

PULSE GENERATOR  
PERFORMANCE CHECK

Model: *AVR-9B-B-N*

S.N.: *10139*

Date: *APRIL 3 2002*

- a) Output signal amplitude:  
*0 TO -20 VOLTS*
- b) Pulse width:  
*TO  $R_L \geq 10 \Omega$   
200NS TO 2 MS*
- c) Rise time:  
 *$\leq 15 NS$*
- d) Fall time:  
 *$\leq 15 NS$*
- e) PRF: *0 TO 50 KHz*
- f) Jitter, stability: *OK*
- g) Prime power: *120/240V  
50 to 60 Hz.*



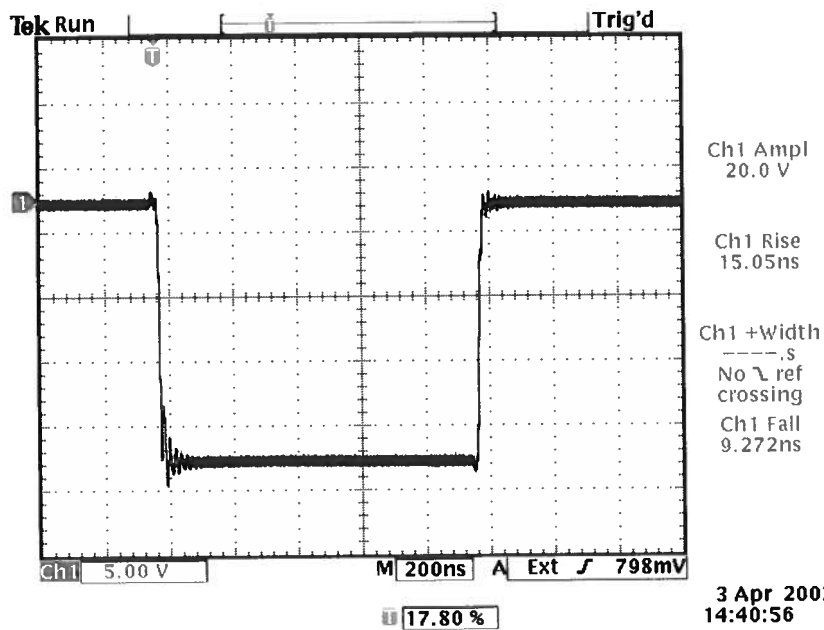
(A)

10139

NARROW PULSE

$R_c = 10 \Omega$

PBF  $\approx 1 \text{ kHz}$



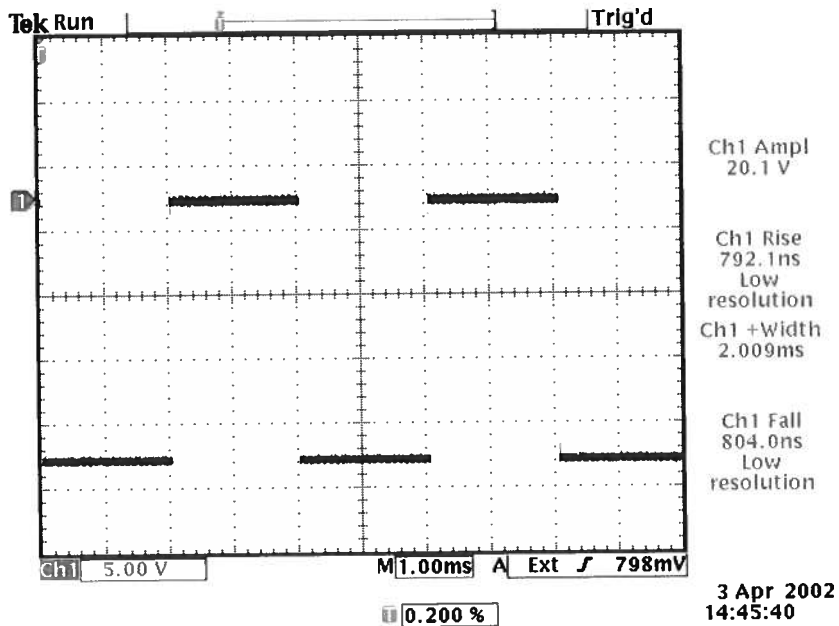
(B)

10139

WIDE PULSE

MAX DUTY CYCLE

$R_c = 10 \Omega$



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**"-B" Functional Test & Calibration Certificate**

Date of test:	April 3, 2002				Tester:	MJC
Programmed model name:	AVR-9B-B-N					
Programmed serial number:	10139					
Firmware revision:	2.38					
Temp, RH:	24.4°C, 27.2%					
Internal trigger checked at:	5 Hz	50 Hz	500 Hz	5 kHz	50 kHz	
Actual measured output <sup>1</sup> :	4.98 Hz	49.8 Hz	498 Hz	4.99 kHz	50.03 kHz	
External trigger checked:	yes			Gate checked:	yes	
Manual trigger checked:	yes					
Pulse compression checked:	N/A		Low Amplitude PW Distortion Nulled:		N/A	
Pulse width checked at:	200 ns	2 us	20 us	2 ms	10 Hz, -20V to 10 Ohms	
Actual measured output <sup>2</sup> :	199 ns	2.03 us	20.3 us	2.03 ms		
PW <sub>in</sub> = PW <sub>out</sub> mode checked:	OK			DC mode checked:	N/A	
Duty Cycle Limit:	50%					
Delay nulled:	yes					
Delay checked at:	200 ns	2 us	20 us	2 ms	10 Hz, -20V to 10 Ohms	
Actual measured output <sup>1</sup> :	200.2 ns	2.03 us	20.2 us	2.03 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:	-2V	-5V	-10V	-20V	1 kHz, 10 us to 10 Ohms	
Actual measured output <sup>2</sup> :	-1.99V	-4.98V	-10.0V	-20.0V		
Amplitude polarity:	-					
Zout calibration:	N/A					
Electronic amplitude control:	N/A					
External amplify mode:	N/A					
Ultravolt flux removed:	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					
Sync pulse width checked:	200 ns nom					
Circuit Boards:	PS:	93	Main:	108B		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	4k		
DC fuses:	Positive:	2A	Negative:	0.5A		
AC Current at 115 VAC:	Quiescent:	0.46A	Max. Load:	0.78A		
AC fuse:	1A					
120/240V operation:	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 system (Cal. Label 112506) for PW < 5 ns.