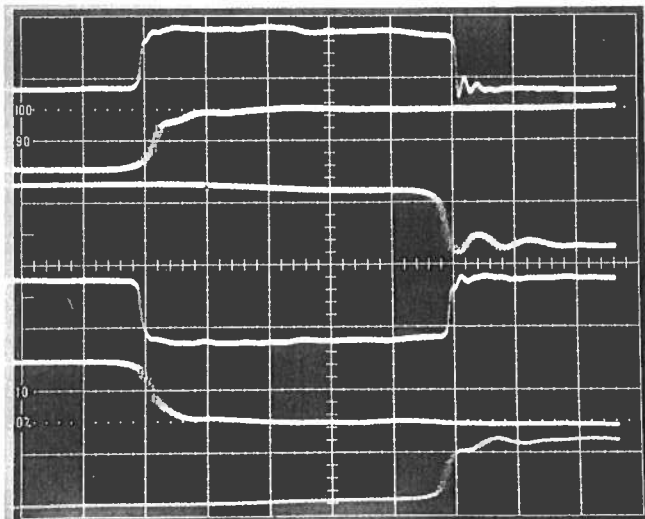


PULSE GENERATOR
PERFORMANCE CHECK

Model: AVMP-3-B-EA-EO-PN

S.N.: 10370

Date: October 28, 2002



From top to bottom:

Waveform 1: +20V, 10 ns PW. 2 ns/div, 20V/div.

Waveform 2: Leading edge of waveform 1, 500 ps/div, 20 V/div.

Waveform 3: Trailing edge of waveform 1, 500 ps/div, 20 V/div.

Waveform 4: -20V, 10 ns PW. 2 ns/div, 20V/div.

Waveform 5: Leading edge of waveform 4, 500 ps/div, 20 V/div.

Waveform 6: Trailing edge of waveform 4, 500 ps/div, 20 V/div.

- a) Output Signal Amplitude: 0 to $\pm 20V$,
to $R_L = 50\Omega$
- b) Pulse Width: 8 - 100 ns
(10% max. duty cycle)
- c) Rise Time: ≤ 200 ps
- d) Fall Time: ≤ 300 ps
- e) PRF: 0 - 1 MHz
- f) Jitter, Stability: OK

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

A handwritten signature in black ink, consisting of several loops and a long vertical stroke.

AVTECH**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:	October 28, 2002				Tester:	MJC
Programmed model name:	AVMP-3-B-EA-EO-PN					
Programmed serial number:	10370					
Firmware revision:	2.44					
Internal trigger checked at:	1 Hz	100 Hz	1 kHz	100 kHz	1 MHz	
Actual measured output ¹ :	0.997 Hz	99.7 Hz	0.997 kHz	100.2 kHz	1.008 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:	8 ns	20 ns	50 ns	100 ns	50 kHz, +20V	
Actual measured output ² :	8.1 ns	20 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		50 kHz, +20V	
Actual measured output ¹ :	99.4 ns	202 ns	507 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:	+5V	+20V	-5V	-20V	50 kHz, 100 ns	
Actual measured output ² :	+5.0V	+20.0V	-5.0V	-20.0V	to 50 Ohms	
Amplitude polarity:	+/-					
Zout calibration:	N/A					
Electronic amplitude control:	OK (EA and EO)					
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:	-5V	0V	+5V		into 50 Ohms	
Actual measured output ² :	-4.98V	0.00V	+4.99V			
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:	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:	0.46A	Max. Load:	0.55A		
AC fuse:	1A					
120/240V operation:	OK			Fan operational:		
Photographed:	yes					

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

² 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.