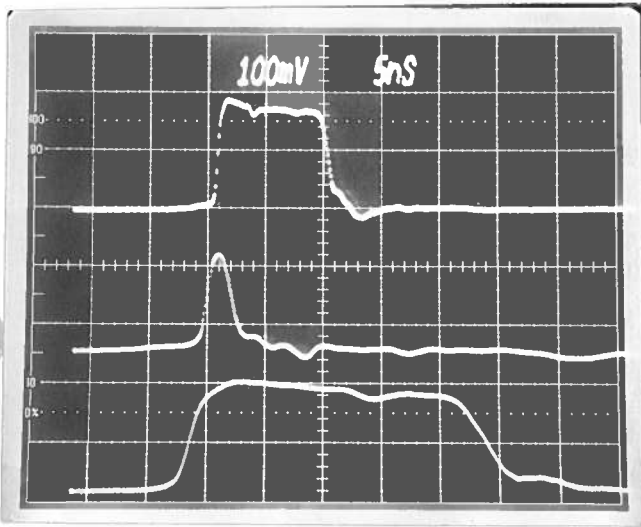


PULSE GENERATOR
PERFORMANCE CHECK

Model: AVR-E5-B-PN-EA-05

S.N.: 10923

Date: JUNE 15 2004



- a) Output signal amplitude:
0 TO $\pm 50V$ (TO 50N)
- b) Pulse width:
1 TO 10 NS
- c) Rise time:
 $\leq 0.5 NS$
- d) Fall time:
 $\leq 1.0 NS$
- e) PRF:
0 TO 1.0 MHz
- f) Jitter, stability:
OK
- g) Prime power:
100 \rightarrow 240 V
50-60 MHz

50dB ATTN.: 32V/DIV

TOP 5 NS/DIV, PW MAX

MID 2 NS/DIV, PW MIN

BOT 1 NS/DIV, TR, TF

PRF = 100 KHz



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

"-B" Functional Test & Calibration Certificate

Date of test:	June 15, 2004				Tester:	MJC
Programmed model name:	AVR-E5-B-EA-OS-PN					
Programmed serial number:	10923	MAC address:	N/A			
Firmware revision:	2.58					
Internal trigger checked at:	1 Hz	1 kHz	10 kHz	100 kHz	1 MHz	
Actual measured output ¹ :	0.998 Hz	0.992 kHz	9.93 kHz	99.4 kHz	1.000 MHz	
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:	1 ns	2 ns	5 ns	10 ns	100 kHz,	
Actual measured output ² :	0.95 ns	2.1 ns	5.1 ns	10.0 ns	+50V to 50Ω	
PWin = PWout mode checked:	N/A		DC mode checked:		N/A	
Duty Cycle Limit:	N/A					
Delay nulled:	Yes					
Delay checked at:	100 ns	1 us	10 us	100 us	100 kHz,	
Actual measured output ¹ :	99.8 ns	1.004 us	10.07 us	100.6 us	+50V to 50Ω	
Double pulse checked:	N/A					
Invert mode checked:	N/A					
ECL/TTL modes checked:	N/A					
Zout switch checked:	N/A					
Amplitude checked at:	-10V	+20V	-35V	+50V	100 kHz, 10	
Actual measured output ² :	-10.0V	+20.1V	-34V	+50V	ns to 50Ω	
Amplitude polarity:	+/-					
Zout calibration:	N/A					
Electronic amplitude control:	OK					
External amplify mode:	N/A					
Bleeder resistors adequate:	Yes					
Burst mode:	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:	N/A					
PCB 108G/H resistor updates:	Yes					
PN trigger pull-downs installed:	N/A					
Sync pulse width checked:	100 ns nominal					
Circuit Boards:	PS:	158E	Main:	108H		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	39k		
DC fuses:	Main:	1.0A	Overload:	0.25A		
AC Current:	Quiescent:	0.22A @ 115V	Max. Load:	0.28A @ 115V		
		0.16A @ 230V		0.18A @ 230V		
AC fuse:	0.5A					
1.5 kV RMS, 5 second Hypot Test:	OK					
25A RMS Ground Continuity Test:	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 (Cal. Label 112506) for PW < 5 ns.