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## ***Viplax-II Technical Specification***

Rev01 20130802

**Input Amplifier:**

Input voltage range:  $\pm 1V$ ;  $\pm 2V$ ;  $\pm 5V$ ;  $\pm 10V$   
Voltage Gain: 20dB; 14dB; 6dB; 0dB  
The input range is selected from the receiver unit.

**A/D Converter:**

Digital Resolution: 14 bit  
Sampling Rate: 36 Msps  
Signal to Noise Ratio:  $> 73$  dB  
Integral Linearity Error:  $\pm 2.5$  LSB  
Differential Nonlinearity:  $\pm 1$  LSB

Further information: see the Analog Devices AD9244 data sheet.

**AntiAliasingFilter:**

*No internal filter, the desired behaviour is selected using external filters.*

3dB Frequency: approx. 10 MHz depending on the filter accuracy  
Nyquist frequency: 18 MHz

**Digital Signal Processing:**

Signal Latency:  $< 0.5$  ms  
System Bandwidth (3dB): typ. 10MHz, (up to the Nyquist frequency)  
System Status Bits: A/D Overflow, Battery Load Condition  
Link Fault, Gain selection

**Fiber Optics:**

Maximum Bit Stream Frequency: Approximately 1.5 Gbit  
Optical Wave Length: 850 nm  
Fiber Type: 62.5  $\mu\text{m}$  or 125  $\mu\text{m}$  core, multimode  
Connector: LC Type (duplex)  
Maximum Length: 300m / 10.000m (with repeater)

**D/A converter:**

Resolution: 14 bit  
Sampling Rate: 36 Msps.  
Spurious Free Dynamic Range:  $> 75$ dB.  
Integral Linearity Error:  $\pm 2.5$  LSB.  
Differential Nonlinearity:  $\pm 1.5$  LSB (typ).  
Further information: see the Analog Devices AD9764 data sheet.

**Output Amplifier:**

Output Voltage Range:  $\pm 10.0$  V  
Output Impedance: 50 Ohm.

**Voltage Supply:**

Receiver/Transmitter: 12 VDC / 1.2 A.