

Product System

Other (x)

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## **Product Comparative test report of 524WiFi 600VX X2 ProPlus vs other module**

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## 1. INTRODUCTION

This document shows the 524WiFi 600VX ProPlus Temperature and the throughput, and compares the differences between it and WLE600VX

## 2. Test Equipment

- 1, PC X1
- 2, 70dbm attenuator X2
- 3, 524WiFi 600VX X2 ProPlus
- 4, WLE600VX X2
- 5, RB922UAGS-5HacD X2
- 6, Electronic thermometer X1

## 3. Temperature Comparative Test

### Test SETUP

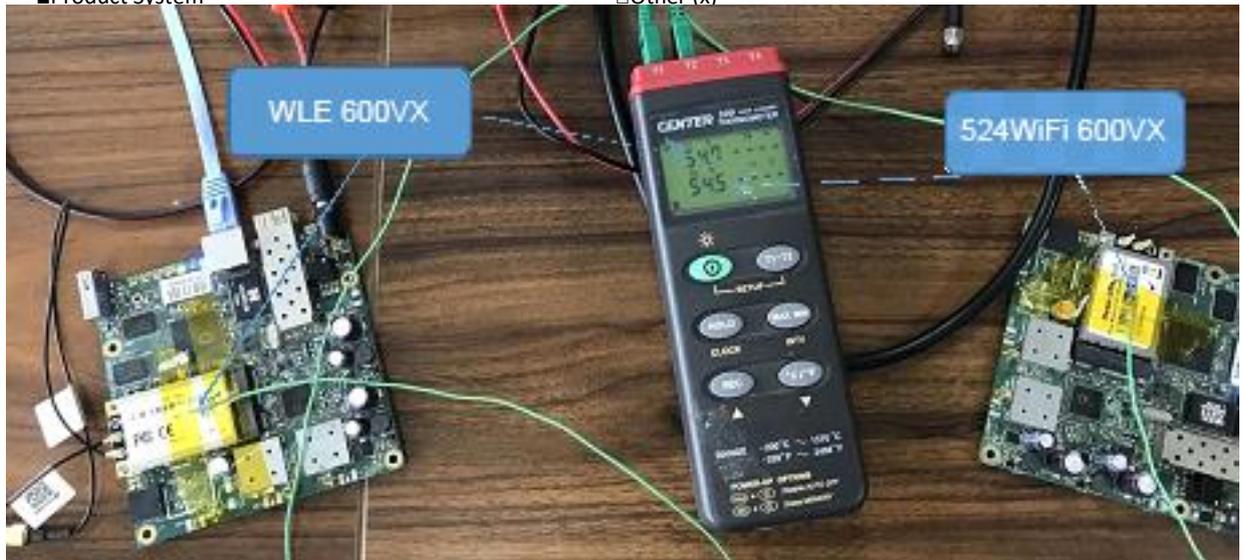
- 1, Add the two DUTs to RB922, like the picture



- 2, connect two cards with the two 70dbm attenuators, and add the Ethernet cable connect the PC to RB922, then add the Thermocouples on the center of DUT, then power on the RB922

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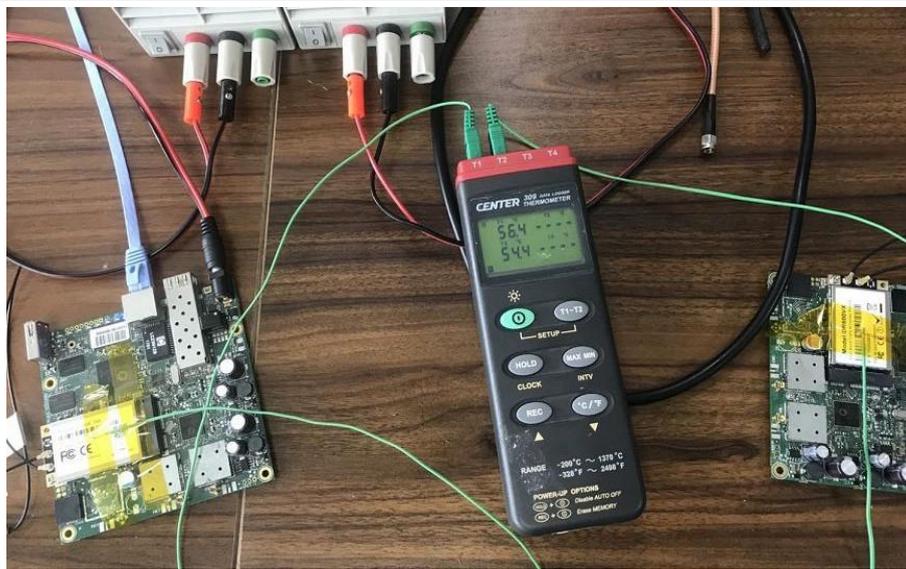
### Test Result

3, Record the temperatures in running throughput after running half an hour.

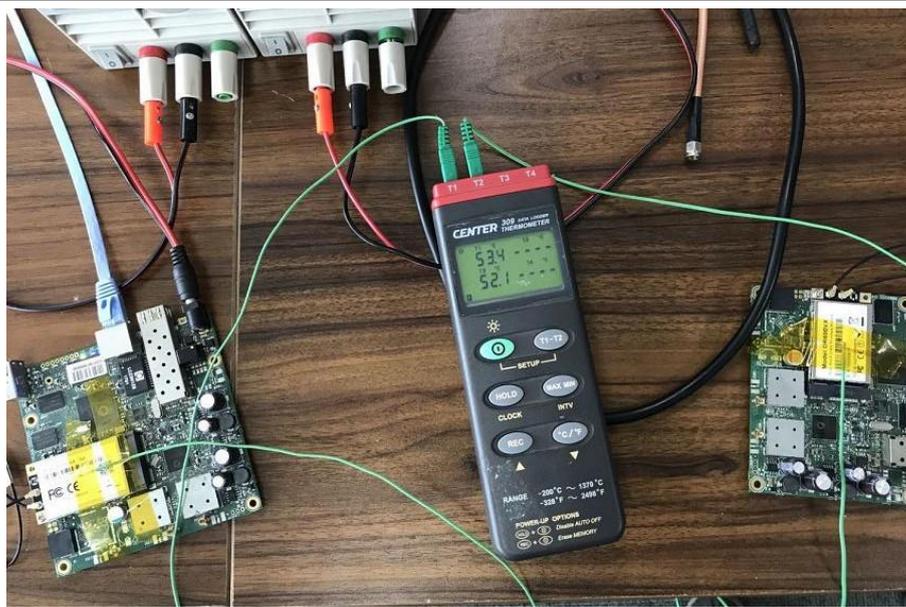
DUT	Temperature	Mode	TX Power
524WiFi 600VX	54.4 °C	Bi-throughput work in AP WDS mode	Load by card default setting
	52.1 °C	Bi-throughput work in Client WDS mode	Load by card default setting
WLE600VX	53.4 °C	Bi-throughput work in AP WDS mode	Load by card default setting
	56.4 °C	Bi-throughput work in Client WDS mode	Load by card default setting

The picture show the result as flow, the upper record is for WLE600VX, and the lower record is for 524WiFi 600VX

Bi-throughput and 524WiFi 600VX in AP mode, WLE600VX in Client mode



Bi-throughput and 524WiFi 600VX in client mode, WLE600VX in AP mode



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### 4. Throughput Comparative Test

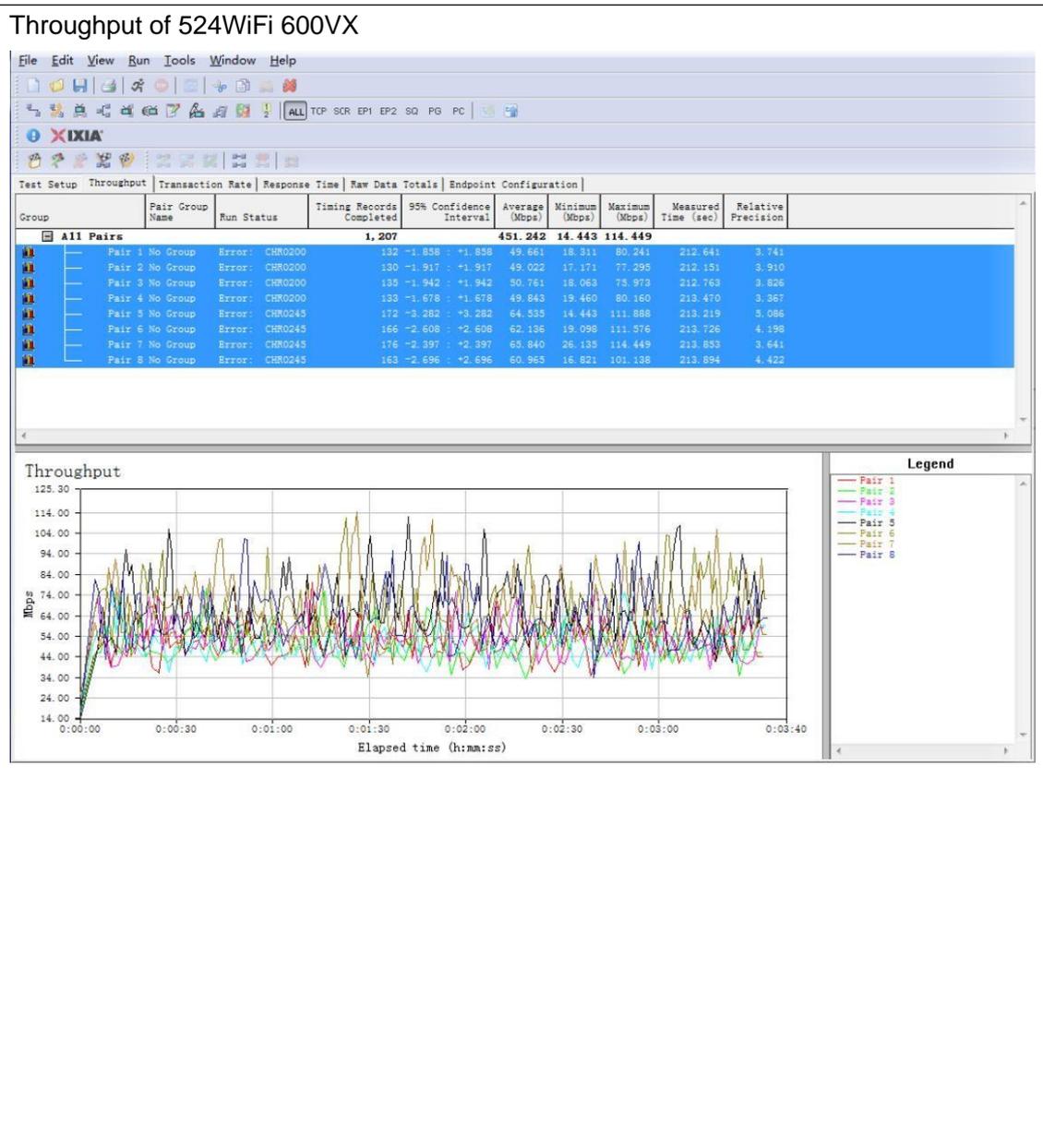
#### Test SETUP

The setup is the same with the setup for temperature comparative test. And test with the same frequency

#### Test Result

Item	524WiFi 600VX (AP and Client)	WLE600VX (AP and Client)
Throughput	451Mbps	449Mbps
Link Rate	866.7Mbps	866.7Mbps
TX/RX signal strength	/-43dbm	/-43dbm

The picture shows the result as follows,



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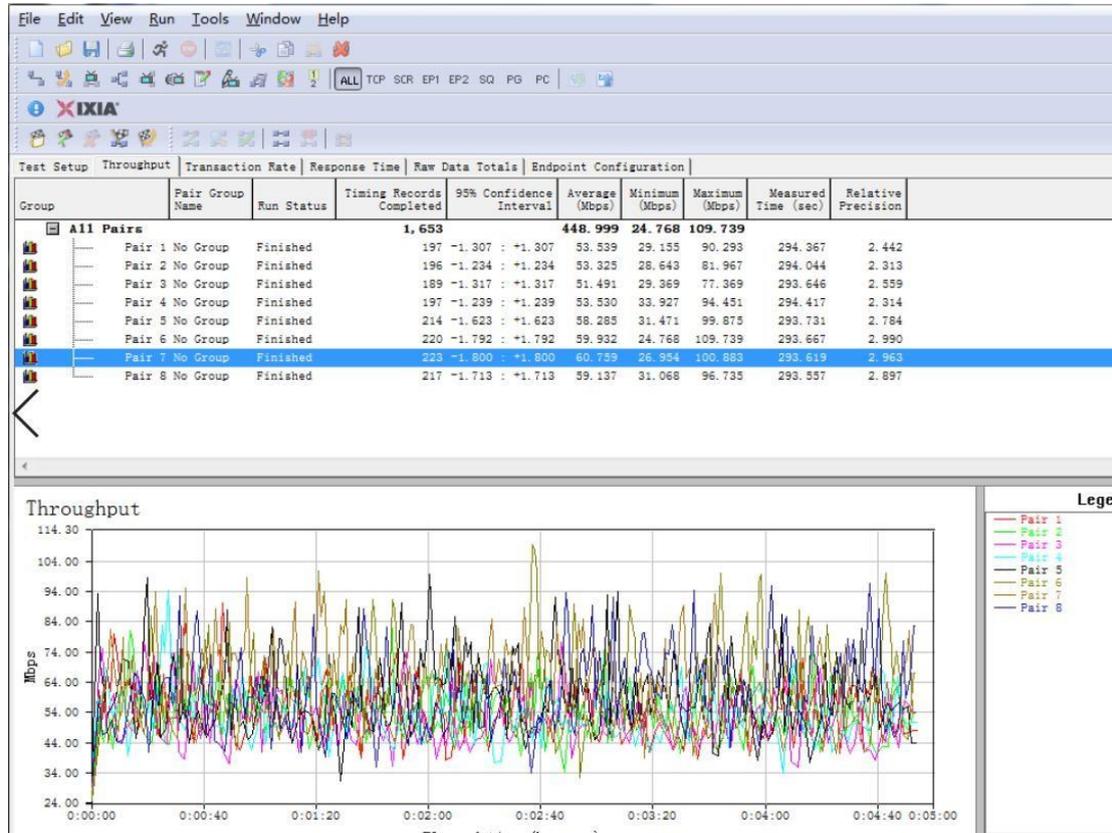
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### Throughput of WLE600VX



### Signal message of 524WiFi 600VX

The screenshot shows the Mikrotik WinBox configuration window for the wireless interface 'wlan0'. Key parameters are highlighted with red boxes:

- Tx Rate:** 866.6Mbps-80MHz/2S/SGI
- Rx Rate:** 866.6Mbps-80MHz/2S/SGI
- Tx/Rx Signal Strength:** -42/-43 dBm

Other visible parameters include Channel: 5300/20-ssCca/ac/DP, Wireless Protocol: 802.11, SSID: MikroTik, BSSID: C4:4B:D1:80:0E:34, Radio Name: C44BD1800E34, Noise Floor: -104 dBm, Signal To Noise: 61 dB, Tx/Rx CCQ: 93/92 %, Overall Tx CCQ: 93 %, Distance: 1 km, RouterOS Version: 6.40.3, and Last IP: 192.168.1.100.

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### Signal message of WLE600VX

Interface <wlan39>

Nstreme NV2 Tx Power Current Tx Power Advanced Status Status Traffic ...

Last Link Down Time:

Last Link Up Time:

Link Downs:

Channel:

Wireless Protocol:

Tx Rate:

Rx Rate:

SSID:

BSSID:

Radio Name:

Tx/Rx Signal Strength:

Tx/Rx Signal Strength Ch0:

Tx/Rx Signal Strength Ch1:

Tx/Rx Signal Strength Ch2:

Noise Floor:

Signal To Noise:

Tx/Rx CCQ:

Overall Tx CCQ:

Distance:

RouterOS Version:

Last IP:

WDS Link

Compression

WMM Enabled

OK

Cancel

Apply

Disable

Comment

Simple Mode

Torch

WPS Accept

WPS Client

Setup Repeater

Scan...

Freq. Usage...

Align...

Sniff...

Snooper...

Reset Configuration

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## 5. Introduction of 524WiFi 600VX / 524WiFi 900VX

Thanks for your patience in reading this report. In the end, we will introduce the card 524WiFi 600VX / 524WiFi 900VX, at first we don't like to do it, because I think the customers know where they are from.

It is based on XB140. XB140 is a reference design from the QCA for QCA9880. XB140 is a dual band 802.11ac design.

What are the differences between XB140 and 524WiFi 600VX/524WiFi 900VX? 524WiFi 600VX/524WiFi 900VX changes the FEM, power, some RF circuit and layout. We change the FEM, that is because we always work with the Skyworks; we change the power for lower cost.

we change the RF and the layout for higher performance and lower working temperature, and we do many tests for it. And except the officially released version, we also do some versions for it.

There is one version with single placement and the other uses SKY85309-11.

PS: The picture as follows is the single placement version. There is no component on the bottom side.

