

Coaxial Pulse Amplifier

ZPUL-21

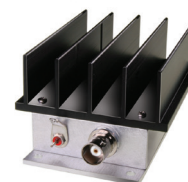
50Ω Inverting 0.0025 to 700 MHz

Features

- wideband, 2.5 KHz to 700 MHz, useable to 1000 MHz
- excellent flatness, ± 0.6 dB typ.
- can handle wide pulse width & (15μs typ.) with excellent rise/fall time (1.1 ns typ.)
- delay time, 1.5 ns typical
- protected by US Patent, 6,943,629

Applications

- computers
- digital communication
- medical test set-ups



CASE STYLE: S32

Connectors	Model	Price	Qty.
BNC	ZPUL-21	\$249.00 ea.	(1-9)

Pulse Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)		RISE/FALL TIME (ns)	PULSE WIDTH* (μs)	MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR (:1) Typ.		DC POWER	
	f_L	f_U	Min.	Max.	Max.	Max.	Output (1 dB Compr.)	Input (no damage)	NF** (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current (mA) Max.
ZPUL-21	0.0025	700	21	± 1.0	1.5	6	+22	+10	7.3	+34	2.0	2.0	24	350

* Pulse width for less than 10% droop.

** Noise Figure tested above 10 MHz.

Open load is not recommended, potentially can cause damage.

With no load derate max input power by 20 dB

Maximum Ratings

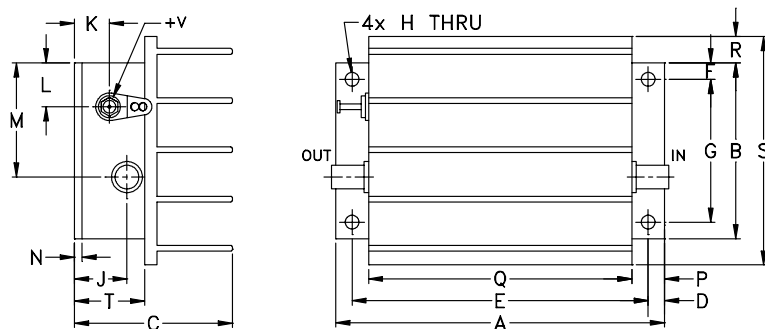
Operating Temperature -20°C to 65°C

Storage Temperature -55°C to 100°C

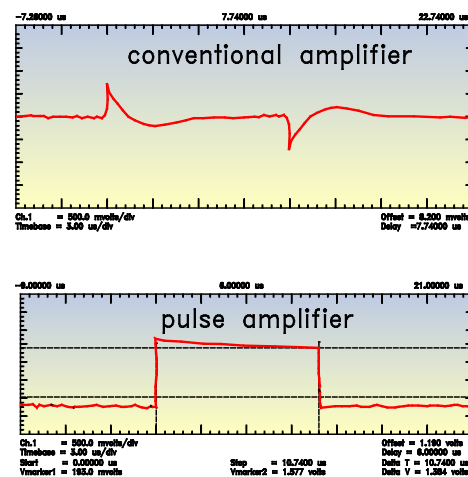
DC Voltage +24.5V Max.

Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



typical amplifier response to a pulse input



Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt
3.75	2.00	1.80	.19	3.375	.19	1.625	.144	.50	.40	.50	1.30	.10	.38	3.00	.30	2.60	.80	grams
95.25	50.80	45.72	4.83	85.73	4.83	41.28	3.66	12.70	10.16	12.70	33.02	2.54	9.65	76.20	7.62	66.04	20.32	220.0

Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.

C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



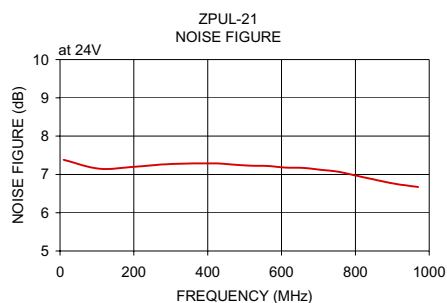
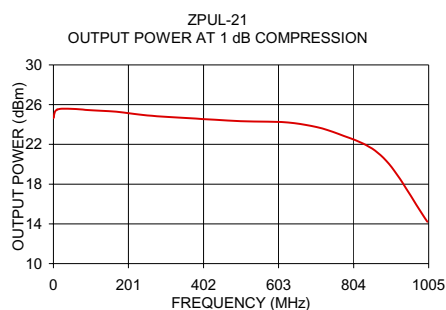
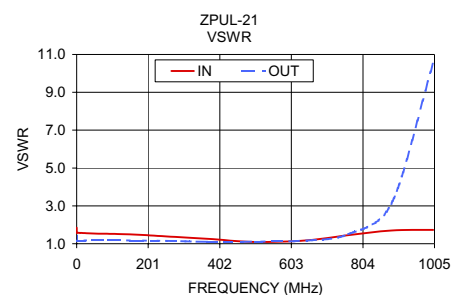
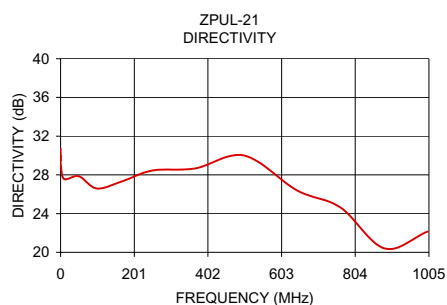
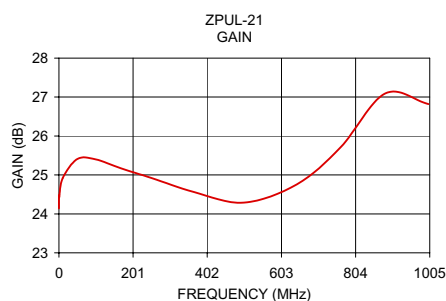
www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. OR
M98211
ZPUL-21
131009
Page 1 of 2

Typical Performance Data/Curves

ZPUL-21

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		POUT at 1 dB COMPR. (dBm)	FREQUENCY (MHz)	NOISE FIGURE (dB)
	24V	24V	IN	OUT	24V		24V
0.0025	24.14	30.72	1.85	1.40	24.63	10.00	7.38
0.01	24.47	29.52	1.61	1.20	24.76	106.00	7.15
0.05	24.42	29.95	1.58	1.18	24.70	202.00	7.20
1.01	24.43	28.89	1.58	1.17	24.82	298.00	7.27
10.08	24.92	27.56	1.57	1.17	25.50	418.00	7.29
50.00	25.41	27.85	1.54	1.18	25.58	466.00	7.26
98.88	25.40	26.60	1.52	1.18	25.44	514.00	7.23
167.88	25.17	27.34	1.48	1.17	25.30	562.00	7.22
251.25	24.92	28.45	1.39	1.15	24.91	610.00	7.18
366.25	24.56	28.65	1.26	1.10	24.64	658.00	7.17
501.38	24.29	30.00	1.09	1.11	24.34	706.00	7.12
645.13	24.76	26.40	1.18	1.17	24.14	754.00	7.07
763.00	25.71	24.64	1.45	1.50	23.06	802.00	6.97
883.75	27.09	20.40	1.70	3.10	20.65	898.00	6.77
1001.63	26.82	22.14	1.73	10.56	14.21	970.00	6.67



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

