

Coaxial

# Pulse Amplifier

# NON-CATALOG

## ZPUL-30P

50Ω Non-Inverting 0.0025 to 700 MHz

### Features

- wide bandwidth 2.5 kHz to 700 MHz, useable to 1000 MHz
- excellent flatness,  $\pm 0.6$  dB typ.
- can handle wide pulse width & (15 $\mu$ s typ.) with excellent rise/fall time (1.1 ns typ.)
- delay time, 1.5 ns typ.
- protected by US Patent, 6,943,629

### Applications

- computers
- digital communication
- medical test set-ups



CASE STYLE: S32  
Connectors Model  
BNC ZPUL-30P

### Pulse Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)		RISE/FALL TIME (ns)	PULSE WIDTH* ( $\mu$ s)	MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR (:1) Typ.		DC POWER	
	$f_L$	$f_U$	Min.	Flatness 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-30P	0.0025	700	29	$\pm 1.0$	1.5	6	+22***	+10	7.2	+34	2.0	2.0	24	400

\* 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

\*\*\* For 500-700 MHz, +20.5 dBm

### Maximum Ratings

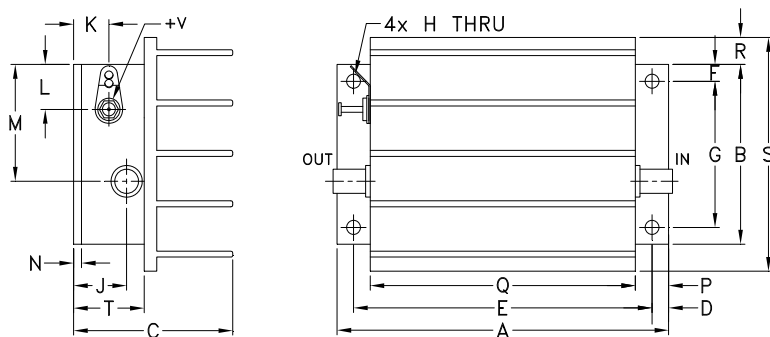
Operating Temperature -20°C to 65°C

Storage Temperature -55°C to 100°C

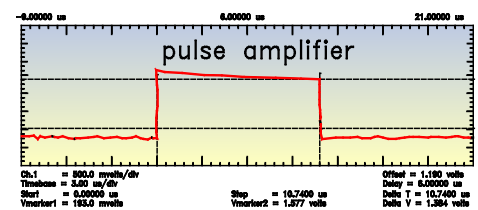
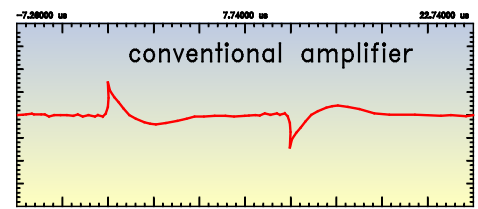
DC Voltage +24.5V Max.

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

- 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.
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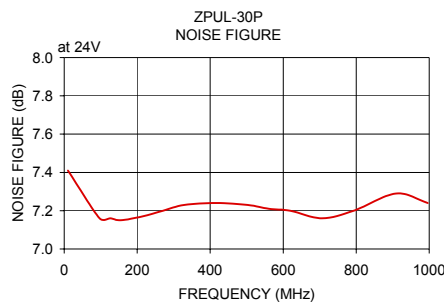
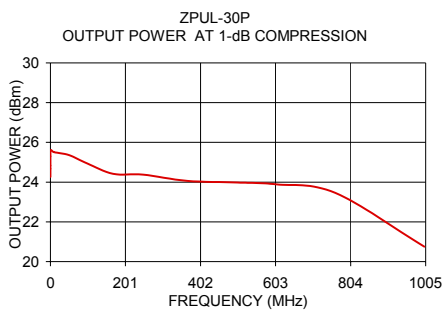
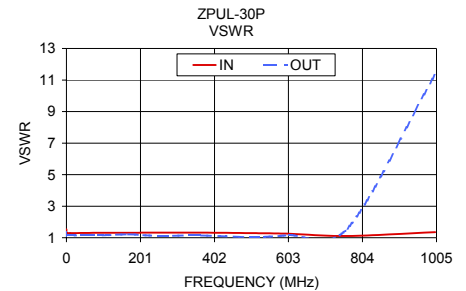
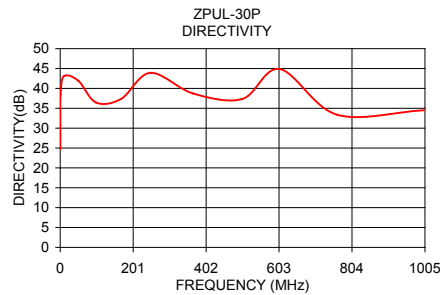
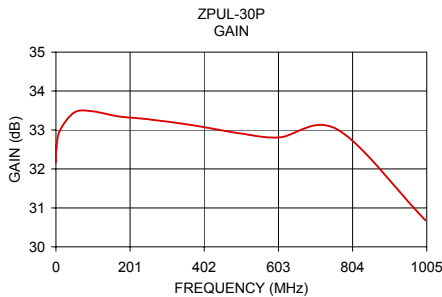
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ZPUL-30P  
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# NON-CATALOG

## Typical Performance Data/Curves

## ZPUL-30P

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	32.16	31.30	1.53	1.39	24.26	10.00	7.41
0.01	32.60	24.83	1.32	1.17	24.67	97.00	7.16
0.05	32.49	30.45	1.30	1.15	24.83	126.00	7.16
0.12	32.47	32.68	1.31	1.14	25.30	155.00	7.15
1.11	32.51	38.52	1.30	1.14	25.61	213.00	7.17
10.17	32.98	43.08	1.29	1.14	25.51	271.00	7.20
50.00	33.45	41.90	1.30	1.15	25.36	329.00	7.23
98.88	33.48	36.43	1.31	1.15	24.94	416.00	7.24
167.88	33.35	37.37	1.31	1.21	24.42	503.00	7.23
248.38	33.28	43.92	1.32	1.12	24.38	561.00	7.21
366.25	33.13	38.72	1.32	1.14	24.06	619.00	7.20
501.38	32.91	37.33	1.29	1.04	23.98	706.00	7.16
604.79	32.81	44.85	1.25	1.16	23.89	793.00	7.20
763.00	33.01	33.38	1.11	1.57	23.46	909.00	7.29
1001.63	30.68	34.50	1.35	11.38	20.75	996.00	7.24



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