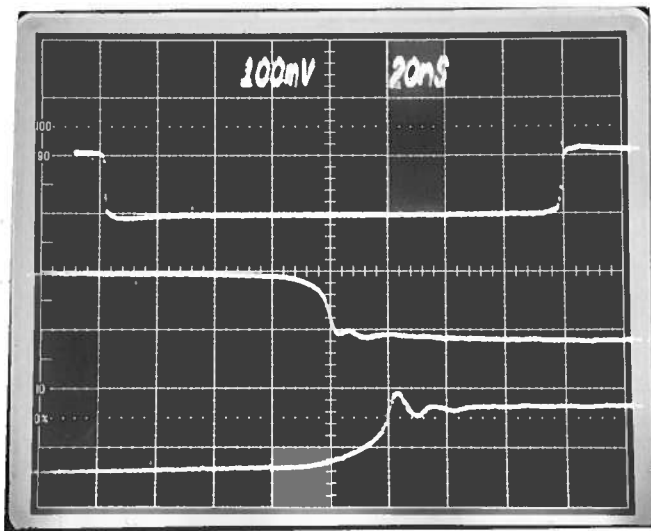


PULSE GENERATOR
PERFORMANCE CHECK

Model: *AVR-E3-B-N-R5*

S.N.: *9948*

Date: *OCT 11 2001*



- a) Output signal amplitude:
0 TO 100 V (TO 50Ω)
- b) Pulse width:
20 NS TO 200 NS
- c) Rise time:
≤ 0.5 NS
- d) Fall time:
≤ 1.0 NS
- e) PRF:
0 TO 20 KHz.
- f) Jitter, stability:
OK
- g) Prime power:
120 / 240 V
50 - 60 MHz.

60 db ATTEN

TOP 20 NS/DIV

MID 1 NS/DIV (RISE TIME)

BOT 1 NS/DIV (FALL TIME)

PRF = 20 KHz.



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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CANADA K2C 3H4
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"-B" Functional Test & Calibration Certificate

Date of test:	October 11, 2001				Tester:	MJC
Programmed model name:	AVR-E3-B-N-R5					
Programmed serial number:	9948					
Firmware revision:	2.28					
Internal trigger checked at:	2 Hz	20 Hz	200 Hz	2 kHz	20 kHz	
Actual measured output ¹ :	1.995 Hz	19.86 Hz	198.8 Hz	1.988 kHz	20.05 kHz	
External trigger checked:	yes			Gate checked:	yes	
Manual trigger checked:	yes					
Pulse compression checked:	yes		Low Amplitude PW Distortion Nulled:			
Pulse width checked at:	20 ns	50 ns	100 ns	200 ns	10 kHz, -100V to 50 Ohms	
Actual measured output ² :	20.0 ns	50.6 ns	99.6 ns	200.7 ns		
PWin = PWout mode checked:	N/A			DC mode checked:	N/A	
Duty Cycle Limit:	N/A					
Delay nulled:	yes					
Delay checked at:	100 ns	200 ns	500 ns	10 kHz, -100V to 50 Ohms		
Actual measured output ¹ :	99.4 ns	201.1 ns	505.1 ns			
Double pulse checked:	N/A					
Invert mode checked:	N/A					
ECL/TTL modes checked:	N/A					
Zout switch checked:	N/A					
Amplitude checked at:	-10 V	-20 V	-50 V	-100 V	10 kHz, 200 ns to 50 Ohms	
Actual measured output ² :	-9.9 V	-20.0 V	-50.0 V	-100.4 V		
Amplitude polarity:	-					
Zout calibration:	N/A					
Electronic amplitude control:	N/A					
External amplify mode:	N/A					
Ultraviolet 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:	12 k		
DC fuses:	Positive:	0.5A	Negative:	N/A		
AC Current at 115 VAC:	Quiescent:	0.43A	Max. Load:	0.48A		
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.