

PULSE GENERATOR
PERFORMANCE CHECK

Model: *PK-5B-B-N*

S.N.: *9983*

Date: *NOV 8 2001*

- a) Output signal amplitude:
0 TO -500V (4.750V)
- b) Pulse width:
100NS TO 100μS
- c) Rise time:
(10% MAX DUTY CYCLE)
≤ 30 NS
- d) Fall time:
≤ 30 NS
- e) PRF:
0 TO 10 KHz.
- f) Jitter, stability:
(10% MAX DUTY CYCLE)
OK
- g) Prime power:
120/240V
50-60Hz



Q

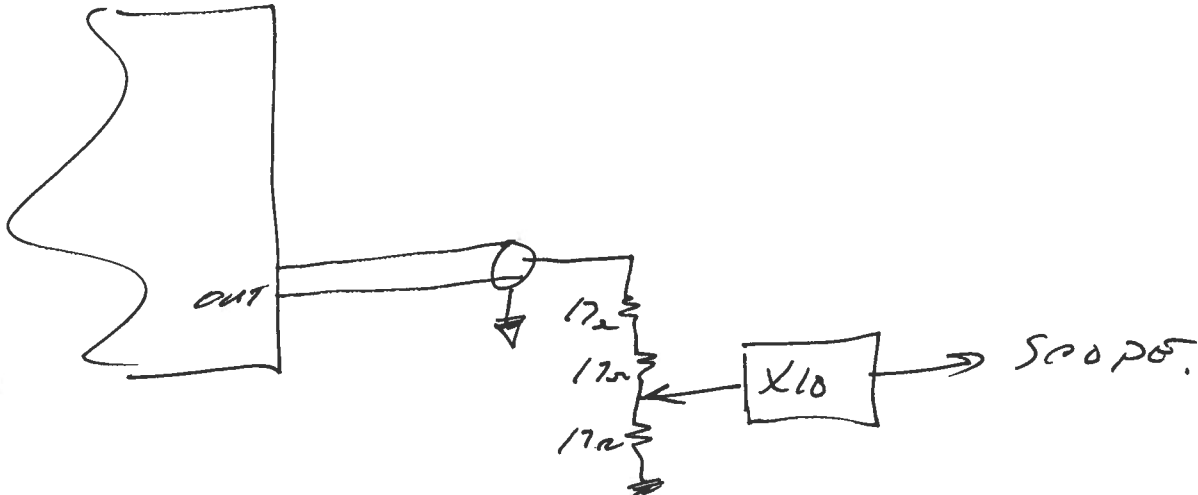
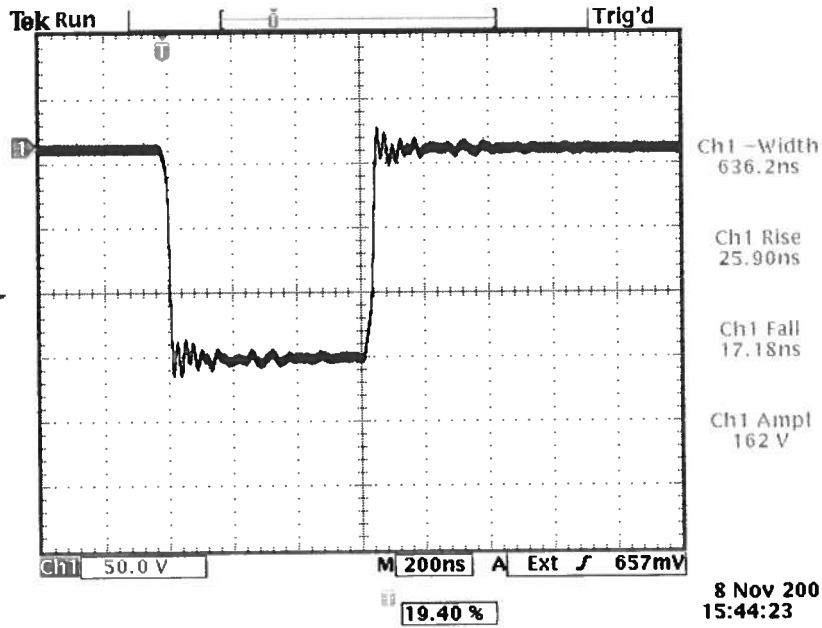
9983

NARROW PULSE

$R_L = 50 \Omega$

PST $\approx 1 \text{ kHz}$

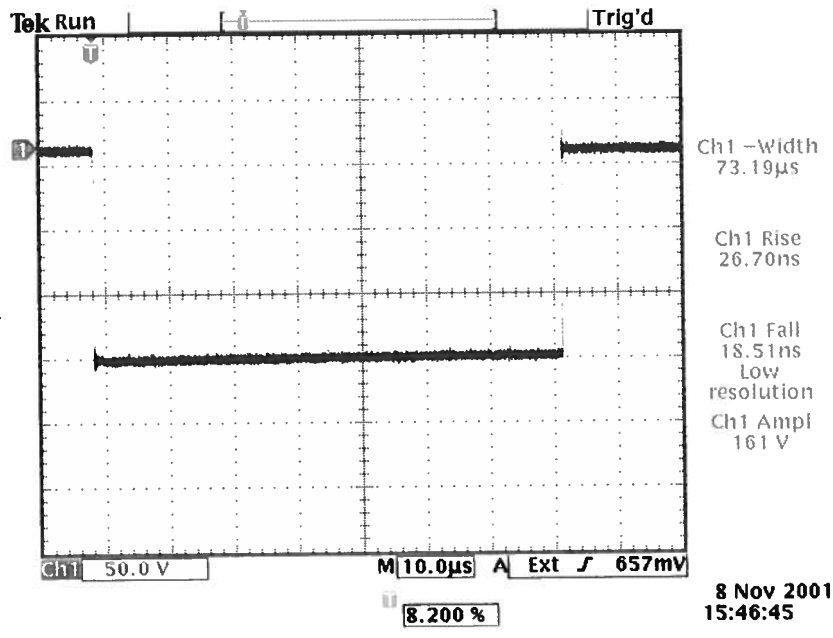
LOAD
VOLTAGE



③

9983
WIDE PULSE
 $R_c = 50\Omega$
PRF = 100 MHz

LOAD
VOLTAGE



LOAD CONNECTION
AS per (A):



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

P.O. BOX 265
OGDENSBURG, NY
U.S.A. 13669-0265
TEL: (315) 472-5270
FAX: (613) 226-2802

TEL: 1-800-265-6681
FAX: 1-800-561-1970

e-mail: info@avtechpulse.com
http://www.avtechpulse.com

P.O. BOX 5120 STN. F
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

"-B" Functional Test & Calibration Certificate

Date of test:	November 8, 2001				Tester:	MJC
Programmed model name:	AVR-5B-B-N					
Programmed serial number:	9983					
Firmware revision:	2.31					
Internal trigger checked at:	1 Hz	10 Hz	100 Hz	1 kHz	10 kHz	
Actual measured output ¹ :	0.998 Hz	9.997 Hz	99.87 Hz	0.999 kHz	9.98 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:	100 ns	1 us	10 us	100 us	10 Hz, -500V to 50 Ohms	
Actual measured output ² :	99.7 ns	0.996 us	10.00 us	100.1 us		
PW _{in} = PW _{out} mode checked:	yes			DC mode checked:	N/A	
Duty Cycle Limit:	1%					
Delay nulled:	yes					
Delay checked at:	100 ns	1 us	10 us	100 us	10 Hz, -500V to 50 Ohms	
Actual measured output ¹ :	101.5 ns	1.000 us	10.00 us	100.1 us		
Double pulse checked:	N/A					
Invert mode checked:	N/A					
ECL/TTL modes checked:	N/A					
Zout switch checked:	N/A					
Amplitude checked at:	-50V	-100V	-200V	-500V	100 Hz, 1 us, to 50 Ohms	
Actual measured output ² :	-50.0V	-100.4V	-201V	-500V		
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			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:	200 ns					
Circuit Boards:	PS:	93	Main:	108B		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	1.5k C		
DC fuses:	Positive:	3A	Negative:	N/A		
AC Current at 115 VAC:	Quiescent:	0.38A	Max. Load:	1.05A		
AC fuse:	1.5A					
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.