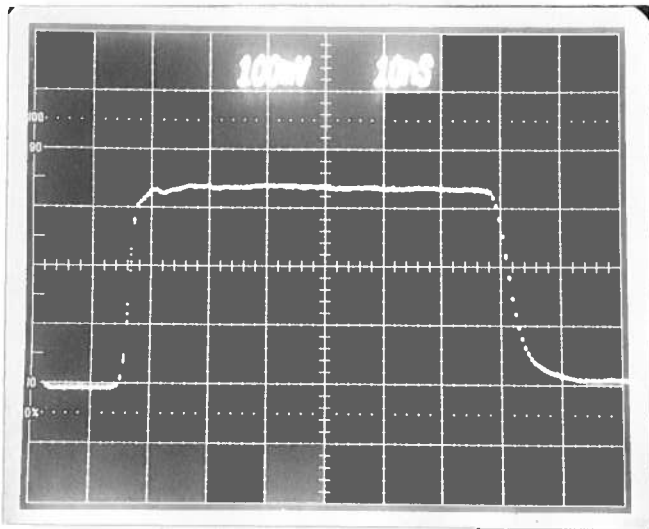


PULSE GENERATOR  
PERFORMANCE CHECK

Model: *AVO-5-B-P-53*

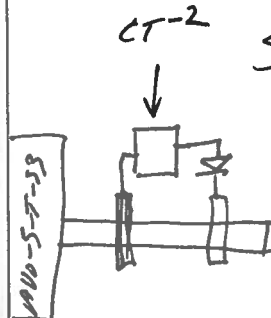
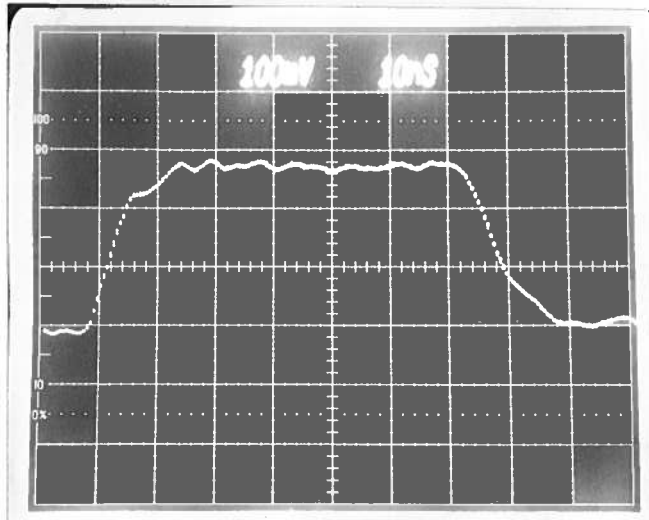
S.N.: *10837*

Date: *DEC 15 2003*



- a) Output signal amplitude:  
*070 + 28 amp*  
*( $50\Omega + 33k\Omega$  to  $50\Omega$ )*
- b) Pulse width:  
*070 100 ns*
- c) Rise time:  
 *$\leq 3$  ns*
- d) Fall time:  
 *$\leq 4$  ns*
- e) PRF:  
*070 5 KHz*
- f) Jitter, stability:  
*OK*
- g) Prime power:  
*120/240 V*  
*50 - 60 Hz*

*60dB ATTEN ; 100 V/DIV*  
*MAINTAINING BUT TO  $50\Omega$*



*[Handwritten signature]*

*AVO-5-T-53 INSTALLED.*  
*TEKTRONIX CT-2 USED TO*  
*MONITOR CURRENT THROUGH*  
*IN 5819 TEST DIODES*  
 *$\approx 10$  amp/div*

NOTE *LONG LOAD LENGTHS*  
*THROUGH CT-2 CAUSES*  
*INDUCTIVE WITH*  
*DEFERRED RISE TIME*

**AVTECH****AVTECH ELECTROSYSTEMS LTD.**
 NANOSECOND WAVEFORM ELECTRONICS  
 SINCE 1975

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 OTTAWA, ONTARIO  
 CANADA K2C 3H4  
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 FAX: (613) 226-2802

## "-B" Functional Test & Calibration Certificate

Date of test:	December 15, 2003				Tester:	MJC
Programmed model name:	AVO-5-B-P-S3					
Programmed serial number:	10837					
Firmware revision:	2.54					
Internal trigger checked at:	5 Hz	50 Hz	500 Hz	5000 Hz		
Actual measured output <sup>1</sup> :	4.99 Hz	49.8 Hz	498 Hz	4989 Hz		
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:	6 ns	20 ns	50 ns	100 ns	Mainframe to 50Ω, +84V	
Actual measured output <sup>2</sup> :	5.5ns (FWHM)	20.2 ns	49 ns	99 ns		
PWin = PWout 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	5 Hz, +84V to CT-2 probe		
Actual measured output <sup>1</sup> :	101 ns	200.2 ns	505 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:	+28V	+56V	+84V	1 kHz, 60 ns, to CT-2 probe		
Actual measured output <sup>2</sup> :	+9.0A	+18A	+27.5A			
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:	N/A			Monitor offset nulled:		
LCD Monitor calibrated:	N/A					
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:	N/A (PCB 104C)					
PCB 108G resistor updates:	N/A					
PN trigger pull-downs installed:	N/A					
Sync pulse width checked:	200 ns nominal					
Circuit Boards:	PS:	93	Main:	86		
Overload Trigger Resistance:	Trips at:	19k	Installed:	15k		
DC fuses:	Positive:	0.5A	Negative:	N/A		
AC Current:	Quiescent:	0.39A @ 115V	Max. Load:	0.45A @ 115V		
		0.19A @ 230V		0.22A @ 230V		
AC fuse:	1A (for 115V)					
1.5 kV RMS, 5 second Hypot Test:	OK					
25A RMS Ground Continuity Test:	OK					
Fan operational:	Yes					
Photographed:	Yes					

<sup>1</sup> Checked with: Fluke PM6681 Counter (S/N 9446 066 81016),  
 referenced to Datum ExactTime 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 (Cal. Label 112506) for PW < 5 ns.

P:\b-calibration\sn10837,AVO-5-B-P-S3