

RF EXPOSURE REPORT



Report No.: 18070695-FCC-H

Applicant	Shenzhen PAKITE Technology Co.,Ltd.	
Product Name	Wireless HDMI Extender	
Main Model No.	PAT-590	
Serial Model No.	PAT-580 \ PAT-583 \ PAT-585 \ PAT-587 \ PAT-590 \ PAT-593 \ PAT-595 \ PAT-597	
Test Standard	FCC 2.1091	
Test Date	August 24 to November 18, 2018	
Issue Date	November 19, 2018	
Test Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	
Equipment complied with the specification		<input checked="" type="checkbox"/>
Equipment did not comply with the specification		<input type="checkbox"/>
Aaron Liang	David Huang	
Aaron Liang Test Engineer	David Huang Checked By	
This test report may be reproduced in full only Test result presented in this test report is applicable to the tested sample only		

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

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1. Report Revision History

Report No.	Report Version	Description	Issue Date
18070695-FCC-H	NONE	Original	November 19, 2018

2. Customer information

Applicant Name	Shenzhen PAKITE Technology Co.,Ltd.
Applicant Add	12 Floor, 6 Building, 2 Reservoir Avenue, Nankeng Community, Bantian Street, Longgang District, Shenzhen.
Manufacturer	Shenzhen PAKITE Technology Co.,Ltd.
Manufacturer Add	12 Floor, 6 Building, 2 Reservoir Avenue, Nankeng Community, Bantian Street, Longgang District, Shenzhen.

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108
FCC Test Site No.	535293
IC Test Site No.	4842E-1
Test Software	Labview of SIEMIC version 2.0

4. Equipment under Test (EUT) Information

Description of EUT:	Wireless HDMI Extender
Main Model:	PAT-590
Serial Model:	PAT-580 \ PAT-583 \ PAT-585 \ PAT-587 \ PAT-590 \ PAT-593 \ PAT-595 \ PAT-597
Equipment Category :	NII
Antenna Gain:	Antenna 1: 3 dBi Antenna 2: 3 dBi
Antenna type :	External antenna
Input Power:	Adapter Model: KT12W050200US Input: 100-240V~50/60Hz, 0.4A Output: 5Vdc, 2A
Trade Name :	PAKITE
Port:	Please refer to the user manual
FCC ID:	2ABU5-HDWIFITX
Type of Modulation:	802.11 n40: OFDM
RF Operating Frequency (ies):	5190-5230 MHz; (TX/RX)
Number of Channels:	12CH

5. FCC §2.1091 - Maximum Permissible exposure (MPE)

5.1 Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

Test Result:

Test mode	Freq Band (MHz)	CH	Frequency (MHz)	Conducted Power (dBm)		The Highest (SISO) or Total (MIMO) conducted power (dBm)	Conducted Power Limit (dBm)	Tune Up Power (dBm)	
				Antenna 1	Antenna 2				
SISO	5150-5250	Low	5190	17.76	15.18	17.76	24	17±1	
		High	5230	17.19	14.33	17.19	24	17±1	
MIMO		Low	5190	17.40	14.87	19.33	24	19±1	
		High	5230	17.10	14.16	18.88	24	19±1	

5G WIFI:

For the antenna manufacturer provide only used limited to ERP/EIRP or radiated spurious emission test. The MPE evaluation as below:

Maximum output power at antenna input terminal: 20(dBm)

Maximum output power at antenna input terminal: 100(mW)

Prediction distance: >20 (cm)

Predication frequency: 5190 (MHz) low frequency

Antenna Gain (typical):3 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.04(mW/cm²)

MPE limit for general population exposure at prediction frequency: 1.0(mW/cm²)

0.04(mW/cm²) < 1.0 (mW/cm²)

Result: Pass