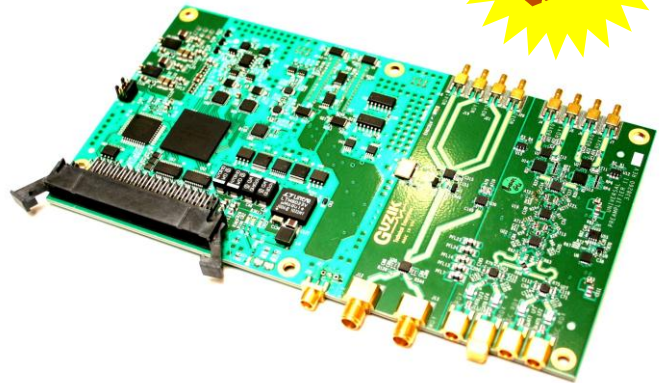


# GUZIK PRODUCT BULLETIN

## UNIVERSAL PREAMPLIFIER 11



- **Write channel with more than 8 Gbit/sec data speed**
- **DC to 3.2 GHz read channel bandwidth**
- **Works with Guzik High Data Rate Front End and HLM 2011 Headloader**
- **Dynamic TFC Control**

Universal Preamp 11 (UP11) is designed for new generation high data rate front end headamplifier and 2011 Headloader. With new Guzik RWA-4000 series UP11 allows to achieve the maximum write data rate 8 Gbit/sec. The bandwidth of read channel extends from DC to 3.2 GHz and allows for reading the perpendicular recording signals without losing DC components. UP11 is compatible with previous generation of Guzik RWA-2000 series.

### Universal Preamp 11 Specifications:

#### Write Channel

- More than 8 Gbit/sec write data speed
- 40 psec rise/fall time of write data (20-80%, typical)
- Positive +2.5V CML write data outputs

#### TFC Control

- Dual TFC Control Support
- Maximum TFC Voltage: 5V
- Fully programmable dynamic TFC Control using 12-bit D/A Converters
- Voltage and Current Measurements using 12-bit A/D Converters

#### Read Channel

- **Bandwidth: DC to 3.2 GHz at -3 dB**  
Flatness  $\pm 0.2$  dB to 1 GHz,  
 $\pm 0.5$  dB to 2 GHz
- **Output: Differential.**  
Nominal output level: 250 mV (single ended, 50 Ohm termination).
- **Typical Non-Linear Distortion: better than 1% (250 mV output level), full bandwidth**
- **Programmable GAIN: 30 dB in 0.5 dB Steps**



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