



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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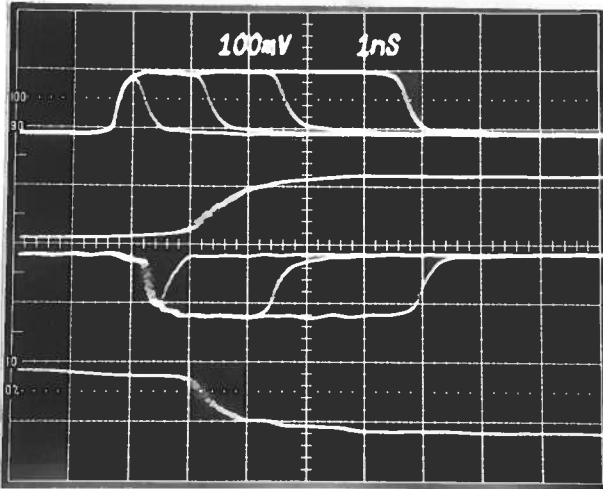
BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

PERFORMANCE CHECKSHEET

Model: *AVPP-1-B-PN-M-OT-TNT-AKI*

S.N.: *11413*

Date: *FEB 28 2006*



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

a) Output Signal Amplitude:

0 TO ± 10 V (TO 50Ω)

①

b) Pulse Width(FWHM):

0.4 TO 100ns

②

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

≤ 100ps

(≤ 200ps FOR PW ≤ 5ns)

③

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

≤ 135ps

(≤ 200ps FOR PW ≤ 5ns)

④

e) PRF:

0 TO 1 MHz

f) Jitter, Stability:

OK

g) Prime Power:

*100 - 240 V
50 - 60 Hz*

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

② POS OUT, 200ps/DIV
RISE TIME

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

④ NEG OUT, 200ps/DIV
RISE TIME

PRF = 100 kHz



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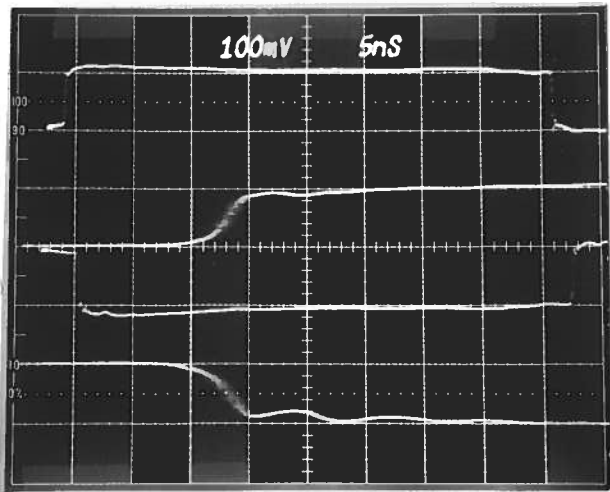
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PERFORMANCE CHECKSHEET

Model:

S.N.: 11413 CONT.

Date:



DW RANGE 5 TO 100NS
40 DB ATTN, 10V/DIU

- ⑤ POS OUT, 5 NS/DIU
- ⑥ POS OUT, 200 ps/DIU
(RISE TIME)
- ⑦ NEG OUT, 5 NS/DIU
- ⑧ NEG OUT, 200 ps/DIU
RISE TIME

PRF = 100 KHz

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:



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 TEL: (613) 226-5772
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"-B" Functional Test & Calibration Certificate

Date of test:	February 27, 2006				Tester:	MJC
Programmed model name:	AVPP-1-B-AK1-TNT-PN-OT-M					
Programmed serial number:	11413	MAC address:	00:90:c2:c9:44:90			
Firmware revision:	3.37					
Internal trigger checked at:	100 Hz	1 kHz	10 kHz	100 kHz	1 MHz	
Actual measured output ¹ :	100.2 Hz	1.001 kHz	10.01 kHz	100.0 kHz	1.021 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:	1 ns	5 ns	20 ns	100 ns	100 kHz, +10V to 50Ω	
Actual measured output ² :	1.05 ns	4.9 ns	18.4 ns	99.7 ns		
PWin = PWout 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	10 Hz, 100 ns, +10V to 50Ω	
Actual measured output ¹ :	99.2 ns	0.996 us	9.95 us	99.6 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:	5 ns, -2V	5 ns, +10V	50 ns, +2V	50 ns, -10V	100 kHz, to 50Ω	
Actual measured output ² :	-2.0V	+10.2V	+2.2V	-10.2V		
Amplitude polarity:	+/-					
Zout calibration:	N/A					
Electronic amplitude control (+ and -):	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:	-5V	0V	+5V		Into 50 Ohms	
Actual measured output ² :	-4.99V	-0.014V	+4.99V			
Offset nulled (output on):	Yes		Amplitude-dependent offset nulled:			N/A
Offset nulled (output off):	N/A					
RS-232 checked:	Yes		Telnet control checked:			Yes
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:	15k		
DC fuses:	Main:	2A	Overload:	0.5A		
AC Current:	Quiescent:	0.40A @ 115V 0.24A @ 230V	Max. Load:	0.46A @ 115V 0.26A @ 230V		
AC fuse:	0.5A (for 240V operation)					
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.