



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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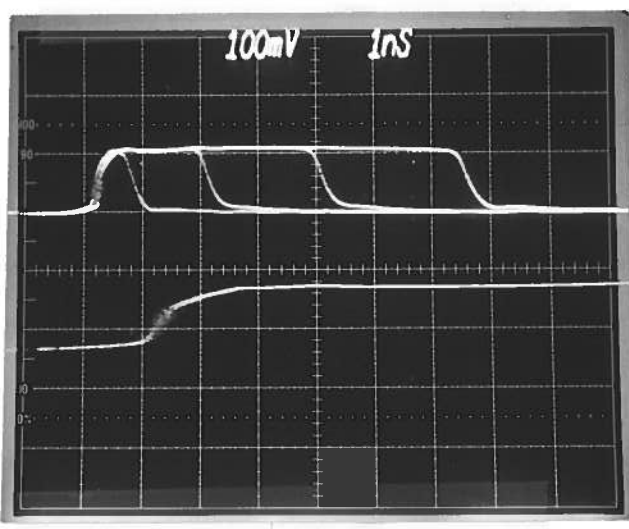
BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

PERFORMANCE CHECKSHEET

Model: *AVPP-1A-B-P-AK1*

S.N.: *11402*

Date: *FEB 6 2006*



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

b) Pulse Width(FWHM):
0.5ns TO 1.0us
(5% MAX DUTY CYCLE)

c) Rise Time (20%-80%):
≤ 200ps

d) Fall Time (80%-20%):
≤ 300ps

e) PRF:
0 TO 500 KHz
(5% MAX DUTY CYCLE)

f) Jitter, Stability:
OK

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

PW RANGE 0.5 TO 6.0 NS
40 dB ATTN ∴ 18V/DIV

① *1 NS/DIV. PW VARIED*
FROM MIN TO MAX

② *200 ps/DIV. RISE TIME*

PRF = 100 KHz



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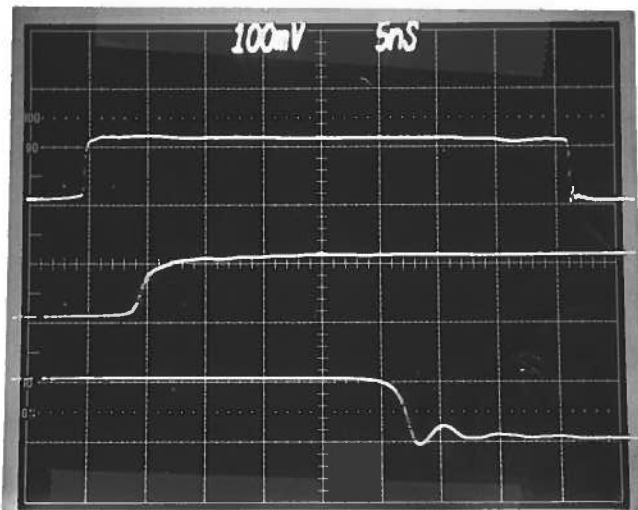
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PERFORMANCE CHECKSHEET

Model:

S.N.: 11402 CONT.

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:

6 NS TO 1.0US RANGE.

40 dB ATTN. - 10V/DIV

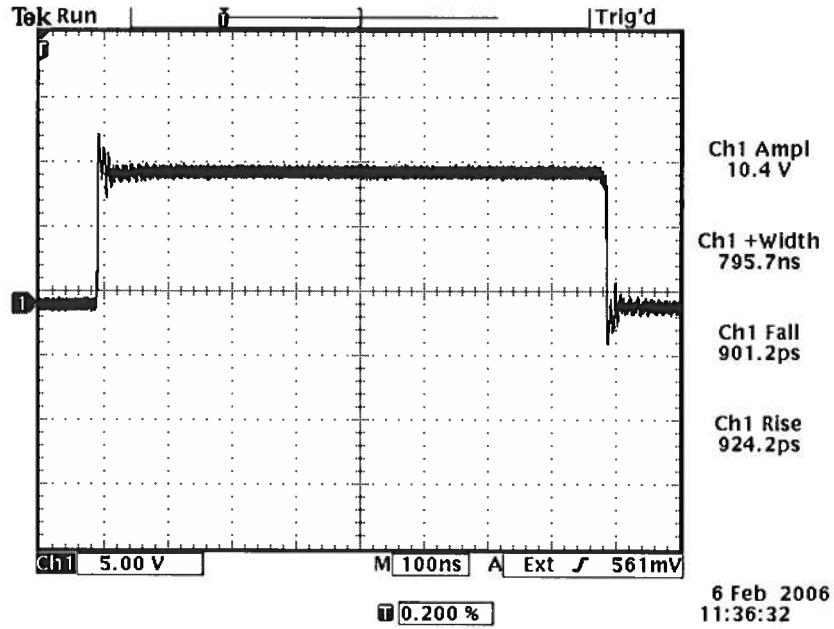
③ 5 ns/DIV

④ 500 ps/DIV, RISE TIME

⑤ 500 ps/DIV, FALL TIME

PRF = 100 KHz.

11402



PW NEAR MAX

$R_L = 50 \Omega$

PRF = 10 kHz

TEK TDS 3032 300 MHz SCOPE



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"-B" Functional Test & Calibration Certificate

Date of test:	February 3, 2006				Tester:	MJC	
Programmed model name:	AVPP-1A-B-P-AK1						
Programmed serial number:	11402	MAC address:	00:90:c2:c9:44:8f				
Firmware revision:	3.37						
Internal trigger checked at:	500 Hz	5 kHz	50 kHz	500 kHz	for PW = 50 ns		
Actual measured output ¹ :	498 Hz	4.98 kHz	49.6 kHz	498 kHz			
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:	0.5 ns	5 ns	50 ns	500 ns	1 kHz, +10V		
Actual measured output ² :	0.5 ns	4.9 ns	50.1 ns	497 ns	into 50 Ohms		
PW _{in} = PW _{out} 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, +10V, 1 us into 50 Ω		
Actual measured output ¹ :	101 ns	0.998 us	9.999 us	100.1 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:	5 ns, +2V	5 ns, +10V	500 ns, +2V	500 ns, +10V	10 kHz, into 50 Ohms		
Actual measured output ² :	+2.1V	+10.1V	+2.1V	+10.0V			
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		Amplitude-dependent offset nulled:				
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:	N/A	Installed:	20k			
DC fuses:	Main:	1.6A	Overload:	0.5A			
AC Current:	Quiescent:	0.30A @ 115V	Max. Load:	0.33A @ 115V			
		0.20A @ 230V		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.