

PULSE GENERATOR  
PERFORMANCE CHECK

Model: *AV-103B-3-B-P*

S.N.: *10410*

Date: *OCT 15 2002*

- a) Output signal amplitude:  
*0 TO +200 AMPS  
(TO 0 TO +20 VOLTS)*
- b) Pulse width:  
*10 US TO 1 MS  
(10% MAX DUTY CYCLE)*
- c) Rise time:  
*≤ 7 US*
- d) Fall time:  
*≤ 7 US*
- e) PRF:  
*0 TO 1 KHz.  
(10% MAX DUTY CYCLE)*
- f) Jitter, stability:  
*OK*
- g) Prime power:
  - a) *120 / 240V, 50-60 Hz*
  - b) *0 TO +25 VDC,  
20 AMP LAB  
POWER SUPPLY.*

*[Signature]*

10410

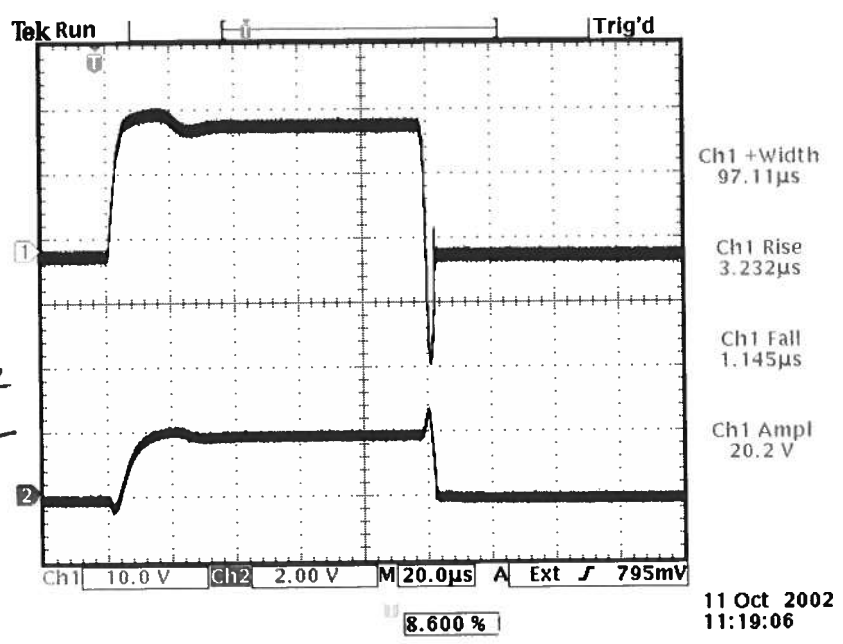
NARROW PULSE

$R_L \approx 0.1 \Omega$

$PBF \approx 0.1 \text{ KHz}$

LOAD  
VOLTAGE

MONITOR  
VOLTAGE



10410

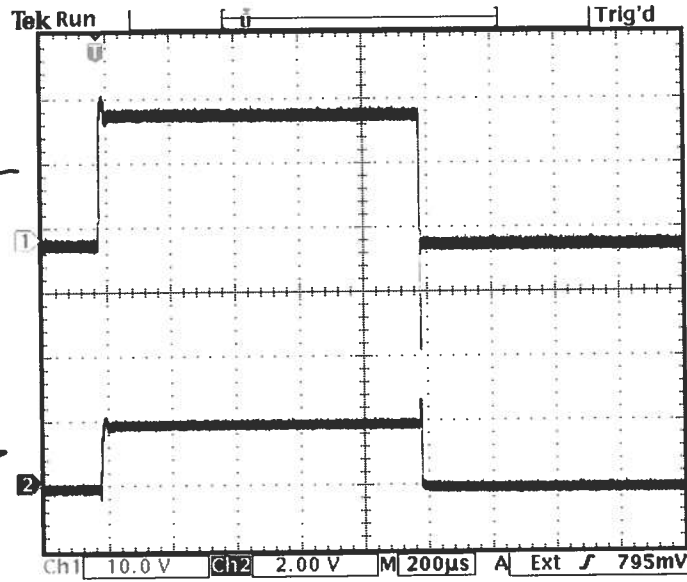
WIDE PULSE

$$R_L = 0.15$$

PRF  $\approx$  10 Hz.

LOAD  
VOLTAGE

MONITOR  
VOLTAGE



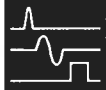
Ch1 +Width  
1.002ms

Ch1 Rise  
3.299 $\mu$ s

Ch1 Fall  
1.264 $\mu$ s

Ch1 Ampl  
20.2 V

11 Oct 2002  
11:15:38

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**"-B" Functional Test & Calibration Certificate**

Date of test:	October 7, 2002				Tester:	MJC	
Programmed model name:	AV-108B-3-B-P						
Programmed serial number:	10410						
Firmware revision:	2.43						
Internal trigger checked at:	1 Hz	10 Hz	100 Hz	1 kHz			
Actual measured output <sup>1</sup> :	1.002 Hz	10.01 Hz	100.0 Hz	1.005 kHz			
External trigger checked:	yes					Gate checked:	yes
Manual trigger checked:	yes						
Pulse compression checked:	yes	Low Amplitude PW Distortion Nulled:				yes	
Pulse width checked at:	10 us	100 us	1 ms				
Actual measured output <sup>2</sup> :	9.2 us	98 us	1.01 ms	1 Hz, +200A to 0.106 Ohms			
PWin = PWout mode checked:	yes	DC mode checked:				N/A	
Duty Cycle Limit:	10%						
Delay nulled:	yes, at TTL trigger						
Delay checked at:	10 us	100 us	1 ms				
Actual measured output <sup>1</sup> :	10.00 us	100.1 us	1.00 ms	at TTL trigger			
Double pulse checked:	N/A						
Invert mode checked:	N/A						
ECL/TTL modes checked:	N/A						
Zout switch checked:	N/A						
Amplitude checked at:	10A	50A	100A	200A	5 Hz, 100us, to 0.106 Ohms		
Actual measured output <sup>2</sup> :	10.2A	50A	100A	200A			
Amplitude polarity:	+						
Zout calibration:	N/A						
Electronic amplitude control:	N/A						
External amplify mode:	N/A						
Bleeder resistors adequate:	yes (1k on cap bank)						
Ultraviolet flux removed:	N/A						
Monitor V/I Ratio:	1V / 100A	Monitor offset nulled:				yes	
LCD Monitor calibrated:	yes						
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:	108E			
Overload Trigger Resistance:	Trips at:	N/A	Installed:	N/A			
DC fuses:	Positive:	N/A	Negative:	N/A			
AC Current at 115 VAC:	Quiescent:	0.55A	Max. Load:	0.60A			
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.