

**1. Scope**

These inspection standards apply to the 720240 CAN Bus Monitor Module.

**2. Inspection Items**

- 2.1 Visual Inspection and Specifications Cross-check**
- \*2.2 Test of Maximum Voltage Input**
- \*2.3 Test of Data Acquisition and One-Shot Output**
- \*2.4 Test of LED Indicators**
- \*2.5 Test of Termination Resistance**

Note: The test results for the items marked with an asterisk are included in the test certificate. Only confirm that the listed test results are OK.

**3. Equipment Used**

VDC power supply	Yokogawa	7651 or equivalent (Capable of generating 15 VDC or greater and 10 mA or greater)
Digital multimeter	Yokogawa	3458A or equivalent (Measurement precision of 0.2% or less)
Instrument	Yokogawa	DL850/DL850V or equivalent

**4. Inspection Methods, Conditions, and Specifications**

Test conditions: Ambient temperature: 23°C ± 5°C  
Ambient humidity: 55% ± 10% RH

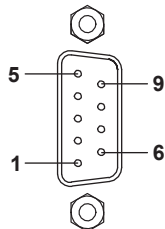
**4.1 Visual Inspection and Specifications Cross-check**

- Perform a visual inspection to confirm that the UUT is not seriously damaged or dirty.
- Perform a specifications cross-check.

**4.2 Test of Maximum Voltage Input**

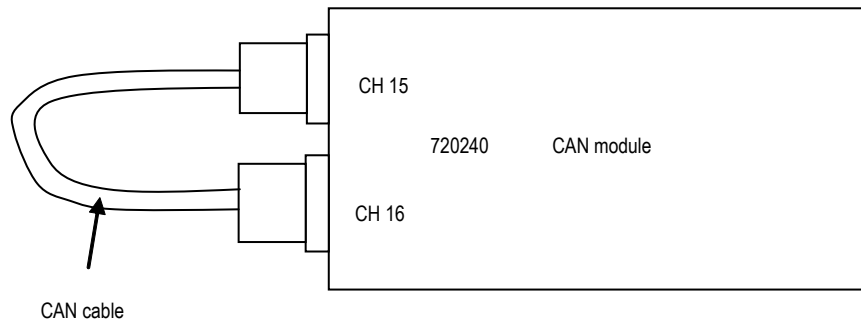
Apply +10 V and -3 V (DC + AC peak), the maximum voltages, to the module.

- Module settings:  
Termination: OFF
- Apply +10 V and -3 V to the input for 10 seconds, and check that the module operates correctly.
- Voltage is applied across pin 2 (CAN\_L) and pin 3 (GND) and across pin 7 (CAN\_H) and pin 6 (GND).



### \*4.3 Test of Data Acquisition and One-Shot Output

- Connect the 720240 as shown in the following figure.



- Module settings:

Receiving Channel

Channel display: ON

Sub channel 1 input: ON

Message format: STANdard

Message ID: 1

Clipping bit position (start bit): 8

Endian: BIG

Clipping bit length: 16

Data Type: UNSigned

Bit rate: 1000000

Terminator: ON

Label string: AA

Output

Channel display: ON

Sub channel 1 input: ON

One-shot output data length: 16

One-shot output message format: STANdard

One-shot output message ID: 1

Bit rate: 1000000

Terminator: OFF

- Use a CAN cable (RS-232C cable; 9-pin female to 9-pin female, fully wired straight cable; shielded; and with a length of 1 meter or less) to connect channels 15 and 16 of the UUT.
- Send the one-shot output command to have the 720240 transmit data, and then send the monitor command or a similar command to retrieve the received data. Check that the transmitted data and the retrieved data are the same.

Set the output data to "54," and transmit it.

Check that the received data is "54."

Set the output data to "44," and transmit it.

Check that the received data is "44."

- Set the input to channel 16 and the output to channel 15, re-configure the settings, and check the operation of the 720240 again.

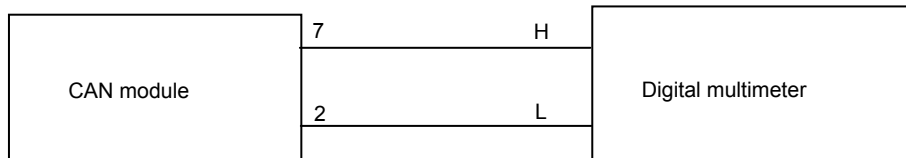
#### 4.4 Test of LED Indicators

Check that the LEDs turn on and off.

- Set the terminator of the UUT to OFF.
- Check that the LEDs in the terminal area turn off.
- Set the terminator of the UUT to ON.
- Check that the LEDs in the terminal area turn on.

#### 4.5 Test of Termination Resistance

- Connect the UUT and a DMM as shown in the following figure.



- Set the terminator of the UUT to OFF.
- Check that the DMM's value is 10 k $\Omega$  or more.
- Set the terminator of the UUT to ON.
- Check that the DMM's value is within the test specifications shown in the following table.

Test Point	Specification
Input terminal Across pins 2 and 7	110 $\Omega$ to 130 $\Omega$