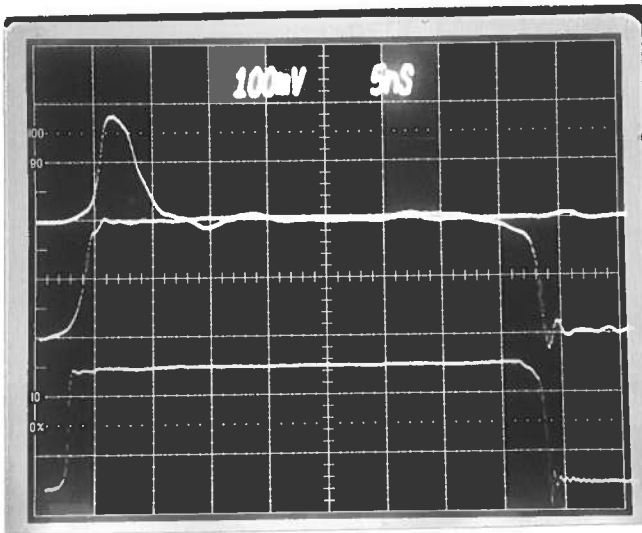


PULSE GENERATOR
PERFORMANCE CHECK

Model: *AVIR-4-B-P*
 S.N.: *10566*
 Date: *APRIL 25 2003*



- a) Output signal amplitude:
0 TO +200 V (TO 50n)
- b) Pulse width:
2 TO 200 NS
- c) Rise time:
2-10NS: $\leq 1 NS$
10-200NS: $\leq 2 NS$
- d) Fall time:
 $\leq 2 NS$
- e) PRF: *0 TO 20 KHz*
- f) Jitter, stability:
OK
- g) Prime power:
120 / 240 V
50 - 60 Hz

60 dB ATTN - 100V/DIV
TOP 5 NS/DIV
MID 5 NS/DIV
BOT 20 NS/DIV
PRF = 10 KHz



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:	April 24, 2003				Tester:	MJC
Programmed model name:	AVIR-4-B-P					
Programmed serial number:	10566					
Firmware revision:	2.46					
Internal trigger checked at:	2 Hz	20 Hz	200 Hz	2 kHz	20 kHz	
Actual measured output ¹ :	1.996 Hz	19.92 Hz	199.4 Hz	1.988 kHz	19.96 kHz	
External trigger checked:	yes	Gate checked:			yes	
Manual trigger checked:	yes					
Pulse compression checked:	yes	Low Amplitude PW Distortion Nullled:			N/A	
Pulse width checked at:	10 ns	50 ns	200 ns	10 kHz, +200V to 50 Ohms		
Actual measured output ² :	10.2 ns	52 ns	201 ns			
PW _{in} = PW _{out} mode checked:	N/A			DC mode checked: N/A		
Duty Cycle Limit:	N/A					
Delay nullled:	yes					
Delay checked at:	100 ns	200 ns	500 ns	100 Hz, 200 ns to 50 Ohms		
Actual measured output ¹ :	101 ns	200 ns	503 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:	20V	50V	100V	200V	10 kHz, 200 ns to 50 Ohms	
Actual measured output ² :	20.2V	50.0V	100V	200V		
Amplitude polarity:	+					
Zout calibration:	N/A					
Electronic amplitude control:	N/A					
External amplify mode:	N/A					
Bleeder resistors adequate:	yes (220k)					
Ultraviolet flux removed:	N/A					
Monitor V/I Ratio:	N/A	Monitor offset nullled:				
LCD Monitor calibrated:	N/A					
Offset checked at:	N/A					
Actual measured output ² :	N/A					
Offset nullled (output on):	N/A			Amplitude-dependent offset nullled:		
Offset nullled (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:	158D	Main:	108E		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	12k		
DC fuses:	Positive:	1.6A, 0.5A	Negative:	N/A		
AC Current:	Quiescent:	0.34A@115V 0.17A@230V	Max. Load:	0.40A@115V 0.20A@230V		
AC fuse:	0.5A (for 230V)					
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.