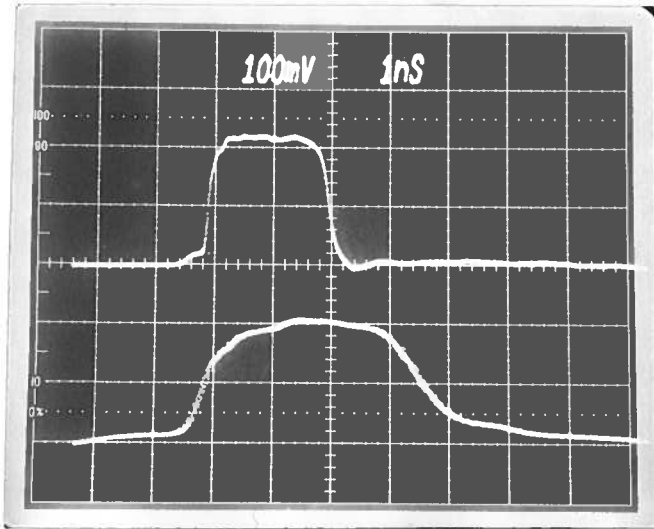


PULSE GENERATOR
PERFORMANCE CHECK

Model: *AVP-AV-14V2-B-P*

S.N.: *10856*

Date: *MAR 03 2004*



- a) Output signal amplitude:
0 TO +20V (TO 50N)
- b) Pulse width:
0.4 TO 2.0 NS
- c) Rise time:
≤ 200 ps
- d) Fall time:
≤ 200 ps
- e) PRF:
0 TO 1.0 MHz
- f) Jitter, stability:
OK
- g) Prime power:

40 dB ATTN.: 10V/DIV

TOP 1 NS/DIV

BOT 200 ps/DIV

PRF = 100 KHz.

100 → 240V

50 - 60 Hz

[Signature]



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

P.O. BOX 265
OGDENSBURG, NY
U.S.A. 13669-0265
TEL: (315) 472-5270
FAX: (613) 226-2802

TEL: 1-800-265-6681
FAX: 1-800-561-1970

e-mail: info@avtechpulse.com
http://www.avtechpulse.com/

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

"-B" Functional Test & Calibration Certificate

| | | | | | | | |
|---------------------------------------|----------------|------------------------------|------------|------------------------------------|-----------|-----------------------|-----|
| Date of test: | March 2, 2004 | | | | | Tester: | MJC |
| Programmed model name: | AVP-AV-HV2-B-P | | | | | | |
| Programmed serial number: | 10856 | | | | | | |
| Firmware revision: | 2.57 | | | | | | |
| Internal trigger checked at: | 1 Hz | 100 Hz | 1 kHz | 100 kHz | 1 MHz | | |
| Actual measured output ¹ : | 1.004 Hz | 100.4 Hz | 1.004 kHz | 100.5 kHz | 1.009 MHz | | |
| External trigger checked: | Yes | | | Gate checked: | Yes | | |
| Manual trigger checked: | Yes | | | | | | |
| Pulse compression checked: | Yes | | | | | | |
| Pulse width checked at: | 0.4 ns | 1 ns | 2 ns | | | 100 kHz, to 50Ω | |
| Actual measured output ² : | 0.40 ns | 1.02 ns | 2.1 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 | | 100 Hz, +20V to 50Ω | |
| Actual measured output ¹ : | 100.0 ns | 1.002 us | 10.03 us | 100.2 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: | +5V | +10V | +15V | +20V | | 100 kHz, 2 ns, to 50Ω | |
| Actual measured output ² : | +4.8V | +9.9V | +15.0V | +20.2V | | | |
| 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 | | | | | | |
| LCD pull-ups installed: | N/A | | | | | | |
| PCB 108G/H resistor updates: | Yes | | | | | | |
| PN trigger pull-downs installed: | N/A | | | | | | |
| Sync pulse width checked: | 100 ns | | | | | | |
| Circuit Boards: | PS: | 158E | Main: | 108H | | | |
| Overload Trigger Resistance: | Trips at: | N/A | Installed: | N/A | | | |
| DC fuses: | Main: | 0.8A | Overload: | Spare 0.8A | | | |
| AC Current: | Quiescent: | 0.18A @ 115V 0.15A @ 230V | Max. Load: | 0.20A @ 115V 0.16A @ 230V | | | |
| AC fuse: | 0.5A | | | | | | |
| 1.5 kV RMS, 5 second 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.