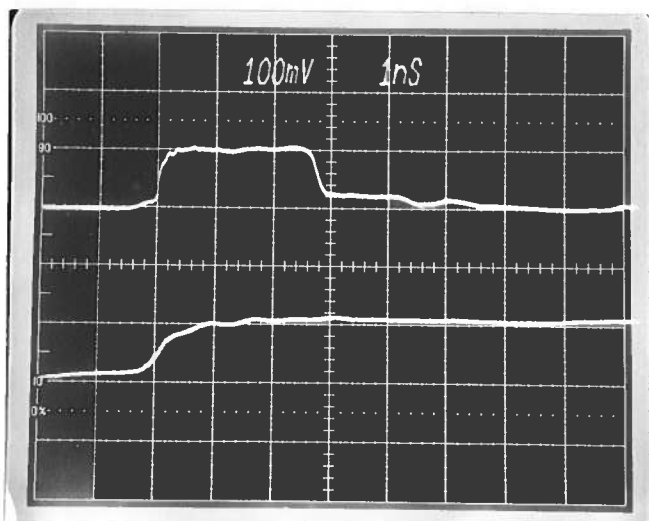


PULSE GENERATOR  
PERFORMANCE CHECK

Model: *MP-MU-1-B-A*

S.N.: *10508*

Date: *JAN 30 2003*



- a) Output signal amplitude:  
*0 to +10V<sub>0.43</sub> (70 50%)*
- b) Pulse width:  
*0.4 to 4.0 ns*
- c) Rise time:  
*≤ 200 ps*
- d) Fall time:  
*≤ 200 ps*
- e) PRF:  
*0 to 100 MHz*
- f) Jitter, stability:  
*OK*
- g) Prime power:

*40 dB ATTEN*

*-10 V<sub>0.43</sub>/DIV*

*TOP 1 ns/DIV*

*Bot. 200 ps/DIV (RISE TIME)*

*100 ± 10V<sub>0.43</sub>*

*50-60 Hz*



# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
SINCE 1975

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U.S.A. 13669-0265  
TEL: (315) 472-5270  
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FAX: 1-800-561-1970

e-mail: info@avtechpulse.com  
http://www.avtechpulse.com

BOX 5120, LCD MERIVALE  
OTTAWA, ONTARIO  
CANADA K2C 3H4  
TEL: (613) 226-5772  
FAX: (613) 226-2802

## "-B" Functional Test & Calibration Certificate

Date of test:	January 30, 2003				Tester:	MJC
Programmed model name:	AVP-AV-1-B-P					
Programmed serial number:	10508					
Firmware revision:	2.45					
Internal trigger checked at:	1 Hz	100 Hz	1 kHz	100 kHz	1 MHz	
Actual measured output <sup>1</sup> :	1.007 Hz	100.4 Hz	1.004 kHz	100.1 kHz	1.006 MHz	
External trigger checked:	yes			Gate checked:	yes	
Manual trigger checked:	yes					
Pulse compression checked:	yes	Low Amplitude PW Distortion Nulled:			N/A	
Pulse width checked at:	0.5 ns	1 ns	2 ns	4 ns	100 kHz, +10V	
Actual measured output <sup>2</sup> :	0.52 ns	1.0 ns	2.0 ns	4.0 ns	to 50 Ohms	
PWin = PWout mode checked:	N/A			DC mode checked:	N/A	
Duty Cycle Limit:	N/A					
Delay nulled:	yes					
Delay checked at:	100 ns	200 ns	500 ns		100 kHz, +10V	
Actual measured output <sup>1</sup> :	98.7 ns	203 ns	506 ns		to 50 Ohms	
Double pulse checked:	N/A					
Invert mode checked:	N/A					
ECL/TTL modes checked:	N/A					
Zout switch checked:	N/A					
Amplitude checked at:	+1V	+3V	+5V	+10V	100 kHz, 2 ns	
Actual measured output <sup>2</sup> :	+1.0V	+3.1V	+5.1V	+10.0V	PW, 50 Ohms	
Amplitude polarity:	+					
Zout calibration:	N/A					
Electronic amplitude control:	N/A					
External amplify mode:	N/A					
Bleeder resistors adequate:	N/A					
Ultraviolet flux removed:	N/A					
Monitor V/I Ratio:	N/A			Monitor offset nulled:		
LCD Monitor calibrated:	N/A					
Offset checked at:	N/A					
Actual measured output <sup>2</sup> :	N/A					
Offset nulled (output on):	N/A					
Offset nulled (output off):	N/A					
RS-232 checked:	yes					
LCD pull-ups installed:	yes					
PN trigger pull-downs installed:	N/A					
PW stable during amplitude changes:	N/A					
Sync pulse width checked:	200 ns nom					
Circuit Boards:	PS:	93	Main:	108G		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	N/A		
DC fuses:	Positive:	N/A	Negative:	N/A		
AC Current at 115 VAC:	Quiescent:	0.34A (100V)	Max. Load:	0.40A (100V)		
AC fuse:	1A					
120/240V operation:	100/200V OK	Fan operational:			yes	
Photographed:	yes					

<sup>1</sup> Checked with: Fluke PM6681 Counter (S/N 9446 066 81016),  
referenced to Datum ExacTime 9390-6000 (S/N 4461) GPS Frequency Reference

<sup>2</sup> Checked with: Tektronix TDS3052 digital oscilloscope (S/N B014783) for PW ≥ 5 ns,  
Tektronix 7704A/7S11/7T11/S4 sampling oscilloscope system (Cal. Label 112506) for PW < 5 ns.