



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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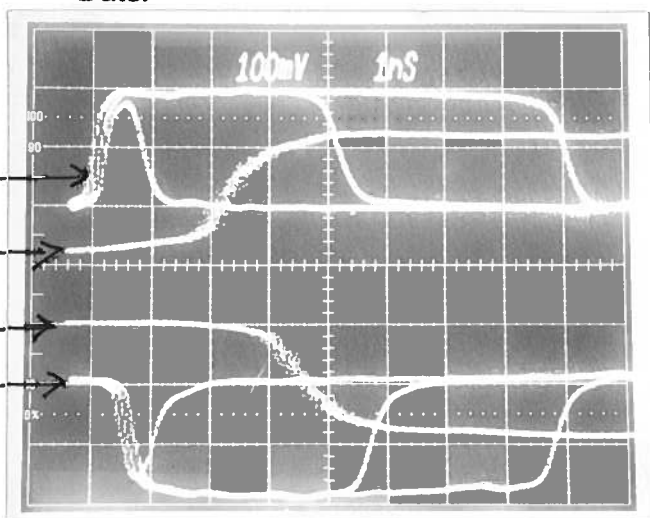
BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

PERFORMANCE CHECKSHEET

Model: *AVPP-2A-B-PN-MS11A*

S.N.: *11151*

Date: *MAR 23 2005*



*PW RANGE 0.6 TO 8.0 NS
40dB ATTN, 10V/DIV*

- ① POS OUT, 1NS/DIV
PW_{min}, PW_{mid}, PW_{max}.
- ② POS OUT, 200 PS/DIV
RISE TIME
- ③ NEG OUT, 1 NS/DIV
PW_{min}, PW_{mid}, PW_{max}
- ④ NEG OUT, 200 ps/DIV
RISE TIME

PRF = 10 KHz

a) Output Signal Amplitude:
0 TO ± 20 V (TO 50Ω)

b) Pulse Width(FWHM):
*0.6 NS TO 1.0 US
5% MAX DUTY CYCLE*

c) Rise Time (20%-80%):
≤ 250 ps

d) Fall Time (80%-20%):
≤ 350 ps

e) PRF:
*0 TO 100 KHz
5% MAX DUTY CYCLE*

f) Jitter, Stability:
OK

g) Prime Power:
*100 - 240 Volts
50 - 60 Hz.*



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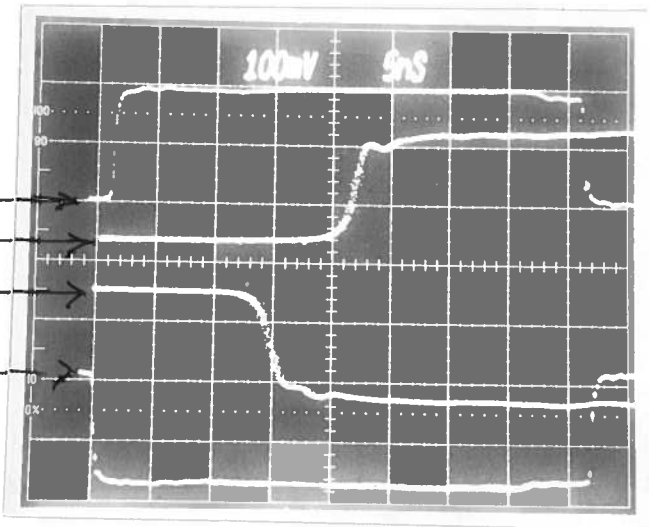
BOX 5120, LCD MERIVALE
 OTTAWA, ONTARIO
 CANADA K2C 3H4
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PERFORMANCE CHECKSHEET

Model:

S.N.: 11151 00NT.

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:

PW RANGE 8 NS TO 1.045
 40 DB ATTN, 10V/DIV

⑤ POS OUT, 5 NS/DIV

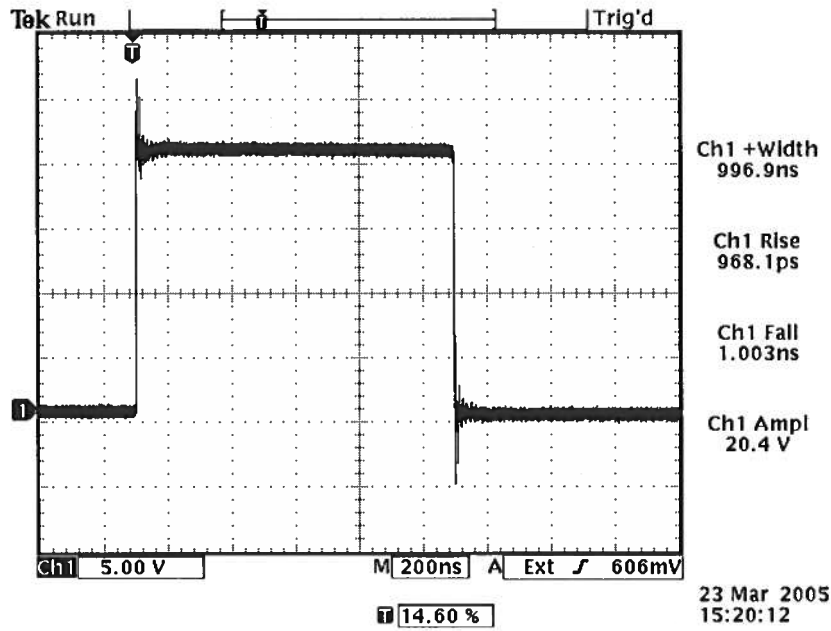
⑥ POS OUT, 500 pA/DIV
 RISE TIME

⑦ NEG OUT, 5 NS/DIV

⑧ NEG OUT, 500 pA/DIV
 RISE TIME

PRF = 100 KHZ.

11151
POS OUT



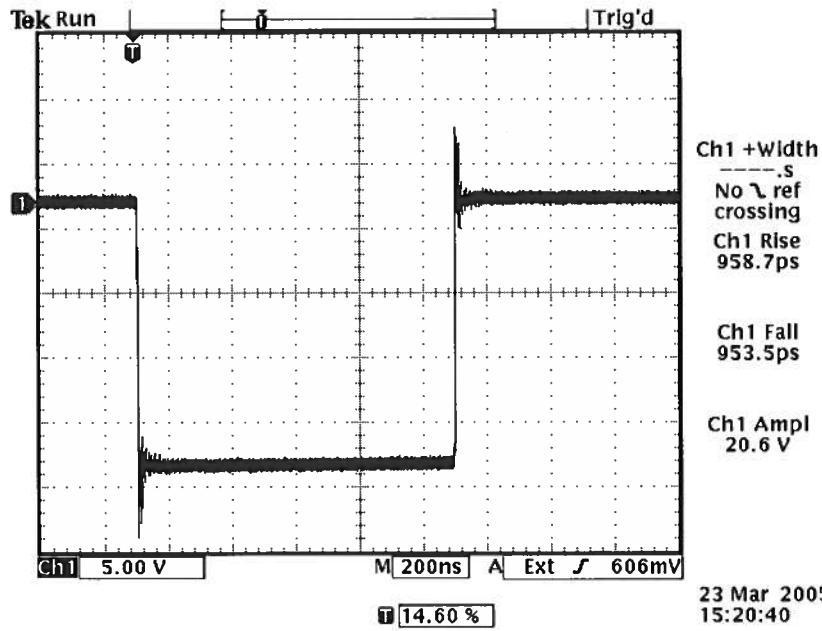
PW MAX

$R_L = 50 \Omega$

PRF = 50 KHz

TEK TDS 3032 300 MHz SCOPE

11151
NEG OUT



PW MAX

$R_L = 50 \Omega$

$R_{AF} = 50 K\Omega$

TEK TDS 3032 300 MHz SCOPE

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"-B" Functional Test & Calibration Certificate

Date of test:		March 22, 2005			Tester:		MJC	
Programmed model name:		AVPP-2A-B-PN-MSHA						
Programmed serial number:		11151		MAC address:		00:90:c2:c6:b8:ac		
Firmware revision:		3.23						
Internal trigger checked at:		10 Hz	100 Hz	1 kHz	10 kHz	100 kHz		
Actual measured output ¹ :		10.12 Hz	101.1 Hz	1.012 kHz	10.09 kHz	100.5 kHz		
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:		0.6 ns	10 ns	100 ns	1 us	10 kHz, +20V to 50 Ohms		
Actual measured output ² :		0.61 ns	10.1 ns	101 ns	0.997 us	50 Ohms		
PWin = PWout mode checked:		N/A		DC mode checked:		N/A		
Duty Cycle Limit:		5%						
Delay nulled:		Yes						
Delay checked at:		100 ns	1 us	10 us	100 us	10 Hz, +20V, 1 us, to 50 Ohms		
Actual measured output ¹ :		100.4 ns	0.999 us	10.01 us	100.0 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, -5V	4 ns, +20V	200 ns, -5V	200 ns, +20V	10 kHz, to 50 Ohms		
Actual measured output ² :		-5.2V	+20.2V	-4.9V	+19.9V	Ohms		
Amplitude polarity:		+/-						
Zout calibration:		N/A						
Electronic amplitude control:		N/A						
External amplify mode:		N/A						
Bleeder resistors adequate:		N/A						
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		Telnet control checked:				
LCD pull-ups installed:		N/A						
PCB 108H oscillator buffer resistor:		N/A		PW, delay bias (1k/820/108H or 1k/604/108M):				
PRF/PW/Delay leakage current:		OK						
PN trigger pull-downs installed:		N/A						
Sync pulse width checked:		100 ns nominal						
Circuit Boards:		PS:	158H	Main:	108M4			
Overload Trigger Resistance:		Trips at:	N/A	Installed:	10k			
DC fuses:		Main:	1.6A	Overload:	0.8A			
AC Current:		Quiescent:	0.35A @ 115V	Max. Load:	0.42A @ 115V			
			0.21A @ 230V		0.24A @ 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.