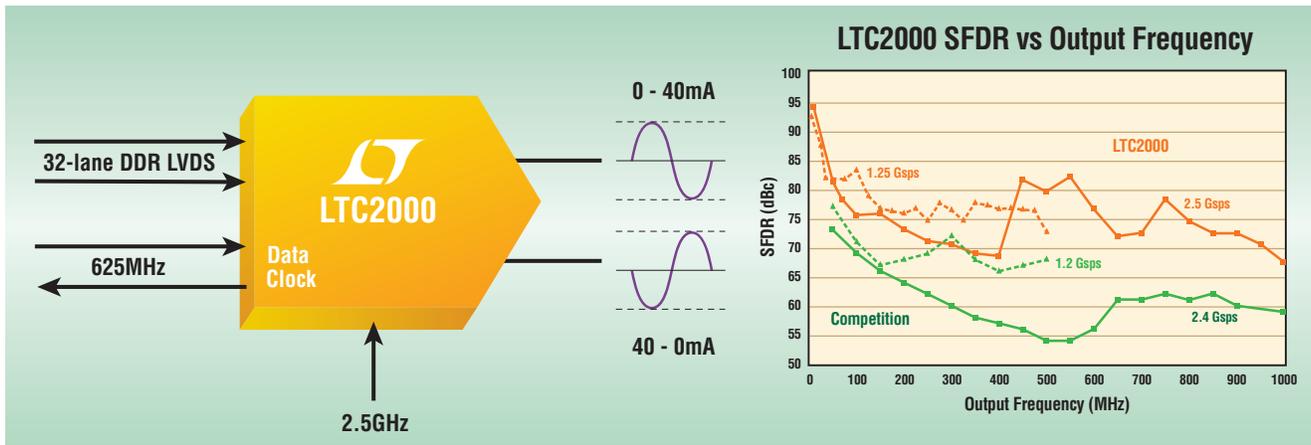


16-Bit 2.5Gps DAC

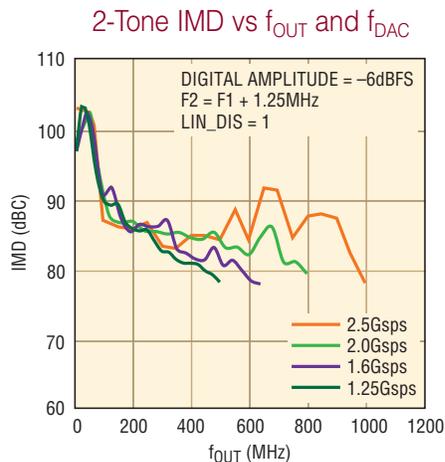


With >78dBc 2-Tone IMD Up to 1GHz, the LTC2000 Is Ideal for Direct RF Synthesis

The LTC[®]2000 is a 2.5Gps current steering DAC that offers unparalleled linearity to directly synthesize RF signals up to 1GHz with exceptional spectral purity. With a nominal output current of 40mA, the LTC2000 is capable of generating an output that is $\pm 1V$ compliant into a 100Ω differential load, which is matched with its internal impedance – resulting in outstanding signal integrity. The LTC2000 has very low additive phase noise and remarkably low latency (only 7.5 cycles for single port and only 11 cycles for dual port).

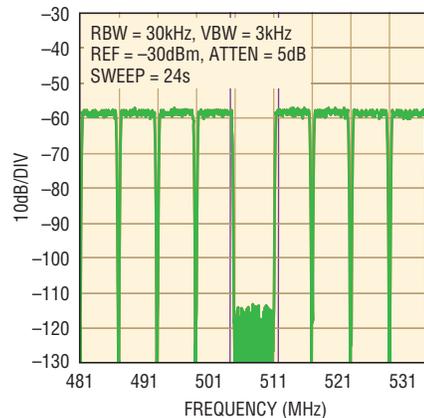
Features

- 80dBc SFDR at 70MHz f_{OUT} and >68dBc Up to 1000MHz f_{OUT}
- >78dBc 2-Tone IMD from DC to 1000MHz
- 40mA Nominal Full-Scale (10mA to 60mA Range), $\pm 1V$ Output Compliant
- -165dBc/Hz Additive Phase Noise at 1MHz Offset from 65MHz f_{OUT}
- Single or Dual Port DDR LVDS and DHSTL Interface
- Low Latency



Exceptional linearity, even at high output frequencies, leads to exceptional real-world results in demanding applications.

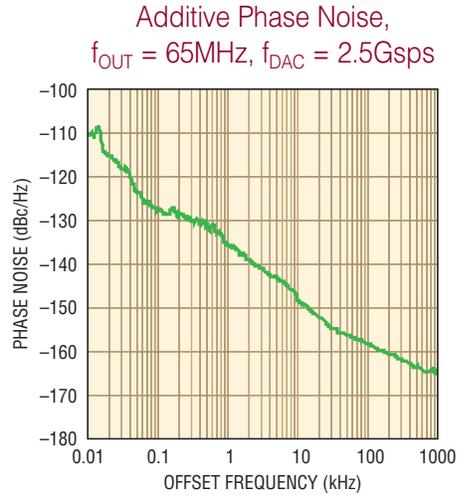
157 Carrier DOCSIS Gap Channel Narrowband ACLR, $f_{DAC} = 2.5Gps$



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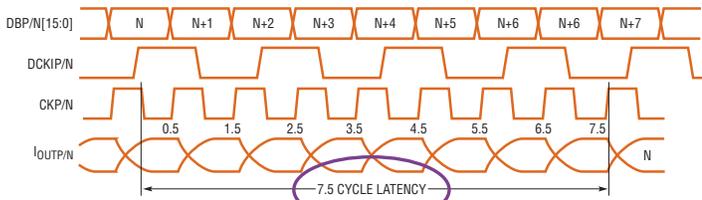
-165dBc/Hz Additive Phase Noise at 1MHz Offset from 65MHz Output

The LTC2000 was designed for low additive phase noise, making it ideal for demanding applications such as radar, instrumentation, and test equipment.

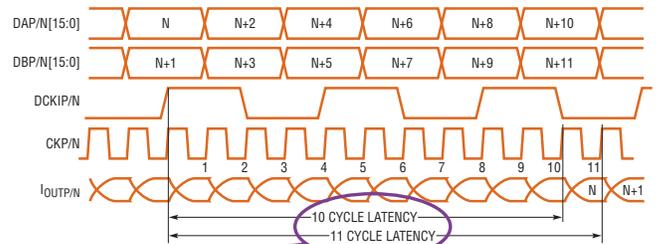


Low Latency

Single-Port Operation



Dual-Port Operation



That's It!

LTDACGen Software Simplifies the Evaluation of the LTC2000

Define

ID	EN	Type	Center Frequency (MHz)	Bandwidth (MHz)	Attenuation (dB)
0	<input checked="" type="checkbox"/>	DOCSIS	783.998966217	5.750656128	60.000
1	<input checked="" type="checkbox"/>	DOCSIS	790.002346039	5.750656128	60.000
2	<input checked="" type="checkbox"/>	DOCSIS	796.000957489	5.750656128	60.000
3	<input checked="" type="checkbox"/>	DOCSIS	801.999688939	5.750656128	60.000
4	<input checked="" type="checkbox"/>	DOCSIS	808.002948761	5.750656128	60.000
5	<input checked="" type="checkbox"/>	DOCSIS	814.001560211	5.750656128	60.000
6	<input checked="" type="checkbox"/>	DOCSIS	820.000171661	5.750656128	60.000
7	<input checked="" type="checkbox"/>	DOCSIS	826.003551483	5.750656128	60.000

View

and Generate

