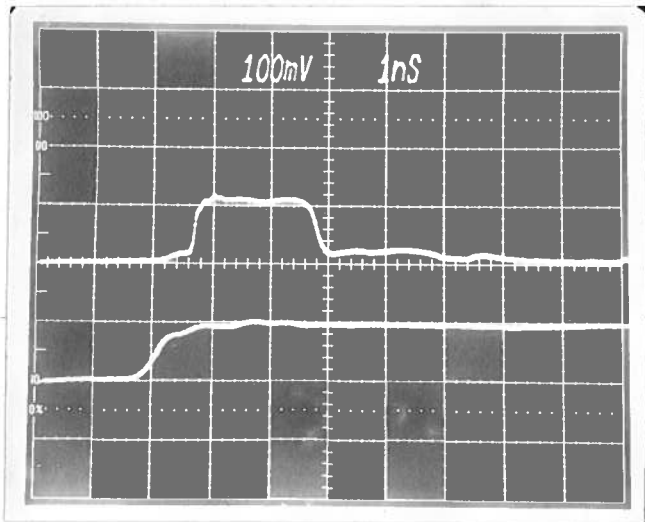


PULSE GENERATOR
PERFORMANCE CHECK

Model: *AVP-AV-1-B-P*

S.N.: *10507*

Date: *JAN 30 2003*



- a) Output signal amplitude:
0 TO +10V (TO 50Ω)
- b) Pulse width:
0.4 TO 4.0 NS
- c) Rise time:
≤ 200 ps
- d) Fall time:
≤ 200 ps
- e) PRF:
0 TO 1.0 MHz
- f) Jitter, stability:
OK
- g) Prime power:

100 ± 10 VOLTS
50⁺ - 60 dB

[Signature]

40 dB ATTEN
10 VOLTS/DIV
TOP 1 NS/DIV
BOT 200 ps/DIV
(RISE TIME)



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
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"-B" Functional Test & Calibration Certificate

Date of test:	January 30, 2003				Tester:	MJC
Programmed model name:	AVP-AV-1-B-P					
Programmed serial number:	10507					
Firmware revision:	2.45					
Internal trigger checked at:	1 Hz	100 Hz	1 kHz	100 kHz	1 MHz	
Actual measured output ¹ :	0.998 Hz	99.8 Hz	0.998 kHz	100.3 kHz	1.029 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 ² :	0.54 ns	1.06 ns	2.1 ns	4.2 ns	to 50 Ohms	
PW _{in} = PW _{out} 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 ¹ :	99.2 ns	203 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:	+1V	+3V	+5V	+10V	100 kHz, 2 ns	
Actual measured output ² :	+1.1V	+3.0V	+5.0V	+9.9V	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 ² :	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:	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					

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.