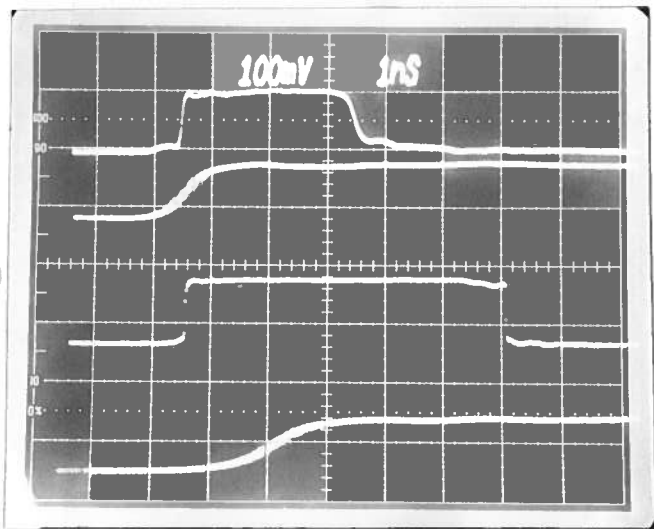


PULSE GENERATOR  
PERFORMANCE CHECK

Model: *AVPP-1-C-P-M*

S.N.: *10956*

Date: *JULY 8 2004*



- a) Output signal amplitude:  
*0 TO +10V (TO 5.0V)*
- ① b) Pulse width:  
*0.2 TO 100 NS*
- c) Rise time:  
② *≤ 100 ps*
- d) Fall time:  
③ *≤ 135 ps*
- e) PRF:  
④ *0 TO 1.0 MHz*
- f) Jitter, stability:  
*OK*
- g) Prime power:  
*100-240V*  
*50-60 Hz*

*[Signature]*

*40 dB ATTEN - 10V/DIV*

- ① *0.1 TO 5 NS RANGE*  
*1 NS/DIV*
- ② *0.1 TO 5 NS RANGE, 100 ps/DIV*  
*(RISE TIME)*
- ③ *5 TO 200 NS RANGE*  
*10 NS/DIV*
- ④ *5 TO 100 NS RANGE*  
*100 ps/DIV, RISE TIME*  
*PRF = 100 KHz*

PULSE GENERATOR  
PERFORMANCE CHECK

Model: *AVO-8A-B-N-Z4B*

S.N.: *10965*

Date: *JUN 28 2004*

- a) Output signal amplitude:  
*0 TO -30 V (RL > 3Ω)*
- b) Pulse width:  
*-10 AMPS MAX*
- c) Rise time: *10 NS TO 1 μS*  
*(50% MAX DUTY CYCLE)*  
*≤ 0.5 μS*
- d) Fall time:  
*≤ 0.5 μS*
- e) PRF:  
*0 TO 50 KHz*  
*(50% MAX DUTY CYCLE)*
- f) Jitter, stability:  
*OK*
- g) Prime power:

a) *100 - 240 V*  
*50 - 60 Hz*

b) *-30 VOLT, 10 AMP*  
*DC LAB POWER*  
*SUPPLY.*

*[Signature]*

(A)

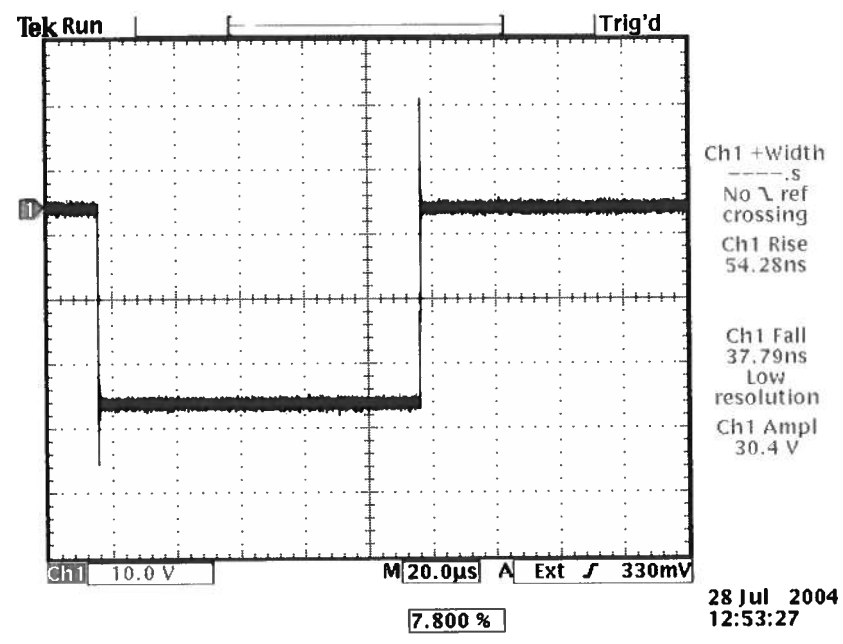
10965

$R_L = 3 \Omega$  (LOW INDUCTANCE LOAD)

$V_{OC} = -30 V$

LOAD VOLTAGE

PAF = 100 MHz



(13)

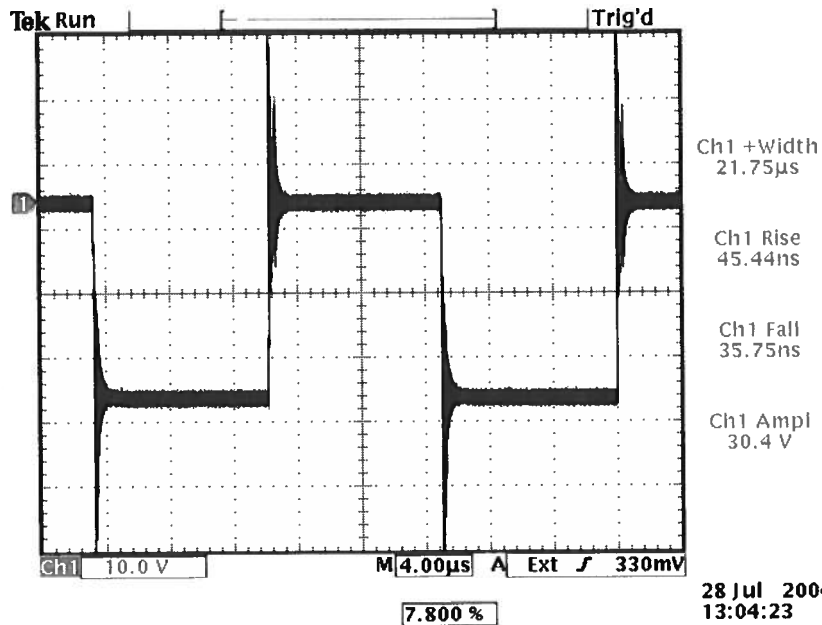
10965

$R_L = 3\ \Omega$  (HIGH INDUCTANCE LOAD)

$V_{DC} = -30\text{V}$

LOAD VOLTAGE

$f_{RF} \approx 50\text{ kHz}$





# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
SINCE 1975

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http://www.avtechpulse.com/

BOX 5120, LCD MERIVALE  
OTTAWA, ONTARIO  
CANADA K2C 3H4  
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FAX: (613) 226-2802

## "-B" Functional Test & Calibration Certificate

Date of test:	July 28, 2004				Tester:	MJC
Programmed model name:	AVO-8A-B-N-ZYB					
Programmed serial number:	10965	MAC address:	N/A			
Firmware revision:	2.58					
Internal trigger checked at:	5 Hz	50 Hz	500 Hz	5 kHz	50 kHz	
Actual measured output <sup>1</sup> :	5.018 Hz	50.05 Hz	501.6 Hz	5.015 kHz	50.3 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:	10 us	100 us	1 ms	10 ms	1 Hz, -30V into 3 Ohms	
Actual measured output <sup>2</sup> :	10.16 us	100.8 us	1.004 ms	10.05 ms		
PWin = PWout mode checked:	Yes			DC mode checked:	N/A	
Duty Cycle Limit:	50%					
Delay nulled:	Yes					
Delay checked at:	100 ns	10 us	1 ms	100 ms	1 Hz, -30V into 3 Ohms	
Actual measured output <sup>1</sup> :	100.0 ns	1.006 us	1.003 ms	100.2 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:	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 108G/H resistor updates:	N/A					
PN trigger pull-downs installed:	N/A					
Sync pulse width checked:	100 ns nominal					
Circuit Boards:	PS:	158E	Main:	108H		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	N/A		
DC fuses:	Main:	1A	Overload:	N/A		
AC Current:	Quiescent:	0.21A @ 115V 0.16A @ 230V	Max. Load:	N/A @ 115V N/A @ 230V		
AC fuse:	0.5A					
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 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 (Cal. Label 112506) for PW < 5 ns.