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INSTRUCTIONS

MODEL AVMM-2-EA-EW PULSE GENERATOR

S.N.:

WARRANTY

Avtech Electrosystems Ltd. warrants products of its manufacture to be free from defects in material and workmanship under conditions of normal use. If, within one year after delivery to the original owner, and after prepaid return by the original owner, this Avtech product is found to be defective, Avtech shall at its option repair or replace said defective item. This warranty does not apply to units which have been dissembled, modified or subjected to conditions exceeding the applicable specifications or ratings. This warranty is the extent of the obligation assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

TECHNICAL SUPPORT

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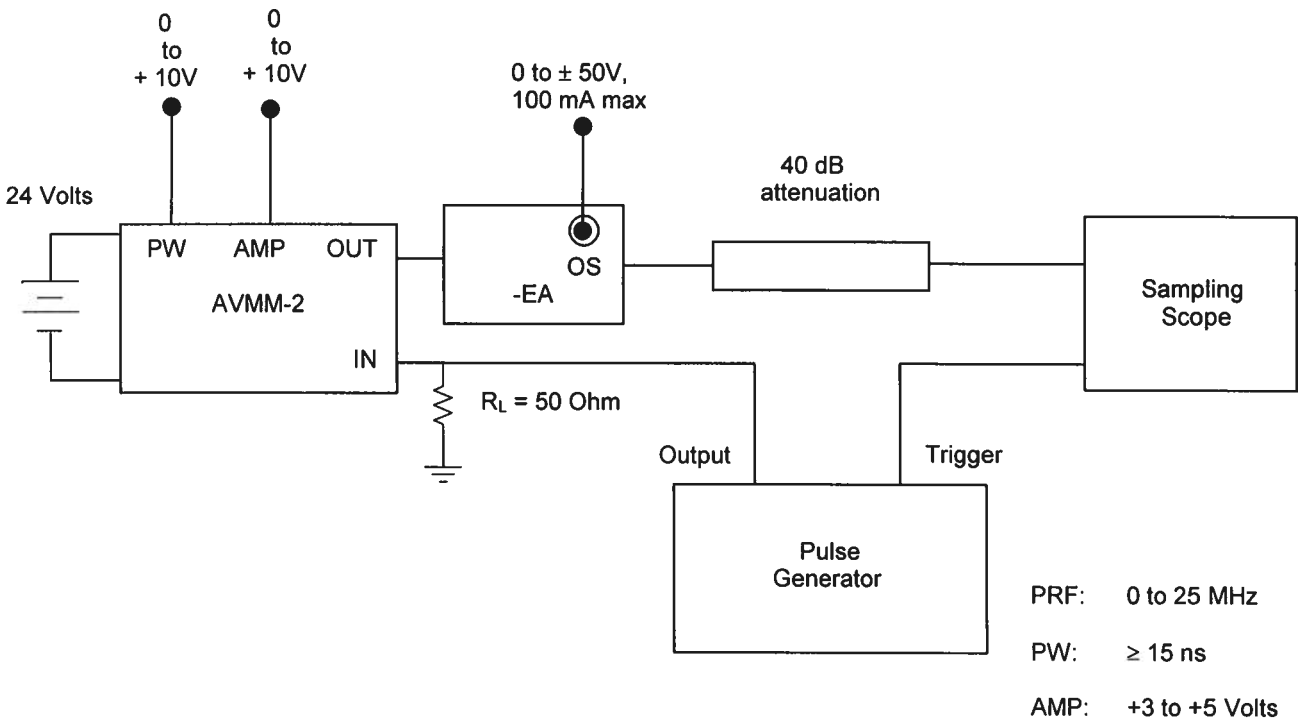
Manual Reference: Q:\office\instructword\Avmm\AVMM-2-EA-EW-eda-fig.doc, created January 25, 2001

FIG. 1: PULSE GENERATOR TEST ARRANGEMENT



GENERAL OPERATING INSTRUCTIONS

1) The bandwidth capability of components and instruments used to display the pulse generator output signal (attenuators, cables, connectors, etc.) should exceed ten gigahertz.

2) The use of a 40-db attenuator will insure a peak input signal to the sampling scope of less than one volt.

3) In general, the source pulse generator trigger delay control should be set in the 0.1 to 1.0 usec range.*

4) When testing using a general-purpose 50 ohm laboratory pulse generator as the input trigger signal source, the input signal should be applied via a 50 ohm feed-through load or alternatively, the input to the AVMM unit should be shunted with a 50 ohm resistor. This will prevent reflection (and degradation of the input pulse waveform) caused by the high impedance at the IN port. However, when triggering from a TTL source, no 50-Ohm feed-through load or resistor is necessary but lead length should be as short as possible. High-speed TTL Schottky logic is recommended for the driving circuitry.

5) The input trigger pulse width should be greater than 15 nsec and less than one half of the pulse repetition frequency period. The unit triggers on the leading edge of the input trigger signal.

6) The output pulse amplitude (0 to -5 Volt) and pulse width (0 to 10 ns) are controlled by DC voltages (0 to +10 VDC) applied to the AMP and PW solder terminals (R_{IN} > 10K).

7) The output amplitude pulse width and PRF are inter-related. It is recommended that the following sequence be used:

   a) Set PRF
   b) Set output amplitude
   c) Set pulse width

1) WARNING: Model AVMM-2 may fail if triggered at a PRF greater than 25.0 MHz.

2) The Model AVMM-2 pulse generator can withstand an infinite VSWR on the output port.

3) The AVMM unit requires a maximum prime input power of about 10 watts. It is therefore strongly recommended that the unit be heatsunk in order to maintain a moderate chassis temperature.

11) To DC offset the output pulse connect a DC power supply set to the required DC offset value to the terminals marked O.S. The maximum attainable DC offset voltage is 50 volts (100 mA max).

* The stability of the display on some sampling scopes is very sensitive to this delay, particularly at high PRF (eg. 10 to 25 MHz). If necessary, consult your sample scope instructions manual for the proper triggering method.

12) For additional information:
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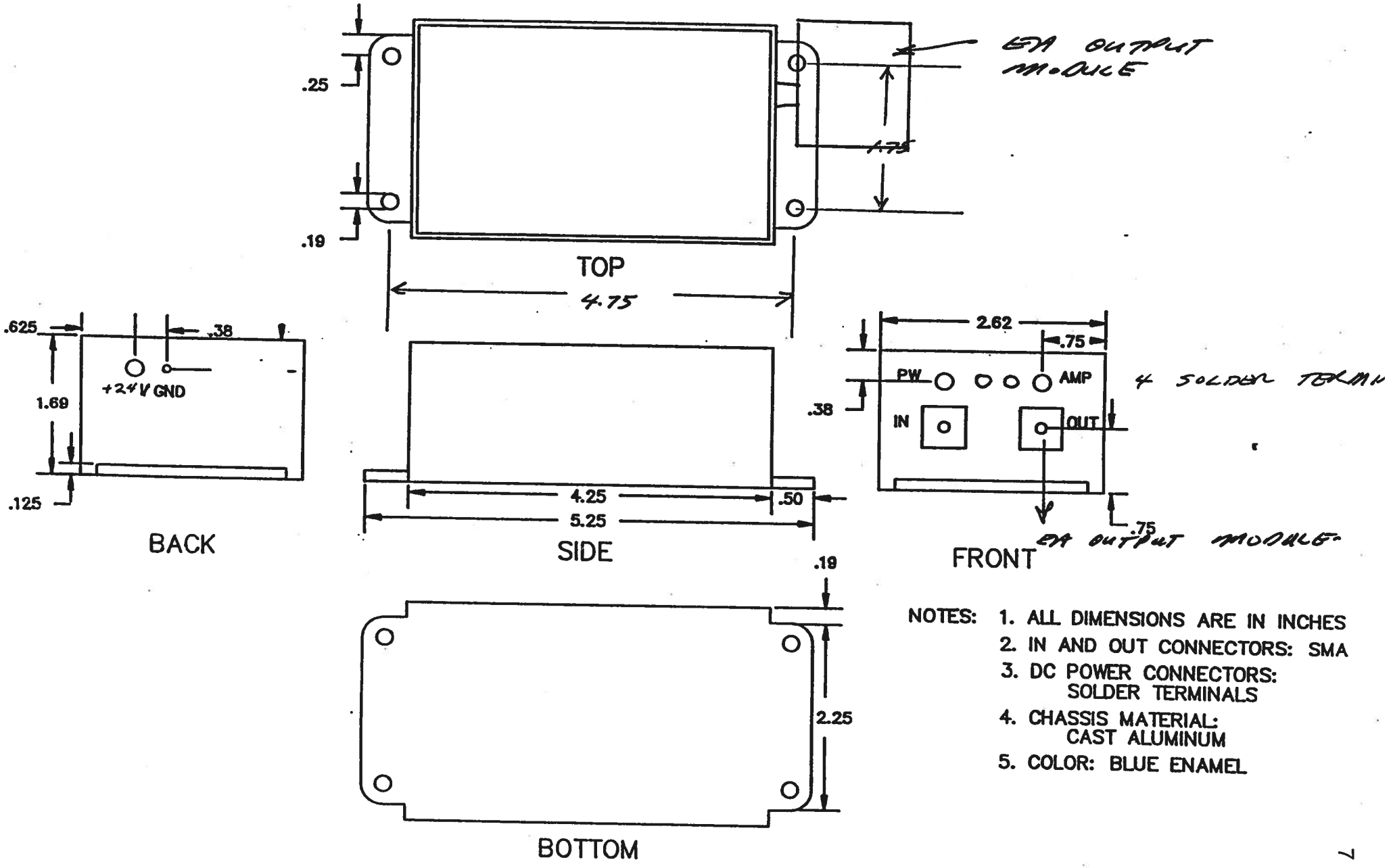
AVTECH MODEL AVMM-2 CHASSIS (EA, EW)

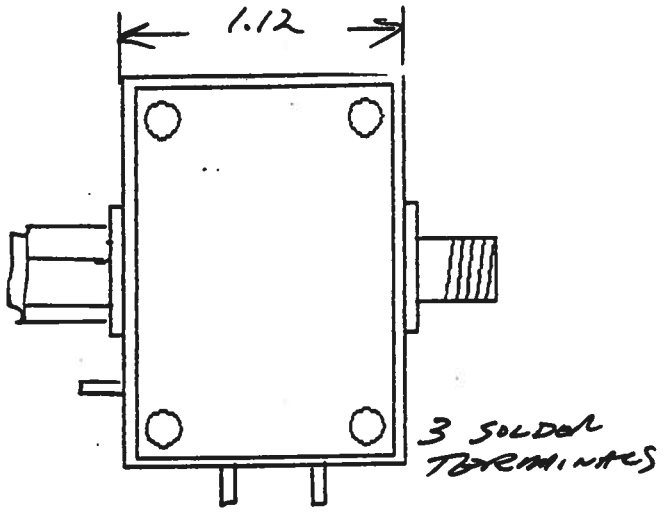


NOTES:
1. ALL DIMENSIONS ARE IN INCHES
2. IN AND OUT CONNECTORS: SMA
3. DC POWER CONNECTORS: SOLDER TERMINALS
4. CHASSIS MATERIAL: CAST ALUMINUM
5. COLOR: BLUE ENAMEL

AVMM-2 OUTPUT MODULE (EA)

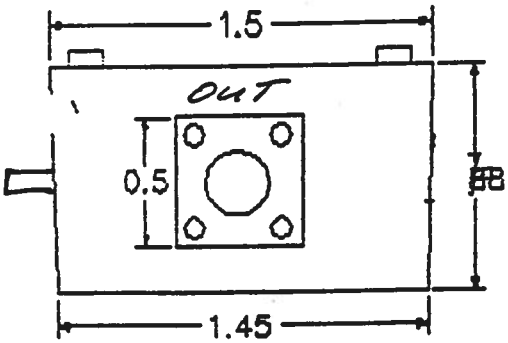
NOV 8 2000

TOP

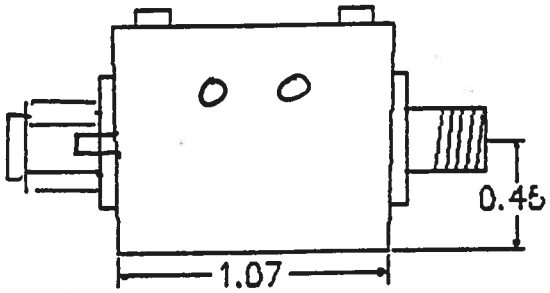


MALE SMA MATES TO FEMALE SMA ON AVMM-2 MAIN MODULE

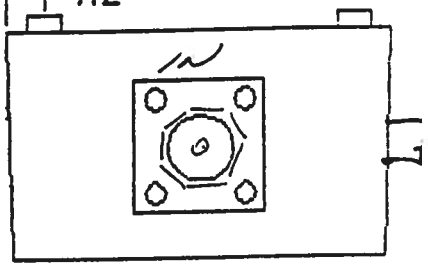
FRONT



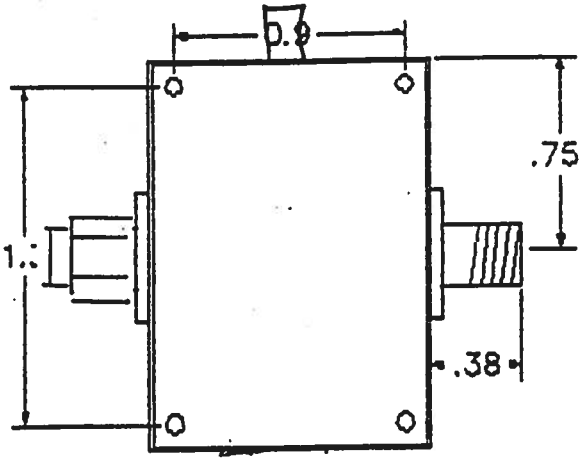
SIDE



.12 BACK



BOTTOM



Notes:

1. Dimensions are in inches.
2. The four holes on the bottom face are 2–56 tapped.
3. SMA connectors are OSM model 215.
4. Chassis: Pomona model 3753.

Jan. 25/2001
ed. A.