

OPM AB+X series

Preliminary

Broadband DC/AC-Coupled pulse Amplifiers

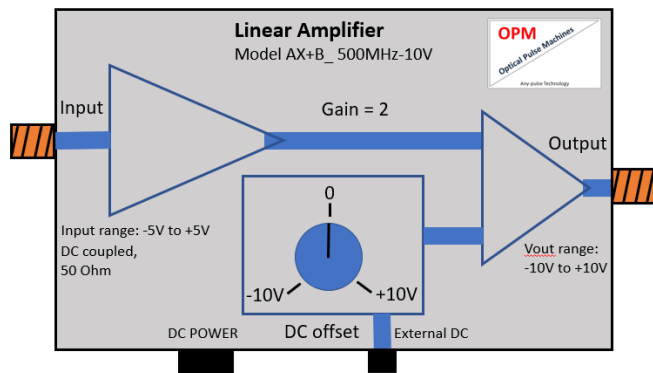
Highlights

- Two versions: Fixed gain (X2) DC to 500MHz or variable gain (X0.5 to X20) DC to 300MHz
- Output pulse-width down to 1ns
- Single or differential inputs
- Output pulse voltage: -10V to +10V
- DC offset control: -10V to +10V
- Output current up to 500mA
- Handles loads of 50 Ohm, High Z and heavy capacitive loads
- Operates at any duty cycle

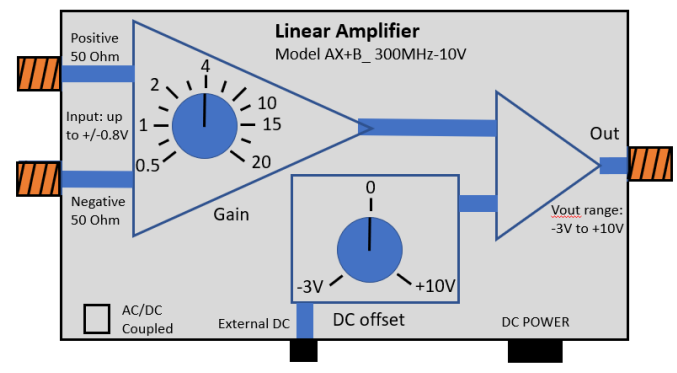
Product Applications

- Versatile high-speed logic Level conversion
- Increasing the amplitude of pulse and RF generators
- Variable gain amplifier with DC level shifting
- Mach-Zehnder modulator driver
- Laser diode driver – up to 500mA
- LIDAR systems tests
- Electro-optics labs
- Piezo driver

Model AX+B_500MHz-10V (fixed gain)



Model AX+B_300MHz-10V (variable gain)



Description

The OPM AX+B series includes two amplifier models. These DC-Coupled amplifiers provide solutions for lab setups or systems that operate in broad bandwidth and require large amplitudes.

Both amplifiers include an input stage, followed by a DC offset stage and an output stage.

The OPM AX+B_500MHz-10V has a fixed gain of (X2) and bandwidth of 500MHz. Pulses at the output can be as short as 1ns. The output stage is capable to drive voltages in the range of -10V to +10V and current up to 500mA.

In the OPM AX+B_300MHz-10V the gain is adjustable by a potentiometer (from X0.5 to X20) and the bandwidth is 300MHz. Pulses at the output can be as short as 1.5ns. The amplifier includes an AC/DC-coupling switch where in AC coupling state the low cutoff frequency is 1KHz. The amplifier can be used as a single-ended input (50 Ohm) or as a differential (100 Ohm) amplifier.

Both amplifiers include an external DC input. This allows DC offset correction in applications that require continues DC adjustments.

The amplifiers are powered by a desktop power supply (comes with the module).



Specifications / Technical Data

Parameter	AX+B_500MHz-10V	AX+B_300MHz-10V	Comments
Pulse width range	1ns to DC	1.5ns to DC	
Input type	Single ended, 50 Ohm	Single ended or differential, 50 Ohm each input	
Input coupling	DC coupled	AC/DC coupled	User defined by a switch
Input voltage range	-5V to +5V	-0.8V to +0.8V	
Gain	Fixed 2 *	0.5 to 20	* Change upon request
Frequency range	DC to 500MHz	DC to 300MHz	
Output slew rate limit	6V/ns	2V/ns	
Output voltage swing	-10V to +10V	-3V to +10V	
Output current	Up to 500mA		
Dimensions	99 X 65 X 35 mm		
Desktop power supply (included)	+5V, +12V, -12V	+5V, +12V, -5V	Includes an On/Off switch
Operating temperature range	0 to 50C		