



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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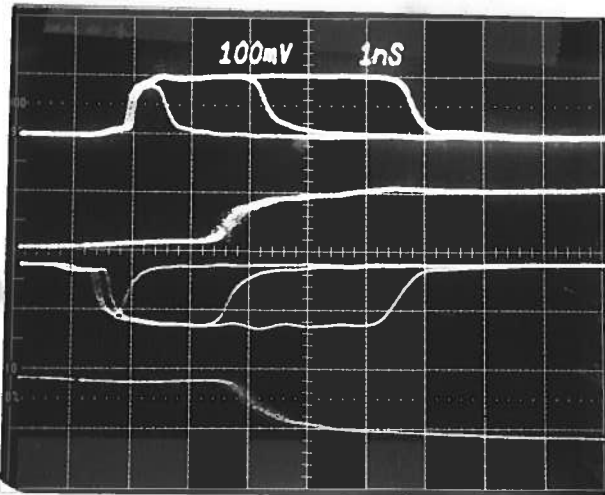
BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

PERFORMANCE CHECKSHEET

Model: *AVPP-1-B-PN-OT*

S.N.: *11481*

Date: *APRIL 21 2006*



*PW RANGE 0.4 TO 5.0 NS
40 dB ATTN, 10V/DIV*

① *POS OUT, 1 NS/DIV
PW_{MIN}, PW_{MID}, PW_{MAX}*

② *POS OUT, 200 PS/DIV
RISE TIME*

③ *NEG, 1 NS/DIV
PW_{MIN}, PW_{MID}, PW_{MAX}*

④ *NEG OUT, 200 PS/DIV
RISE TIME*

PRF = 100 KHz

a) Output Signal Amplitude:
0 TO ±10V (TO 50V)

b) Pulse Width(FWHM):
0.4 TO 100 NS

c) Rise Time (20%-80%):
*≤ 100 ps
≤ 200 ps FOR PW ≤ 5 ns*

d) Fall Time (80%-20%):
*≤ 135 ps
≤ 200 ps FOR PW ≤ 5 ns*

e) PRF:
0 TO 1 MHz

f) Jitter, Stability: *OK*

g) Prime Power: *100-280 V
50-60 Hz*

h) DC OFFSET: *0 TO ±5V*



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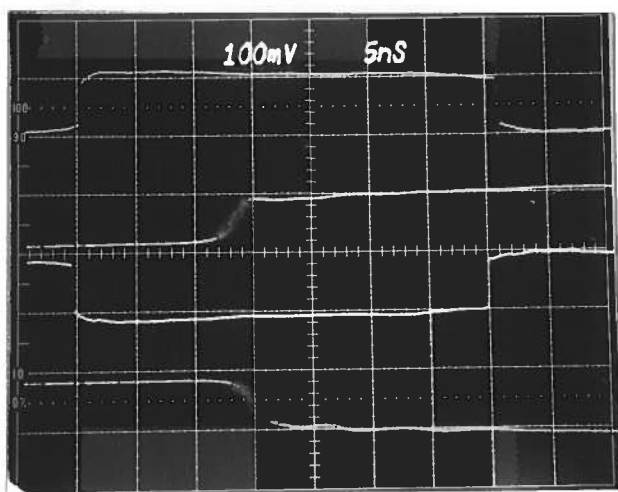
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PERFORMANCE CHECKSHEET

Model:

S.N.: 11481

Date:



a) Output Signal Amplitude:

b) Pulse Width(FWHM):

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

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

e) PRF:

f) Jitter, Stability:

g) Prime Power:

PULS WIDTH: 5 TO 100 NS
 40 DB ATTN, 10 V/DIV

- ⑤ POS OUT, 5 NS/DIV
 - ⑥ POS OUT, 200 PS/DIV
RISE TIME
 - ⑦ NEG OUT 5 NS/DIV
 - ⑧ NEG OUT, 200 PS/DIV
RISE TIME
- PRF = 100 KHz



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"-B" Functional Test & Calibration Certificate

Date of test:	April 21, 2006					Tester:	MJC
Programmed model name:	AVPP-1-B-OT-PN						
Programmed serial number:	11481	MAC address:					00:90:c2:c7:1a:2f
Firmware revision:	3.37						
Internal trigger checked at:	1 Hz	1 kHz	10 kHz	100 kHz	1 MHz		
Actual measured output ¹ :	1.005 Hz	1.007 kHz	10.02 kHz	100.4 kHz	1.020 MHz		
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:	1 ns	10 ns	100 ns	100 kHz, +10V to 50 Ohms			
Actual measured output ² :	0.98 ns	10.2 ns	100.3 ns				
PWin = PWout mode checked:	N/A			DC mode checked:			N/A
Duty Cycle Limit:	10%						
Delay nulled:	Yes						
Delay checked at:	100 ns	1 us	10 us	100 us	10 Hz, 100 ns PW, to 50 Ω		
Actual measured output ¹ :	99.8 ns	1.001 us	9.96 us	99.5 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:	4 ns, -2V	40 ns, -5V	4 ns, +7V	40 ns, +10V	10 kHz, to 50 Ohms		
Actual measured output ² :	-2.0V	-4.8V	+7.1V	+9.9V			
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:	-5V	+5V	Into 50 Ohms				
Actual measured output ² :	-5.00V	+5.00V					
Offset nulled (output on):	Yes		Amplitude-dependent offset nulled:				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:	20k	Installed:	15k			
DC fuses:	Main:	1.6A	Overload:	0.5A			
AC Current:	Quiescent:	0.35A @ 115V	Max. Load:	0.42A @ 115V			
		0.23A @ 230V		0.26A @ 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.