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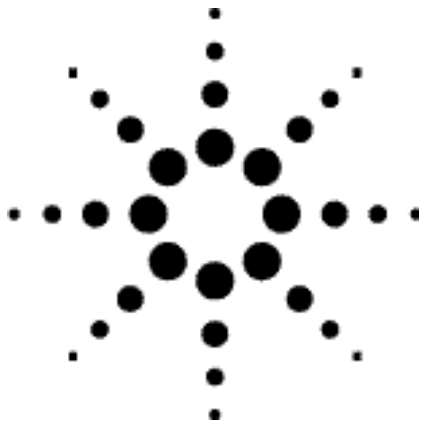
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## Agilent Direct Connect Hub

Product Overview



**Optimize the performance of your drive test  
and indoor wireless measurement system with  
Agilent's direct connect cabling solution**

- **Eliminate bulky cables**
- **Avoid phone powering delays**
- **Reduce connection errors and set up time**



## **Optimize network performance indoors and out**

Your business is growing rapidly. Your wireless customers want uninterrupted service everywhere they go – outdoors at the ball park or inside at the office. They want service, and they want it now.

Our drive test and indoor wireless measurement systems help you optimize your network performance to support your growing demand and increase customer retention. But before you can optimize your network performance, you need a system that is easy to set up without the risk of error each and every time.

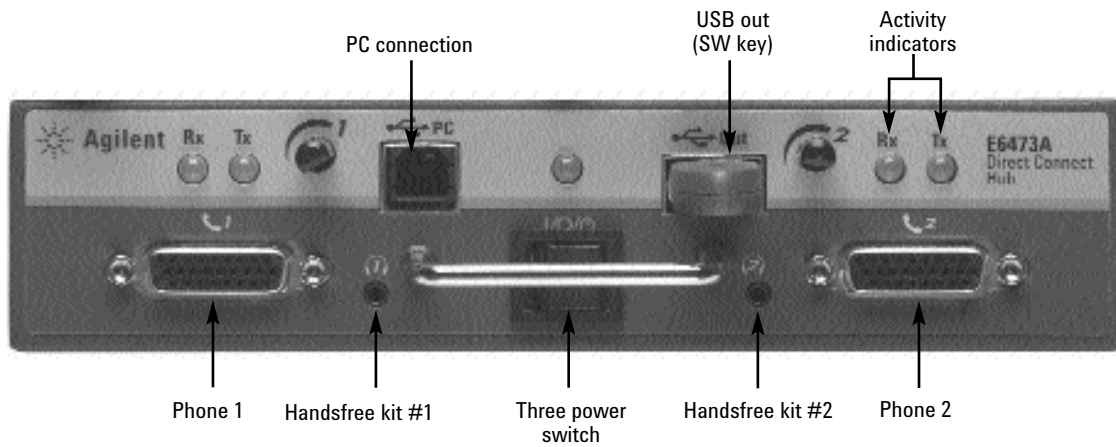
With most systems, setting up the phone and PC connections creates a cabling conundrum. Messy cabling is dangerous, causes connection errors and makes it difficult to provide phone powering capabilities.

## **Complete cabling solution**

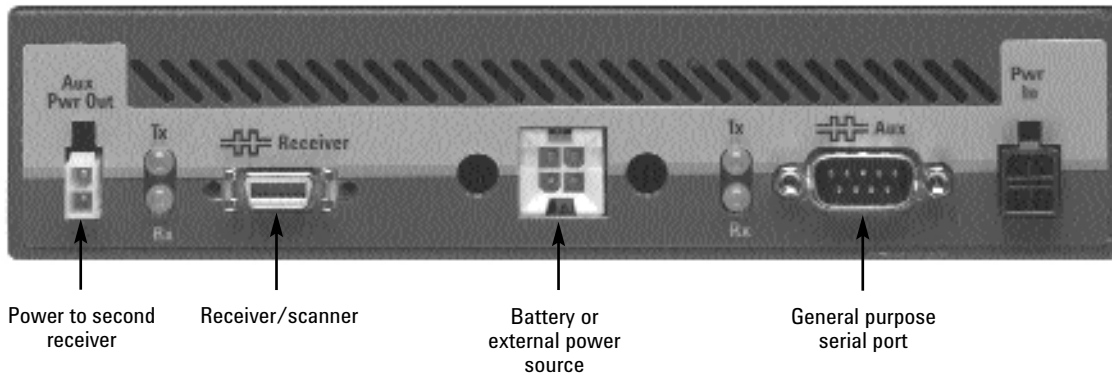
By choosing the direct connect hub you no longer need to worry about delays due to low phone battery power, so you can spend your time measuring your network's performance instead of waiting for batteries to charge. And you get rid of unnecessary bulky cables that get in your way and cause set up delays. The hub provides a phone and receiver powering solution with a quick PC connection that eliminates errors caused by incorrect connections. Plus, the hub minimizes the risk of losing and replacing network optimization keys by providing a centralized location for the keys.

# Save time setting up your Agilent equipment

Now you can simplify your data collection cabling and reduce set up time with Agilent's portable direct connect hub kit – E6473A with Options 010 and 020. This compact, easy to connect hub kit integrates completely with Agilent's network optimization tools: E6474A network optimization solution, E7473A, E7474A, E7475A, E7476A, E7477A, and E7478A drive test systems.



Front view: Agilent direct connect hub



Rear view: Agilent direct connect hub

## Simple, flexible, and smart

There are two standard direct connect hub kits available:

- In-vehicle USB hub kit (E6473A Option 010)
- Portable USB hub kit (E6473A Option 020)

Each kit consolidates PC communication, cabling, and charging/powering for two phones and either one scanner or two digital receivers. There is one generic serial port that may be used for an additional phone, receiver, or GPS connection. Phone control software resides on the data collection PC to provide a simple, direct connect solution.

The hub doesn't have dedicated phone ports, which provides you the flexibility and ease to plug phones into either port. This hub is built smart to automatically detect phone charge requirements and to always apply the correct charging voltage for the phones. It also supports specially keyed phone cables that can be connected to any available phone port. Two additional features that make drive-testing easier include remote audio support for hands-free operation and a three-power ignition sense: on/off/ignition sense.

## Connections

The direct connect hub is an input and output multiplexer with a single USB connection to the data collection PC. The following list highlights the connection features:

- USB input (downstream port) connection for multiplexing multiple direct connect hubs or attaching software license keys
- USB output (upstream port) connection used to connect the data collection PC
- Two generic phone ports for any supported phone to plug-in to either port, with auto sense charging, and error-free connections
- Phone jack audio output port for hands-free audio monitoring
- One scanner/receiver port supports either one scanner or two digital receivers. Digital receivers are multiplexed together and special cabling is used to power the second receiver.
- Power connection for the second multiplexed receiver
- Input power connection with three power sources available: lithium ion battery, automobile cigarette lighter adapter, or permanent car mount with ignition sense
- One generic serial port – typical uses include another phone, receiver, and external GPS receiver. *Please note, power is not provided.*

## Technical specifications

- Lithium ion battery power consumption
  - Two phone and one receiver/scanner configuration: approximately 2.5 hours
  - Two phone and two digital receiver configuration: approximately 2.0 hours
- USB data throughput: 12 Mbytes/second
- Phone/scanner/receiver serial ports data throughput: 220 Kbytes/second
- Maximum number of multiplexed direct connect hubs: two (provides configurations for up to four phones and two scanners/or four digital receivers). Two additional general-purpose serial ports are also available.
- Up to two data phones may be connected to the direct connect hub. With two data phones, no other device may be connected.

## Options available

### In-vehicle direct connect hub kit (E6473A Option 010)

This kit is designed for use in drive-test applications and includes:

- Direct connect hub
- Mounting plate that allows the direct connect hub to be removed and used in portable settings
- All the necessary cabling, *please note phone cables are sold separately.*

### Portable direct connect hub kit (E6473A Option 020)

This kit is designed for use in pedestrian and in-building applications. The kit includes:

- Direct connect hub
- Direct connect hub carrying case – accommodates the direct connect hub and optional scanner. *Please note the scanner must be purchased separately.*
- Lithium-ion battery and battery charger
- All necessary cabling – *please note phone cables are sold separately.*



Make testing easier with direct connect phone accessories.

### Combination direct connect hub kit (E6473A Option 030)

- Direct connect hub
- Mounting plate that allows the direct connect hub to be removed and used in portable settings
- Direct connect hub carrying case – accommodates the direct connect hub and optional scanner. *Please note the scanner must be purchased separately.*
- Lithium-ion battery and battery charger
- All necessary cabling – *please note phone cables are sold separately.*

### Phone cabling accessories

Direct connect hub specially keyed phone cables are available and include:

- Hands-free headset for remote audio monitoring
- Direct connect hub to DB9 connector adapter – for use without the direct connect hub and allows direct connection to the data collection PC

## **Options available *continued***

### **Carrying case(s)**

To simplify performing measurements in pedestrian and in-building settings, Agilent provides two carrying case options to store the test equipment while making measurements. These options are designed especially for use with the E6473A Option 010, portable USB hub kit.

### **Single receiver carrying case (E6473A Option 040)**

This case is designed for use when only one digital receiver is being used and includes one tri-band antenna.

### **Dual receiver carrying case (E6473A Option 042)**

This case is designed for use when two digital receivers are being used in the system. This case may also hold two direct connect hubs when no receivers are desired.



**Simply strap your equipment in and conduct measurements in comfort with the single receiver carrying case.**

## Ordering information

E6473A Option 010 In-Vehicle USB Hub Kit  
E6473A Option 020 Portable USB Hub Kit  
E6473A Option 040 Single Receiver Carrying Case  
E6474A Option 041 Dual Receiver Carrying Case  
E6473A Option 8xx Phone Interface Cables  
E6473A Option 898 Phone Antenna Cable Kit (900/1800 MHZ)  
E6473A Option 899 Phone Antenna Cable Kit (800/1900 MHZ)

## Additional Agilent literature

E6474A Network Optimization Solution Configuration Guide  
5988-2396EN  
E7473A CDMA Drive Test System Configuration Guide  
5968-5553A  
E7473A CDMA Drive Test System Data Sheet  
5968-5555E  
E7474A TDMA Drive Test System Configuration Guide  
5968-5861E  
E7474A TDMA Drive Test System Data Sheet  
5968-5556E  
E7475A GSM Drive Test System Product Overview  
5980-0439E  
E7475A GSM Drive Test System Configuration Guide  
5968-5563E

E7475A GSM Drive Test System Data Sheet  
5968-5564E  
E7476A W-CDMA Drive Test System Product Overview  
5980-2132E  
E7476A W-CDMA Drive Test System Configuration Guide  
5980-2307E  
E7476A W-CDMA Drive Test System Data Sheet  
5980-3027EN  
E7477A cdma2000 Drive Test System Product Overview  
5980-2131E  
E7477A cdma2000 Drive Test System Configuration Guide  
5980-2308E  
E7477A cdma2000 Drive Test System Data Sheet  
5980-2306EN  
E7478A GPRS Drive Test System Configuration Guide  
5988-1505EN  
E7478A GPRS Drive Test System Data Sheet  
5988-1506EN



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