## Shenzhen Wesion Technology Co., Ltd.

Add: A#511, Mingyou Purchasing Center, Baoyuan Rd., Xixiang St., Bao' an Dis., Shenzhen, China.

Federal Communication Commission Equipment Authorization Division, Application Processing Branch 7435 Oakland Mills Road Columbia, MD 21046

<2020-01-06>

Attn: Office of Engineering and Technology Subject: Attestation Letter regarding UNII devices

## FCC ID: 2AVFM-VIM3

Software security questions and answers per KDB 594280 D02:

	Software Security description – General Description			
1	Describe how any software/firmware update will be obtained, downloaded, and installed. Software that is accessed through manufacturer's website or device's management system, must describe the different levels of security.	We do not release the firmware on our website for downloading. Our direct host manufacturer (OEM) can request the firmware from us and it will be made available via secure server.		
2	Describe all the radio frequency parameters that are modified by any software/firmware without any hardware changes. Are these parameters in some way limited, such that, it will not exceed the authorized parameters?	Radio frequency parameters are limited by US regulatory domain and country code to limit frequency and transmit power levels. These limits are stored in non-volatile memory by the module manufacturer at the time of production. They will not exceed the authorized values.		
3	Describe in detail the authentication protocols that are in place to ensure that the source of the software/firmware is legitimate. Describe in detail how the software is protected against modification	The firmware is installed on each single module during manufacturing process. The correct firmware is verified and installed by the module manufacturer. In addition, the firmware binary is encrypted using open SSL encryption and the firmware updates can only be stored in non-volatile memory when the firmware is authenticated. The encryption key is known by the module manufacturer only.		
4	Describe in detail the verification protocols in	The process to flash a new firmware		

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	place to ensure that installed software/firmware is	is using a secret key to decrypt the
	legitimate	firmware, only correct decrypted
		firmware is stored in non-volatile
		memory (see #3).
5	For a device that can be configured as a master	The device ensures the compliance
	and client (with active or passive scanning),	by checking the configured
	explain how the device ensures compliance for	parameter and operation values
	each mode? In particular if the device acts as	according to the regulatory domain
	master in some band of operation and client in	and country code in each band.
	another; how is compliance ensured in each band	The device configured as a client
	of operation?	without radar detection capability
	Software Security description – Third-P	•
1	Explain if any third parties have the capability to	No, third parties don't have the
	operate a US sold device on any other regulatory	capability to access and change
	domain, frequencies, or in any manner that is in	radio parameters. US sold modules
	violation of the certification.	are factory configured to US.
2	Describe, if the device permits third-party	N/A
	software or firmware installation, what	
	mechanisms are provided by the manufacturer to	
	permit integration of such functions while	
	ensuring that the RF parameters of the device	
	cannot be operated outside its authorization for	
	operation in the U.S. In the description include	
	what controls and/or agreements are in place with	
	providers of third-party functionality to ensure	
	the devices' underlying RF parameters are	
	unchanged and how the manufacturer verifies the	
	functionality.	
3	For Certified Transmitter modular devices,	N/A
0	describe how the module grantee ensures that	
	host manufacturers fully comply with these	
	software security requirements for U-NII devices.	
	If the module is controlled through driver	
	software loaded in the host, describe how the	
	drivers are controlled and managed such that the	
	modular transmitter RF parameters are not	
	modified outside the grant of authorization.	
	Software Security description – USER CON	NFIGURATION GUID
1	Describe the user configurations permitted	There is no user configuration GUI.
-	through the UI. If different levels of access are	
	permitted for professional installers, system	
	integrators or end-users, describe the differences.	
	a. What parameters are viewable and	There is no user configuration GUI.
		rnere is no user configuration OUI.

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		config	gurable by different parties?	
	b.	What	parameters are accessible or modifiable	This device is not subject to
		to the	professional installer?	professional installation
		i.	Are the parameters in some way	
			limited, so that the installers will not	
			enter parameters that exceed those	
			authorized?	
		ii.	What controls exist that the user	
			cannot operate the device outside its	
			authorization in the U.S.?	
	с.	What	configuration options are available to	The end user is not able to
		the end-user?		configure any parameters related to
				the devices radio
		i.	Are the parameters in some way	The parameters can only be
			limited, so that the installers will not	changed remotely within the limits
			enter parameters that exceed those	of country code US.
			authorized?	of country code est.
		ii.	What controls exist that the user	The country code and regulatory
		11.	cannot operate the device outside its	domain control do limit all the
			authorization in the U.S.?	parameters set
	d	Is the		The country code is factory set and
	u.	Is the country code factory set? Can it be changed in the UI?		is never changed by UI.
		chang		is never changed by OI.
		i.	If so, what controls exist to ensure	The country code is factory set and
		1.		is never changed by UI
			that the device can only operate within its authorization in the U.S.?	is never changed by Of
	6	What		At each boot up the country of de
	e.	Ī		At each boot up the country code
		aevice	e is restarted?	and the antenna gain are read from
				the non-volatile memory, those
				values are configured during
				production.
2			adio be configured in bridge or mesh	Not supported
	mode? If yes, an attestation may be required.			
	Further information is available in KDB Publication 905462 D02.			
3		For a device that can be configured as a master		Not Supported
	and	d client	(with active or passive scanning), if	
	thi	s is use	r configurable, describe what controls	
	exi	ist, witł	nin the UI, to ensure compliance for	
	ead	ch mod	e. If the device acts as a master in some	

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	bands and client in others, how is this configured	
	to ensure compliance?	
4	For a device that can be configured as different	The device does not support these
	types of access points, such as point-to-point or	modes/features.
	point-to-multipoint, and use different types of	
	antennas, describe what controls exist to ensure	
	compliance with applicable limits and the proper	
	antenna is used for each mode of operation. See	
	Section 15.407(a).	

Sincerely,

Terry Yang

Name:	Terry Yang / Manager	
Company:	Shenzhen Wesion Technology Co., Ltd.	
Address:	A#511, Mingyou Purchasing Center, Baoyuan Rd., Xixiang St., Bao' an	
	Dis., Shenzhen, China.	
Phone:	0755-23076626	
Fax:	0755-23076626	
E-Mail:	terry@khadas.com	