

NF-611/NF-622

Your excellent helper in cable test!

HDMI Cable Tester

INSTRUCTION MANUAL



Your excellent helper in cable test!



VER: V2

DESCRIPTION

NF-611 HDMI Cable Tester is designed for professional HDMI installations. This portable device allows installers to quickly test, troubleshoot, and verify HDMI (high definition multimedia interface) cables. NF-622 is designed to test wire circuit state of HDMI cables with Type A & C connectors conforming to 1.0, 1.1, 1.2, 1.2a, 1.3, 1.3a, 1.3b, 1.3c, 1.4, 1.4a Category 1 and Category 2 cables. Equipped with 3 test modes, Automatically fast/slow scan or manual test for step by step, this tool can either test the conductors in straight 、 short 、 open 、 crossover in all RGB conductors.



Warnings

- **Do not connect tester to a live circuit as it may damage the unit.**



Caution

- Do not use tester with wires that have passive or active amplifier.
- Do not connect the tester to an energized circuit; You may damage it.
- This product is NOT a toy; keep it away from children.
- This device cannot be used by people with different abilities, unless they have preparation and supervision.
- Do not use or store the device where there are dripping and splashes.
- Do not try to disassemble and repair.

CONTENTS

Your NF-611/NF-622 HDMI Cable Tester contains the following

1. 1 x Master unit.
2. 1 x Remote unit.
3. 1 x Pouch bag.
4. Users' Manual.

FEATURES:

HDMI cable tester allows the fast and accurate verification both HDMI type A and Type C cables, mapping continuity and proper configuration and displays 19 pins and shield connection status on both main and remote unit.

SPECIFICATIONS:

- **Cables Tested:** HDMI cables with Type A & C connectors conforming to 1.0, 1.1, 1.2, 1.2a, 1.3, 1.3a, 1.3b, 1.3c, 1.4, 1.4a Category 1 and Category 2 cables.
- **Support test** (main unit and remote unit):
19 pin-to-pin wire map and shielding detection.
- **Test interface of Master unit:**
HDMI (type A) ×2 pcs, Mini HDMI (type C) ×1 pcs.(NF-622)
- **Test interface of Remote unit:**
HDMI (type A) ×1pcs, Mini HDMI (type C) ×1 pcs.(NF-611)
- **Cable length:**
Under 50 meters.
- **Test Mode:**
Automatically fast scan, Automatically slow scan and Manual test

● **Displays:**

19 LEDs and shield LED on both main and remote unit.

4 LEDs on main unit shows pass, open, cross, short.(NF-622)

● **Beeper indication.**

● **Low battery indication:**Under 6.0V

● **Power source:**

DC 9V(NEAD 1604/6F22)×1 (not included)

● **Dimension:**

Main unit:103×66×27,Remote unit : 103×35×27 mm

● **Weight:**130g (not incuding battery)

● **Operating environment:**

32°F to 104°F (0°C to 40°C)<80% RH

● **Storage environment:**

14°F to 122°F (-10°C to +50°C)<70% RH

PRODUCT DIAGRAM(Fig 1)

1. Mini-HDMI (C Type)

This socket not only can be used on Master unit loopback test but also can be used on Master unit Mini-HDMI (C Type) with Remote unit Mini-HDMI (C Type) to perform scan test.

2.MAIN : HDMI (A Type)

3.LOOPBACK : HDMI (A Type)

4.Remote unit : HDMI (A Type)

5.Remote unit : Mini-HDMI (C Type)

6.Switch : MASTER/OFF/REMOTE

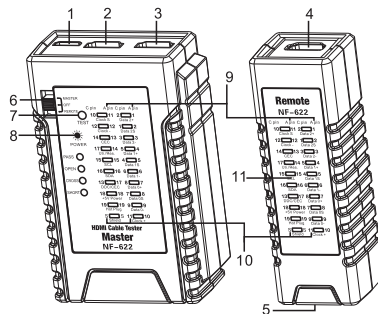
7.TEST : Automatic fast/slow scan or manual test for step by step.

8.Power and low battery indication.

9.HDMI (A Type) Pin number.

10.Mini-HDMI (C Type) Pin number.

11.LED for indicating signal situation.



Master Unit Fig 1 Remote Unit

HDMI Cable Wire / Pin And Signal Description:

HDMI (A)Pin #	MINI-HDMI (C)Pin #	Pin Assignment	Signal Description
1	2	Data 2+	TMDS Red Data Plus
2	1	Data 2S	TMDS Red Data Shield
3	3	Data 2-	TMDS Red Data Minus
4	5	Data 1+	TMDS Green Data Plus
5	4	Data 1S	TMDS Green Data Shield
6	6	Data 1-	TMDS Green Data Minus
7	8	Data 0+	TMDS Blue Data Plus
8	7	Data 0S	TMDS Blue Data Shield
9	9	Data 0-	TMDS Blue Data Minus
10	11	Clock +	TMDS Clock Plus
11	10	Clock S	TMDS Clock Shield
12	12	Clock -	TMDS Clock Minus
13	14	CEC	Consumer Electronics Control
14	17	Reserved	Utility/Reserved
15	15	SCL	Serial Clock
16	16	SDA	Serial Data
17	13	DDC/CEC	Data shield for the display data channel and consumer electronics control
18	18	+5V Power	+5V Power
19	19	Hot Plug	Hot Plug Detect
S	S	Shield	Shield

Corresponding to the Pins Definition of the HDMI cables(Fig 2)

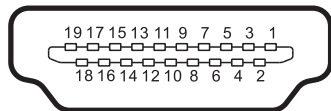


Fig 2

OPERATION

⚠ Note

- When all LEDs are lighted all LEDs will decrease brightness.
- Master unit shorted pins LED will be brighter than others when shorted 2 pins above that is correct.
- Shield LED will light up after #1~19 LEDs light up in sequence on any testing mode. If the HDMI cable has a shield, the Shield LED will light up, if without shield the LED will be unlighted.

Power off:

Slide upper left switch to "OFF", "POWER" LED will go out and the unit will no longer work when pushing the "TEST" button.

How To Use

1.Master unit loop continuity scan testing function.

● Direct

If all LEDs light on in the master, that means all pins are properly connected.

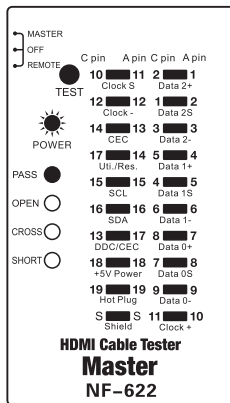


Fig 3 . Direct

● Open

If some LEDs turn off means that corresponding pins are not connected.

Test examples:

HDMI(A)-HDMI(A) are not connected the #2, #5, #8, and #11 pins.

HDMI(A)-Mini HDMI(C) are not connected the #1, #4, #7 and #10 pins.

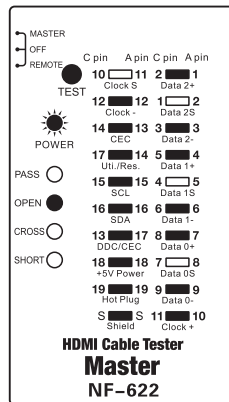


Fig 4 . Open

● Short

In that case, the short pins will light up at the same time.

Test example:

HDMI(A)-HDMI(A) the #4 #5 #6 pins are in short circuit.

HDMI(A)- Mini HDMI(C) the #5 #4 #6 pins are in short circuit.

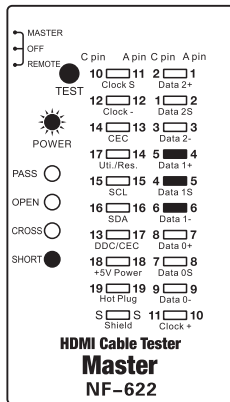


Fig 5 . Short

● Crossover

The crossed pins LEDs will light up at the same time.

Test example:

HDMI(A)-HDMI(A) the #13, #14, #17, #19 are crossed.

HDMI(A)- Mini HDMI(C) the #14, #17, #13, #19 are crossed.

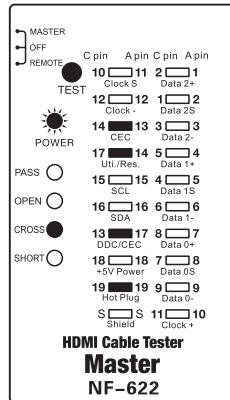


Fig 6 . Crossover

2.Master unit with remote unit testing function.

● Direct

If all LEDs, both the "Master" and the "Remote" unit light on, means that all pins are properly connected.

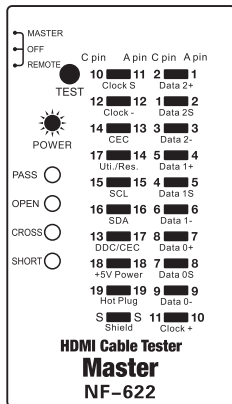
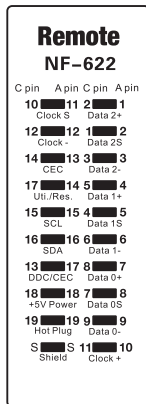


Fig 7 . Direct



● Open

If some LEDs both the "Master" unit and the "Remote" unit turn off means that the corresponding pins are not connected.

Test example

HDMI (A) – HDMI (A) are not connected the #2, #5, #8 and #11 pins.

HDMI (A) – Mini HDMI (C) are not connected the #1, #4, #7 and #10 pins.

Mini HDMI (C) – Mini HDMI (C) are not connected the #1, #4, #7 and #10 pins.

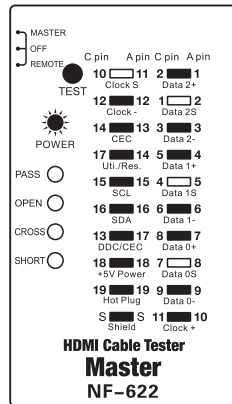
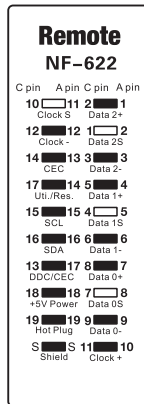


Fig 8 . Open



● Short

In this case, turn on all LEDs on both units, however, if some LED in the "Master" unit has a brighter tone, while the "Remote" is off, the corresponding pin is in short circuit.

Tests examples:

HDMI (A) – HDMI (A) The 4, 5, and 6 pins, are in short circuit.

HDMI (A) – Mini HDMI (C) The 4, 5, and 6 pins, are in short circuit.

Mini HDMI (C) – Mini HDMI (C) The 4, 5, and 6 pins, are in short circuit.

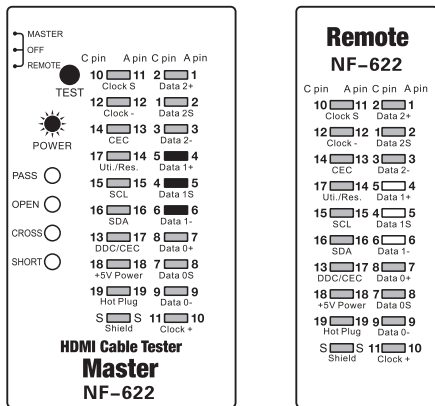


Fig 9 . Short

● Crossover

The LEDs turn on sequentially in both the "Master" unit and the "Remote" to indicate which pins are connected together.

Tests examples:

HDMI (A) – HDMI (A) The 13 pin, is connected with 17.

The 14 pin, is connected with 19.

HDMI (A) – Mini HDMI (C) The 14 pin, is connected with 13. The 17 pin, is connected with 19.

Mini HDMI (C) – Mini HDMI (C) The 14 pin, is connected with 13. The 17 pin, is connected with 19.

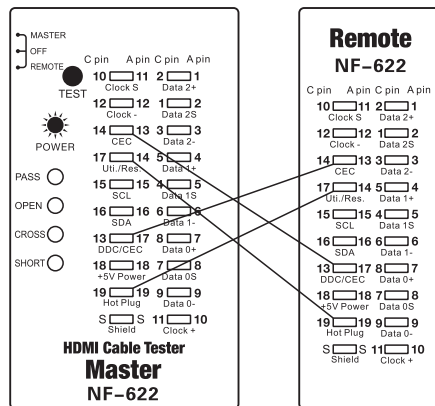


Fig 10 . Crossover

Master unit with Remote unit fast continuity scan testing function:

1. Press "TEST" button during the slow continuity scan testing, or press three times "TEST" button after the automatic testing LEDs are off : It will fast scan pin 1~19pin and Shield . Master unit and Remote unit both #1~19 and Shield LEDs will light up in sequence fast and sustained repeated automatic scan.
2. The test result please refer to the slow continuity scan testing function. (Fig 7. ~ Fig 10.)

Master unit with Remote unit manual scan testing function:

1. Press "TEST" button for three seconds until pin #1 LED lights up, pin #2 ~ 19pin + Shield LEDs light up step by step sequentially after pressing "TEST" button and sustained repeating.
2. The test result please refer to the slow continuity scan testing function. (Fig 7. ~ Fig 10.)
3. Press "TEST" button three seconds again then go back to automatic testing mode.

BATTERY LIFE AND REPLACEMENT:



Caution

- To avoid unreliable test results, replace the battery as soon as the low battery indication appears.



Warnings

- To avoid possible electric shock or personal injury, turn off the master unit and disconnect all test leads before replacing the battery.

Battery Status: When "POWER/LOW BATT." LED is flashing on the master unit, it means the battery voltage is under 6.0V which couldn't power the device on. Please replace the battery as the following step:

1. Turn off the master unit and disconnect all test leads before replacing the battery.
2. Properly replace the battery into the battery case.
3. Use only a DC 9V (NEAD 1604/6F22) battery.

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Diagram of series products



NF-868



NF-268



NF-8601



NF-806B



NF-800



NF-816



NF-468L



NF-820



NF-2100



NF-708



NF-905



NF-911