# Keysight Technologies The Keysight Remote Link Solution







# Why Go Wireless?





On site testing in large industrial sites can be challenging.



Machinery may be in operation.



Test points can be far apart, or high above the ground.

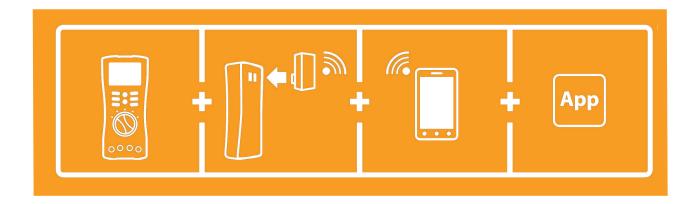
# Have you ever wanted to carry out the tasks below with a handheld DMM but could not do so?

- Measure multiple points during troubleshooting and yet log all of the data simultaneously?
- Need to make measurements at electrical panels while toggling switches at the other end of the hall?
- Diagnose and evaluate live machinery from a safe distance?
- Monitor measurements in harsh environments?
- Log all of the data to diagnose intermittent issues from afar?

All these are made possible with the Keysight Remote Link Solution for Keysight U1200 Series and Keysight U1450A/60A Series handheld meters

Keysight lets you turn your iOS/Android smartphone or tablet into a remote measurement, control and reporting device.

## The Remote Link Solution



The core of the solution is the Keysight U1177A/U1117A IR-to-*Bluetooth*® adapters, which is compact *Bluetooth* modules that plug into any compatible Keysight handheld meters.¹ The IR-to-*Bluetooth* adapters allow you to safely measure, view and log test measurements from a distance of up to 100 meters.² The solution also allows users to log and monitor data on a variety of display devices, including iOS/Android smart devices, Windows PCs, or the new U1115A remote logging display.



The new Keysight U1115A remote logging display allows users to view readings of up to four handheld meters simultaneously. The remote logging display comes with 60,000 points of interval logging memory, letting users store more test data for future review or analysis.



#### Note:

- 1. Refer to Table 1 for compatible Keysight handheld meters.
- 2. Refer to Table 2 for connectivity distance.

# The Hardware Setup

## Making the hardware connection – it's as easy as A-B-C

First, switch on the *Bluetooth* adapter and attach it to an Keysight handheld meter. For the U1240 Series, a separate U1179A IR bracket is needed before you can plug in the *Bluetooth* adapter.



The U1177A/U1117A *Bluetooth* adapter works with the Keysight U1200 Series handheld digital multimeters and clamp meters, and the U1450A/60A Series insulation resistance testers.



Each *Bluetooth* adapter has its own unique Media Access Control (MAC) address. Pair the Keysight handheld meter that has a *Bluetooth* adapter attached to it with an Android or iOS smart device. You can also view and log measurements wirelessly up to 100 meters on a dedicated remote logging display - U1115A. The wireless remote connectivity solution is now ready for your data monitoring and logging purposes.

#### Handheld meter models that are compatible with U1177A/U1117A and U1115A

Table 1.

	Handheld digital multimeter				Handheld clamp meter	Handheld insulation resistance tester
	U1230	U1240	U1250	U1270	U1210	U1450A/60A
	Series	Series	Series	Series	Series	Series
U1177A	•	■*		-	•	-
U1117A	•	•*		•	•	•
U1115A	•	•	•	•	•	-

<sup>\*</sup> needs a U1179A IR bracket - sold separately as an accessory

#### Connectivity distance (approximate) within the line-of-sight

Table 2.

	U1177A	U1117A	U1115A
U1177A			10-m
		<del>-</del>	
U1117A	-	-	100-m
U1115A	10-m	100-m	-
Other Class 1 devices	10-m	100-m	100-m
Other Class 2 devices	10-m	10-m	10-m

# Remote Link application and software compatibility

Table 3.

		Android OS			Apple iOS		Windows PC
	Keysight Mobile Meter	Keysight Mobile Logger	Keysight Insulation Tester	Keysight Mobile Meter	Keysight Mobile Logger	Keysight Insulation Tester	Meter Logger Software
U1177A	-	-	-	_	_	-	•
U1117A	-	-	-		-	-	
U1115A	-	-	-	-	-	-	■ (data download only)

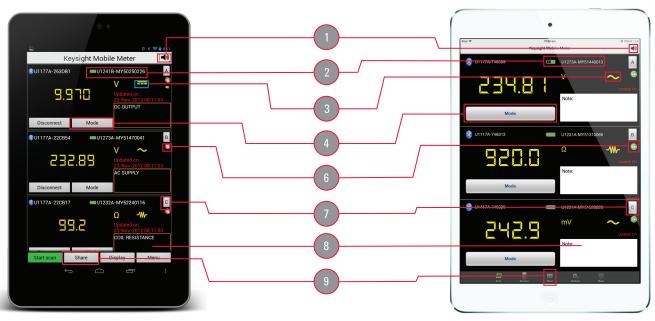
# The Software Setup

The Keysight remote link solution comes with complimentary software applications, the Keysight Mobile Meter and Keysight Mobile Logger for iOS and Android smart devices.

First, download both applications from www.keysight.com/find/hhmeterapp or from the Google Play Store/Apple iTunes app store.

## Keysight Mobile Meter Application (iOS/Android)

Monitor up to three measurements from three HH meters simultaneously



Android iOS

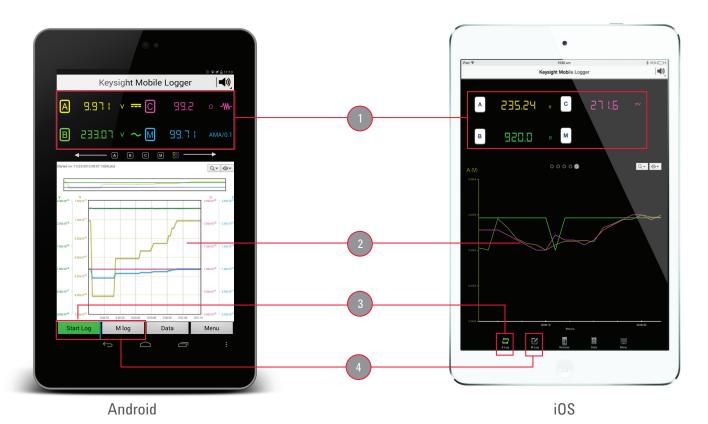
- Use Voice-Out to have measurements read out so that you can fully concentrate on probing at the right points for greater safety
- 2) Shows the serial number of the connected multimeter and its battery status
- Iconographic indicating the type of measurement function currently in use, replicating your DMM's display
- Select desired type of measurement (voltage, current, resistance) and measure wirelessly from up to 10 meters away
- 5) Display measurements from up to three handheld
- 6) Freeze readings for your application/troubleshooting needs
- 7) Easily identify the HH DMM used for this measurement (Simply press the icon and the respective HH DMM will beep and the display of the HH DMM will blink)

- 8) Makes notes as you measure for your reference at a later time
- Share data as text and/or a picture and send the file via email and sms

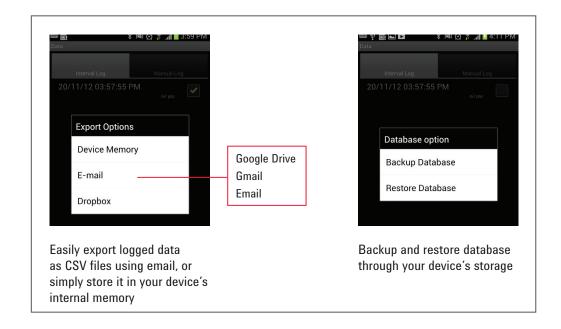


browser within the same network.

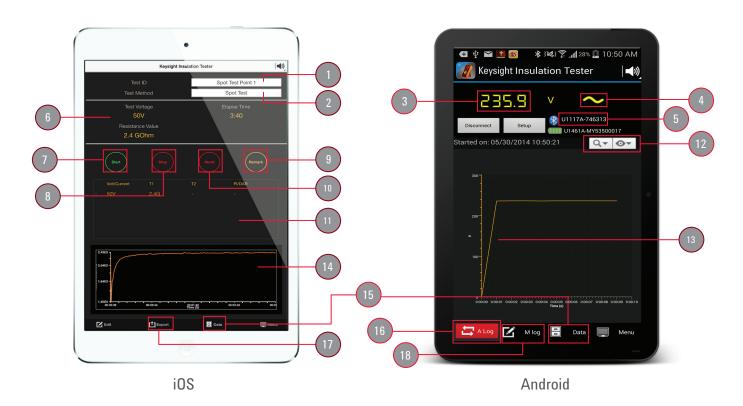
# Keysight Mobile Logger Application (iOS/Android)



- 1) Monitor up to three measurements from three HH DMMs simultaneously
- 2) View real-time data trending for a particular HH DMM or the graphs for all three HH DMMs
- 3) Stop the data logging and zoom in on the trending graph to view details
- 4) Log data manually when the need arises



# Keysight Insulation Tester Application (iOS/Android)



- 1) Enter a unique name or TestID for each test
- Select type of test you want to perform, such as Spot test, Timed test, PI test, DAR test, Pass/Fail test, Earth Bond test and test data downloading from unit's memory
- 3) Primary measurement display
- 4) Measurement unit and function
- 5) Display the connected U1117A adapter
- 6) Properties View displays the test voltage, elapse time and resistance value
- 7) Start the insulation resistance testing
- 8) Stop the spot test
- 9) Enter remarks to the test report

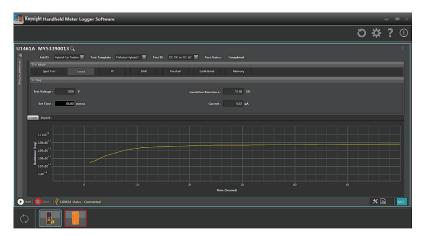
- 10) Abort all the insulation resistance testing
- 11) Display the insulation test data in the table format
- 12) Zoom and View softkeys, designed for graph control
- 13) Display the logged data in graph view for trending purposes
- 14) Plot the insulation test data in graphical view as test in progress
- Display, edit, export, backup and delete the list of automatic data logging sessions or manually logged data
- 16) Start/stop automatic data logging
- 17) Generate and export test report in PDF format via email or Dropbox
- 18) Tap to initiate single point manual data logging

# The Keysight Handheld Meter Logger Software for Personal Computer (PC) Users

Alternatively, data logging and monitoring activities can also be performed with Keysight Handheld Meter Logger software via *Bluetooth* connection.



View up to 10 handheld meters' readings or trending with Keysight Handheld Meter Logger



View insulation resistance test trends and generate test reports on a PC

#### Notes:

- 1. Tested on certain iOS/Android smart phones and tablets. Please refer to www.keysight.com/find/U1117A for more information.
- 2. Measurement functions depend on the rotary position of the HH meter.
- 3. Number of HH meter connections depends on the smart phone/tablet used.

For more information, visit www.keysight.com/find/hhgowireless

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