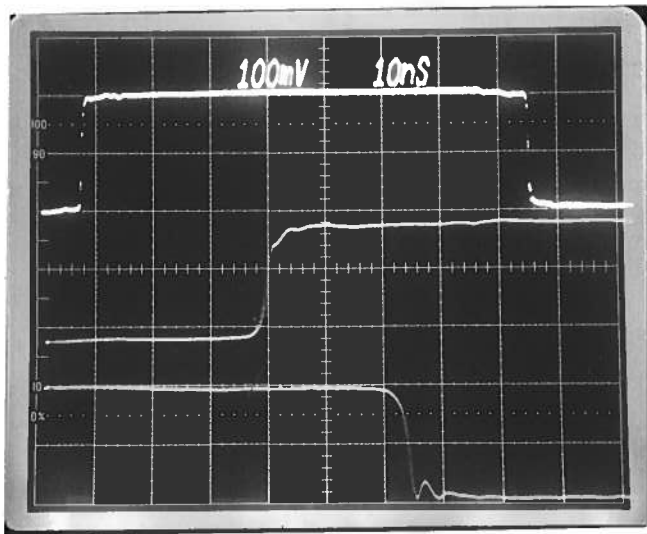


PULSE GENERATOR
PERFORMANCE CHECK

Model: *AMP-3-BP-0T-GA-R5*
 S.N.: *10613*
 Date: *MAY 23 2003*



- a) Output signal amplitude:
0 TO +20 VOLTS (TO 50%)
- 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 V
50-60 Hz

40 dB ATTN.: 10 VOLTS/DIV

TOP 10 NS/DIV

MID 1 NS/DIV
(RISE TIME)

BOT 1 NS/DIV
(FALL TIME)

PRF = 100 kHz

DC OFFSET : 0 VOLTS

- h) DC OFFSET:
0 TO ± 10 VOLTS
200 mA MAX.

[Signature]



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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FAX: (613) 226-2802

e-mail: info@avtechpulse.com
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"-B" Functional Test & Calibration Certificate

Date of test:	May 23, 2003				Tester:	MJC
Programmed model name:	AVMP-3-B-P-OT-ELA-R5					
Programmed serial number:	10613					
Firmware revision:	2.47					
Internal trigger checked at:	1 Hz	100 Hz	1 kHz	10 kHz	1 MHz	
Actual measured output ¹ :	1.007 Hz	100.3 Hz	1.003 kHz	9.990 kHz	1.009 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 to 50 Ohms	
Actual measured output ² :	8.0 ns	25.3 ns	50.3 ns	100 ns		
PW _{in} = PW _{out} 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 to 50 Ohms		
Actual measured output ¹ :	99.2 ns	202 ns	504 ns			
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 ² :	+2.0V	+5.0V	+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 ² :	-10.0V	0.001V	+10.1V			
Offset nulled (output on):	yes		Amplitude-dependent offset nulled:		N/A	
Offset nulled (output off):	yes					
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:	0.382A@115V 0.181A@230V	Max. Load:	0.490A@115V 0.235A@230V		
AC fuse:	1A					
120/240V operation:	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.