



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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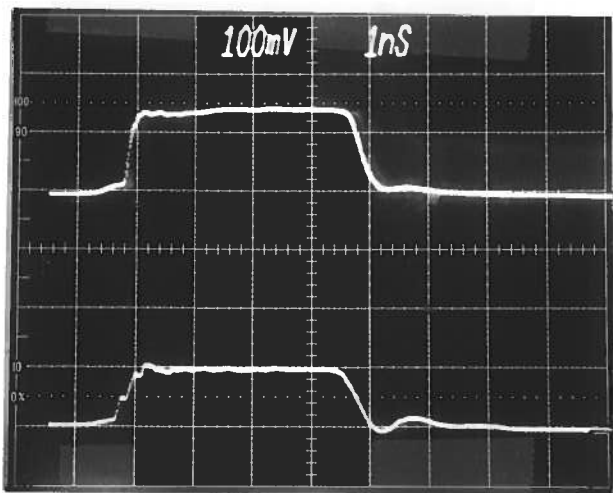
BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
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PERFORMANCE CHECKSHEET

Model: *AVO-9A-B-P-HE-PIB-TIB*

S.N.: *11484*

Date: *MAY 12 2006.*



a) Output Signal Amplitude:
0 TO +400 mA
(0 TO +13V TO 50Ω)
b) Pulse Width(FWHM):

0.4 TO 4.0 NS

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

≤ 200ps

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

≤ 200ps

e) PRF:

0 TO 1.0 MHz

f) Jitter, Stability:

OK

g) Prime Power:

100-250V
50-60 Hz.

① MAINFRAME OUT TO 40 dB
(NO AUX-51)

② AS ① BUT WITH AUX-51
INSTALLED TO IN459A
TEST LOAD. MI OUT
TO 20 dB AND +50 mA
DC BIAS. 400 mA/DIV.

PRF = 100 KHz



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"-B" Functional Test & Calibration Certificate

Date of test:	May 12, 2006				Tester:	MJC	
Programmed model name:	AVO-9A-B-P1B-T1B-HC-P						
Programmed serial number:	11484	MAC address:	00:90:c2:c7:21:bf				
Firmware revision:	3.37						
Internal trigger checked at:	1 Hz	1 kHz	10 kHz	100 kHz	1 MHz		
Actual measured output ¹ :	1.004 Hz	1.002 kHz	10.04 kHz	100.2 kHz	1.017 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:	400 ps	1 ns	2 ns	4 ns	100 kHz, +13V to 50Ω		
Actual measured output ² :	390 ps	1.0 ns	2.0 ns	3.9 ns			
PW _{in} = PW _{out} 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	5 Hz, +13V to 50Ω		
Actual measured output ¹ :	100.0 ns	0.993 us	9.92 us	99.2 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:	+2V	+5V	+10V	+13V	100 kHz, 4 ns, to 50Ω		
Actual measured output ² :	+2.1V	+5.1V	+10.1V	+13.0V			
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 nulled:				
LCD Monitor calibrated:	N/A						
Offset checked at:	N/A						
Actual measured output ² :	N/A						
Offset nulled (output on):	N/A						
Offset nulled (output off):	N/A						
RS-232 checked:	Yes			Telnet control checked:	N/A		
LCD pull-ups installed:	N/A						
PCB 108H oscillator buffer resistor:	N/A		PW, delay bias (1k/820/108H or 1k/604/108M):				N/A
PCB 108N TP14/C26 resistor:	N/A						
PCB 108Q PRF stabilized:	Yes						
PN trigger pull-downs installed:	N/A						
Sync pulse width checked:	100 ns nominal						
Circuit Boards:	PS:	158K	Main:	108Q			
Overload Trigger Resistance:	Trips at:		Installed:				
DC fuses:	Main:	1A	Overload:	0.5A			
AC Current:	Quiescent:	0.24A @ 115V 0.19A @ 230V	Max. Load:	0.28A @ 115V 0.21A @ 230V			
AC fuse:	0.5A						
1.5 kV _{RMS} , 5s, switch on, Hypot Test:	OK						
25A RMS Ground Continuity Test:	OK						
Fan operational:	Yes						
Top cover vent required:	No						
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.