GENERAL ELECTRIC

REV NO. X 1 | 224X721AA | CONT ON SHEET 2 SH NO. 1

TITLE: REGULATOR CARD AF-3062 TEST INSTRUCTIONS

FIRST MADE FOR 193X371AAG01

CONT ON SHEET 2 SH NO. 1

1.0 SCOPE

This test instruction covers the production test of 193X371AAG01 Regulator Card. Performance and capabilities are covered in Engineering Spec 224X375AA. Test conditions are in Section 3.0.

2.0 INSTRUCTIONS

In these instructions a high or "1" refers to 3.5 to 5.25 volts, and a low or "0" refers to zero to 1 volt.

2.01 Apply 8.0 volts to tab 28, the frequency out at tab 29 should be 7760 to 7060 Hz. OK

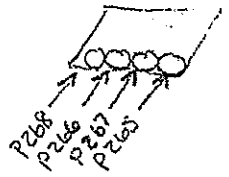
2.02 Adjust the ref to tab 22 or 28 for 10.0 volts out at tab 11. Tab 7 should be 9.8 to 10.2 volts. Trim the frequency to tab 29 to within 7600-7760 Hz by adding R297. If more than 1 resistor is needed to trim, under trim with the first resistor and add a second resistor. should be done when first tested

2.03 With 10 volts still on tab 11 connect tab 11 to tab 12. The voltage on tab 11 should be 5.48 to 5.59 volts. OK

2.04 Apply 10.0 volts to tab 22. The frequency at tab 29 should be 9266 to 9840 Hz. The frequency on tab 30 should be half the frequency on tab 29. By placing a jumper on tab 16 to the appropriate tab, the frequency out of tab 29 should be as indicated in Table 1. OK

Tab 16	Tab 29 Frequency
16	9266 - 9840
17	7420 - 7880
18	6372 - 6767
19	5512 - 5853
20	4632 - 4920
21	3807 - 4043

Table 1



2.05 With 10 volts still on tab 22 and the V/Hz pot (P267) turned full CW, the voltage on tab 10 should be -11 to -11.8 volts. With the V/Hz pot turned full CCW, the voltage on tab 10 should be -8.28 to -9.34 volts. OK

2.06 Apply 14.50 volts to tab 22. The frequency out at tab 29 should be 13,435 - 14,267 Hz. Connect tab 25 to tab 23. The frequency should now be 26,870 to 30,000 Hz. OK

2.07 Remove all references and turn the minimum frequency pot (P268) full CCW. The frequency out at tab 29 should be 198 to 258 Hz. Now turn the min. freq. pot full CW. The frequency at tab 29 should be 1196 to 1323 Hz. Apply -5 volts to tab 22 and the frequency should be 500 - 1323 Hz. OK

Set All Pots At Midpoint Before Continuing.

2.08 Increase the voltage to tab 22. When the voltage is between +.03 & .25V tab 3 will go from low to high . OK

2.09 With referenced removed, apply -1 volt to tab 24. The frequency at tab 29 should be 11,000 to 12,200 Hz. OK

next sheet

REVISIONS

1 Chg 2.06 9/15/76 SMR

5AE(BW) 5D(BW) 5E(BW) 5K(BW) 5L(BW) 5P(BW) 5QC(2BW) 5R(BW)

PRINTS TO

MADE BY J.G. Tracy 7/16/74

ISSUED E Shaughnessy 22774

APPROVALS EAS

SPEED VARIATOR DIV OR DEPT.

Erie, Pa. LOCATION

224X721AA

CONT ON SHEET 2 SH NO. 1

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CODE IDENT NO.

REVISIONS

2.10 Apply +1 volt to tab 8, the output on tab 10 should be -9.5 to -10.5V. OK Now apply +10 volts to tab 9, the output on tab 10 should now also be -9.5 to -10.5 volts. Tab 6 should be within .01 volts of tab 10.

2.11 Apply a 10V p-p 60 Hz sine wave to tab 9. The signal out at tab 10 should also be 10V p-p (±5%). The signal out at tab 6 should be OK 2.1 to 2.9V p-p.

2.12 Apply +10 volts to tab 22 and verify the frequency out at tab 29 as 9266-9840 Hz. Now apply -10 volts to tab 26, the frequency at tab 29 should run down to minimum frequency (less than 1500 Hz). Now apply OK +10 volts to tab 26, the frequency at tab 29 should increase to more than 13,000 Hz. DISCONNECT 22 and/or 26 ↑ MAKE SURE P268 NOT FULL CW

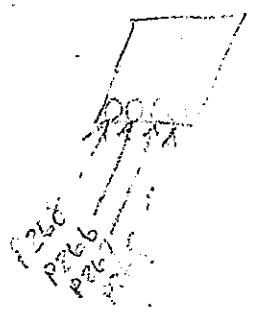
2.13 Turn min. freq. pot (p268) full CCW. Connect tab 25 to 23. Apply 6000 Hz, 5V square wave to tab 27. The frequency out at tab 29 should OK synchronize at 4 times the input frequency (24,000 Hz). Change input frequency by a 10 to 1 step down & up (6000 to 600 to 6000 Hz). The output frequency should synchronize at 4 times the input frequency within 5 seconds of the step. Repeat with a tab 16 connected to 21 in lieu of tabs 23 & 25. Step the input frequency between 80 & 800 Hz. OK The output should synchronize at 4 times the input within 4 seconds.

2.14 Check the voltage boost & current limit pots for continuity & absence of shorts.

3.0 TEST CONDITIONS

3.01 Supply Voltage +19.9 to +20.1 volt to tab 31
-19.9 to -20.1 volt to tab 2
+4.95 to +5.05 volt to tab 4

3.02 Ambient. Test at room temperature.



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