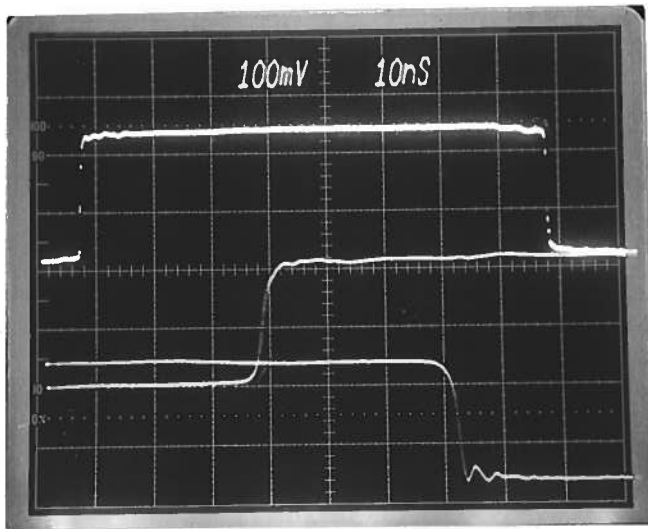


PULSE GENERATOR  
PERFORMANCE CHECK

Model: AVMP-3-B-P-0T-EVA-R5

S.N.: 10614

Date: MAY 27 2003



- a) Output signal amplitude:  
0 TO +20 VOLTS (TO 50Ω)
- b) Pulse width:  
8 TO 100 NS
- c) Rise time:  
≤ 200 ps
- d) Fall time:  
≤ 300 ps
- e) PRF:  
0 TO 1.0 MHz.
- f) Jitter, stability:  
OK
- g) Prime power:  
120/240 Volts  
50-60 Hz.
- h) DC OFFSET:  
0 TO ±10 VOLTS  
200 mA MAX.

40dB ATTEN: -10 VOLTS/DIV

TDP 10 NS/DIV

MMID 1 NS/DIV  
(RISE TIME)

BIT 1 NS/DIV  
(FALL TIME)

PRF = 100 KHz

DC OFFSET 0 VOLTS.



# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
SINCE 1975

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BOX 5120, LCD MERIVALE  
OTTAWA, ONTARIO  
CANADA K2C 3H4  
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## "-B" Functional Test & Calibration Certificate

Date of test:	May 27, 2003				Tester:	MJC
Programmed model name:	AVMP-3-B-P-OT-ELA-R5					
Programmed serial number:	10614					
Firmware revision:	2.47					
Internal trigger checked at:	1 Hz	100 Hz	1 kHz	10 kHz	1 MHz	
Actual measured output <sup>1</sup> :	1.008 Hz	100.3 Hz	1.003 kHz	9.983 kHz	1.006 MHz	
External trigger checked:	OK			Gate checked:	yes	
Manual trigger checked:	yes					
Pulse compression checked:	yes	Low Amplitude PW Distortion Nulled:			N/A	
Pulse width checked at:	8 ns	25 ns	50 ns	100 ns	100 kHz, +20V	
Actual measured output <sup>2</sup> :	8 ns	25.2 ns	50.5 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, +20V		
Actual measured output <sup>1</sup> :	97.9 ns	200 ns	508 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:	+2V	+5V	+10V	+20V	100 kHz, 100 ns to 50 Ohms	
Actual measured output <sup>2</sup> :	+2.0V	+4.9V	+10.0V	+20.0V		
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:	-10.0V	0V	+10V	into 50 Ohms		
Actual measured output <sup>2</sup> :	-10.0V	0.00V	+10.1V			
Offset nulled (output on):	yes			Amplitude-dependent offset nulled:		
Offset nulled (output off):	yes			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					
Circuit Boards:	PS:	93	Main:	108G		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	12k		
DC fuses:	Positive:	0.5A	Negative:	N/A		
AC Current:	Quiescent:	0.358A@115V 0.169A@230V	Max. Load:	0.460A@115V 0.218A@230V		
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.