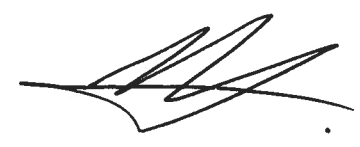


PULSE GENERATOR
PERFORMANCE CHECK

Model: *M-1011-B*
S.N.: *9924*
Date: *Aug 13 2001*

- a) Output signal amplitude:
0 TO ± 100 V ($R_L \geq 50\Omega$)
- b) Pulse width:
100 NS TO 1 μ S
- c) Rise time:
*(10% MAX DUTY CYCLE)
 ≤ 10 NS*
- d) Fall time:
 ≤ 10 NS
- e) PRF:
*0 TO 1.0 MHz
(10% MAX DUTY CYCLE)*
- f) Jitter, stability:
OK
- g) Prime power:
*120/240V
50-60 Hz.*



(A)

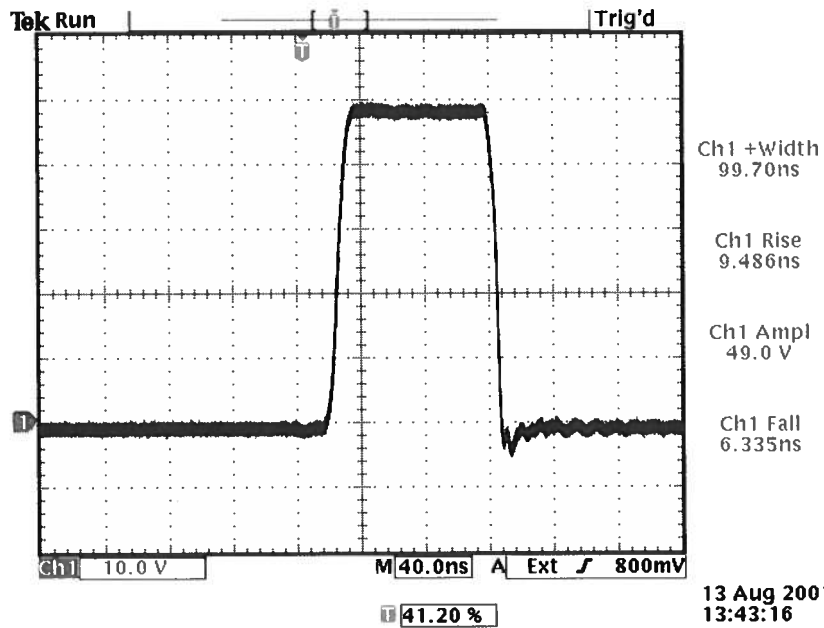
9924

PRF = 1.0 MHz

POS OUT

$Z_{out} = 50 \Omega$

$R_c = 50 \Omega$



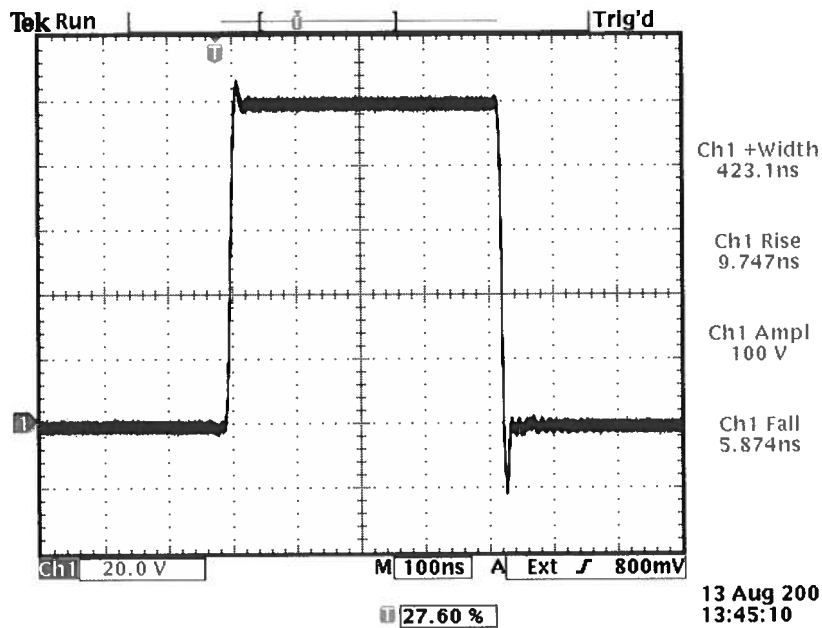
73

9924
PRF = 100 kHz

POS DET

Zout = 2 Ω

R_L = 50 Ω

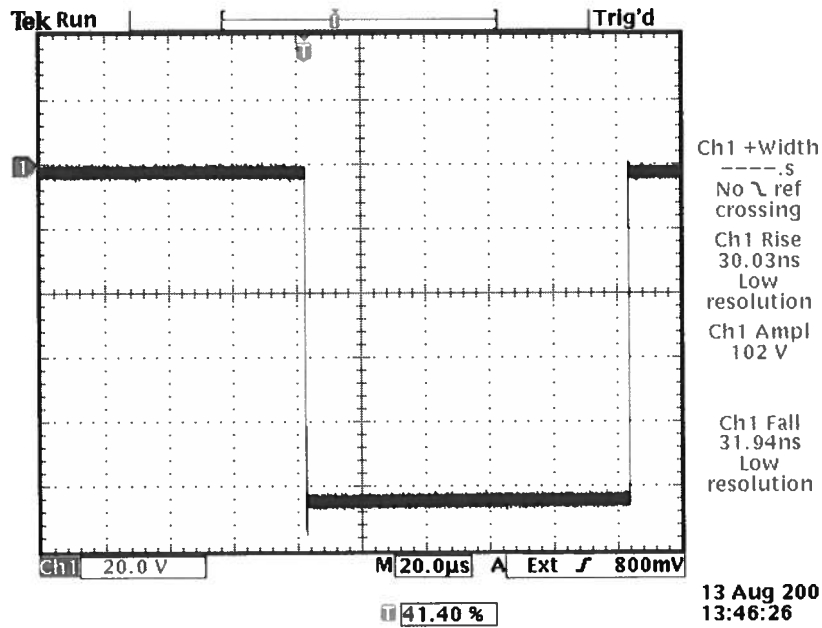


②

9924
PSF = 100/μs.
NEG out.

$$Z_{out} = 2 \Omega$$

$$R_L = 50 \Omega$$



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

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"-B" Functional Test & Calibration Certificate

Date of test:	August 13, 2001				Tester:	MJC
Programmed model name:	AV-1011-B					
Programmed serial number:	9924					
Firmware revision:	2.26					
Internal trigger checked at:	1 Hz	100 Hz	1 kHz	10 kHz	1 MHz	
Actual measured output ¹ :	0.997 Hz	99.4 Hz	0.995 kHz	9.97 kHz	1.008 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
Actual measured output ² :	99.8 ns	1.002 us	9.98 us	1.003 ms		to 50 Ohms
PWin = PWout 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	
Actual measured output ¹ :	100.6 ns	0.999 us	9.99 us	1.002 ms	to 50 Ohms	
Double pulse checked:	yes					
Invert mode checked:	N/A					
ECL/TTL modes checked:	N/A					
Zout switch checked:	N/A					
Amplitude checked at:	-10V	+20V	-50V	+100V	100 Hz, 10us	
Actual measured output ² :	-10.0V	+19.9V	-50.0V	+100.0V	to 50 Ohms	
Amplitude polarity:	+/-					
Zout calibration:	N/A					
Electronic amplitude control:	OK					
External amplify mode:	N/A					
Ultraviolet flux removed:	yes					
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 ² :	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, approx					
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:	0.44A	Max. Load:	0.85A		
AC fuse:	1A					
Photographed:	yes					

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

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