

ZL3P15M620-400

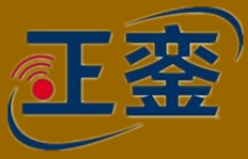
Dual Band RF Amplifier for NMR

- The new ZhengLuan ZL3P15M620-400 is a single, low-cost drop-in replacement for four different Herley/AMT 3900 models (3900-1S4, 3900-1S7, 3900B-15B, 3900C-12)
- Published specifications equal to or better than equivalent Herley/AMT amps, including wider bandwidth, lower noise figure, lower blanked noise, longer pulse widths
- 100% compatible interface and connections
- Mechanically equivalent
- Low band 15-320MHz, 300W PEP
Low band 30-120MHz, 5W PEP
High band 300-620MHz, 100W PEP
- These amplifiers are ready for use in a range of NMR systems, including the Varian Unity, Mercury and Inova systems. Can also be used in Bruker spectrometers.



Key Specifications

	Channel A	Channel B	
Bandwidth	300-620MHz	15-320MHz	30-120MHz
PEP@0dBm in	100W	330W	5W
Max.pulse width	250ms	25ms	25ms
Max.duty cycle	20%	20%	20%
Power in CW mode	15W	30W	5W



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Model	ZL3P15M620-400		Maximum duty-cycle	20%, both channels	Blanking pulse duty-cycle, internally limited
Amplifier type	Class AB,LDMOS		Phase change over linear output power range	20° maximum, both channels	
Frequency range Channel A Channel B	300-620MHz 15-320MHz / 30-120MHz	Handed over by switch	Phase shift over pulse width	6° maximum, both channels	At 25ms pulse width
Pulse power Channel A Channel B	100W minimum 330W minimum	Across full frequency range	Blanking delay	2.2 μ s maximum, both channels	
CW power Channel A Channel B	15W minimum 30W minimum	Into a 50 Ω load	Protection	Input overdrive, over duty, over pulse width, over temperature, input and output power measurement	All protection is self-resetting upon correction of the fault
Linearity Channel A Channel B	±0.7dB from 0.08-80W ±0.7dB from 0.25-250W		Connectors	RF input: BNC (F) ×2 RF output: N-type (F) ×2 Noise blanking: BNC (F) ×2 Interface: D25 (F)	All connectors are on the rear panel in the standard configuration. Front panel connectors are available as option
Amplitude droop Channel A Channel B	5% maximum 5% maximum	at 250ms, 80W at 25ms, 200W	Front panel LED indicators	DC supply status Over pulse width/duty cycle Over input Over temperature CW mode active (×2)	
Pulse width	25ms maximum, both channels	Blanking pulse width, internally limited	Cooling	Forced air, front to rear	
Amplitude rise time Channel A Channel B	150ns maximum 400ns maximum		Operating ambient temperature	0-50°C	
Input VSWR	2:1 maximum, both channels		AC supply	110-240V AC, 50-60Hz universal input	Standard IEC mains inlet
Output noise Blanked	15dB over thermal, maximum, both channels		AC supply rating Size	5.25"H × 19"W × 25.6"D	
Noise figure	15dB maximum, both channels				
Max .RF input level	0dB, both channels				