# RF Wideband Downconverter Solution from 100 kHz to 18 GHz

## Order-No.: DSD-18G-100  Series/Model: DC18G100




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### Main Product Features

- **100 kHz – 18 GHz Frequency Coverage**
- **3 Standard Selectable IF Bandwidths – 100 MHz, 40 MHz, 10 MHz**
- **3 Optional Selectable IF Bandwidths – 160 MHz, 80 MHz, 10 MHz**
- **9, 14, 18, or 21-Channel Switched Pre-Select Filter Bank and Pre-Amplifier**
- **Digitizer Options: 12-Bit, 3 GS/s or 16-bit, 200 MS/s, 500 MS/s or 1 GS/s**
- **Real-Time Data Capture to Digitizer Memory up to 8 GB or 16 GB**
- **Real-Time Data Capture to Data Storage System up to 76.8 TB**
- **Real-Time No Programming Spectrum Analyzer App: SpectraScopeRT**
- **Software SDKs verfügbar für C/C#, LabVIEW und MATLAB.**

GaGe wideband downconverters are wide frequency coverage receivers that feature a single RF input and 3 standard software selectable IF bandwidths, from 10 MHz to 100 MHz, or 3 optional software selectable IF bandwidths, from
10 MHz to 160 MHz. The carrier center frequencies can be tuned from 50 MHz to 27 GHz, using direct digitization below 50 MHz.

Full control and data acquisition support are provided via Mathworks' MATLAB, with example programs furnished to facilitate rapid signal processing and modulation analysis program development. Additional software includes a Spectrum Analyzer program,
SpectraScopeRT, and SDK and example programs for C/C# and LabVIEW

These downconverter models, featuring breakthrough frequency and bandwidth coverage for their size and cost, are available with 3 standard or 3 optional bandwidths, covering three frequency ranges from 100 kHz to 8 GHz, 18 GHz, or 27 GHz.

The downconverters feature bandwidths of 100 MHz (standard) or 160 MHz (optional) direct conversion (0 Hz IF) I and Q analog outputs. These wideband versions can be software configured for super

heterodyne mode with a bandwidth of either 40 MHz or 10 MHz (standard) on a single IF output centered at 35 MHz IF, or with a bandwidth of either 80 MHz (optional) on a single IF output centered at 55 MHz IF. These wideband products are engineered for analyzing wideband digital communications - cell phone standards 3G/4G/LTE, WiFi, or general Vector Signal Analysis (VSA) applications involving broadband signals.

The Downconverter RF front end is a unique architecture, consisting of both super-heterodyne and direct conversion technologies that are software selectable.

The front-end processing blocks utilize up to 21 preselect filters to mitigate input-related spurs and image responses.

### Applications

- **Communications R and D**
- **Communications Manufacturing Test**
- **Wireless Network Testing/Management**
- **Wideband Test and Measurement**
- **Government Spectrum Licensing and Monitoring**
- **Military Signals Intelligence (COMINT/SIGINT)**
- **Wideband Stimulus / Response Testing**
- **Radar Design and Test**
- **Medical Research**

## Manufacturer page

http://www.gage-applied.com/

### Data Sheet Download

Wideband-Downconverter-Systems-up-to-27-GHz (1.2 MiB)

Opening the Download-Files May require the Adobe-Acrobat-Reader.
Click here to download the Adobe-Acrobat-Reader.

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## *If you have questions please don't hesitate to contact us any time.*

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