

PA010020-33 Octave Band Medium Power Amplifier 1.0 to 2.0GHz

PRELIMINARY DATA SHEET

www.aeroflex.com/bband



DESCRIPTION

Our new innovative Power Amplifier designs provide better performance and reliability at half the cost of traditional designs. Our team of engineers can custom design Power Amplifiers using latest CAD Simulation software to meet even the most demanding specifications.

FEATURES

- 2 Watt Output Power at 1 dB G.C.P.
- Low Noise - Less than 4dB
- 50% Cost Savings over Traditional Designs
- High Reliability and Better Thermal Performance
- Packaging – Hermetic / Non-Hermetic

SPECIFICATIONS

Absolute Maximum Ratings¹

PARAMETER	SYMBOL	MIN	MAX	UNITS
Operating Temperature – Case	T _{MO}	-40	+85	°C
Storage Temperature – Case	T _{MS}	-40	+125	°C
Negative Supply Voltage	V _{-SS}	-4.75	-15	V
Positive Supply Voltage	V _{+SS}	-	+18	V

1. Stresses above those listed under "Absolute Maximums Rating" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

Nominal Operating Conditions

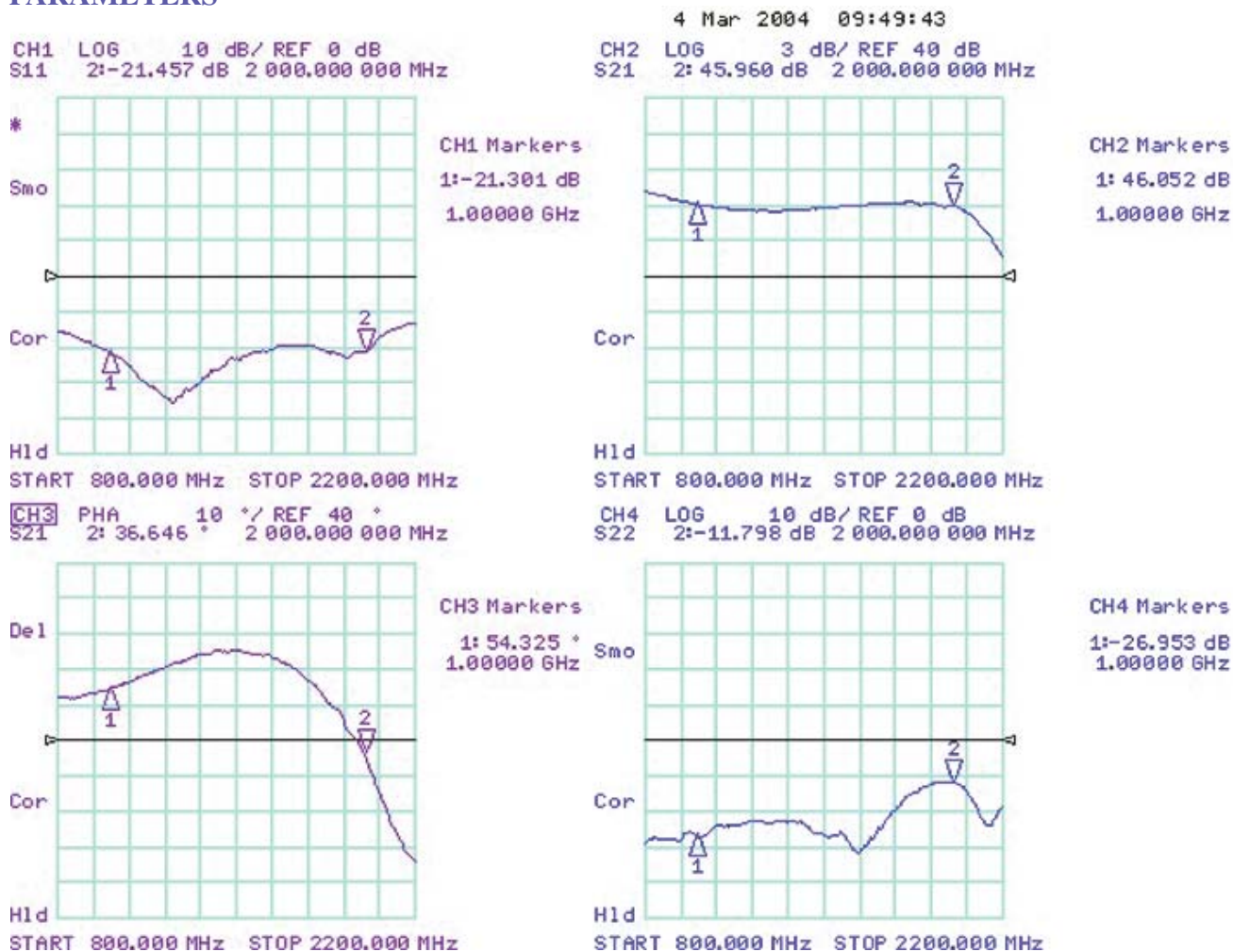
PARAMETER	CONDITIONS	MIN	MAX	UNITS
Temperature, T _O	Full Range	-40	+75	°C
Positive Supply Voltage, V _{PS}		+12	+15	V
Negative Supply Voltage, V _{NS}		-6.25	-5.75	V

SPECIFICATIONS

Electrical Characteristics

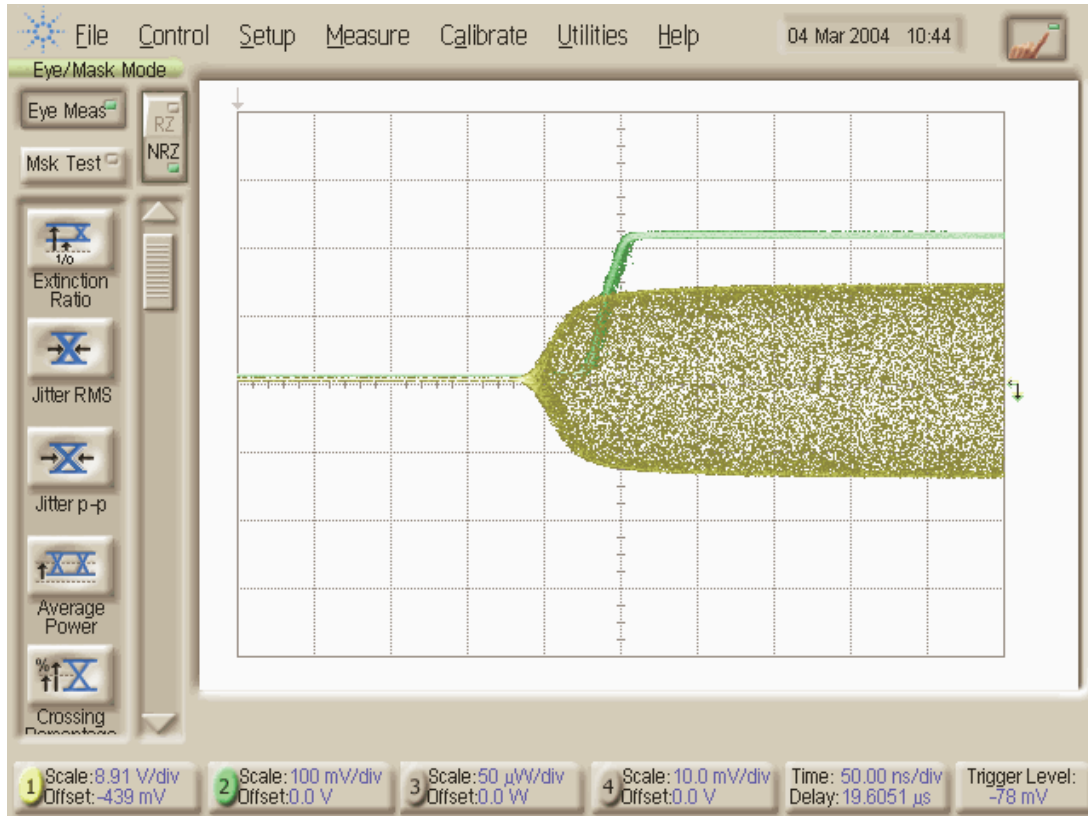
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
Frequency Range		1.0	-	2.0	GHz
Power Output	1dB GCP	+33	+34	+35	dBm
Gain		45	-	-	dB
Gain Flatness		-1	-	+1	dB
Noise Figure		-	-	4	dB
RF Input Return Loss	Reference to 50 ohms	-	1.5:1	2.0:1	
RF Output Return Loss	Reference to 50 ohms	-	1.5:1	2.0:1	
IP3		-	43	-	dBm
Fault Monitor Output (DET pin)					
TTL "0"	J2 < +28dBm	-	-	-	-
TTL "1"	J2 ≥ +28dBm	-	-	-	-
Supply Voltage					
Positive		+12	-	+15	V
Negative		-5	-6	-15	V
Supply Current					
+12v, +15V		-	950	-	mA
-6V		-	30	-	mA

S-PARAMETERS

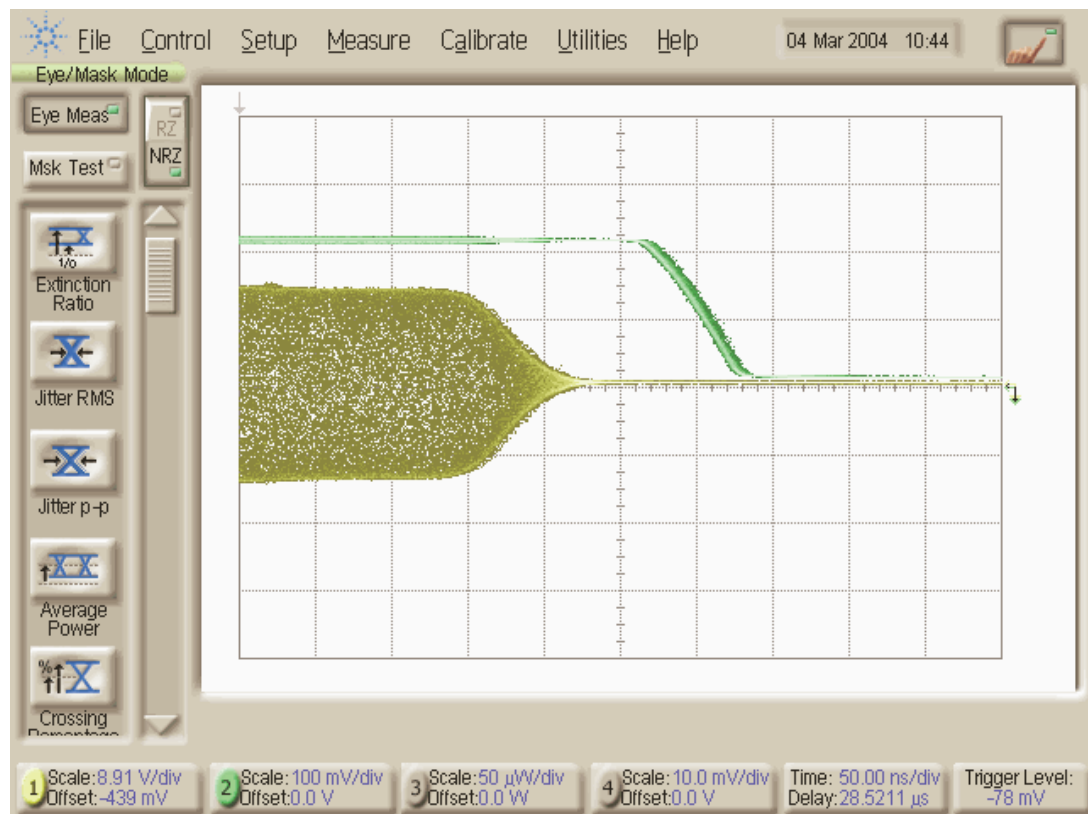


FAULT MONITOR RESPONSE TIME

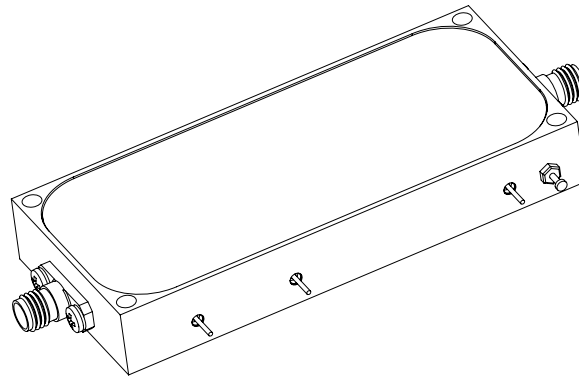
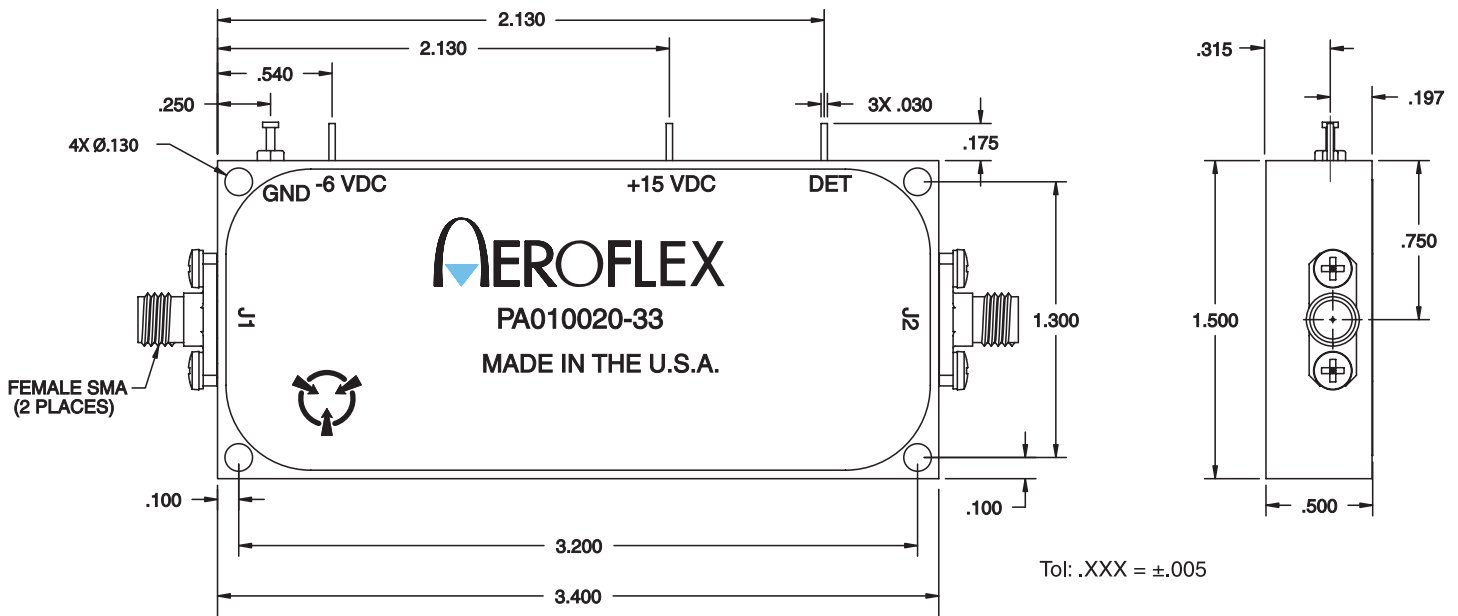
Response On Time



Response Off Time



OUTLINE DRAWING



MODEL NUMBER	HERMETICITY	PACKAGE
PA010020-33H	Hermetic	3.4L x 1.5W x .50Ht
PA010020-33	Non Hermetic	

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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