0.006
10.	rms_phase_error_rad	0.105
11.	snr	79.558
12.	spur	-82.558
13.	tie	-0.286
14.	ui	0.00

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