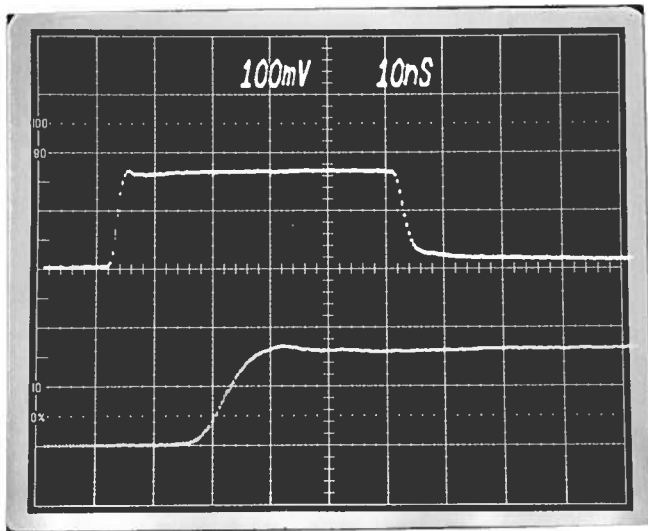


PULSE GENERATOR  
PERFORMANCE CHECK

Model: *AVL-2A-B-PN-05*

S.N.: *10594*

Date: *MAY 04 2003*



- a) Output signal amplitude: *0 TO ±170 VOLTS*
- b) Pulse width: *(00 50 NS)*  
*3 TO 100 NS*
- c) Rise time: *≤ 2 NS*
- d) Fall time: *≤ 3 NS*
- e) PRF: *0 TO 5 KHz.*
- f) Jitter, stability: *OK*

*60 dB ATTN - 100V/DIV*

*TOP: 10 NS/DIV*

*BOT: 2 NS/DIV*  
*(RISE TIME)*

*PRF = 5 KHz.*

- g) Prime power: *100 ± 10 VOLTS*  
*50 to 60 Hz.*



**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 5, 2003				Tester:	MJC
Programmed model name:	AVL-2A-B-OS-PN					
Programmed serial number:	10594					
Firmware revision:	2.46					
Internal trigger checked at:	5 Hz	50 Hz	500 Hz	5 kHz		
Actual measured output <sup>1</sup> :	4.98 Hz	49.8 Hz	498 Hz	5.00 kHz		
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:	3 ns	10 ns	50 ns	100 ns	1 kHz, +170V, FWHM	
Actual measured output <sup>2</sup> :	3.1 ns	10.2 ns	50.3 ns	101 ns		
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			
Actual measured output <sup>1</sup> :	101 ns	201 ns	507 ns	1 kHz, +170V 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:	-20V	+50V	-100V	+150V	1 kHz, 100 ns to 50 Ohms	
Actual measured output <sup>2</sup> :	-21V	+50V	-99V	+150V		
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			Amplitude-dependent offset nulled:		
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:	yes					
Sync pulse width checked:	200 ns nom					
Circuit Boards:	PS:	93	Main:	108G		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	22k		
DC fuses:	Positive:	0.5A	Negative:	N/A		
AC Current:	Quiescent:	0.333A@100V 0.177A@220V	Max. Load:	0.362@100V 0.191A@220V		
AC fuse:	1A					
120/240V operation:	see above			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.