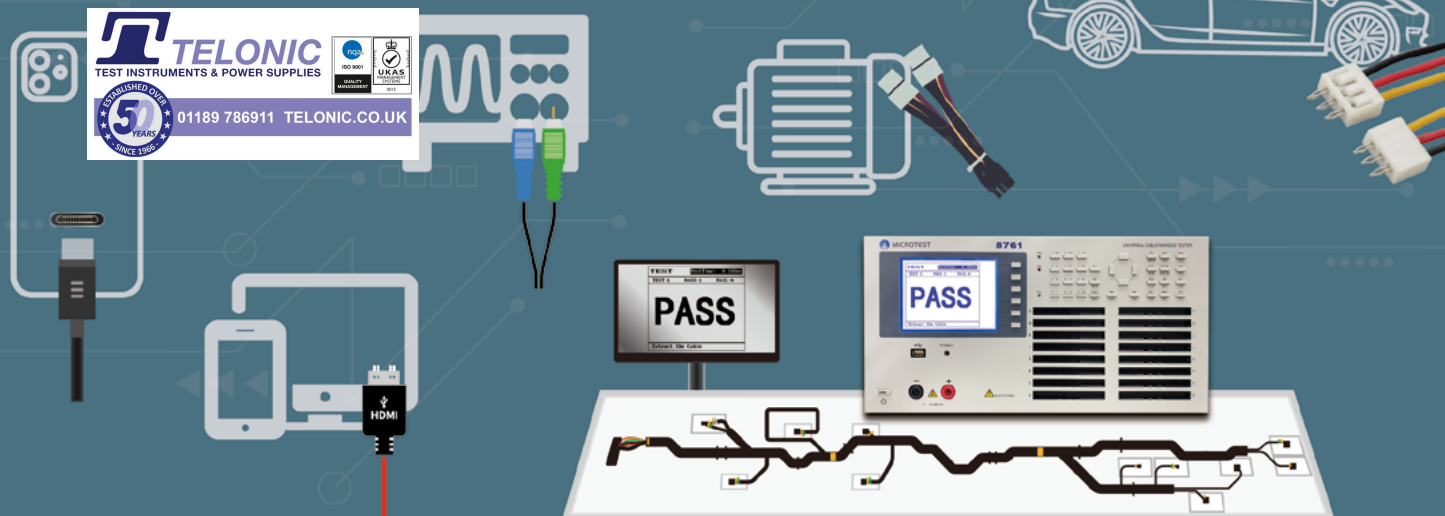




For more reliable connections choose MICROTEST Cable Tester



Continuity Test



O/S Test



Safety Test



Component Test



USB Type-C Test

Low-Voltage Electrical Measurement Items



Continuity Test

Verifies whether the cable can conduct current normally by measuring resistance to ensure electrical connectivity within the circuit.

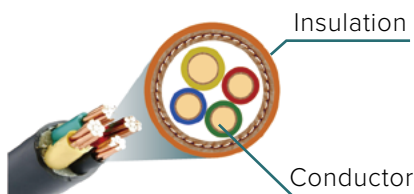
Short/Open Circuit Test

Ensures circuit functionality and safety by detecting potential open or short circuit conditions within the cabling.

Component Test

Validates that the cable assembly can operate within specific electrical environments by measuring integrated components such as resistance, capacitance, and diodes.

High-Voltage Measurement Items



Hipot Test

Verifies insulation integrity by applying high AC/DC voltage and monitoring leakage current between test points.

IR Test

Measures resistance at specific high voltages to ensure insulation reliability under extreme operating conditions.

USB Type-C Testing Items



Orientation Auto-ID

Supports reversible insertion with automatic circuitry learning.

Component Test

Auto-identifies and tests Ra resistors, capacitors, and diodes within the cable.

E-Marker IC

Reads VDO Codes to analyze protocol versions and specifications.

5A Voltage Drop Test

Measures Vbus/ GND voltage differential or internal resistance (DCR).

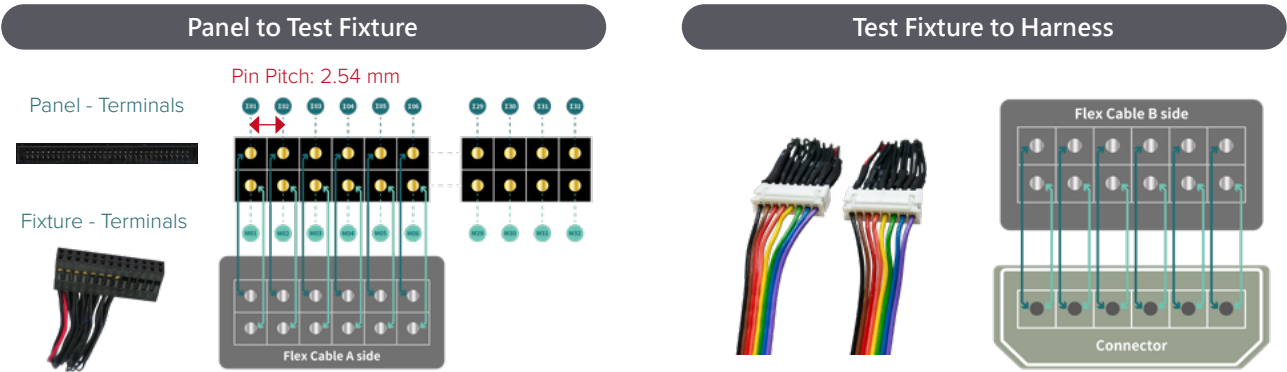
MICROTEST Provides Customized Solutions: Tailored Test Fixtures for Harness Assemblies



Test Item	Customized Test Fixtures	Device Under Test
<ul style="list-style-type: none">O/SContinuity TestInsulation Resistance		

Cable Tester

Wiring Methods From Instrument to Device Under Test



Three High-Voltage/Insulation Measurement Modes to Maximize Throughput

All-Ground	Binary	All Nets
Tests Hipot and insulation between each conductor and the ground (shield) to ensure grounding safety.	Rapidly determines whether the overall batch is Pass or Fail Groups conductors in parallel to significantly accelerate Hipot and IR detection efficiency.	Displays individual Hipot and insulation values for each conductor core Progressively tests each conductor against all remaining conductors to evaluate insulation performance.

Optimization Based on Production Capacity

On the production line, Binary and All Nets Modes can be enabled simultaneously

- If the result is PASS: The test cycle completes immediately, ensuring maximum efficiency.
- If the result is FAIL: The instrument automatically triggers a sequential, conductor-by-conductor scan to pinpoint the specific defective core.

Binary Mode		
All Nets Mode		

2-Wire Cable Harness Tester

8740

Test Pin

2-Wire (128/256/512 PIN)

Cable Tester



MICROTEST 8740 series Cable Harness Tester employs 2-wire measurement technology and is suitable for products that do not require very low resistance measurements, considering the cost factors of the testing fixture. The testing capabilities include Continuity Test, open/short circuit, AC/DC safety withstand voltage, IR insulation, and component testing (resistor/capacitor/diode). The testing points can be selected from 128/256/512 options, with a maximum AC withstand voltage output of 1000V and a maximum DC withstand voltage output of 1500V. It supports PC Link software and BAR Code scanning, meeting the requirements for automated line testing in wire and connector production.

Application

Consumer electronics wire harnesses, Automotive hook-up wires, Automotive-grade wire harnesses, Connectors, Flexible flat cables

Feature

- Test pin 128/256/512
- Continuity Test, Intermittence Continuity Test, O/S, Intermittence O/S, Quick Intermittence open circuit
- Safety test (AC Hipot, DC Hipot, Insulation Resistance, Leakage Current)
- Component test (Resistance/ Capacitance/ Diode)
- USB Host stores setting files and can update firmWare
- Support bar code scan and print function



Standard Interfaces

RS-232

USB Host

Remote

Print

Specification

Model	8740FA	8740NA	8740N
Measuring Mode	2-wire		
Test Pin	128/256/512		
Safety Hipot Test			
AC Hipot Test	100~1000V	100~700V	-
DC Hipot Test	50~1500V	50~1000V	50~1000V
AC Hipot Leakage Current	0.01mA~5mA		
AC Arcing Detection	1~8		
DC Hipot Leakage Current	0.1uA~1000uA		
DC Arcing Detection	1~8		
DC Hipot Insulation Resistance	0.1MΩ-1GΩ (Note*1)		
Hipot Output Accuracy	±5%		
Hipot Measurement Accuracy	±5%		
Rated Output	5Vdc		
Hipot Measurement Time	0.01sec~60sec		
Wire Specifications	Maximum allowable capacitance 5μF		
Low Voltage Electrical Test			
Continuity Test	Measurement Range	100mΩ~52Ω	
	Current Signal	35mA	
Intermittence Continuity Test	20Ω~2kΩ		
O/S, Intermittence O/S, Quick Intermittence Open Circuit	1kΩ~100kΩ		
O/S Terminal Judge	●		
Single-Side Test	●		
Component Test			
Resistance	Measurement Range	100mΩ~2MΩ	
	Level Signal	2.4V (Fixed)	
Capacitance	Measurement Range	10pF~3μF	
	Frequency Signal	AUTO Gear	
	Level Signal	1.2V (Fixed)	
Diode	Measurement Range	0.1~6.8V	
Advanced Functions	Programmable continuous test/ Auto Pin search/ Auto-diagnosis		
Test Scan Mode	Auto, Manual, External Trigger		
Measurement Signal	Low Voltage Measurement Signal		
Built-in Storage	Number of test file up to 500 sets		
Panel	System/ Rapid/ Edit/ Function		
Indicator	Pass/ Fail HV LED red-green indicator lights/ Screen Display/ Sound		

Note*1 | When the setting is set as 5MΩ or below 5uA, the maximum test voltage is 650V and the AC tolerance specification can be set between 0.01mA-5mA.

General

Power Supply	Fixed Voltage : 115/230 Vac ±10%, Frequency : 60/50Hz
Power Consumption	128 PIN : 70VA, 256 PIN : 100VA, 512 PIN : 150VA
Interface	RS-232, USB Host, Print, Remote
PC Link Software	●
Operation	Manual, Auto, Remote Control
Display	320*240 dot-matrix
Environment	Temperature : 15°C~35°C, Humidity : RH≤70%
Dimension (W*H*D)	128 PIN : 435x145x406mm, 256 PIN : 435x145x406mm, 512 PIN : 435x190x406mm
Weight	128 PIN : 8.44kg, 256 PIN : 9.3kg, 512 PIN : 14kg

2-Wire Cable Harness Tester

8740NAK

Test Pin
2-Wire (1024 PIN)

Cable Tester



MICROTEST 8740K Series Cable Harness Tester employs 2-wire measurement technology and is suitable for products that do not require very low resistance measurements, considering the cost factors of the testing fixture. The testing capabilities include Continuity Test, open/short circuit, AC/DC safety withstand voltage, IR insulation, and component testing (resistor/capacitor/diode). The testing points can be selected up to 1024 points, with a maximum AC withstand voltage output of 700V and a maximum DC withstand voltage output of 1000V. It supports PC Link software and BAR Code scanning, meeting the requirements for automated line testing in wire and connector production.

Application

Consumer electronics wire harnesses, Automotive hook-up wires, Automotive-grade wire harnesses, Connectors, Flexible flat cables

Feature

- Test pin 1024
- Continuity Test, Intermittence Continuity Test, O/S, Intermittence O/S, Quick Intermittence open circuit
- Safety test (AC Hipot, DC Hipot, Insulation Resistance, Leakage Current)
- Component test (Resistance/ Capacitance/ Diode)
- USB Host stores setting files and can update firmware
- Support bar code scan and print function



Standard Interfaces

RS-232

USB Host

Remote

Print

Specification

Model	8740NAK		8740NK
Measuring Mode	2-wire		
Test Pin	1024		
Safety Hipot Test			
AC Hipot Test	100~700V		-
DC Hipot Test	50~1000V		50~1000V
AC Hipot Leakage Current	0.01mA~5mA		(Note*1)
AC Arcing Detection	1~8		
DC Hipot Leakage Current	0.1uA~1000uA		
DC Arcing Detection	1~8		
DC Hipot Insulation Resistance	0.1MΩ~1.2GΩ		(Note*2) (Note*3)
Hipot Output Accuracy	±5%		
Hipot Measurement Accuracy	±5%		
Rated Output	5Vdc		
Hipot Measurement Time	0.01sec~60sec		
Wire Specifications	Maximum allowable capacitance 5μF		
Low Voltage Electrical Test			
Continuity Test	Measurement Range	100mΩ~52Ω	
	Current Signal	35mA	
Intermittence Continuity Test	20Ω~2kΩ		
O/S, Intermittence O/S, Quick Intermittence Open Circuit	1kΩ~100kΩ		
O/S Terminal Judge	●		
Single-Side Test	●		
Component Test			
Resistance	Measurement Range	100mΩ~2MΩ	
	Level Signal	Fixed 2.4V	
	Current Level	35mA	
Capacitance	Measurement Range	10pF-3μF	
	Frequency Signal	AUTO Gear	
	Level Signal	Fixed 1.2V	
Diode	Measurement Range	0.1~6.8V	
Advanced Functions	Programmable continuous test/ Auto Pin search/ Auto-diagnosis		
Test Scan Mode	Auto, Manual, External Trigger		
Measurement Signal	Low Voltage Measurement Signal		
Built-in Storage	Number of test file up to 500 sets		
Panel	System/ Rapid/ Edit/ Function		
Indicator	Pass/ Fail HV LED red-green indicator lights/ Screen Display/ Sound		

Note*1 | Must do correction before test when spec. is lower than 0.1mA

Note*2 | Please read the manual carefully before doing this test

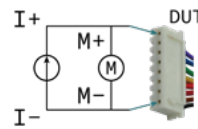
Note*3 | When the setting is set as 5MΩ or below 5uA, the maximum test voltage is 650V and the AC tolerance specification can be set between 0.01mA-5mA.

General

Power Supply	Fixed Voltage : 115/230 Vac ±10%, Frequency : 60/50Hz
Power Consumption	250VA
Interface	RS-232, USB Host, Print, Remote
PC Link Software	●
Operation	Manual, Auto, Remote Control
Display	320*240 dot-matrix
Environment	Temperature : 15°C~35°C, Humidity : RH≤70%
Dimension (W*H*D)	435x270x360mm
Weight	18kg

Functions

8740/8740NAK Series: Utilizing 2-Wire Measurement Technology



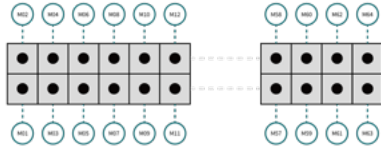
A Port

B Port

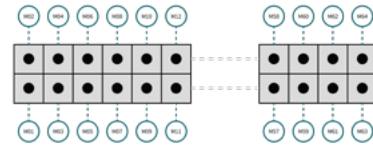
The 8740/8740NAK series utilizes 2-wire measurement technology, making it ideal for general wire harness testing where standard resistance accuracy is required. This series offers a cost-effective solution for test fixture design while providing comprehensive testing of insulation, continuity, and resistance in a single unit. It ensures every cable assembly meets industry standards through rigorous quality control.

Example: Test Pin 128

A Port (1-64 PIN)

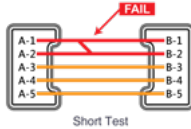
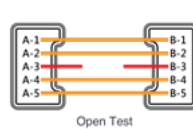


B Port (1-64 PIN)



Support for Open/Short Circuit Testing

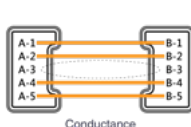
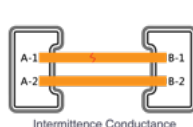
When the open/short circuit test function is enabled, the instrument automatically learns the loop of the harness. It detects points at both ends of the cable circuit or between circuits that should not be connected together, identifying faults caused by unintended short circuits.



Model	Open/Short Test
8740FA/ 8740NA/ 8740N	1kΩ~100kΩ
8740NAK/ 8740NK	1kΩ~100kΩ

Support for Continuity Testing

With the continuity test function enabled, the instrument checks all connected pins of the cable for proper continuity, judging by the resistance values.



Model	Continuity Test	Intermittence Continuity Test
8740FA/ 8740NA/ 8740N	100mΩ~52Ω	20Ω~2kΩ
8740NAK/ 8740NK	100mΩ~52Ω	20Ω~2kΩ

Support for AC/DC Hipot and insulation testing

MICROTEST Cable Tester supports AC/DC Hipot and insulation testing. It applies a stable high voltage to test the dielectric strength and insulation performance of cables. The tester can also enable arc detection to assess whether cable connectors arc under high voltage conditions, ensuring compliance with safety standards for cable quality.



Model	8740NAK	8740NK	8740FA	8740NA	8740N
AC Voltage/ Leakage current	100V~700V/ 5mA	-	100V~1000V/ 5mA	100V~700V/ 5mA	-
DC Voltage/ Leakage Current	50V~1000V/ 1000μA	50V~1000V/ 1000μA	50V~1500V/ 1000μA	50V~1000V/ 1000μA	50V~1000V/ 1000μA
Insulation Voltage/Range	50V~1000V/ 1GΩ	50V~1000V/ 1GΩ	50V~1500V/ 1GΩ	50V~1000V/ 1GΩ	50V~1000V/ 1GΩ

Supports Capacitor, Resistor, and Diode Tests

Many wiring harnesses incorporate protection mechanisms by adding protective components. For example, USB Type-C fast-charge cables often install transient voltage suppressor (TVS) diodes between the plug/socket pins and ground to guard against transient or reverse voltages. In industrial control systems, harnesses frequently face electromagnetic interference and overvoltage risks, so protection devices are used to strengthen their immunity to interference.

MICROTEST Cable Tester supports capacitance, resistance, and diode testing.

Model	Capacitance Test	Resistance Test	Diode Test
8740FA/ 8740NA/ 8740N	10pF~3μF	100mΩ~2MΩ	0.1~6.8V
8740NAK/ 8740NK	10pF~3μF	100mΩ~2MΩ	0.1~6.8V

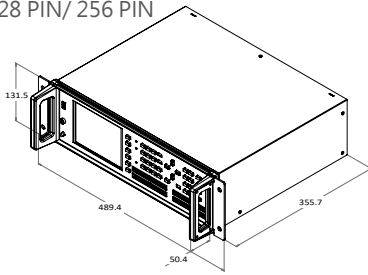
PC Link & Barcode printing

Supports computer connectivity software and barcode testing equipment, meeting comprehensive product traceability and data storage needs on production lines.

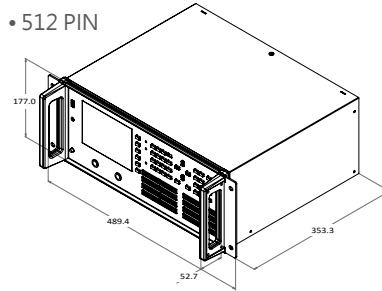
Automatic Chassis Dimension-8740/ 8741NAK

• Dimension (mm)

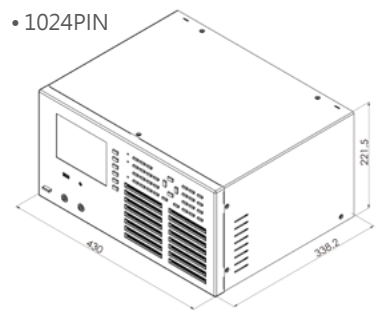
• 128 PIN/ 256 PIN



• 512 PIN

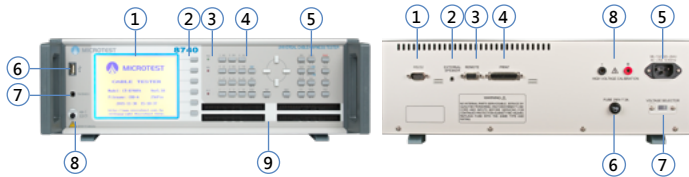


• 1024PIN



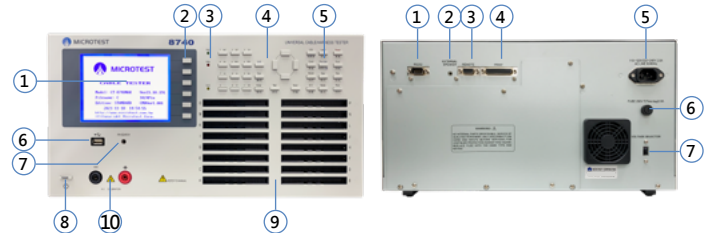
Appearance

• 8740



- | | |
|--|--|
| <ol style="list-style-type: none"> 1. LCD Screen 2. Function Key 3. PASS & FAIL & HIPOT 4. Direction/ Numeric Key 5. System Key 6. USB 7. Pin Search 8. Power Switch 9. 128PIN: 2 Slots, 256PIN: 4 Slots, 512PIN: 8 Slots | <ol style="list-style-type: none"> 1. RS232 2. Audio Output Socket 3. Remote 4. Printer 5. AC INPUT 6. Fuse Block 7. 115/230V Switch 8. High Voltage Correction Output Connector |
|--|--|

• 8740NAK



- | | |
|--|---|
| <ol style="list-style-type: none"> 1. LCD Screen 2. Function Key 3. PASS & FAIL & HIPOT 4. Direction/ Numeric Key 5. System Key 6. USB 7. Pin Search 8. Power Switch 9. 1024PIN: 16 Slots 10. High Voltage Correction Output Connector | <ol style="list-style-type: none"> 1. RS232 2. Audio Output Socket 3. Remote 4. Printer 5. AC INPUT 6. Fuse Block 7. 115/230V Switch |
|--|---|

Ordering Information

2-Wire Cable Tester	Standard	Optional
<p>8740 Series</p> <ul style="list-style-type: none"> 8740FA (128pin/AC 1000V/DC 1500V) 8740NA (128pin/AC 700V/DC 1000V) 8740N (128pin/DC 1000V) 8740FA (256pin/AC 1000V/DC 1500V) 8740NA (256pin/AC 700V/DC 1000V) 8740N (256pin/DC 1000V) 8740FA (512pin/AC 1000V/DC 1500V) 8740NA (512pin/AC 700V/DC 1000V) 8740N (512pin/DC 1000V) <p>8740NAK Series</p> <ul style="list-style-type: none"> 8740NAK (1024pin/AC 700V/DC 1000V) 8740NK (1024pin/DC 1000V) 	<p>8740 Series</p> <ul style="list-style-type: none"> AK-8600F2 Cable-64pin TO 64pin (40cm) TL-CB0006 Search Pin-Probe (150cm) Power Cord <p>8740NAK Series</p> <ul style="list-style-type: none"> TL-CB0005 Cable-64pin TO 64pin (40cm) TL-CB0006 Search Pin-Probe (150cm) Power Cord 	<ul style="list-style-type: none"> FX-CB0001 Networking Fixture F874001 Multiple DUT Testing Expand Box (Expand up to 14 DUTs) F874002 Multiple DUT Testing Expand Box (Expand up to 14 DUTs/ Signal Light Display) F874004 Networking Fixture F874005 Remote Signal Light Box FX-000C16 Adapter Board-2-Wire 64pin TO 2-Wire 64pin FX-000C18 Intermience O/S Fixture FX-000C25 Remote Expand Box (Multiple DUT Test/ Remote Signal Light Display) FX-000C27 Current Expand Box-5A Voltage Drop Test AK-8600F1 Cable-64pin TO 64pin (30cm) AK-8600F2 Cable-64pin TO 64pin (40cm) TL-CB0001 Cable-64pin TO 64pin (100cm) TL-CB0002 Cable-64pin TO 64pin (200cm) TL-CB0003 Probe (105cm) Model.8730 TL-CB0005 Cable-64pin TO 64pin (40cm) FB-8600M1 Universal Fixture Board F760001 D-Sub Foot Switch (15 PIN) TL-000011 USB TO RS-232 Cable TL-000012 D-Sub Cable- 15M TO 15M (150cm) TL-000003 RS-232 Cable (180cm) KB-8730K1 Calibration Kits-2 Wire Model.8740/ 8730 TM-U220PB-T EPSON Printer-TM-U220PB (Traditional Chinese/English) TM-U220PB-S EPSON Printer-TM-U220PB (Simplified Chinese/English) PC Link Software

Fixture & Accessories

TL-CB0006

Probe



TL-CB0003

Probe



AK-8600F2

Cable



Applicable Models	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8730	8765/8765NAK/8740/8761/8761NAC
Accessory Description	150cm	105cm	40cm 64pin TO 64pin

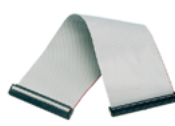
TL-CB0005

Cable



AK-8600F1

Flexible Flat Cable



TL-CB0001

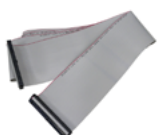
Cable



Applicable Models	8765/8765NAK/8761NAK/8740NAK	8765/8765NAK/8740/8761/ 8761NAK/ 8740NAK	8765/8765NAK/8740/8761/ 8761NAC/8740NAK
Accessory Description	40cm 64pin TO 64pin	30cm 64pin TO 64pin	100cm 64pin TO 64pin

TL-CB0002

Cable



FX-000C15

Adapter Board



FX-000C16

Adapter Board



Applicable Models	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8765/8765NAK/8761/8761NAC/ 8761NAK	8765/8765NAK/8740/ 8761/8761NAC/ 8761NAK/8740NAK
Accessory Description	200cm 64pin TO 64pin	4-wire 128pin TO 2-wire 64pin	2-wire 64pin TO 2-wire 64pin

FX-000C17

Adapter Board



FX-000C21

USB Type-A Test Fixture



FX-000C22

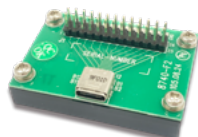
USB Type-C Test Fixture



Applicable Models	8765/8765NAK/8761/8761NAC/ 8761NAK	8761NAC	8761NAC
Accessory Description	4-wire 64pin TO 2-wire 32pin	USB Type-A test fixture	USB Type-C test fixture

8740-F2

USB Type-C Test Fixture



TL-CB0004

Cable-26pin to 26pin



FX-000C27

Current Expand Box



Applicable Models	8761NAC	8761NAC	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK
Accessory Description	USB Type-C test fixture	Supports USB Type-C Test Fixture 8740-F2 40cm	5A Voltage Drop Test Applicable to Wire Harness

FX-000C18

Intermience O/S Fixture



FX-000C25

Remote Expand Box



Applicable Models	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK
Accessory Description	Electronic Short/ Open Circuit Simulator (μ s-ms range), with BNC output for oscilloscope connection; electronic switch withstand voltage up to 5V	Multiple DUT Test, Remote Signal Light Display

F874001

Multiple DUT Testing Expand Box

**F874002**

Multiple DUT Testing Expand Box

**F874005**

Remote Signal Light Box



Applicable Models	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK
Accessory Description	Expand up to 14 DUTs	Expand up to 14 DUTs/ Signal Light Display	Remote Signal Light Display

FB-8600M1

Universal Fixture Board

**F760001**

D-Sub Foot Switch (15 PIN)

**TL-000012**

D-Sub Cable



Applicable models	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8740/8761NAC/8740NAK
Accessory Description	Terminal test	Using in production line	150cm 15M TO 15M

TL-000011

USB to RS-232 Cable

**TL-000003**

RS-232 Cable (180cm)

**KB-8750K1**

Calibration Kits-4 Wire



Applicable Models	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8765/8765NAK/8761
Accessory Description	Using in production line	Using in production line	9 pcs

KB-8730K1

Calibration Kits-2 Wire

**TM-U220PB-T**EPSON Printer (Traditional Chinese/
English)**TM-U220PB-S**EPSON Printer (Simplified Chinese/
English)

Applicable Models	8730/8740	8765/8765NAK/8730/8740/8761/ 8761NAK/8740NAK	8765/8765NAK/8730/8740/8761/ 8761NAK/8740NAK
Accessory Description	6 pcs	Connect print port, for print testing data	Connect print port, for print testing data

F874004

Networking Fixture

**8730-J2**

Adapter Board



Applicable Models	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8740
Accessory Description	Turn RS232 connector to ethernet 10/ 100 Mbps	64pin

FX-CB0001

Wi-Fi Fixture

FX-000C28C

2-in-1 Current Expand Box

Applicable Models	8765/8765NAK/8740/8761/8761NAC/ 8761NAK/8740NAK	8761NAC
Accessory Description	Wi-Fi Fixture	5A Voltage Drop Test, E-Marker IC test Top pin header for external test leads

