



D12B6G

12-bit, 6 GSPS

Digital-to-Analog Converter IP block

GENERAL DESCRIPTION

The D12B6G is an ultra low-power, high-speed digital to analog converter (DAC) intellectual property (IP) block. It is a current-steering DAC that has a 6-bit resolution, and a sampling speed of 6 gigasamples per second (GSPS).

The D12B6G is a unique solution that provides the dual benefit of reaching an extremely high sampling speed while maintaining an exceptionally low power consumption of approximately 121 mW, making it a perfect fit for designs with high efficiency, low power and high performance requirements.

The IP block has been designed and verified in a 22nm CMOS process. Please contact the vendor about porting the IP to other processes.

TO GET MORE INFORMATION

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Part no.: 06 1 1P0 013

Rev: 05252021

KEY FEATURES

- ◆ 12 bit resolution
- ◆ 6 GSPS sampling rate
- ◆ 121 mW power
- ◆ >6GHz Input Bandwidth
- ◆ Dynamic Performance:
 - ◆ SFDR: 63 dBc
 - ◆ ENOB: 9.0
- ◆ Hard IP block
- ◆ GlobalFoundries 22nm
- ◆ GDSII available. Verified with post layout PVT simulations
- ◆ Radiation-tolerant design available: D12B6GRH

APPLICATIONS

- ◆ Wideband Communications and Networking
 - ◆ Microwave Receivers
 - ◆ Radar and Satellite Communications
- ◆ Electronic Warfare
- ◆ Software-defined Radio
- ◆ High Speed Test equipment
- ◆ 5G applications