

# How to use the WM-100 and Wave Navigator for troubleshooting





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#### 0. Pre-requisition

This document is to explain

- data monitored by the WM-100 and Wave Navigator, and
- How to use the data

Refer to "How to install the WM-100 and Wave Navigator" ("Installation Guide") document for the installation process of the system. The Installation Guide is to connect the WM-100 to a computer directly, as below.



Computer	
OS	Windows Server 2016(64bit)
	Windows 10 IoT Enterprise(64bit)
	Windows 10 Professional (64bit)
CPU	Intel Core i5 or higher performance CPU
Memory	4 GByte and more available for the Wave Navigator software
HDD/Storage	1 TByte and more available for data storage

#### Firewall setting

Ports in use	3000、8080、8086、8090
Applications in use	Apache、Python、NginX、Grafana、InfluxDB
	(These will be installed during Wave Navigator installation.)





#### 1. How to use data for WLAN troubleshooting







#### 1.2 Wi-Fi link association issue

If there is no issue identified but the Wi-Fi link is not established between an access point and a station, it may encounter a Wi-Fi authentication issue. In this case, wireless packets capturing is the powerful tool to identify a packet level issue.

The WM-100 can be used as the packet capture tool and it transfers the data to the Wave Navigator. It can also store the captured data into an USB drive.

Section 3 explains how to capture the wireless packet with the WM-100 and the Wave Navigator.









#### 2. Data monitored by the WM-100 and Wave Navigator

#### 2.1 Floor Wireless Conditions

The "Floor Wireless Conditions" page is a dashboard showing useful information indicating the status of managed wireless devices such as Wi-Fi access points and stations.

#### 2.1.1 Wireless anomaly – resolution information



This page section shows the history of alarms in your wireless environment. There are four warning conditions, as shown in the table below:

No.	Warning type	Contents	Wording	Measures
1	Increased bandwidth rate	Bandwidth rate is rising	Bandwidth rate of %(channel) is increasing	Review your channel settings if necessary
2	Increased error frame rate	Error frame rate is rising	Error frame rate of %(channel) is increasing	Review your channel settings if necessary
3	Increased resend frame rate	Resend frame rate is rising	Resend frame rate of %(channel) is increasing	Review your channel settings if necessary
4	Reduced signal strength	The signal strength of the device is low	The signal strength of %(machine) is low	Review the antenna status of the device if necessary





#### 2.1.2 Wireless Usage

	Detail information Measurement data analysis Wireless monitoring		Wireless usage	Se Wireless environment monitoring	Synthetic 👻 Display
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or Wireless Conditions	Wireless anomaly · resolution information	^			2SXcadf70
ior List	Error frame rate is rising	2023/03/22 17:03	<u></u>		(96.25:3F:CA.DF:70)
rvey Device List	Enter name rate is itsing	2023/03/22 17.03	*		2SXcadf71
	Server device				(96:25:3F:CA:DF:71)
eless Data List	Abnormality occurring Error frame rate of 36CH is increasing				rm-100rc_Meas2
v troi	Remarks Error frame rate:57.0% Measures				(00:0A:F5:59:0C:43)
					DNLAB24 (84:25:3F:42:7A:05)
ings 🗸 🗸	Review your channel settings if necessary				Silex_America_EAP
			10 S		(26:5A:4C:2B:81:B8)
	Error trame rate is itsing	2023/03/22 10:42			Silex America EAP
inistrator Service 🐱	Error frame rate is rising	2023/03/22 09:41			(76 83 C2 2D 5D 31)
	Error manae rate to norng	2023/03/22 08:41			
	Error frame rate is rising	2023/03/22 08:43			Silex_America_EAP
	Liter neme tare to mong	2023/05/22 00.43			(26:5A:4C:2B:90:A8)
	Error frame rate is rising	2023/03/22 03:23	2.4G 5G-W52.W63	5G-W58 5G-W58	-
			2.4G 5G-W52 W53	50-1/20	
	Wireless monitoring:Radio wave intensity: 1st floor			2.4G 5G-W5	2 W53 5G-W56 5G-W58
					Map update - +
	Size (vertical × horizontal): 25.00m × 40.00m Per 1ps(vertical × horizontal): 27.5mm × 23.1mm				Map update
	30				
	30			<b>3</b>	

This page section shows the registered devices' signal strength in their operating channel measured by the WM-100. If you find that multiple access points placed nearby operate in the same channel, you may want to change the operating channel of some of them.

You can choose from 2.4GHz, 5GHz W52/W53, 5GHz W56 or 5GHz W58 to display as below.







2.1.3 Wireless monitoring: Radio wave intensity



This page section shows the heatmap of the radio signal strength from the registered devices in your environment. The heatmap and channel information help check if the Wi-Fi access points are properly installed to cover the entire floor.

You can monitor the heatmap of 2.4GHz, 5GHz W52/W53, 5GHz W56 or 5GHz W58 radio band.





#### 2.2 Wireless Monitoring

The recent wireless status can be checked on the "Wireless monitoring" page. There are two ways to get to this page.

- 1. "Wireless monitoring" link on the top of the "Floor wireless conditions" page
- 2. "Floor List" > "Wireless monitoring" of your floor to check



#### 2.2.1 Floor information

The "Floor information" tab provides the device list and its location on your floor. You can review your setting to see if all devices are correctly registered. If other devices need to be added, you can go to the device registration page by clicking "Setting edit" on the top of the page.

When the mouse cursor points to a specific device on the floor map, the icon blinks if the Wi-Fi communication is active. It does not blink if there is no Wi-Fi traffic with the device.







#### 2.2.2 Survey

The "Survey" tab shows the bandwidth utilization and the wireless data frame status (normal frame rate, error frame rate, and resend frame rate) of the channels being monitored by a selected WM-100.



Once "Survey Information" of a WM-100 is clicked, a chart and a graph are shown. These show information on the selected radio band.







The "Detail" button guides you to more detailed survey information. The "Bandwidth information" tab shows the bandwidth rate, the number of devices, and the frame status (rate and count). The bandwidth information guides to adjust the radio channel usage to improve the Wi-Fi communication quality.



The "Device information" tab shows the access points operating in each frequency. It shows the signal strength detected by the WM-100 and the number of station devices. This information helps recognize any unintentional access points that may cause the unintentional radio emission causing the interference.







#### 2.2.3 Radio wave intensity

The "Radio wave intensity" tab shows the heatmap of the radio signal strength from the registered devices in your environment. The heatmap and channel information help check if the Wi-Fi access points are properly installed to cover the entire floor.



You can monitor the heatmap of 2.4GHz, 5GHz W52/W53, 5GHz W56 or 5GHz W58 radio band.

#### 2.2.4 Spectrum information

The "Spectrum information" tab shows the radio signal intensity in the selected radio band. Please ensure the WM-100's setting to collect spectrum information in a specific band. The WM-100 is configured to collect a 2.4GHz spectrum by default, as shown in the picture below.







After you click the "Spectrum analysis", the spectrum information appears. You will know which channel emits the strong signal around the selected WM-100 and how often such a signal is detected.



"Wireless LAN frame removal" button is to remove the radio spectrum related to the Wi-Fi communications. It indicates a radio emission source near the WM-100 that can act as the noise to cause interference.







The "Details" button guides you to the page below. It shows the additional information of the radio signal level in the frequency band over time. (In the case of this picture, past 10 minutes data is shown.) If a noise source emits an unintentional signal in the frequency band, such a signal can be captured and displayed in this chart.

🕑 What's New 🛛 🛪	K 📢 WaveNavigator 🗙 🔹	ttings - About Chrome	- 8 ×	- D - Ø
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Hell Data Display ~	Device name WM100-04DC0E Device ID 1C:BC:EC:04:DC:0E Device type WM-100	Data type spectrum data (2.4 GHz band) Measurement pre-measurement stand alone mode monitor Measurement		
Fleer List     Survey Device List		information Information start date and time 2023/04/03 15:56		
<ul> <li>➡ Wireless Data List</li> <li>■ Report ~</li> </ul>	Spectrum Frame remginal			
<ul> <li>Settings ~</li> <li>Administrator Service ~</li> </ul>	Spectrum program	-45 -45 -45 -45 -45 -45 -45 -45 -45 -45	Spectral density	
ver.1.0.0s				

The "Frame removal" tab shows the same chart without the radio signal related to the WLAN frame, non-Wi-Fi radio signal. You will know if there is a noise source that can affect the WLAN quality.







## 2.3 Measurement data analysis

The site survey result, registered during the setup (Refer to section 6.3 in "How\_to\_install\_wm-100\_wavenavigator"), is shown in the "Measurement data analysis" page. There are two ways to get to this page.

- 1. "Measurement data analysis" link on the top of the "Floor wireless conditions" page
- 2. "Floor List" > "Measurement data analysis" of your floor to check



The analysis data consists of the data set described in sections 2.2.2, 2.2.3, and 2.2.4.





#### 2.4 Report

The Wave Navigator generates a couple of time charts showing your floor's wireless environment status. The reports can be accessed from "Report > Floor List > Display" as below.

→ X A Not secure	WaveNavigator     X Settings - About Chrome     192.168.0.100:8080/WaveNavigator/floor_report/				@ ☆ □
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	1 STA OC around DN lab space	USA, CA	STA office	1st floor	Display
	Showing 1 to 1 of 1 entries				Previous 1 Next
			(C		ടിര

#### 2.4.1 Warning history

The "Warning history" tab shows the warnings triggered during the period set through "Select date and time." A specific channel can be selected from the pull-down menu. The information provides some ideas, such as which channels see more potential issues, what issues will happen more likely etc.

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Showing to 2 of 2 entries Previous 1	Showing 1 to 2 of 2 entries Previou	s 1	Nex	it





#### 2.4.2 Bandwidth information

The "Bandwidth information" tab shows the time chart of following data:

- 1. Bandwidth utilization
- 2. Error frame rate
- 3. Retry frame rate



A specific channel can be selected from the pull-down menu. The information helps check how the Wi-Fi environment on the floor changes over time. It can help troubleshoot occasional errors, adjust a WLAN environment such as installing additional access points for load balancing, channel adjustment, etc.

#### 2.4.3 Radio wave intensity

The "Radio wave intensity" tab shows the time chart of the signal strength of registered devices. The information helps check some unintentional situations, such as downtime of the registered access points or stations, decrease in the radio signal strength caused by a newly installed obstacle around the access point, move of a station device, etc.









#### 2.5 Record

The list of recorded data can be found in two ways:

1. "Data Display" > "Survey Device List" > "Details"







# 2. "Data Display" > "Wiireless Data List"

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WaveNavigator	× +										-	
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		No. 🕸	Device name	Device ID	Data type	Measurement ID	Measurement start date and time	Measurement end date and time	1 Register date and time			
Survey Device List		1	WM100-04DC0E	1C:BC:EC:04:DC:0E	wireless LAN survey data	000000001-04DC0E-1	2023/04/03 16:06	2023/04/03 16:11	2023/04/03 16:12	Disp	lay	
Wireless Data List		2	WM100-04DC0E	10:80:E0:04:D0:0E	wireless LAN survey data	00000001-04DC0E-1	2023/04/03 16:01	2023/04/03 16:06	2023/04/03 16:12	Disp	lay	
Report	<b>~</b>	3	WM100-04DC0E	1C:BC:EC:04:DC:0E	spectrum data (2.4 GHz band)	000000001-04DC0E-2	2023/04/03 15:56	2023/04/03 16:06	2023/04/03 16:06	Disp	lav	
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		4	WM100-04DC0E	1C:BC:EC:04:DC:0E	wireless LAN survey data	000000001-04DC0E-1	2023/04/03 15:56	2023/04/03 16:01	2023/04/03 16:01	Disp	lay	
	~	5	WM100-04DC0E	1C:BC:EC:04:DC:0E	wireless LAN survey data	000000001-04DC0E-1	2023/04/03 15:51	2023/04/03 15:56	2023/04/03 16:01	Disp	lay	
		6	WM100-04DC0E	1C:BC:EC:04:DC:0E	spectrum data (2.4 GHz band)	00000001-04DC0E-2	2023/04/03 15:46	2023/04/03 15:56	2023/04/03 15:56	Disp	lay	
		7	WM100-04DC0E	1C:BC:EC:04:DC:0E	wireless LAN survey data	000000001-04DC0E-1	2023/04/03 15:46	2023/04/03 15:51	2023/04/03 16:01	Disp	lay	
		8	WM100-04DC0E	1C:BC:EC:04:DC:0E	wireless LAN survey data	00000001-04DC0E-1	2023/04/03 15:41	2023/04/03 15:46	2023/04/03 15:46	Disp	lay	
		9	WM100-04DC0E	1C:BC:EC:04:DC:0E	spectrum data (2.4 GHz band)	000000001-04DC0E-2	2023/04/03 15:36	2023/04/03 15:46	2023/04/03 15:46	Disc	lav	
		10	WM100-04DC0E	1C:BC:EC:04:DC:0E	wireless LAN survey data	000000001-04DC0E-1	2023/04/03 15:36	2023/04/03 15:41	2023/04/03 15:46	Disp	lary	
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Once the data is found, click "Display". The survey information will appear.

## wireless LAN survey data

# spectrum data

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#### 3. How to capture the wireless packet

# 3.1 Wireless packet capturing with the WM-100 and the Wave Navigator

# 1. Ensure the monitoring is not running.

Remote Desktop Connection		
aveNavigator × 🛛 Welcome to WM-100 × +		
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Nelcome to WM-100		
	Enter the password, and click [Login].	
	Password	
	Login	
	Select Language	
	English	

If the button shows "Stop", please click it to stop monitoring.

192.168.5.84 - Remote Desktop 0	Connection		- • ×
WaveNavigator	× 🐼 WM-100 ×	+	~ − □ ×
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- System - DHCP Server Setting - Device Configuration		Start	
- Monitor - CIFS/SMB Server	1shot Monitor Configuration		
<ul> <li>Execute</li> <li>Monitor Function</li> </ul>	Name Tshot Monitor	Status DISAELE	
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Storage Configuration     Maintenance	<ul> <li>Radio 2 Configuration</li> </ul>		
<ul> <li>Restart</li> <li>eMMC Initialization</li> </ul>	Name Radio 2	Status SCAN	
- Factory Default - Firmware Update	Channel Band Upload Interval (min)	2.40Hz 5	
- Logout			





2. Set monitor mode to "CAPTURE", select the bandwidth and the channel to capture wireless packets, and submit.

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WaveNavigator	x 🛛 WM-100 x +	~ - □ ×
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silex technology	I Monitor	
Select Language	Tshot Monitor Configuration Radio 1 Configuration Tadio 2 Configuration	
<ul> <li>Status</li> <li>System</li> <li>DHCP Server</li> </ul>		ар нели
Setting     Device Configuration     Monitor	Interface Configuration     Value	
Configuration	Radio 1 DWALE V	
Execute     Monitor Function	Action Mode Configuration     Name     Value	
Security     Password     Device Management	Monitor Made	
Log     Time Configuration     Upload	Packet Capture Configuration     Name     Value	
- Storage Configuration  Maintenance  Restart	Bandwidth 2004/E V Channel T V	
- eMMC Initialization - Factory Default - Firmware Update		Quint
- Logout		

#### 3. Restart the WM-100.

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Device Configuration     To take effect of this setting, please restart.     Monitor     - GF3/2/4B Server     Device     Bester	
V Electric	
V Security - Passord	
▼ Device Management	
- Lot - The Configuration - Upload	
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- Lapout	

4. Start capturing the packet



	technology
🖏 192.1988.5.88 Remote Desktop Connection	×
📢 WaveNavigator 🗙 🥝 Welcome to WM-100 🗙 🕂	✓ - □ X
← → C ▲ Not secure   192.168.0.1/login.htm?lang=en	@ * 🛛 🛎 :
Welcome to WM-100	
Enter	the password, and click [Loein].
Password	
	Loch
	Select Language English V

Set the time as necessary.

When the DIP switch #1 pin is "ON", the WM-100 starts capturing the packets automatically. If the NTP is not configured, please stop the capturing, and set the time.

No. 192.168.5.84 - Remote Desktop C	Connection		- 0
WaveNavigator	× 📀 WM-100	x +	✓ - □
← → C ▲ Not secu	are 192.168.0.1/index.htm?lang=en		er 🖻 🖈 🔲 😩
Silex technology Select Language	Time Configuration		
English	NTP Configuration		
- System - DHOP Server V Setting - Device Configuration - Monitor - C/FS/SMB Server	► Date Name		
Configuration  Execute - Monitor Function  Security - Password	Ourrent Local Time Manual Time Configuration	2022/05/12 17:24.51 (34.4T -0700) 2023 ♥/ (55 ♥/ (12 ♥ (17 ♥) (35 ♥) (Reflects on the update and is valid until the restart)	Submit
Device Manazement	<ul> <li>Local Timezone Configuration Name</li> </ul>	Value	
- Los - Time Configuration - Upload - Storage Configuration	Local Time Zone	-700	
Asintersance     Restart     eM/OC hitsistration     Factory Default     Firmware Update      Logout	NTP Configuration     Nerrie     NTP     NTP     NTP Server	Value (BENARE *)	
			Submit

Click "Start" to start the capture from the web page.



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tech	nology	

5 192.168.5.84 - Remote Desktop 1	× ③ WM-100 ×	+		- 0 ~ - 0
← → C ▲ Not secu	ure   192.168.0.1/index.htm?lang=en			아 윤 ☆ 🛛 🚨
	Monitor Function		192.168.0.1 says Are you sure that you want to start the monitor function?	
English   Status  System  - DHOP Server	Monitor Function			By HEP
Setting     Device Configuration     Monitor     OFS/SMB Server     Configuration	Tahot Monitor Configuration     Nome     Tahot Monitor	Status DISABLE	Start	
Monitor Function     Security     Password     Device Management     Log     Time Configuration     Upload     Storage Configuration	Radio 1 Configuration     Name     Radio 1     Bendwidth     Channel	Status CAPTURE 20MHz 6		
▼ Maintenance - Restart - eMMC Initialization - Factory Default - Firmware Update	Radio 2 Configuration     Name     Radio 2     Charnel Band     Upload Interval (min)	Status SCAN 2.4GHz 5		
- Lopout				

192.168.5.84 - Remote Desktop C	Connection		×
WaveNavigator	× 🐼 WM-100 ×	+	✓ - □ >
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			Arro (
Silex	Monitor Function		
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Select Language			
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- System - DHOP Server			· · · · · · · · · · · · · · · · · · ·
<ul> <li>Setting</li> <li>Device Configuration</li> </ul>			Stop
- CIFS/SMB Server Configuration			
Monitor Function	<ul> <li>1shot Monitor Configuration</li> <li>Name</li> </ul>	Status	
▼ Security	Tshot Monitor	DISABLE	
- Password	Radio 1 Configuration		
Device Management     Log     Time Configuration	Name	Status	
	Radio 1 Bandwidth	CAPTURE 20MHz	
- Storage Configuration	Channel	6	
<ul> <li>Maintenance</li> <li>Restart</li> </ul>	<ul> <li>Radio 2 Configuration</li> </ul>		
- Restart - eMMC Initialization - Factory Default	Name	Status	
- Firmware Update	Radio 2	SCAN 2.4GHz	
- Logout	Channel Band Upload Interval (min)	2.4GH2 5	
<b>.</b>			





5. Check if the wireless capture data is uploaded to the Wave Navigator. Download the data if available.

	Welcome to WM-100 168.1.100:8080/WaveNavigator	r/survey/device_info/1C:	8C:EC:04:DC:0E										@ ☆	
ave Navigator	=											U	ser ID : root	
	Suprau Davias Inform	action												
	Survey Device Inform	auon												
iplay 🗸	Update								Device name WM100-04DC0E	Device ID 1C:BC:EC:	04:DC:0E	Address 192.168.1	.1 WM-	
ireless Conditions	Show 10 v entries										Sear	ch:		
#	No. 🎼 Data ty	type II	Measurement mode	.l† Me	asurement location	information 🕼	Measurement start date and	time 🕼 Meas	urement end date and	d time 🕼 R			II	
Device List : Data List		ss capture data	running-stand alone monitor				2023/05/12 17:38		05/12 17:38		023/05/12 17		Dow	mloa
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Ţ	3 wireles	ss capture data	running-stand alone monitor				2023/05/12 17:37	2023/	05/12 17:37	2	023/05/12 17	:37	Dow	mloar
	4 wireles	ss capture data	running-stand alone monitor				2023/05/12 17:36	2023/	05/12 17:37	2	023/05/12 17	:37	Dow	nloa
trator Service 🗸 🗸	5 wireles	ss capture data	running-stand alone monitor				2023/05/12 17:36	2023/	05/12 17:36	2	023/05/12 17	:36	Dow	nloai
	6 wireles	ss capture data	running-stand alone monitor				2023/05/12 17:35	2023/	05/12 17:36	2	023/05/12 17	:36	Dow	nloa
	7 spectru	um data (2.4 GHz band)	running-stand alone monitor				2023/05/12 17:04	2023/	05/12 17:04	2	023/05/12 17	:04	Disp	olay
	8 spectru	um data (2.4 GHz band)	running-stand alone monitor				2023/05/12 16:59	2023/	05/12 17:04	2	023/05/12 17	:04	Disp	olay
	9 wireles	ss LAN survey data	running-stand alone monitor				2023/05/12 16:58	2023/	05/12 17:03	2	023/05/12 17	:03	Disp	olay
	10 spectru	um data (2.4 GHz band)	running-stand alone monitor				2023/05/12 16:54	2023/	05/12 16:59	2	023/05/12 16	:59	Disp	olay
	Showing 1 to 10 of 607 entries	10								Provio	us 1 2	3 4 6	61	
ver.1.0.0s	Welcome to WM-100	x   +				_	_			_	_	_	× ·	e c h
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# 6. Stop capturing the wireless packet.

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Silex	Monitor Function					
Select Language	Monitor Function					
English    Status   System					P HELP	
- DHOP Server      Setting     - Device Configuration     - Monitor     - CIFS/SMB Server			000000			
Configuration  Execute  Monitor Function	<ul> <li>1shot Monitor Configuration</li> <li>Name</li> </ul>	Status				
Security     Password	1shot Monitor	DISAELE				
▼ Device Manazement	<ul> <li>Radio 1 Configuration</li> <li>Name</li> </ul>	Status				
- Log - Time Configuration - Upload - Storage Configuration	Radio 1 Bandwidth Channel	CAPTURE 20MHz 6				
Maintenance     Restart     eMMC Initialization	Radio 2 Configuration	Ū.				
- eMMC initialization - Factory Default - Firmware Update	Name Radio 2	Status SCAN				
- Logout	Channel Band Upload Interval (min)	2.4GHz 5				

# 3.2 Open the captured file

The captured file's fomat is pcap file. A recommended software to open the file is Wireshark.

CAP_1_000000015-040	DC0E-1_1683938345_930.pcap					– 🗆 🛛	
Eile Edit View Go	Capture Analyze Statist	ics Telephony Wireless Io	ools He	p			
1 = 1 • = = =	🗙 🖸 🍳 👄 🗠 🕾 1	Ŧ 4 🚍 🔳 @ @ @	<u>11</u>				
Apply a display filter <	CHL/A						
No. Time	Source	Destination F	Destand	Length Info			-
1 0,000000	300102	silextec bb:4c:04 ( 8		38 Acknowledgement, Flags=C			11
2 0.003044	Universa 2a:82:98		802.11	277 Beacon frame, SN=1078, FN=0, Flags=C, BI=100, SSID=silex ap ch6 vth20			1
3 0.003147		Netgear_9c:84:a1 (c. 8		38 Clear-to-send, Flags=C			
4 0.003194	Netgear_9c:84:a1	silextec bb:4c:04 8		116 Data, SN=2399, FN=0, Flags=.pTC			
5 0.003234		Netgear_9c:84:a1 (c_ 8	802.11	38 Acknowledgement, Flags=C			
6 0.003646		silextec_bb:4c:04 (_ 8	802.11	38 Clear-to-send, Flags=C			
7 0.003898	<pre>silextec_bb:4c:04</pre>		802.11	1576 Data, SN=1325, FN=0, Flags=.pF.C			
8 0.003944		<pre>silextec_bb:4c:04 (_ 8</pre>		38 Acknowledgement, Flags=C			
9 0.006903	96:25:3f:95:2f:36		802.11	284 Beacon frame, SN-1271, FN-0, Flags=C, BI-100, SSID-SILEX_602SWAT_035A_00280101			
10 0.010457		Sonos_1e:3b:6a (48:_ 8		38 Acknowledgement, Flags=C		- H	
11 0.014977 12 0.015219	silextec bb:4c:04	silextec_bb:4c:04 ( 8 Netgear 9c:84:a1 8		38 Clear-to-send, Flags=C 1576 Data, SN=1326, FN=0, Flags=.pF.C			
13 0.015274	SITEXCEC_DD:4C:04	silextec_bb:4c:04 (_ 8		38 Acknowledgement, Flags=C			
14 0.016052		Netgear_9c:84:a1 (c_ 8		38 Clear-to-send, Flags=C			
15 0.016099	Netgear 9c:84:a1	silextec bb:4c:84 8		116 Data, SN=2400, FN=0, Flags=.pTC			
16 0.016127		Netgear 9c:84:a1 (c. 8		38 Acknowledgement, Flags=C			
17 0.023043		silextec_bb:4c:04 (_ 8		38 Clear-to-send, Flags=C			
18 0.023287	<pre>silextec_bb:4c:04</pre>	Netgear_9c:84:a1 8		1576 Data, SN=1327, FN=0, Flags=.pF.C			
19 0.023333		<pre>silextec_bb:4c:04 (_ 8</pre>		38 Acknowledgement, Flags=C			
20 0.025619		<pre>silextec_bb:4c:04 (_ 8</pre>		38 Clear-to-send, Flags=C			
21 0.025869	silextec_bb:4c:04	Netgear_9c:84:a1 8		1576 Data, SN=1328, FN=0, Flags=.pF.C			
22 0.025916		<pre>silextec_bb:4c:04 (_ 8</pre>		38 Acknowledgement, Flags=C			
23 0.026436 24 0.026480	Netgear 9c:84:al	Netgear_9c:84:a1 (c. 8 silextec_bb:4c:04 8		38 Clear-to-send, Flags=C 116 Data, SN=2401, FN=0, Flags=.pTC			
25 0.026518	werBeau-acto#tar	Netgear 9c:84:a1 (c_ 8		38 Acknowledgement, Flags=C			
		incegeor_serovior (en e		an el le			
							-
> Frame 1: 38 bytes > Radiotap Header v		8 bytes captured (304 bi	its)				
> 802.11 radio info							
	wledgement, Flags:						
· ALLE OVERAL PLENO	mreaßenene) i raßar ini						
0000 00 00 18 00 2	f 10 00 00 f1 cc 99 2	7 88 88 88 88/					1
CAP_1_0000000	15-04DC0E-1_1683938345_930	.pcap			Packets: 26352 - Displayed: 26352 (100.0%)	Profile: Default	-14





# About Silex Technology America, Inc.

Silex Technology builds on more than 40 years of hardware and software connectivity know-how and IP, custom design development experience, and in-house manufacturing capabilities, bringing value to customers with a foundation of technical expertise. With relentless attention to quality, exclusive access to Qualcomm Atheros expertise, and strategic partnerships with leading semiconductor providers, Silex Technology is the global leader in reliable Wi-Fi connectivity for products ranging from a medical device to a document imaging product to a video or digital display. With Silex Technology, customers get a single vendor that provides hardware and software support from design through manufacturing for successful product after successful product. For more information, please visit <u>www.silexamerica.com</u>.

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