



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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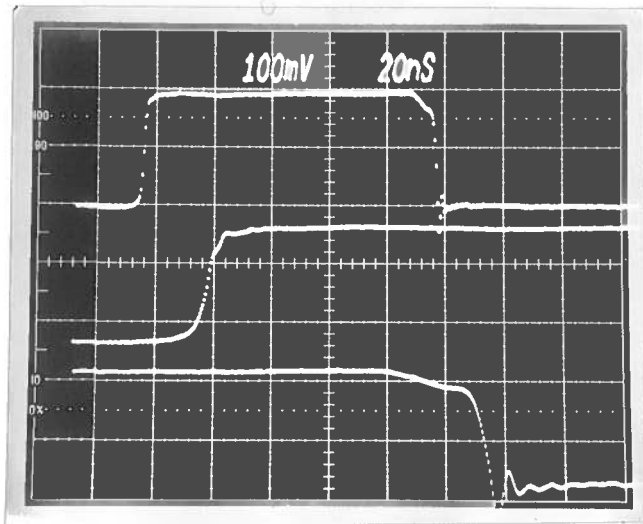
BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

PERFORMANCE CHECKSHEET

Model: *AVIR-3-B-P-EA-05-M*

S.N.: *11048*

Date: *OCT 26 2004*



a) Output Signal Amplitude:

*0 TO +200 V
(TO 50 Ω)*

b) Pulse Width(FWHM):

*10 NS TO
200 NS*

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

≤ 2 NS

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

≤ 2 NS

e) PRF:

0 TO 20 KHz

f) Jitter, Stability:

OK

g) Prime Power:

*100 - 240 V
50 - 60 Hz*

60 dB ATTEN. : 100V/DIV

TOP 20 NS/DIV

MID 5 NS/DIV (RISE TIME)

BOT 5 NS/DIV (FALL TIME)



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"-B" Functional Test & Calibration Certificate

Date of test:	October 26, 2004				Tester:	MJC
Programmed model name:	AVIR-3-B-P-EA-OS-M					
Programmed serial number:	11048	MAC address:		N/A		
Firmware revision:	2.59					
Internal trigger checked at:	2 Hz	20 Hz	200 Hz	2000 Hz	20000 Hz	
Actual measured output ¹ :	1.992 Hz	19.88 Hz	198.5 Hz	1988 Hz	19881 Hz	
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:	10 ns	30 ns	100 ns	200 ns	10 kHz, +200V to 50 Ohms	
Actual measured output ² :	9.9 ns	29.0 ns	100.5 ns	199.9 ns		
PWin = PWout mode checked:	N/A			DC mode checked:		
Duty Cycle Limit:	N/A					
Delay nulled:	Yes					
Delay checked at:	100 ns	1 us	10 us	100 us	1 kHz, +200V to 50 Ohms	
Actual measured output ¹ :	101.3 ns	1.01 us	10.07 us	100.6 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:	+20V	+50V	+100V	+200V	10 kHz, 100 ns to 50 Ohms	
Actual measured output ² :	+20.4V	+50.6V	+101V	+200V		
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 108H oscillator buffer resistor:	Yes					
PN trigger pull-downs installed:	N/A					
Sync pulse width checked:	100 ns nominal					
Circuit Boards:	PS:	158F	Main:	108H		
Overload Trigger Resistance:	Trips at:	N/A	Installed:	8.2k		
DC fuses:	Main:	1.6A	Overload:	0.8A		
AC Current:	Quiescent:	0.26A @ 115V	Max. Load:	0.39A @ 115V		
		0.18A @ 230V		0.23A @ 230V		
AC fuse:	0.5A					
1.5 kV _{RMS} , 5s, switch on, 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.