

PULSE GENERATOR  
PERFORMANCE CHECK

Model: AVD-8D-B-PN-M

S.N.: 10623

Date: JUNE 24 2003

- a) Output signal amplitude:  
0 TO  $\pm$  50 VOLTS TO
- b) Pulse width:  $R_L \geq 0.1 \Omega$  (500 AMPS MAX)  
5  $\mu$ S TO 10 MS
- c) Rise time: (20% MAX DUTY CYCLE)  
 $\leq 2 \mu$ S
- d) Fall time:  
 $\leq 2 \mu$ S
- e) PRF: 0 TO 1 KHZ
- f) Jitter, stability: OK
- g) Prime power:
  - a) 120/240V 50-60HZ
  - b) 0 TO  $\pm$  50 VOLT DC LAB  
POWER SUPPLY  
(100-500 AMPS)
- h) MAX DUTY CYCLE:  
20%
- i) MAX AVERAGE CURRENT:  
100 AMPS

[Signature]

(A)

10623

POS OUT  
NARROW PULSE

$R_L = 0.1 \Omega$

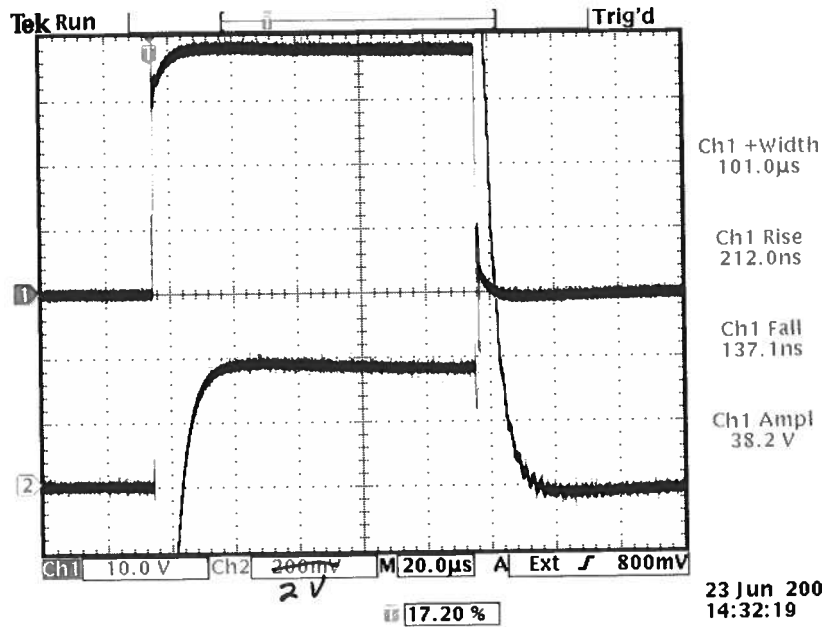
PRF = 1 KHz

$V_{DC} = +40$  VOLTS

$I_{DC} \approx 35$  AMPS

LOAD  
VOLTAGE

MONITOR  
OUT.



③

10623

POS OUT  
WIDE PULSE

$R_c = 0.1 \Omega$

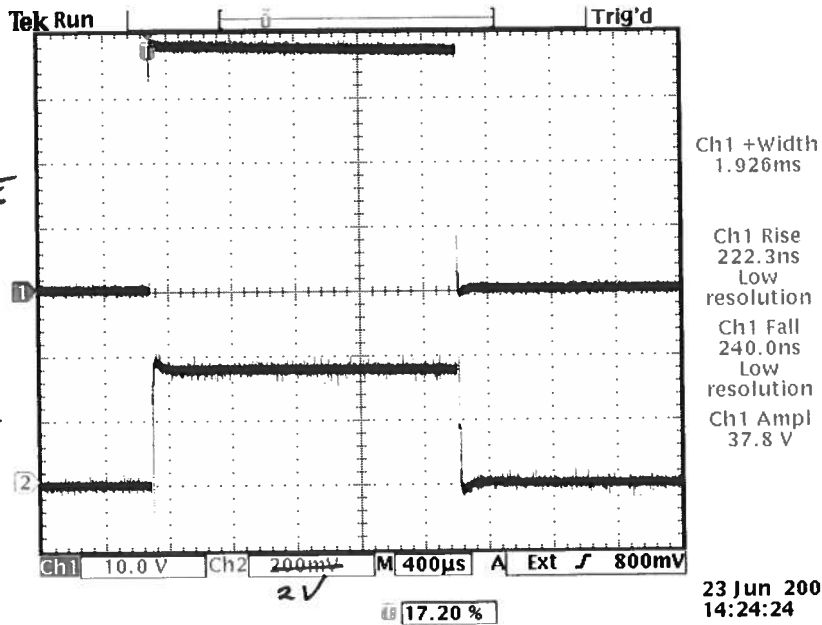
PRF = 0.1 KHz

$V_{DC} = +40 \text{ VOLTS}$

$I_{DC} = 70 \text{ AMPS}$

LOAD  
VOLTAGE

MONITOR  
VOLTAGE



①

10623

N56 OUT

WIDE PULSE

$R_L = 0.1 \Omega$

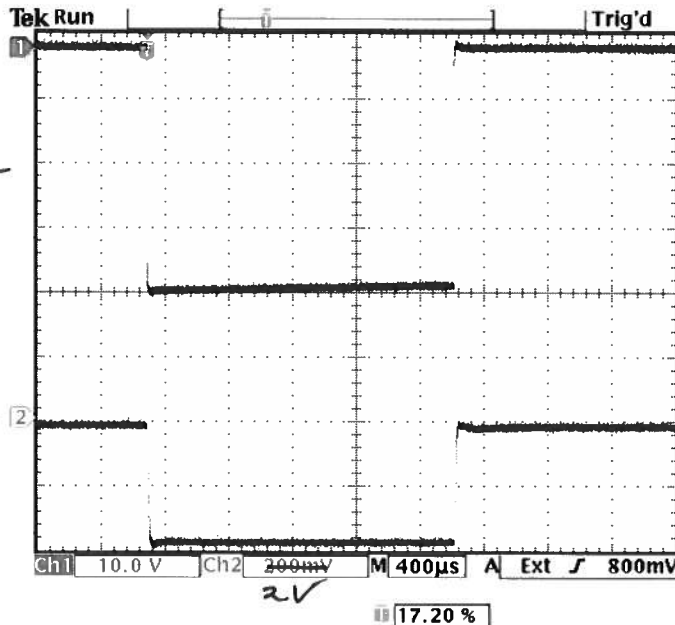
PRF = 0.1 KHZ

$V_{DC} = -40 \text{ VOLTS}$

$I_{DC} = 70 \text{ AMPS}$

LOAD  
VOLTAGE

MONITOR  
VOLTAGE



23 Jun 2003  
15:59:28

10623

NEG OUT  
NARROW PULSE

$R_L = 0.1 \Omega$

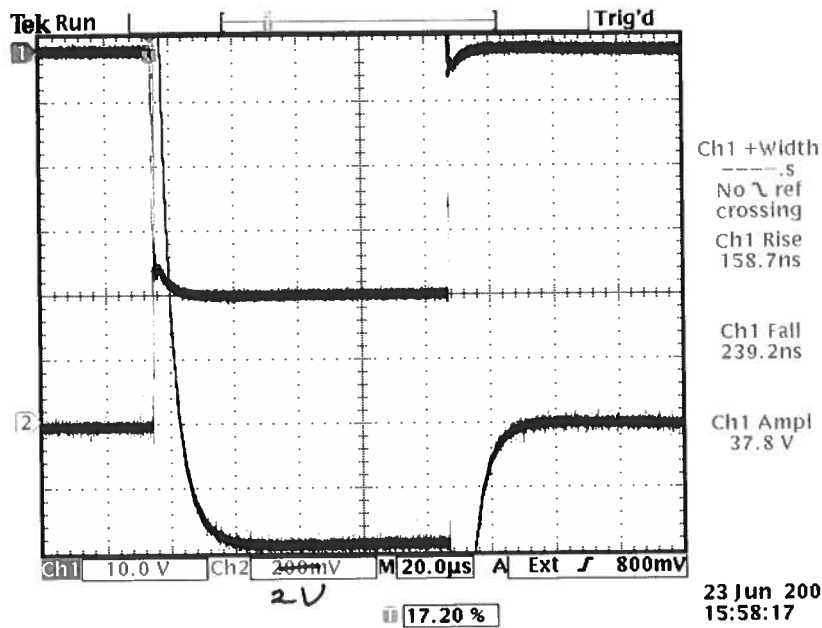
PRF = 1 KHz

$V_{DC} = -40 \text{ VOLTS}$

$I_{DC} \approx 35 \text{ AMPS}$

LOAD  
VOLTAGE

MONITOR  
OUT





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## "-B" Functional Test & Calibration Certificate

Date of test:	June 24, 2003				Tester:	MJC
Programmed model name:	AVO-8D-B-M-PN					
Programmed serial number:	10623					
Firmware revision:	2.50					
Internal trigger checked at:	1 Hz	10 Hz	100 Hz	1 kHz		
Actual measured output <sup>1</sup> :	0.996 Hz	9.94 Hz	99.3 Hz	0.994 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:	5 us	50 us	500 us	1 Hz, +50V in to 0.1 Ohms		
Actual measured output <sup>2</sup> :	4.89 us	50.3 us	505 us			
PWin = PWout mode checked:	yes			DC mode checked:	N/A	
Duty Cycle Limit:	20%					
Delay nulled:	yes, at TTL trigger					
Delay checked at:	100 ns	2 us	200 us	20 ms		
Actual measured output <sup>1</sup> :	98.5 ns	2.02 us	202 us	20.1 ms		
Double pulse checked:	N/A					
Invert mode checked:	N/A					
ECL/TTL modes checked:	N/A					
Zout switch checked:	N/A					
Amplitude checked at:	N/A					
Actual measured output <sup>2</sup> :	N/A					
Amplitude polarity:	+/-					
Zout calibration:	N/A					
Electronic amplitude control:	N/A					
External amplify mode:	N/A					
Bleeder resistors adequate:	N/A					
Burst mode:	N/A					
Monitor V/I Ratio:	1V per 100A		Monitor offset nulled:		yes	
LCD Monitor calibrated:	yes (+ and -)					
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					
Circuit Boards:	PS:	93	Main:	108B		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	N/A		
DC fuses:	Positive:	N/A	Negative:	N/A		
AC Current:	Quiescent:	0.405A@115V 0.191A@230V	Max. Load:	0.48A@115V 0.23A@230V		
AC fuse:	1A					
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.