


PULSE GENERATOR
PERFORMANCE CHECK

Model: *PWR-4-B-PN*
S.N.: *10419*
Date: *NOV 12 2002*

- a) Output signal amplitude:
0 to ± 400 VOLTS
- b) Pulse width:
(70 to 750 ns)
100 ns to 100 us
- c) Rise time:
(0.59, MAX DUTY CYCLE)
≤ 20 ns
- d) Fall time:
≤ 20 ns
- e) PRF: *0 to 10 kHz*
(0.59, MAX DUTY CYCLE)
- f) Jitter, stability:
OK
- g) Prime power:
170 / 240 V
50 - 60 Hz



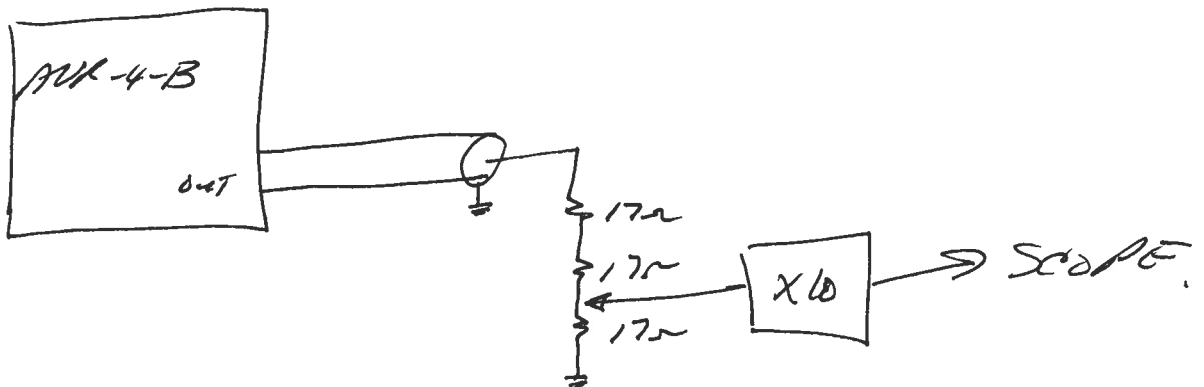
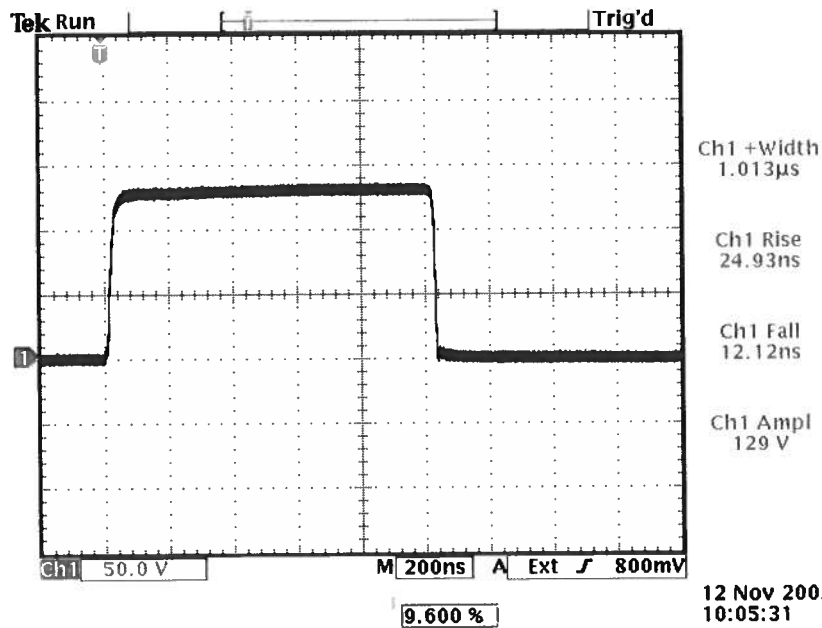
(A)

10419

NARROW PULSE, POS OUT

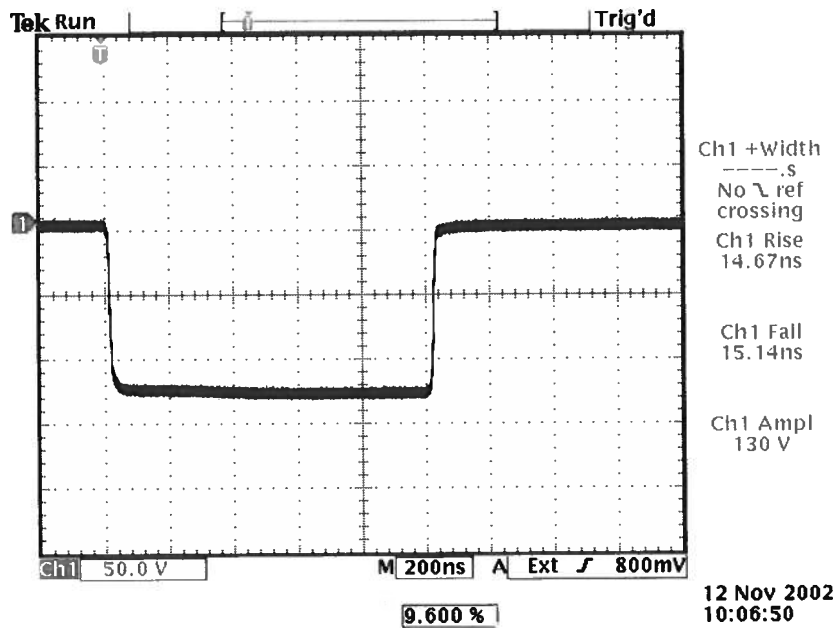
$R_c = 50\Omega$

PBF = 1/KHz



(B)

10419
NARROW PULSE, NEG OUT.
 $R_L = 50\Omega$
PBF = 1KHz



FOR LOAD CONNECTION
SEE (A)

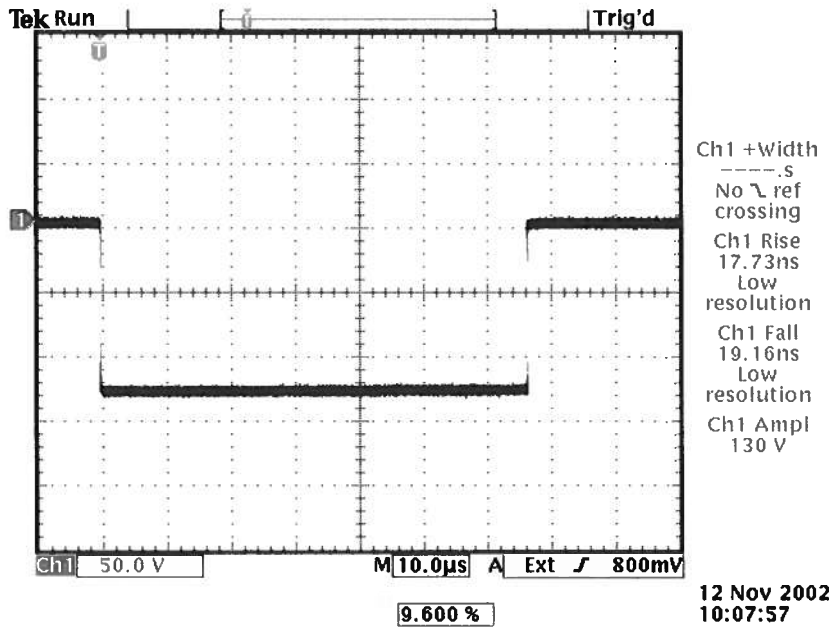
ⓐ

10419

WIDE PULSE, NEG OUT

$R_L = 50 \Omega$

PRF = 50 Hz



FOR LOAD CONNECTION,

SEE ⓑ



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"-B" Functional Test & Calibration Certificate

Date of test:	November 11, 2002				Tester:	MJC
Programmed model name:	AVR-4-B-PN					
Programmed serial number:	10419					
Firmware revision:	2.44					
Internal trigger checked at:	1 Hz	10 Hz	100 Hz	1 kHz	10 kHz	
Actual measured output ¹ :	0.997 Hz	9.98 Hz	99.8 Hz	0.997 kHz	9.99 kHz	
External trigger checked:	yes			Gate checked:	yes	
Manual trigger checked:	yes					
Pulse compression checked:	yes, + and -		Low Amplitude PW Distortion Nullled:		N/A	
Pulse width checked at:	100 ns	1 us	10 us	100 us	10 Hz, +400V to 50 Ohms	
Actual measured output ² :	100.4 ns	1.01 us	10.05 us	100.4 us		
PWin = PWout mode checked:	yes			DC mode checked:	N/A	
Duty Cycle Limit:	0.5%					
Delay nullled:	yes					
Delay checked at:	100 ns	1 us	10 us	100 us	10 Hz, +400V to 50 Ohms	
Actual measured output ¹ :	102 ns	1.001 us	10.02 us	100.3 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:	+40V	+400V	-40V	-400V	10 Hz, 100 us to 50 Ohms	
Actual measured output ² :	+40.0V	+400V	-40.0V	-400V		
Amplitude polarity:	+/-					
Zout calibration:	N/A					
Electronic amplitude control:	N/A					
External amplify mode:	N/A					
Bleeder resistors adequate:	yes					
Ultraviolet flux removed:	N/A					
Monitor V/I Ratio:	N/A			Monitor offset nullled:		
LCD Monitor calibrated:	N/A					
Offset checked at:	N/A					
Actual measured output ² :	N/A					
Offset nullled (output on):	N/A			Amplitude-dependent offset nullled:		
Offset nullled (output off):	N/A					
RS-232 checked:	yes					
LCD pull-ups installed:	yes					
PN trigger pull-downs installed:	yes					
PW stable during amplitude changes:	yes					
Sync pulse width checked:	200 ns nom					
Circuit Boards:	PS:	93	Main:	108E		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	4.7k		
DC fuses:	Positive:	1.5A	Negative:	N/A		
AC Current at 115 VAC:	Quiescent:	0.43A	Max. Load:	0.78A		
AC fuse:	1A					
120/240V operation:	OK			Fan operational:	yes	
Photographed:	yes					

¹ Checked with: Fluke PM6681 Counter (S/N 9446 066 81016), referenced to Datum ExacTime 9390-6000 (S/N 4461) GPS Frequency Reference

² 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.