

PULSE GENERATOR  
PERFORMANCE CHECK

Model: *N-1011-B*  
S.N.: *9769*  
Date: *MAR 30 2001*

- a) Output signal amplitude:  
*0 to  $\pm 100V$  ( $R_L \geq 50\Omega$ )*
- b) Pulse width:  
*100 NS TO 1 MS*
- c) Rise time:  
*(10% MAX DUTY CYCLE)  
 $\leq 10 NS$*
- d) Fall time:  
 *$\leq 10 NS$*
- e) PRF:  
*0 TO 1 MHz*
- f) Jitter, stability:  
*(10% MAX DUTY CYCLE)  
OK*
- g) Prime power:  
*120/240 V  
50-60 Hz*

*[Signature]*

(A)

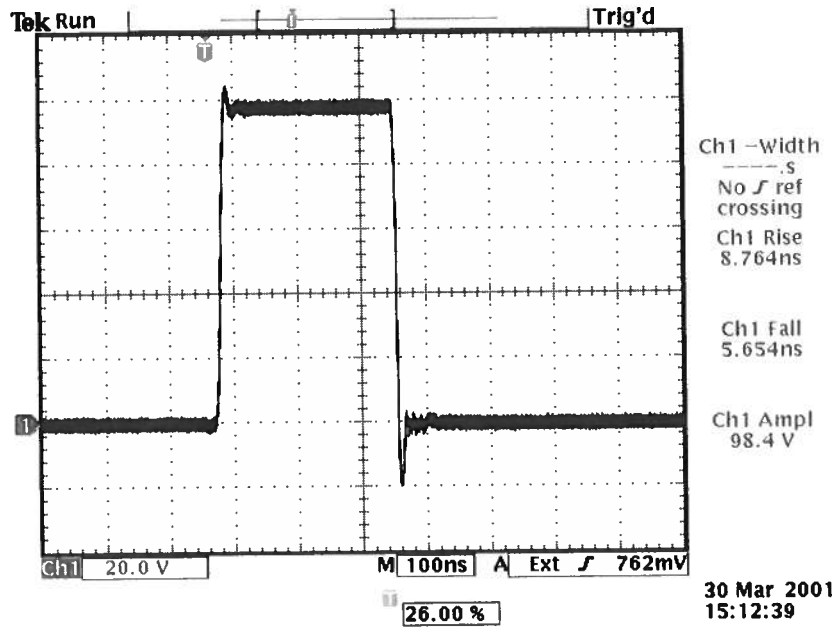
9768

$f_{AF} \approx 100 \text{ kHz}$

$Z_{out} = 2 \Omega$

$R_L = 50 \Omega$

PUS OUT:



(B)

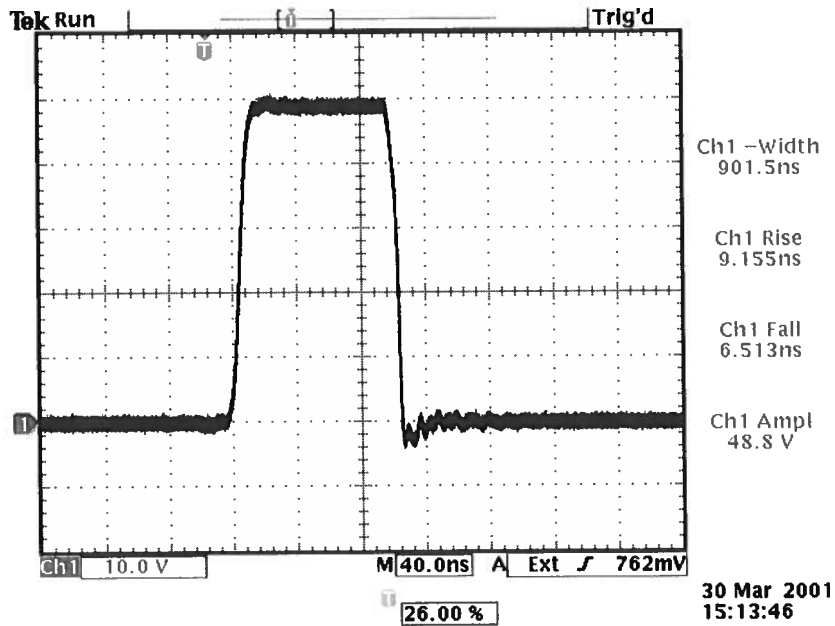
9768

$f_{max} = 1.0 \text{ MHz}$

$Z_{out} = 50 \Omega$

$R_L = 50 \Omega$

POS OUT.



Ⓢ

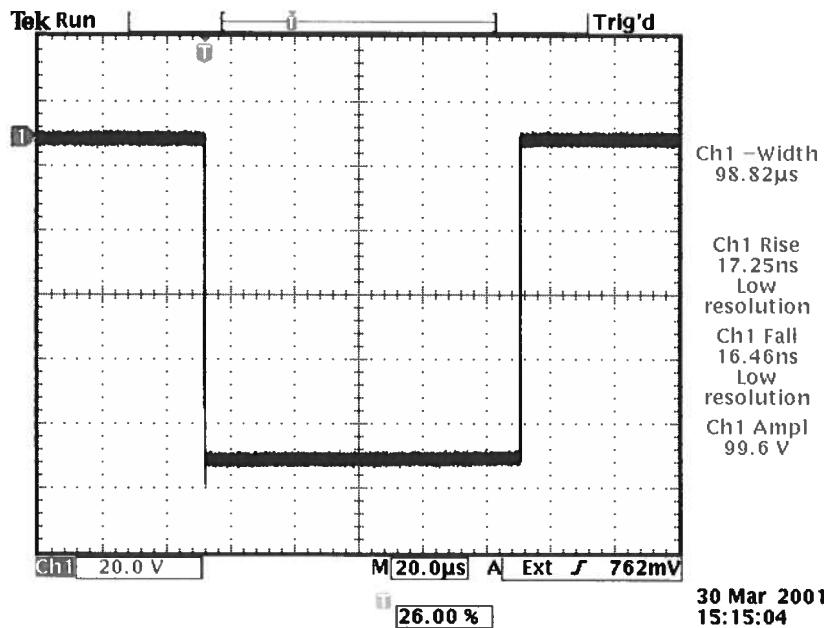
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$f_{RF} = 100 \text{ kHz}$

$Z_{out} = 2 \Omega$

$R_u = 50 \Omega$

NEG OUT



**AVTECH****AVTECH ELECTROSYSTEMS LTD.**NANOSECOND WAVEFORM ELECTRONICS  
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**"-B" Functional Test & Calibration Certificate**

Date of test:	March 30, 2001				Tester:	MJC
Programmed model name:	AV-1011-B					
Programmed serial number:	9768					
Firmware revision:	2.24					
Internal trigger checked at:	1 Hz	100 Hz	1 kHz	10 kHz	1 MHz	
Actual measured output <sup>1</sup> :	0.999 Hz	99.7 Hz	1.001 kHz	9.98 kHz	1.007 MHz	
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:	100 ns	1 us	10 us	1 ms	100 Hz, 100V into 50 Ohms	
Actual measured output <sup>2</sup> :	98.4 ns	1.001 us	9.990 us	1.001 ms		
PW <sub>in</sub> = PW <sub>out</sub> mode checked:	yes			DC mode checked:	N/A	
Duty Cycle Limit:	10%					
Delay nulled:	yes					
Delay checked at:	100 ns	1 us	10 us	1 ms	100 Hz, 100V into 50 Ohms	
Actual measured output <sup>1</sup> :	99.7 ns	0.998 us	9.993 us	1.000 ms		
Double pulse checked:	yes					
Invert mode checked:	N/A					
ECL/TTL modes checked:	N/A					
Zout switch checked:	yes					
Amplitude checked at:	-10V	+20V	-50V	+100V	100 Hz, 10 us into 50 Ohms	
Actual measured output <sup>2</sup> :	-10.0V	+19.9V	-49.8V	+99.6V		
Amplitude polarity:	+/-					
Zout calibration:	N/A					
Electronic amplitude control:	OK					
External amplify mode:	N/A					
Ultravolt flux removed:	OK					
Monitor V/I Ratio:	N/A			Monitor offset nulled:		
LCD Monitor calibrated:	N/A			Monitor offset nulled:		
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					
Sync pulse width checked:	50 ns					
Circuit Boards:	PS:	93	Main:	108B		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	4k		
DC fuses:	Positive:	2A	Negative:	N/A		
AC Current at 115 VAC:	Quiescent:	0.45A	Max. Load:	0.84A		
AC fuse:	1A					
Photographed:	yes					

<sup>1</sup> Checked with: Fluke PM6681 Counter, referenced to Datum ExacTime 9390-6000 GPS Frequency Reference

<sup>2</sup> Checked with: Tektronix TDS3052 digital oscilloscope for PW ≥ 5 ns,  
 Tektronix 7704A/7S11/7T11/S4 sampling oscilloscope system for PW < 5 ns.