

Wi-Fi Access Point Survey Feature

Introduction

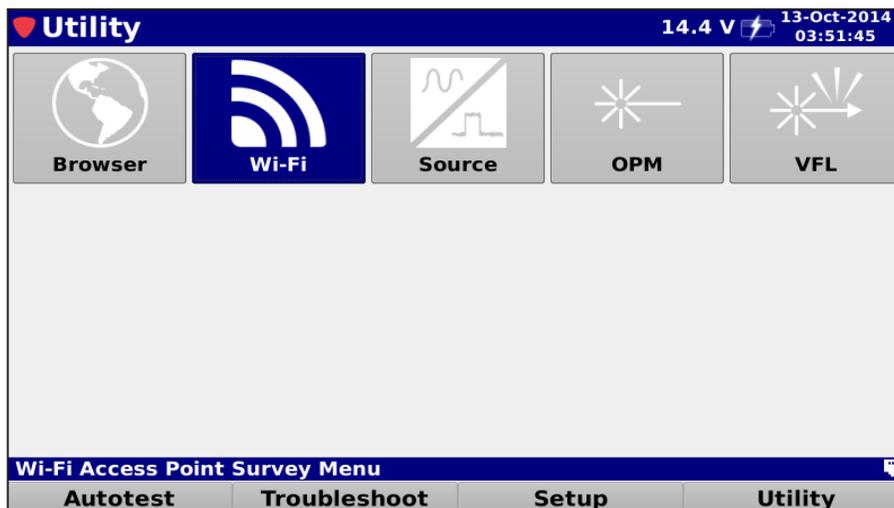
Cable companies are beginning to deploy Wi-Fi networks within their communities as a differentiating feature that enables data customers to connect in a wide variety of locations. This attractive add-on service helps to hold customers in the highly competitive telecommunications market.

Cable technical personnel must be able to verify that the company's Wi-Fi access points are properly broadcasting with adequate field strength and security. A variety of means are currently available for viewing local wireless access points, with the most typical being the wireless connection application on most notebook PCs. Techs do not always have access to a notebook PC, so the addition of a Wi-Fi option to their field analyzer is an attractive concept. The survey mode can also be used on data service installations to verify wireless accessibility throughout a customer's home, and to verify that the configured channel is not conflicting with a neighbor's access point.

Trilithic offers a Wi-Fi adaptor for the New DSP Family of meters. In addition to providing an alternate communications path for measurement data, unit configurations and internet sites, the new feature performs common Wi-Fi network verification tests:

- **SSID** – Broadcast name of the Wi-Fi
- **Channel** – Current Broadcast channel of the selected Wi-Fi network
- **Power** – Measured channel power level in dB of the selected Wi-Fi network

To access this feature, select the **Wi-Fi** icon from the **Utility** menu, as shown below.



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Using the Wi-Fi Survey

The **Wi-Fi Survey** screen will be displayed as shown here. This screen allows you to perform a survey of Wi-Fi access points in your area that are currently broadcasting their SSID.

Use the left/right arrow buttons scroll through all available Wi-Fi networks for more detailed information.

dBm	SSID	Security	Freq	CH
-37	SPEEDY	WPA2	2.4 GHz	11
-65	HOME-51A7	WPA2	2.4 GHz	1
-69	GrugNet	WPA2	2.4 GHz	6
-69	MG Network WAP	WEP	2.4 GHz	7
-74	2WIRE457	WEP	2.4 GHz	6
-75	2WIRE145	WPA2	2.4 GHz	5
-77	HOME-A9C2	WPA2	2.4 GHz	11
-79	2WIRE712	WPA2	2.4 GHz	1
-81	DIRECT-roku-775	WPA2	2.4 GHz	6

HOME-51A7* (Channel 1) Power: -65 dBm

Display Sort



NOTE

If the meter is connected to a Wi-Fi access point through the Network Manager screen, the Wi-Fi Survey will only display the Wi-Fi frequencies that the meter is currently using.

Display Type

Use the **Display** softkey to choose between the **List** or **Graph** displays. You can choose between 2.4 GHz and 6 GHz graphs.

dBm	SSID	SEC	Freq	CH
-41	Apps_Wireless		2.4 GHz	1
-54	Apps_Wireless_SG		5 GHz	100
-58	TrilithicGuest		2.4 GHz	7
-60	TrilithicCorp		2.4 GHz	11
-66	AIRSHOT2011344		2.4 GHz	11
-68	INSTENGNET		2.4 GHz	6
-68	(Hidden)		2.4 GHz	1
-70	TrilithicGuest		5 GHz	48
-72	TrilithicCorp		5 GHz	48
-74	TrilithicCorp		2.4 GHz	4
-74	TrilithicGuest		2.4 GHz	4
-74	TrilithicGuest		2.4 GHz	8
-76	HP-Print-AD-LaserJet 1102		2.4 GHz	6
-76	TrilithicCorp		5 GHz	153
			2.4 GHz	6
			2.4 GHz	10
			2.4 GHz	9

List

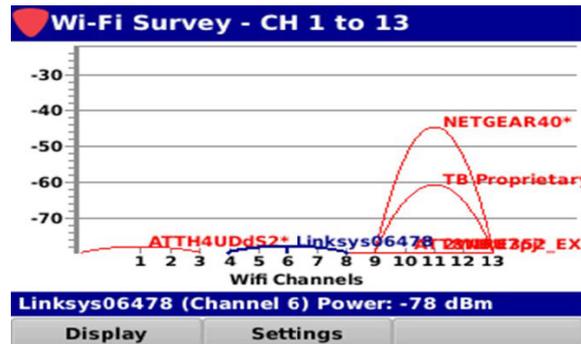
2.4 GHz Graph

5 GHz Graph

inet 1) Power: -41 dBm

Display Sort

List Display



Graph Display

Sorting Access Point Information

Select the **Sort** softkey to sort the file list. Select from **Level**, **Security**, **Frequency**, or **Channel** sort types as shown in the image to the right.

Wi-Fi Survey					
dBm	SSID	Security	Freq	CH	
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-65	HOME-51A7	WPA2	2.4 GHz	1	
-68	MG Network WAP	WEP	2.4 GHz	7	
-69	GrugNet	WPA2	2.4 GHz	6	
-75	HOME-A9C2	WPA2	2.4 GHz	11	
-75	2WIRE457			6	
-78	HOME-FBE2			1	
-78	2WIRE642			4	
-80	DIRECT-roku-775			6	

HOME-51A7* (Channel 1) Power

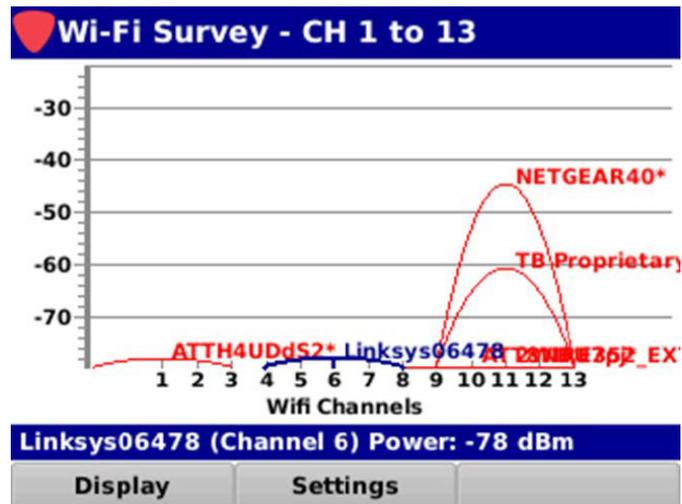
Display Sort

Troubleshooting Wi-Fi Networks

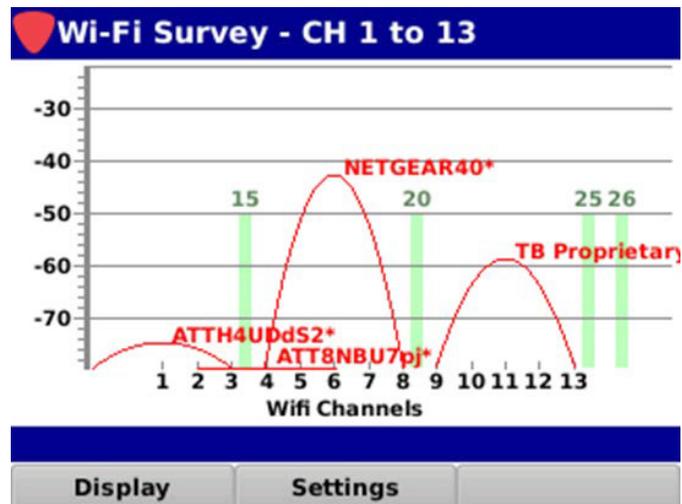
Once you select the 2.5 GHz graph, the screen will show all the channels in a graph mode.

Note in the screen to the right that you have two channels that are overlapping on channel 11.

This can cause the Wi-Fi signal to degrade, giving slow throughput. The technician can change the channel of the Wi-Fi in the router so it will not interfere.



The screen shown here indicates the corresponding Wi-Fi changed from channel 11 to channel 6, after the router adjustment.

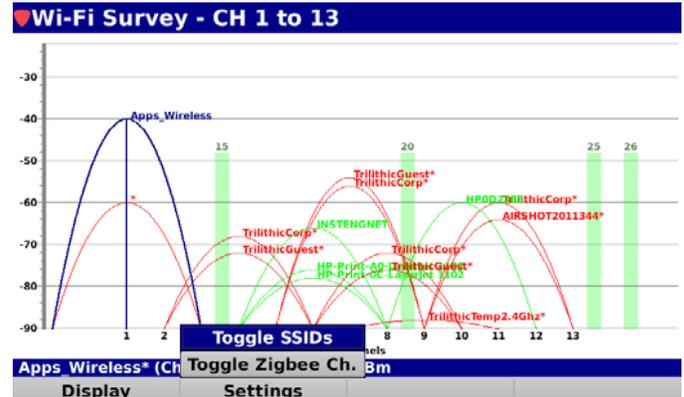


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Zigbee

Many cable and internet providers use Zigbee Wi-Fi channels 15, 20, 25, and 26 for security equipment.

Select the **Settings** softkey and select the **Toggle Zigbee Channels** button to turn those channels on.



NOTE

For Additional Help, Contact Trilithic Applications Engineering
1-800-344-2412 or 317-895-3600
support@trilithic.com or www.trilithic.com