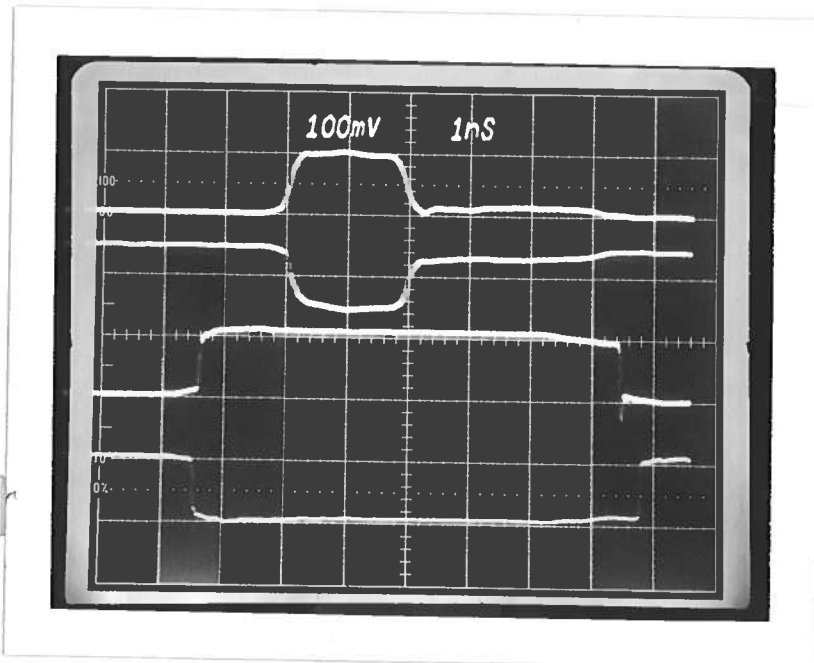


PULSE GENERATOR  
PERFORMANCE CHECK

Model: AVPP-1-B-P-PN-M-OT

S.N.: 10397

Date: Sept. 26, 2002



a) Output Signal Amplitude: 0 to  $\pm 10V$

b) Pulse Width: 0.2 - 100 ns

c) Rise Time:  $< 200ps$  for  $PW \leq 5ns$   
 $< 100ps$  for  $PW > 5ns$

d) Fall Time:  $< 200ps$  for  $PW \leq 5ns$   
 $< 135ps$  for  $PW > 5ns$

e) PRF: 0 - 1 MHz

f) Jitter, Stability: ok

g) Prime Power: 120/240V,  
50-60 Hz

40dB atten,  $\therefore 10V/div$

Waveforms:

#1: 2 ns PW, 1 ns/div, +10V

#2: 2 ns PW, 1 ns/div, -10V

#3: 35 ns PW, 5 ns/div, +10V

#4: 35 ns PW, 5 ns/div, -10V

PRF = 100 kHz



**AVTECH ELECTROSYSTEMS LTD.**  
 NANOSECOND WAVEFORM ELECTRONICS  
 SINCE 1975

P.O. BOX 265  
 OGDENSBURG, NY  
 U.S.A. 13669-0265  
 TEL: (315) 472-5270  
 FAX: (613) 226-2802

TEL: 1-800-265-6681  
 FAX: 1-800-561-1970

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

P.O. BOX 5120 STN. F  
 OTTAWA, ONTARIO  
 CANADA K2C 3H4  
 TEL: (613) 226-5772  
 FAX: (613) 226-2802

## "-B" Functional Test & Calibration Certificate

Date of test:	September 26, 2002				Tester:	MJC
Programmed model name:	AVPP-1-B-P-PN-M-OT					
Programmed serial number:	10397					
Firmware revision:	2.42					
Internal trigger checked at:	1 Hz	100 Hz	1 kHz	100 kHz	1 MHz	
Actual measured output <sup>1</sup> :	1.002 Hz	100.2 Hz	1.003 kHz	99.60 kHz	0.999 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:	1 ns	10 ns	50 ns	100 ns	100 kHz, +10V	
Actual measured output <sup>2</sup> :	1.0 ns	9.7 ns	50 ns	100 ns	to 50 Ohms	
PWin = PWout mode checked:	N/A			DC mode checked:	N/A	
Duty Cycle Limit:	10%					
Delay nulled:	yes					
Delay checked at:	100 ns	200 ns	500 ns	100 kHz, +10V		
Actual measured output <sup>1</sup> :	100.2 ns	202 ns	505 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:	2 ns, -10V	2 ns, +10V	100 ns, -10V	100 ns, +10V	100 kHz, to 50 Ohms	
Actual measured output <sup>2</sup> :	-9.8V	+10.0V	-10.1V	+10.2V		
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:	20 dB		Monitor offset nulled:			
LCD Monitor calibrated:	N/A					
Offset checked at:	-5V	0V	+5V	into 50 Ohms		
Actual measured output <sup>2</sup> :	-4.99V	0.00V	+5.00V			
Offset nulled (output on):	yes		Amplitude-dependent offset nulled:			N/A
Offset nulled (output off):	N/A					
RS-232 checked:	yes					
LCD pull-ups installed:	yes					
PN trigger pull-downs installed:	yes					
PW stable during amplitude changes:	yes					
Sync pulse width checked:	yes, 200 ns nom					
Circuit Boards:	PS:	93	Main:	108E		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	N/A		
DC fuses:	Positive:	N/A	Negative:	N/A		
AC Current at 115 VAC:	Quiescent:	0.45A	Max. Load:	0.52A		
AC fuse:	1A					
120/240V operation:	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.