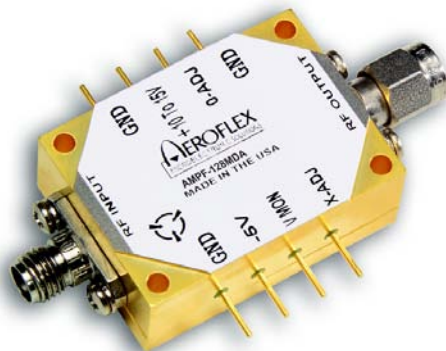


**AMPF-128MDA****12.5 Gb/s High Gain Modulator Driver Amplifier**

www.aeroflex.com/bband

February 24, 2005

**DESCRIPTION**

Aeroflex Plainview driver amplifiers are designed for use in fiber optic, telecommunication and automated test equipment applications. These high gain/low power amplifiers are perfect for driving lithium niobate (LiNbO<sub>3</sub>) modulators at levels up to 8Vp-p and provide low jitter and minimized propagation delay, making them an excellent choice for OC-192/STM-64 (SONET) systems.

Telcordia TR-NWT-930 Tested (Report available on request)

**SPECIFICATIONS****Absolute Maximum Ratings**

PARAMETER	MIN	MAX	UNITS
Input Voltage	-	1.5	Vp-p
Supply Voltage Positive	9.5	15	Vdc
Supply Voltage Negative	-4.5	-6	Vdc
Operating Temperature	-10	+70	°C
Storage Temperature	-20	+85	°C

**FEATURES**

- Less than 3 Watt power consumption for 6.5Vp-p out
- 50KHz to 15GHz
- Low internal jitter and minimized propagation delay
- Output voltage adjustable from 4 to 8Vp-p
- 35dB typical gain
- Limiting function to ensure high quality output signal, even with less than optimal input signal

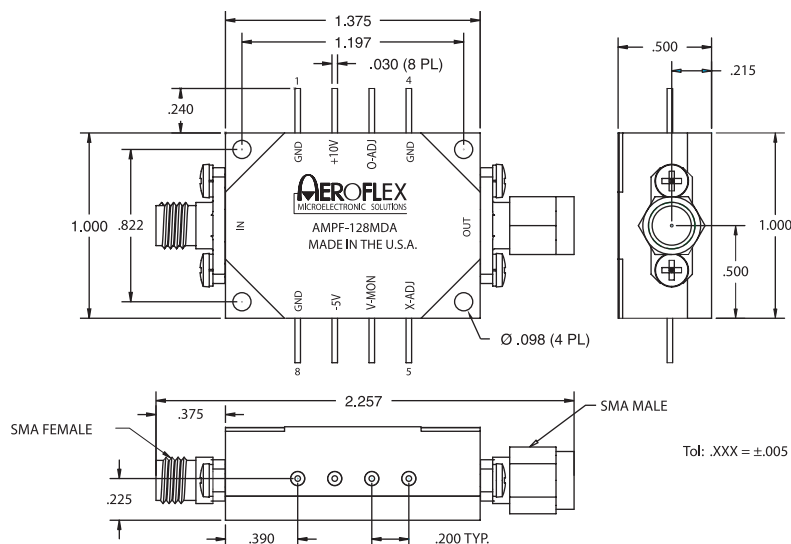
**Electrical Characteristics**

V+ = +10 ± 5V, V- = -5.0V ± 2.5V, TA = -10°C to +70°C - Min/Max limits only, V+ = +10V, V- = -5V, TA = +25°C - Typ readings only, Zin/Zout = 50Ω

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Bandwidth					
Low Frequency	3dB point	-	30	50	KHz
High Frequency	3dB point	-	15	-	GHz
Group Delay Flatness		-	±25	-	ps
Rise/Fall Time	10 - 90%	-	28	32	ps
Gain		28	35	40	dB
Output Voltage Swing	Input = 0.4Vp-p NRZ	4	7	8	Vp-p
Input Voltage		400	-	1000	mVp-p
Input Return Loss		10	11	-	dB
Output Overshoot		-	5	10	%
Output Eye Crossover		45	50	55	%
Symmetry					
Invert/Non-Invert			Invert		
Eye Crossing Adjust		-10	-	+10	%
Output Eye	Opening Vp-p in eye center 10ps	-	85	-	%
Supply Current					
+10V		-	300	450	mA
-5V		-	20	40	mA

Aeroflex Plainview

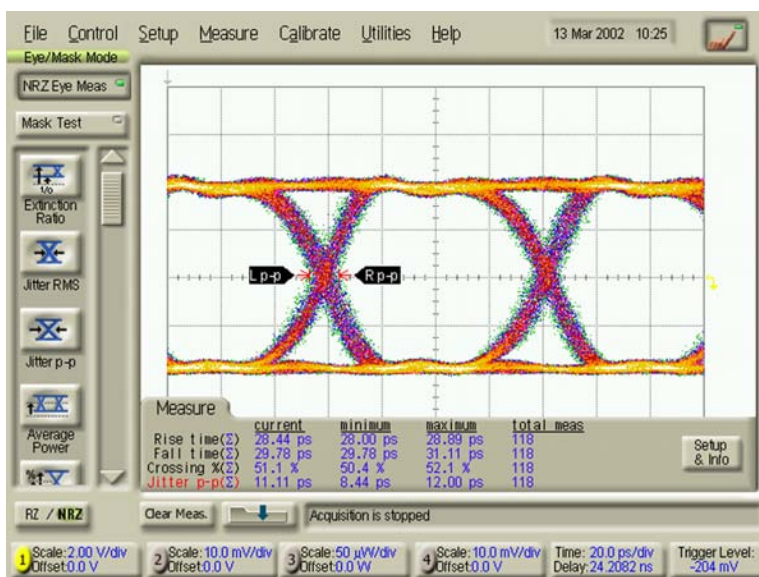
## PACKAGE OUTLINE



## PIN FUNCTION

PIN #	FUNCTION
1	GROUND
2	+10 to +15V
3	OUTPUT ADJUST
4	BIAS (OPTIONAL)
5	CROSSING ADJUST
6	VOLTAGE MONITOR
7	-5V
8	GROUND

## EYE PATTERN



## ORDERING INFORMATION

MODEL NUMBER	SPEED	PACKAGE
AMPF-128MDA	12.5 Gb/s	Multiple Package Outlines Available

**PLAINVIEW, NEW YORK**  
Toll Free: 800-THE-1553  
Fax: 516-694-6715

**INTERNATIONAL**  
Tel: 805-778-9229  
Fax: 805-778-1980

**NORTHEAST**  
Tel: 603-888-3975  
Fax: 603-888-4585

**SE AND MID-ATLANTIC**  
Tel: 321-951-4164  
Fax: 321-951-4254

**WEST COAST**  
Tel: 949-362-2260  
Fax: 949-362-2266

**CENTRAL**  
Tel: 719-594-8017  
Fax: 719-594-8468

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused