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## Wideband IF Receiver Chip Provides Industry Leading Dynamic Range in a Highly Integrated Solution

*AD6676 "IF subsystem-on-a-chip" uses bandpass sigma delta A/D converter technology to digitize IF signals between 70 and 450 MHz with bandwidth up to 160 MHz.*

NORWOOD, Mass.--(BUSINESS WIRE)-- [Analog Devices, Inc.](http://www.analog.com) (NASDAQ: ADI) introduced today the AD6676 single chip wideband IF receiver subsystem, which allows designers of high-performance communications and instrumentation equipment to reduce the complexity of their receiver designs while simultaneously achieving frequency planning flexibility and industry leading instantaneous dynamic range. Watch a video about the AD6676 [www.analog.com/AD6676video](http://www.analog.com/AD6676video).

The enabling technology behind the performance of the AD6676 is a highly programmable continuous-time bandpass sigma delta A/D converter (CTBPSD) topology which combines highly programmable analog filtering functionality with high dynamic range conversion. The implementation in deep sub-micron CMOS allows the advantages of oversampling by providing digitized bandwidth of up to 160MHz. This provides a combination of features that enables "reconfigurable radio" architectures for high-performance heterodyne systems.

### AD6676 IF Subsystem-on-a-Chip Key Features

- Industry Leading Dynamic Range: can be configured to achieve a noise figure of 13 dB, IIP3=36dBm, noise spectral density (NSD) as low as -160 dBFS/Hz.
- Flexibility: can be configured for IF frequencies from 70 MHz up to 450 MHz, IF bandwidths from 20 MHz up to 160 MHz and input full scales from -14dBm to +10dBm. A unique profile feature allows the AD6676 to switch between up to four different IF and bandwidth configurations within 1 microsecond.
- Integration: CTBPSD architecture removes the need for IF SAW filters and gain blocks, significantly simplifying the interface to an RF mixer. The input provides a programmable digital attenuator, allowing gain control functionality with an easy-to-drive resistive interface. The AD6676 also includes a fully integrated clock synthesizer, digital down converter, and JESD204B serial interface. The net result is a receiver solution offering up to 70 percent board space savings.

Analog Devices is also providing a comprehensive set of tools to ease adoption of this advanced technology. In addition to datasheets, evaluation boards and online technical support, ADI has created a live remote hardware drive capability that allows customers to run experiments on the AD6676 in real time.

- Order samples, evaluation boards, download data sheets or experience the live remote hardware drive: <http://www.analog.com/AD6676>
- Connect with engineers and experts on EngineerZone™, ADI's online technical support community: [https://ez.analog.com/community/data\\_converters/high-speed\\_adcs](https://ez.analog.com/community/data_converters/high-speed_adcs)
- [Mouser](http://www.mouser.com) and [DigiKey](http://www.digikey.com) are stocking evaluation boards

### Pricing and Availability

Product	Availability	Temperature Range	Price Each Per 1K	Price Each	Packaging
AD6676BCBZRL	NOW	-40°C to 85°C	\$145.00		WLCSP
AD6676EBZ	NOW	N/A		\$395.00	Evaluation Board
HSC-ADC-EVALEZ	NOW	N/A		\$750.00	Data Capture Kit

### About Analog Devices

Innovation, performance, and excellence are the cultural pillars on which Analog Devices has built one of the longest standing, highest growth companies within the technology sector. Acknowledged industry-wide as the world leader in data conversion and signal conditioning technology, Analog Devices serves over 100,000 customers, representing virtually all types of electronic equipment. Celebrating over 40 years as a leading global manufacturer of high-performance integrated circuits used

in analog and digital signal processing applications, Analog Devices is headquartered in Norwood, Massachusetts, with design and manufacturing facilities throughout the world. Analog Devices' is included in the S&P 500 Index.

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