



# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
SINCE 1975

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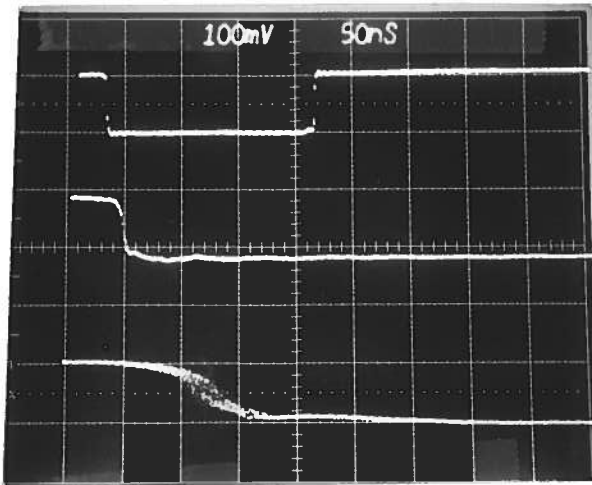
BOX 5120, LCD MERIVALE  
OTTAWA, ONTARIO  
CANADA K2C 3H4  
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## PERFORMANCE CHECKSHEET

Model: *AVR-E3-B-N-M1-R5*

S.N.: *11363*

Date: *NOV 25 2005*



*60 dB ATTN.: 100V/DIV*

① *50 ns/DIV*

② *5 ns/DIV*

③ *500ps/DIV (RISE TIME)*

*PRF = 10 KHz*

a) Output Signal Amplitude:

*0 TO -100V (TO 50ns)*

b) Pulse Width(FWHM):

*20 ns TO 500ns*

c) Rise Time (20%-80%):

*≤ 0.5 ns*

d) Fall Time (80%-20%):

*≤ 1.0 ns*

e) PRF:

*0 TO 50 KHz*

f) Jitter, Stability:

*OK*

g) Prime Power:

*100 - 200V  
50 - 60 Hz*



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## "-B" Functional Test & Calibration Certificate

Date of test:	November 25, 2005				Tester:	MJC
Programmed model name:	AVR-E3-B-N-M1					
Programmed serial number:	11363	MAC address:	N/A			
Firmware revision:	2.61					
Internal trigger checked at:	5 Hz	50 Hz	500 Hz	5 kHz	50 kHz	
Actual measured output <sup>1</sup> :	5.02 Hz	50.2 Hz	502 Hz	5.02 kHz	50.0 kHz	
External trigger checked:	Yes	Gate checked: Yes				
Manual trigger checked:	Yes					
Pulse compression checked:	Yes	Low Amplitude PW Distortion Nullled:			N/A	
Pulse width checked at:	20 ns	100 ns	200 ns	500 ns	10 kHz, -100V to 50 Ohms	
Actual measured output <sup>2</sup> :	19.2 ns	99.7 ns	200.4 ns	501 ns		
PWin = PWout mode checked:	N/A	DC mode checked: N/A				
Duty Cycle Limit:	N/A					
Delay nullled:	Yes					
Delay checked at:	100 ns	1 us	10 us	100 us	5 Hz, -100V to 50 Ohms	
Actual measured output <sup>1</sup> :	99 ns	1.006 us	10.01 us	100.2 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:	-10V	-20V	-50V	-100V	10 kHz, 500 ns to 50 Ohms	
Actual measured output <sup>2</sup> :	-10.1V	-20.0V	-50.4V	-100.4V		
Amplitude polarity:	-					
Zout calibration:	N/A					
Electronic amplitude control (+ and -):	N/A					
External amplify mode:	N/A					
Bleeder resistors adequate:	Yes					
Burst mode:	N/A					
Monitor V/I Ratio:	N/A	Monitor offset nullled:				
LCD Monitor calibrated:	N/A					
Offset checked at:	N/A					
Actual measured output <sup>2</sup> :	N/A					
Offset nullled (output on):	N/A					
Offset nullled (output off):	N/A					
RS-232 checked:	Yes	Telnet control checked:			N/A	
LCD pull-ups installed:	Yes					
PCB 108H oscillator buffer resistor:	N/A	PW, delay bias (1k/820/108H or 1k/604/108M):				
PCB 108N TP14/C26 resistor:	N/A					
PN trigger pull-downs installed:	N/A					
Sync pulse width checked:	200 ns nominal					
Circuit Boards:	PS:	158K	Main:	108E		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	7.5k		
DC fuses:	Main:	1.6A	Overload:	0.8A		
AC Current:	Quiescent:	0.21A @ 115V 0.17A @ 230V	Max. Load:	0.36A @ 115V 0.22A @ 230V		
AC fuse:	0.5A					
1.5 kV <sub>RMS</sub> , 5s, switch on, Hypot Test:	OK					
25A RMS Ground Continuity Test:	OK					
Fan operational:	Yes					
Top cover vent required:	No					
Photographed:	Yes					

<sup>1</sup> Checked with: Fluke PM6681 Counter (S/N 9446 066 81016), referenced to Datum ExacTime 9390-6000 (S/N 4461) GPS Frequency Reference  
<sup>2</sup> 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.