

28-340V

NAV5plus MAIN PCB

PCB00558 Test

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1. Equipment Required

- It is assumed that an ATE shall be used to perform set up and test of the PCB00558 PCB
- All tests should be performed with 24V applied to the UUT
- Simulated interfaces required
 - Receiver power o/p : 240 ohm load, current & voltage measurement required
 - Relay o/p : resistance measurement required
 - Paper out sensor i/p : switch contact required
 - LCD o/p : LCD required
 - Print head o/p : voltage measurement required
 - Keypad i/p : switch contacts required

2. Test Procedure

2.1.1 Connect power, simulated keypad and Paper Out Detector

2.1.2 Apply power to the UUT

2.1.3 Simulate a momentary key press on the power key

2.2 Power Supplies

2.2.1 Check that the 5V rail is $5V \pm 0.25V$ by monitoring across C27.

2.2.2 Check that the power switch monitor supply rail at U13 pin 14 is $4.7V \pm 0.5V$.

2.2.3 Check that J13 is sourcing $100mA \pm 10mA$

2.2.4 Check that the voltage across J13 is $> 22V$

2.3 Self Test

2.3.1 Check that the UUT has powered up with no self-test errors

2.4 Backlight

2.4.1 Check that the backlight is ON

2.4.2 Switch backlight off

2.4.3 Check that the backlight is OFF

2.5 Paper Out Detect

2.5.1 Set the Paper Out Detector to open circuit

2.5.2 Check that 'Paper OUT' is displayed

2.6 Relay Contacts

2.6.1 Measure the resistance across the relay contacts.

2.6.2 Check that the resistance is > 100k ohm.

2.7 Printer Head

2.7.1 Check that none of the printer head drive lines are > 4V

2.8 CPU Clock Frequency

2.8.1 Turn the UUT off

2.8.2 Turn the UUT on in Production Test Mode

2.8.3 Monitor the 7.3728MHz test point at the top left-hand side of the PCB

2.8.4 Adjust C28 until the frequency reads 7.3728MHz $\pm$ 5Hz

2.9 Relay Contacts

2.9.1 Measure the resistance across the relay contacts.

2.9.2 Check that the resistance is < 500 ohm.

2.9.3 Turn the UUT off.

3. Connections to UUT

J1 Main Connector

Pin	Function
1	Not used
2	Not used
3	Not used
4	Not used
5	Not used
6	Not used
7	0V input
8	24V input
9	Relay contact
10	Relay contact

J13 Receiver Power Connector

Pin	Function
1	24V output
2	0V

J5 Print Head Connector

Pin	Function
1	5V output
2	Drive output
3	Drive output
4	Drive output
5	Drive output
6	Drive output
7	Drive output
8	Drive output