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
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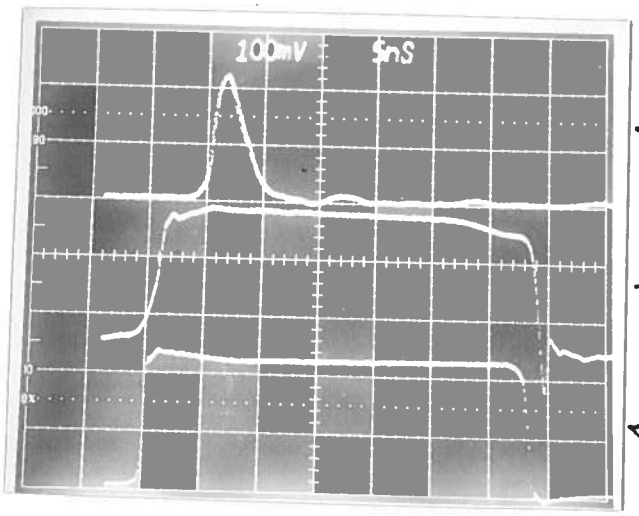
PERFORMANCE CHECKSHEET

Model: AVIR-4-B-P-M-4051

S.N.: 11293

Date: OCT 13 2005



60 dB ATTN: 100 V/DIV

① 5 NS/DIV

② 5 NS/DIV

③ 20 NS/DIV

PRF = 10 KHz.

a) Output Signal Amplitude:

① 0 TO +200V (TO 50Ω)

b) Pulse Width(FWHM):

2 NS TO 1.0 US.
(0.4% MAX DUTY CYCLE)

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

② 2-10 NS: ≤ 1 NS
10 NS - 1 US ≤ 2 NS

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

③ ≤ 2 NS

e) PRF:

0 TO 20 KHz
(0.4% MAX DUTY CYCLE)

f) Jitter, Stability:

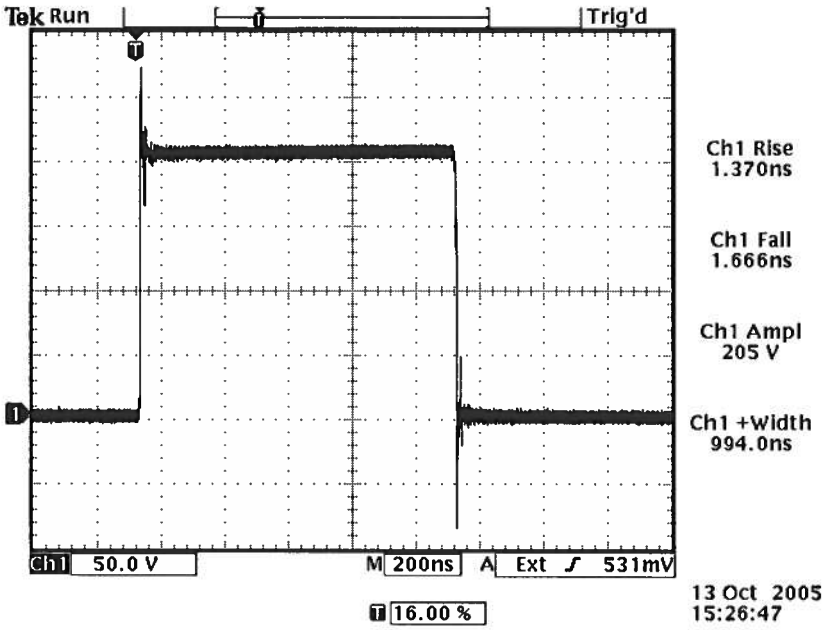
OK

g) Prime Power:

100 - 240 VOLTS
50 - 60 HZ

11293

PW NEAR MAX.
$R_L = 50\,\Omega$



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"-B" Functional Test & Calibration Certificate

Date of test:	October 13, 2005			Tester:	MJC
Programmed model name:	AVIR-4-B-M-P-UOS1				
Programmed serial number:	11293		MAC address:	00:90:c2:c6:c8:32	
Firmware revision:	3.32				
Internal trigger checked at:	2 Hz	20 Hz	200 Hz	2 kHz	20 kHz
Actual measured output[1]:	2.016 Hz	20.11 Hz	201.1 Hz	2.012 kHz	19.97 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:	5 ns	20 ns	100 ns	1 us	4 kHz, +200V to
Actual measured output[2]:	4.5 ns	20.3 ns	99.9 ns	0.992 us	50 Ohms
PWin = PWout mode checked:	N/A			DC mode checked:	N/A
Duty Cycle Limit:	0.4%				
Delay nulled:	Yes				
Delay checked at:	100 ns	1 us	10 us	100 us	10 Hz, +200V to
Actual measured output[1]:	100 ns	0.999 us	9.97 us	99.8 us	50 Ohms
Double pulse checked:	N/A				
Invert mode checked:	N/A				
ECL/TTL modes checked:	N/A				
Zout switch checked:	N/A				
Amplitude checked at:	+50V, 200 ns	+200V, 200 ns	+50V, 10 ns	+200V, 10 ns	2 kHz, to 50
Actual measured output[2]:	+50.6V	+200V	+46V	+205V	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:	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:	Yes				
PN trigger pull-downs installed:	N/A				
Sync pulse width checked:	100 ns nominal				
Circuit Boards:	PS:	158J	Main:	108N	
Overload Trigger Resistance:	Trips at:	N/A	Installed:	6.2k	
DC fuses:	Main:	2A	Overload:	0.8A	
AC Current:	Quiescent:	0.37A @ 115V 0.22A @ 230V	Max. Load:	0.49A @ 115V 0.27A @ 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.