



HIOKI

LAN CABLE HiTESTER 3665-20

Optical/Telecom Measurement



Identify the 3 Most Important Criteria for Proper Networking at a Glance

Wiremap

Detect Split Pairs with Wiring Check

Cable Length

Get NVP-Enhanced Measurement Accuracy

Direction

Identify Up to 21 Cable Destinations



CAT
3, 4, 5, 5e, 6
Compatible



ISO 9001
JMI-0216



ISO 14001
JQA-E-90091



<http://www.hioki.co.jp/>

HIOKI company overview, new products, environmental considerations and other information are available on our website.

Extremely Intuitive

Check **Direction**, **Cable Length** and **Wiremap** simultaneously.

Just connect a cable, and press the TEST button **Testing Completed**



Large, Easy-to-Read Display

Direction (ID No.)

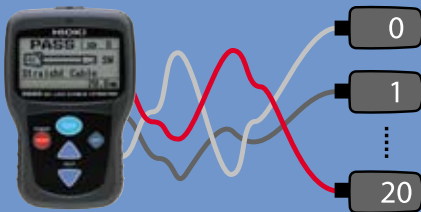
Wiremap (Wiring Status)

Cable Length

Direction Locate up to 21 unique cable destinations

Have you ever had trouble installing additional cables?

Take advantage of the conveniences offered by the tester's capabilities to check wiring while confirming multiple cable destinations.



OK! You will never need to go back and forth again just to change the terminators.

Up to 21 terminators can be connected (additional terminators sold separately.) Convenient for confirming the connection destinations of multiple cables.

Cable Length Detect the location of broken or short-circuited wires

Displays the distance to the fault if a wire is broken or short-circuited.

NVP Setting Method

The cable-length compensation (NVP setting) function enhances accuracy of cable length measurements.

[±4% ±1 m (with NVP setting, excluding NVP value uncertainty error)]



<p>Preparation</p> <p>Prepare a reference cable using a known length of the same type as that to be measured (at least 100-meter length recommended).</p>	<p>Measurement</p> <p>Length Adjust</p> <p>Beep</p> <p>⇄↑↓⇄OK NVP 0.684</p>	<p>Adjust</p> <p>101.3m</p> <p>NVP 0.684</p> <p>⇄↑↓⇄OK =Acquire</p>	<p>Adjust</p> <p>100.0m</p> <p>NVP 0.675</p> <p>⇄↑↓⇄OK =Acquire</p>	<p>Adjust</p> <p>OK Cancel</p> <p>⇄↑↓⇄OK</p>
	<p>1</p> <p>On the Settings screen, select "Length Adjust".</p>	<p>2</p> <p>Press the TEST button to measure the (already known) length of the reference cable.</p>	<p>3</p> <p>Calibrate the display to the measured reference cable.</p>	
	<p>Setting Finished</p>			

NVP (Nominal Velocity of Propagation) is the ratio of the speed of a signal in the cable relative to the speed of light in a vacuum. NVP differs according to the type of cable and the manner in which the wire pairs are twisted, so measurement accuracy can be enhanced by setting the NVP value for the particular type of cable to be measured.

Wiremap For wiring confirmation and locating broken wires after installation

Accurately check the wiring condition of each connector.

Display Examples of Proper Wiring

Both straight-through and crossover cables (10/100BASE, 1000BASE-T and 1000BASE-TX) can be checked.

Straight Cable

20.1m

Cross Cable

20.1m

Also checks shielding

Shielded

Unshielded

Display Examples of Incorrect or Damaged Wiring

Reversed

20.1m

Transposed

20.1m

Open

7 19 19 19 m

Short

10 19 19 19 m

Split Pair

19 19 19 19 m

Can you find split pairs?

Caution! Even though a split pair is a wiring error, connector wiring is unaffected, so it cannot be detected with continuity testing.

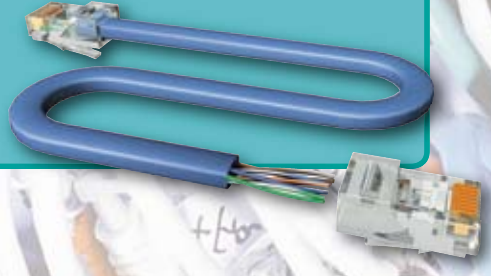
To properly check LAN cable wiring, a tester capable of detecting split pairs is indispensable.

How Can a Split Pair Affect Communications?

- Communication speed can be suppressed - 100BASE signals may reach only 10BASE speeds.
- Excessive communication errors - data transfer may be intermittent or completely inhibited.

What is a Split Pair?

- A wiring error in which wires in different pairs are interchanged.
- Cables miswired in this way are more susceptible to electrical noise.



Specifications @ 23 ±5 °C, 80% RH or less, non-condensating, with battery indicator unlit

Measurable cables	Twisted-pair cable 100 Ω characteristic impedance, shielded and unshielded, CAT 3, 4, 5, 5e and 6
Compatible connectors	RJ-45 plugs
Measurement Items	
[Wiremap]	Wiring condition and shielding can be confirmed using the HIOKI TERMINATOR 9690 Detectable errors: open, short, reversed, transposed, split pairs and other miswiring
[Cable Length]	Measurable lengths: 2 to 300 m, 6.6 to 984 ft Measurement accuracy: ±4% rdg. ±1 m, ±4% rdg. ±3.3 ft Display resolution: 0.1 m
[Destination]	Up to 21 cables can be identified using the supplied TERMINATOR 9690 and optional Models 9690-01 to 9690-04
Display	128 × 64 dot matrix LCD (with backlight)
Functions	Auto Backlight: pressing a button turns the backlight on (it turns off automatically after about 20 seconds) Beeper: sounds when pressing buttons and when measurement results are displayed Energy-Saving Mode: enter into energy-saving mode after measurement (and resume when the TEST button is pressed) Auto Power Save: the 3665-20 turns off automatically about 10 minutes after the last button press Battery Check: Battery indicator blinks when voltage falls below 2.4 V Unit Switch: Select between meters or feet
Compliance Standards	Safety Standard: EN61010-1:2001 Pollution Level 2 EMC Standard: EN61326:1997 + A1:1998 + A2:2001 + A3:2003
Allowable Input	3.3 V peak (between RJ-45 pins)
Operating Temperature & Humidity	0 to 40 °C, 80% RH or less, non-condensating
Storage Temperature & Humidity	-10 to 50 °C, 80% RH or less, non-condensating
Power Source	Two AA-size (LR6) alkaline batteries
Maximum Power Consumption	1.4 VA
Operating Time	Approx. 50 hours (measuring once per minute)
Size & Weight	Approx. 85 W × 130 H × 33 D mm, approx. 160 g



LAN CABLE HiTESTER 3665-20

(Includes TERMINATOR 9690, CARRYING CASE)

■ Supplied Accessories

TERMINATOR 9690
CARRYING CASE
(Stores the HiTESTER 3665 and TERMINATORS 9690)



TERMINATOR 9690

■ Options

TERMINATOR 9690-01 (IDs 1 to 5)
TERMINATOR 9690-02 (IDs 6 to 10)
TERMINATOR 9690-03 (IDs 11 to 15)
TERMINATOR 9690-04 (IDs 16 to 20)
CARRYING CASE 9249 (stores the 3665-20, 9690 and 9628 together)
LAN CABLE 9628 (1 m long, with RJ-45 plugs)



TERMINATOR 9690-01



CARRYING CASE 9249
(for storing everything together)



LAN CABLE 9628

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