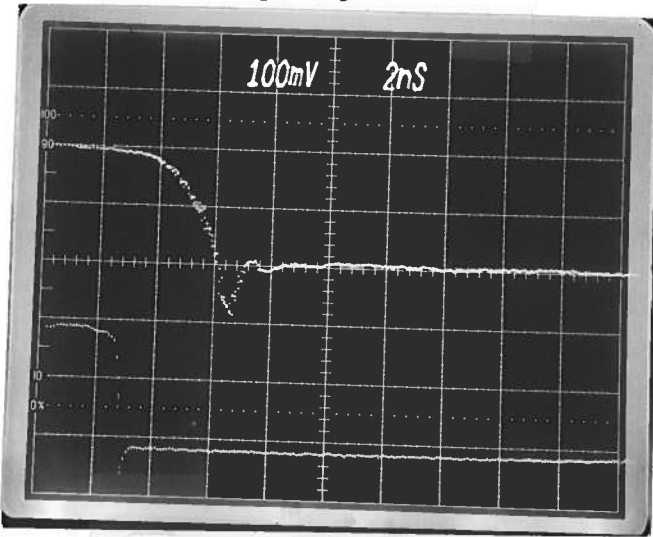


PULSE GENERATOR
PERFORMANCE CHECK

Model: AVRF-2-B-PN-MSA1

S.N.: 10343

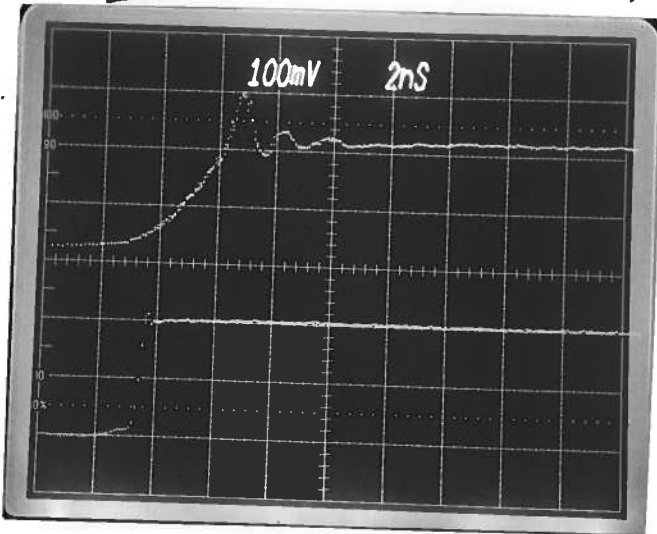
Date: SEPT 20 2002



- a) Output signal amplitude: 0 TO ± 200 VOLTS
- b) Pulse width: (TO 50ns)
100NS TO 5.0u
- c) Rise time: ≤ 2 NS
- d) Fall time: ≤ 2 NS
- e) PRF: 0 TO 1 KHz

PG-7 FALL TIME
TOP 2 NS/DIV, BOT 20 NS/DIV

- f) Jitter, stability: OK



- g) Prime power: 170/240V
50 to 6 kHz

[Handwritten signature]

NO SPURIOUS FOLLOWING
FALL TIME
TRANSISTOR
TEST 7704, 54, 7711, 7514
18 GHz

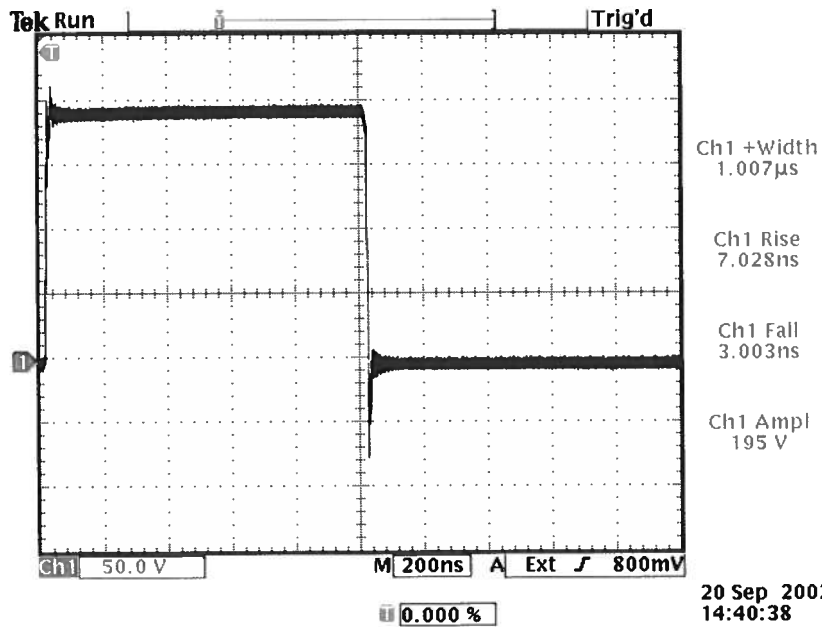
PG-N FALL TIME
TOP 2 NS/DIV, BOT 20 NS/DIV
6.9 dB ATTEN
- 100 VOLTS/DIV

10343

P OUT

$R_L = 50 \Omega$

300 MHz TEK SCOPE

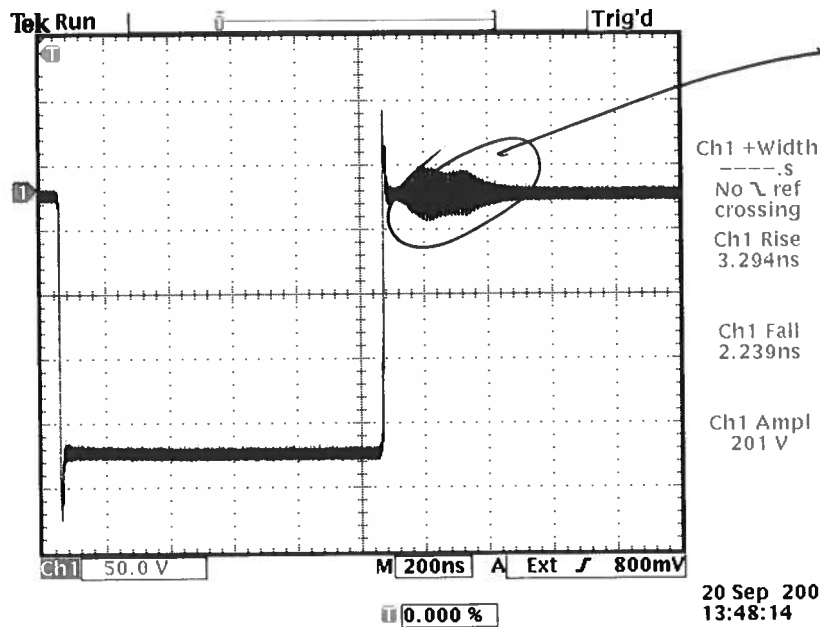


10343

N out.

$R_L = 50\Omega$

300 MHz TEK SCOPE



SCOPE
induced



AVTECH ELECTROSYSTEMS LTD.
 NANOSECOND WAVEFORM ELECTRONICS
 SINCE 1975

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"-B" Functional Test & Calibration Certificate

Date of test:	September 19, 2002				Tester:	MJC
Programmed model name:	AVRF-2-B-PN-MSA1					
Programmed serial number:	10343					
Firmware revision:	2.41					
Internal trigger checked at:	1 Hz	10 Hz	100 Hz	1 kHz		
Actual measured output ¹ :	1.000 Hz	9.990 Hz	99.93 Hz	0.999 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:	100ns (+200V)	5 us (+200V)	100ns (-200V)	5 us (-200V)	100 Hz, to 50 Ohms	
Actual measured output ² :	100.5 ns	5.07 us	101.7 ns	5.05 us		
PWin = PWout mode checked:	yes			DC mode checked:	N/A	
Duty Cycle Limit:	N/A					
Delay nulled:	yes (for positive output)					
Delay checked at:	100 ns	1 us	10 us	100 us	100 Hz, +200V	
Actual measured output ¹ :	100.2 ns	1.000 us	10.02 us	100.3 us	to 50 Ohms	
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	-200V	+50V	+200V	100 Hz, 1 us,	
Actual measured output ² :	-50.6V	-200V	+50.4V	+199V	to 50 Ohms	
Amplitude polarity:	+/-					
Zout calibration:	N/A					
Electronic amplitude control:	N/A					
External amplify mode:	N/A					
Bleeder resistors adequate:	yes, 100k					
Ultraviolet 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 ² :	N/A					
Offset nulled (output on):	N/A			Amplitude-dependent offset nulled:		
Offset nulled (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 (corrected PCB108E C16, was 220uF, to 22uF)					
Sync pulse width checked:	200 ns nom					
Circuit Boards:	PS:	93	Main:	108E		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	8.2k		
DC fuses:	Positive:	0.75A	Negative:	N/A		
AC Current at 115 VAC:	Quiescent:	0.57A	Max. Load:	0.75A		
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.