Prüfbericht-Nr.: *Test report no.:*	CN22Y6FY (ISED-MPE) 001	**Auftrags-Nr.:** *Order no.*:	238540829	
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2022-03-16	
Auftraggeber: *Client:*	DEXATEK TECHNOLOGY LTD. 16F, No. 81, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan R.O.C.			
Prüfgegenstand: *Test item:*	DK9186			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	DK9186			
Auftrags-Inhalt: *Order content*:	ISED Certification			
Prüfgrundlage: *Test specification:*	RSS-102 Issue 5			

Wareneingangsdatum: *Date of sample receipt:*	2022-05-12
Prüfmuster-Nr.: *Test sample no:*	A003259552-004 A003259552-003
Prüfzeitraum: *Testing period:*	2022-05-16 - 2022-05-31
Ort der Prüfung: *Place of testing:*	EMC/RF Taipei Testing Site
Prüflaboratorium: *Testing laboratory:*	Taipei Testing Laboratories
Prüfergebnis*: *Test result*:*	Pass

überprüft von: *compiled by:*		**genehmigt von:** authorized by:	
Datum: *Date:* 2022-06-20		**Ausstellungsdatum:** *Issue date:* 2022-06-20	
Stellung / *Position:*	Ryan Chen Senior Project Manager	**Stellung** / *Position:*	Brenda Chen Senior Project Manager

Sonstiges / *Other:*

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
** Legend:*	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be replicated in extracts. This test report does not entitle to carry any test mark.

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HISTORY OF THIS TEST REPORT

Report No.	Description	Date Issued
CN22Y6FY (ISED-MPE) 001	Original Release	2022-06-20

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:
Appendix EP - Photographs of EUT

1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

2 Test Sites

2.1 Test Facilities

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.
Taipei City 105
Taiwan (R.O.C.)

2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244
Taiwan (R.O.C.)

3 General Product Information

3.1 Product Function and Intended Use

The EUT is DK9186. It contains Bluetooth and WLAN compatible module enabling the user to communicate data through a Wireless interface.
For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 Ratings and System Details

Basic Information of EUT

Item	EUT Information
Kind of Equipment/Test Item	DK9186
Type Identification	DK9186
IC	28614-DK9186
HVIN	DK9186

Technical Specification of EUT

Item	EUT Information
Operating Frequency	WLAN 2.4G: 2412 ~ 2462 MHz Bluetooth: 2402 ~ 2480 MHz
Modulation	802.11b: DSSS 802.11g/n: OFDM Bluetooth LE: GFSK
Operation Voltage	5 Vdc
Antenna Type	PCB Antenna
Antenna Gain	2.20 dBi

4 Maximum Permissible Exposure Evaluation

4.1 Introduction

This Standard specifies requirements for, and provides guidance on, assessing compliance with the exposure limits of radiofrequency (RF) safety standards such as RSS-102 Issue 5. This includes methodologies for making an assessment (by measurement or computation) of human exposure to ambient RF fields and induced body currents in the frequency range all bands.

This Standard may also be used as a guide for making low-level environmental exposure assessments in areas around RF sources listed above, as well as other sources such as Wi-Fi devices.

4.2 Reference Levels

Where appropriate, the reference levels are derived from the basic restrictions by mathematical modelling and by extrapolation from the results of laboratory investigations at specific frequencies. They are given for the condition of maximum coupling of the field to the exposed individual, thereby providing maximum protection.

According to RSS-102 Issue 5, the criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF).

Table 4: The ISED MPE limits from RSS-102 are shown in the table below

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m^2)	Reference Period (minutes)
0.003-10[21]	83	90	-	Instantaneous*
0.1-10	-	$0.73/f$	-	6**
1.1-10	$87/f^{0.5}$	-	-	6**
10-20	27.46	0.0728	2	6
20-48	$58.07/f^{0.25}$	$0.1540/f^{0.25}$	$8.944/f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	$3.142\ f^{0.3417}$	$0.008335\ f^{0.3417}$	$0.02619\ f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	$616000/f^{1.2}$
150000-300000	$0.158\ f^{0.5}$	$4.21 \times 10^{-4}\ f^{0.5}$	$6.67 \times 10^{-5}\ f$	$616000/f^{1.2}$

Note: f is frequency in MHz.
* Based on nerve stimulation (NS).
** Based on specific absorption rate (SAR)

The following formula was used to calculate the Power Density:

Power Density: $S=PG/4\pi R^2$

Where:

S = power density (W/m^2)

P = power input to the antenna (W)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (m)

4.3 Classification of the Assessment Methods

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user. Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. So, this product under normal use is located on electromagnetic far field between the human body.

4.3.1 ISED MPE Exemption Requirements from RSS-102 Section 2.5.2

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2}\ f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

  - RF exposure evaluation exempted power for BLE:
    2.74 W > Maximum Measured E.I.R.P = 0.003 W

  - RF exposure evaluation exempted power for WLAN:
    2.72 W > Maximum Measured E.I.R.P = 0.100 W

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

5 Test Results

5.1 Maximum Power Density

The maximum power density at a distance of 20 cm are shown as below:

Band	Frequency (MHz)	Average Output Power (dBm)	Average Output Power (W)	Antenna Gain (dBi)	Power Density (W/m^2)	Limit of Power Density (W/m^2)	Pass / Fail
Bluetooth	2480	3.21	0.002	2.2	0.007	5.47	Pass
WLAN	2462	17.78	0.060	2.2	0.198	5.44	Pass