AVTECH ELECTROSYSTEMS LTD.
NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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[X] BOX 5120, LCD MERIVALE
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
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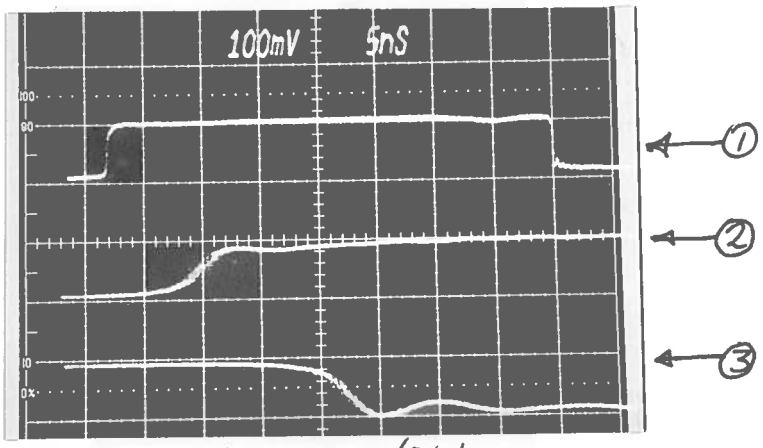
# PERFORMANCE CHECKSHEET

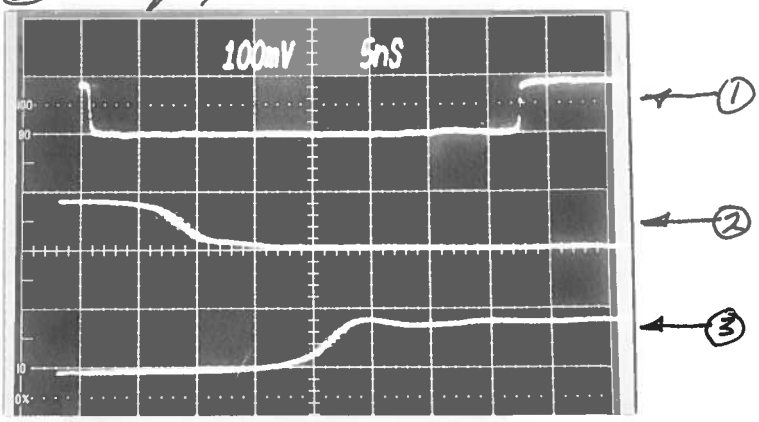
Model: AVMP-2A-B-OT-PN-OA-M

S.N.: 11245

Date: AUG 4 2005




40 dB ATTN. ∴ 10 V/DIV
POSITIVE OUT
① 5 NS/DIV
② 200 ps/DIV, RISE TIME
③ 200 ps/DIV, FALL TIME




NEGATIVE OUT
① 5 NS/DIV
② 200 ps/DIV, RISE TIME
③ 200 ps/DIV, FALL TIME

a) Output Signal Amplitude:
0 TO ± 10 VOLTS

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

c) Rise Time (20%-80%):
≤ 200 ps

d) Fall Time (80%-20%):
≤ 300 ps

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

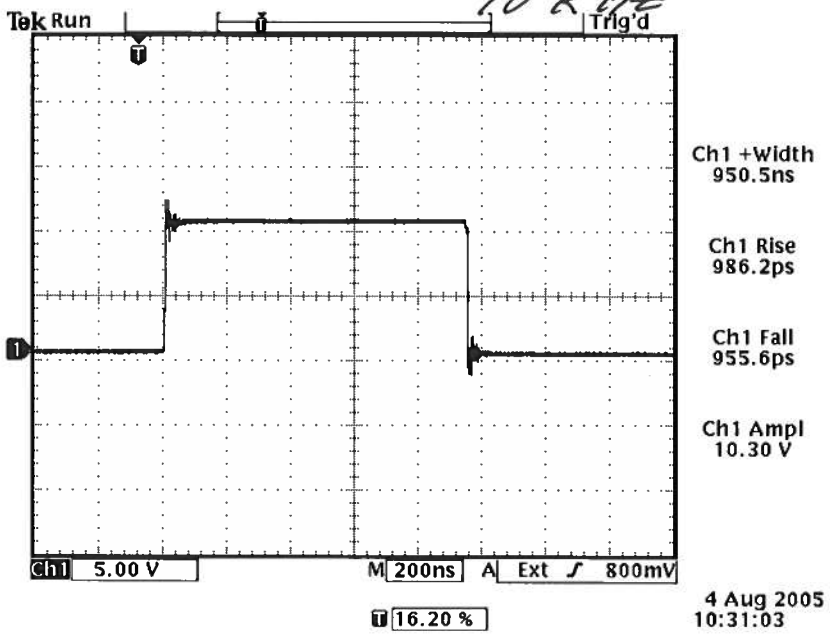
f) Jitter, Stability:
OK

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

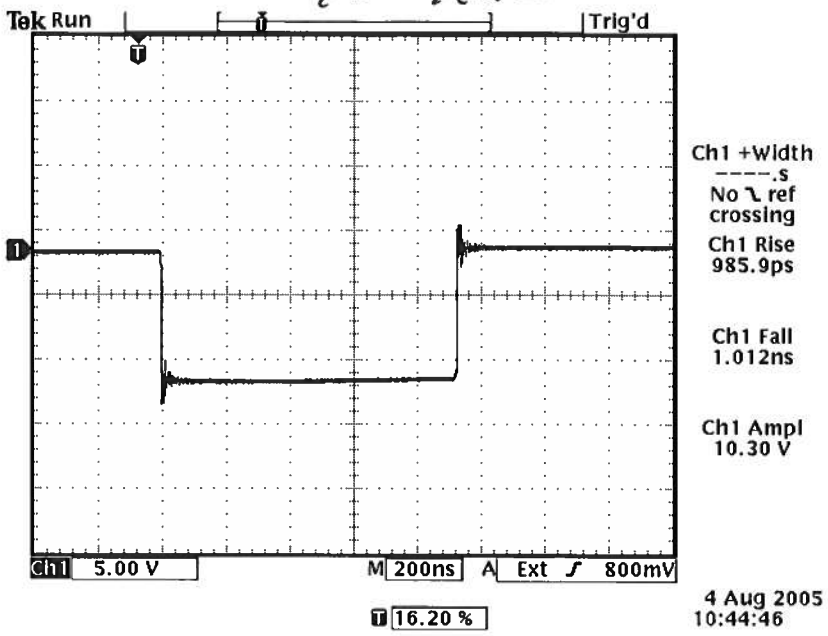
(A) 11245 POS OUT WIDE PULSE

$R_L = 50\Omega$

10 KHz



(73) 11245 NEG OUT
WIDE PULSE
$R_L = 50\,\Omega$
10 KHz



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# "-B" Functional Test & Calibration Certificate

| | | | | | |
|---|---|---|---|---|---|
| Date of test: | August 3, 2005 | | | Tester: | MJC |
| Programmed model name: | AVMP-2A-B-OT-EA-PN-M | | | | |
| Programmed serial number: | 11245 | | MAC address: | 00:90:c2:c6:c7:c7 | |
| Firmware revision: | 3.30 | | | | |
| Internal trigger checked at: | 1 Hz | 100 Hz | 1 kHz | 10 kHz | 500 kHz |
| Actual measured output[1]: | 1.004 Hz | 100.4 kHz | 1.004 kHz | 10.04 kHz | 502 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: | 6 ns | 100 ns | 1 us | | 10 kHz, +10V to |
| Actual measured output[2]: | 6.3 ns | 100.6 ns | 1.000 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 | 5 Hz, +10V, 8 |
| Actual measured output[1]: | 100.2 ns | 0.993 us | 9.93 us | 99.4 us | ns to 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: | -1V | +2V | -5V | +10V | 10 kHz, 1 us, to |
| Actual measured output[2]: | -0.99V | +2.00V | -5.1V | +10.0V | 50 Ohms |
| Amplitude polarity: | +/- | | | | |
| Zout calibration: | N/A | | | | |
| Electronic amplitude control: | OK | | | | |
| 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 | -1V | +1V | +5V | Into 50 Ohms |
| Actual measured output[2]: | -4.99V | -0.99V | +1.00V | +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 |
| PRF/PW/Delay leakage current: | N/A | | | | |
| PN trigger pull-downs installed: | N/A | | | | |
| Sync pulse width checked: | 100 ns nominal | | | | |
| Circuit Boards: | PS: | 158H | Main: | 108N | |
| Overload Trigger Resistance: | Trips at: | N/A | Installed: | N/A | |
| DC fuses: | Main: | 1.6A | Overload: | Not used | |
| AC Current: | Quiescent: | 0.31A @ 115V<br>0.19A @ 230V | Max. Load: | 0.35A @ 115V<br>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.