

FCC Test Report

Report No.: AGC01040230701FR02

FCC ID	:	2AF9HBK9
PRODUCT DESIGNATION	:	Bike Speed & Cadence Sensor
BRAND NAME	:	COOSPO
MODEL NAME	:	BK9, BK9S, BK9C, BK618, BK618S, BK618C, BK10, BK20, BK30, BK40, BK60, BK70, BK80, BK90
APPLICANT	:	Shenzhen COOSPO Tech Co., Ltd.
DATE OF ISSUE	:	Aug. 16, 2023
STANDARD(S)	:	FCC Part 15 Subpart C §15.249
REPORT VERSION	:	V 1.0







REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes		
V1.0	/	Aug. 16, 2023	Valid	Initial Release		



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1. GENERAL INFORMATION

Applicant	Shenzhen COOSPO Tech Co., Ltd.
Address	6th Floor(south), Building A, Dingxin Science Park, 67 District, Bao'an, Shenzhen, China
Manufacturer	Shenzhen COOSPO Tech Co., Ltd.
Address	6th Floor(south), Building A, Dingxin Science Park, 67 District, Bao'an, Shenzhen, China
Factory	Shenzhen COOSPO Tech Co., Ltd.
Address	6th Floor(south), Building A, Dingxin Science Park, 67 District, Bao'an, Shenzhen, China
Product Designation	Bike Speed & Cadence Sensor
Brand Name	COOSPO
Test Model	BK9
Series Model	BK9S, BK9C, BK618, BK618S, BK618C, BK10, BK20, BK30, BK40, BK60, BK70, BK80, BK90
Declaration of Difference	All the same except for the model name
Date of receipt of test item	Jul. 21, 2023
Date of test	Jul. 21, 2023 to Aug. 16, 2023
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-JP-SRD/RF

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Aug. 16, 2023

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Aug. 16, 2023

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Aug. 16, 2023



2. PRODUCT INFORMATION

2.1 PRODUCT TECHNICAL DESCRIPTION

Hardware Version	V1.2
Software Version	V1.1.7
Equipment Specification	ANT+
Operation Frequency	2457MHz
Modulation Type	GFSK
Number of channels	1 Channel
Field Strength of Fundamental	85.18dBuV/m(Average)@3m
Antenna Designation	PCB Antenna
Antenna Gain	-1.2dBi
Power Supply	DC 3.0V by battery

2.2 TEST FREQUENCY LIST

Frequency Band	Channel Number	Frequency
2400~2483.5MHz	01	2457MHz



2.3 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2AF9HBK9** filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

2.4 TEST METHODOLOGY

The tests were performed according to following standards:

No.	Identity	Document Title				
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations				
2	FCC 47 CFR Part 15	Radio Frequency Devices				
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices				

2.5 SPECIAL ACCESSORIES

Not available for this EUT intended for grant.

2.6 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2.7 ANTENNA REQUIREMENT

Standard Requirement

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is -1.2dBi.



2.8 DUTY CYCLE

The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW=1MHz, VBW=1MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Frequency	Duty Cycle		
ANT+	2457MHz	100%		

	Spectru		zer - Swep												
L XI R		RF	50 \$				SENSE:	INT			ALIGN AUTO		M Jul 25, 2023	Er	equency
Cent	ter Fi	req 2	2.4570	00000	GHz	Tria	Free Ru		Avg	Type	: Log-Pwr	TRA	CE 1 2 3 4 5 6 PE W alatalata		oquency
					PNO: Fast IFGain:Low		n:30 dB					D			
	_				IFGain:LOW	Acc	n. ee ab								Auto Tune
													700 ms		Auto Tune
10 dB	3/div	Rei	20.00	dBm								-5.	40 dBm		
Log															
10.0														(Center Freq
0.00								1							7000000 GHz
														2.40	7000000 0112
-10.0															
-20.0															
-30.0															Start Freq
-30.0														2.45	7000000 GHz
-40.0															
-50.0															
															Stop Free
-60.0														2.45	7000000 GHz
-70.0															
Cent	ter 2.4	1570	00000	GHz								9	pan 0 Hz		CF Step
Res	BW 1	.0 M	Ηz		VB	W 1.0 MI	Ηz			0 ,	Sweep 1	5.00 ms (1001 pts)		1.000000 MHz
Luxo	10DE TF		_			Y		FUN	271011		CTION WIDTH	EUDIOT	ON VALUE	Auto	Man
	N 1			×	8.700 ms		l0 dBm		TIUN	FUN	CTION WIDTH	FUNCTI	JN VALUE		
2					8.700 ms	-0,4									
3															Freq Offset
4															0 Hz
5															
7															
8															
9		_													
10															
													×		
MSG										_	STATU	-			
MSG											STATU	2			

Test Graphs of Duty Cycle



3. TEST ENVIRONMENT

3.1 ADDRESS OF THE TEST LABORATORY

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

3.2 TEST FACILITY

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842 (CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



3.3 ENVIRONMENTAL CONDITIONS

	NORMAL CONDITIONS	EXTREME CONDITIONS				
Temperature range (°C)	15 - 35	-10 - 45				
Relative humidty range	20 % - 75 %	20 % - 75 %				
Pressure range (kPa)	86 - 106	86 - 106				
Power supply						
Note: The Extreme Temperature and Extreme Voltages declared by the manufacturer.						

3.4 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard

uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 2.9 \text{ dB}$
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 3.8 \text{ dB}$
Uncertainty of Radiated Emission above 1GHz	$U_c = \pm 4.9 \text{ dB}$
Uncertainty of total RF power, conducted	$U_c = \pm 0.8 \text{ dB}$
Uncertainty of RF power density, conducted	$U_c = \pm 2.6 \text{ dB}$
Uncertainty of spurious emissions, conducted	$U_{c} = \pm 2.7 \%$
Uncertainty of Occupied Channel Bandwidth	U _c = ±2 %



3.5 LIST OF EQUIPMENTS USED

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Test Receiver	R&S	ESCI	10096	Feb. 18, 2023	Feb. 17, 2024
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Jun. 01, 2023	May 31, 2024
2.4GHz Filter	EM Electronics	N/A	N/A	Mar. 18, 2022	Mar. 19, 2024
Horn Antenna	SCHWARZBECK	BBHA 9170	#768	Oct. 31, 2021	Oct. 30, 2023
Active Loop Antenna (9K-30Mhz)	ZHINAN	ZN30900C	18051	Mar. 12, 2022	Mar. 11, 2024
Double-Ridged Waveguide Horn	ETS	3117	00034609	Mar. 23, 2023	Mar. 22, 2024
Broadband Preamplifier	ETS LINDGREN	3117PA	00225134	Sep. 02, 2022	Sep. 01, 2024
Wideband Antenna	SCHWARZBECK	VULB9168	494	Jan. 05, 2023	Jan. 04, 2025
Test Software	FARA	EZ-EMC(Ver.RA-0 3A)	N/A	N/A	N/A



4.SYSTEM TEST CONFIGURATION

4.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT EXERCISE

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

4.3 CONFIGURATION OF TESTED SYSTEM

Radiated Emission Configure:



4.4 EQUIPMENT USED IN TESTED SYSTEM

The Following Peripheral Devices And Interface Cables Were Connected During The Measurement:

Test Accessories Come From The Manufacturer

Item	Equipment	Model No.	Identifier	Note
1	Bike Speed & Cadence Sensor	BK9	2AF9HBK9	EUT



4.5 SUMMARY OF TEST RESULTS

ltem	FCC Rules	Description Of Test	Result
1	§15.203	Antenna Equipment	Pass
2	§15.249(a)	Field Strength of Fundamental	Pass
3	§15.209, §15.249	Radiated Emission& Band Edge	Pass
4	§15.215	20dB Bandwidth	Pass
9	§15.207	AC Power Line Conducted Emission	Not applicable

Note: 1.N/A means not applicable



5. DESCRIPTION OF TEST MODES

Summary table of Test Cases					
Toot Itom	Data Rate / Modulation				
Test Item	ANT+ / GFSK				
Radiated& Conducted Test Cases	Mode 1: ANT+ Tx_2457MHz				
AC Conducted Emission					
Note:					
1. Only the result of the worst case was recorded in the report, if no other cases.					

The battery is full-charged during the test.

For Radiated Emission, 3axis were chosen for testing for each applicable mode.

For Conducted Test method, a temporary antenna connector is provided by the manufacture.

2. 3. 4. 5. This device does not need software control, the manufacturer has written the program into the chip, and it

can be launched after power-on.

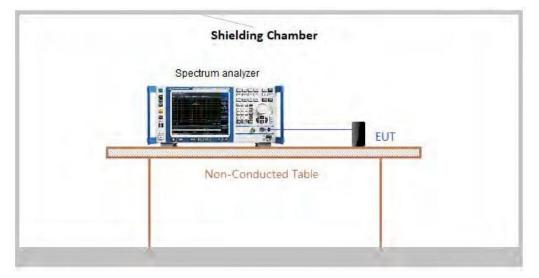


6. 20 DB BANDWIDTH

6.1 MEASUREMENT PROCEDURE

- 1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.
- 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 30 kHz. Set the Video bandwidth (VBW) = 100 kHz. In order to make an accurate measurement.
- For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
- 5. Measure and record the results in the test report.

6.2 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)





6.3 MEASUREMENT RESULTS

Test Data of Occupied Bandwidth and -20dB Bandwidth							
Test Mode Test Channel (MHz) 99% Occupied Bandwidth (MHz) -20dB Bandwidth (MHz) Limits (MHz) Pass or Fa							
GFSK	2457	0.928	1.047	N/A	Pass		

02:33:01 PM Jul 28, 2023 Radio Std: None Frequency Center Freq: 2.457000000 GHz Trig: Free Run Avg|Hold: 10/10 #Atten: 30 dB Center Freg 2.457000000 GHz #IFGain:Low Radio Device: BTS Ref 30.00 dBm 10 dB/div _og **Center Freq** 2.457000000 GHz Center 2.457 GHz #Res BW 30 kHz Span 3 MHz Sweep 4.133 ms CF Step 300.000 kHz #VBW 100 kHz Man <u>Auto</u> Occupied Bandwidth **Total Power** 0.98 dBm 928.45 kHz **Freq Offset** Transmit Freq Error -22.904 kHz **OBW Power** 99.00 % 0 Hz x dB Bandwidth 1.047 MHz x dB -20.00 dB STATUS

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Test Graphs of Occupied Bandwidth



7. RADIATED EMISSION

7.1 LIMITS OF RADIATED EMISSION TEST

15.249 Limit in the below table has to be followed:

Fundamental Frequency	Field Strength of Fundamental	Field Strength of Harmonics	
	(millivolts/meter)	(microvolts/meter)	
900-928MHz	50	500	
2400-2483.5MHz	50	500	
5725-5875MHz	50	500	
24.0-24.25GHz	250	2500	

15.209 Limit in the below table has to be followed:

Frequency	Distance	Field	Strengths Limit		
(MHz)	Meters	ր V/m	dB(µV)/m		
0.009 ~ 0.490	300	2400/F(kHz)			
0.490 ~ 1.705	30	24000/F(kHz)			
1.705 ~ 30	30	30			
30 ~ 88	3	100	40.0		
88 ~ 216	3	150	43.5		
216 ~ 960	3	200	46.0		
960 ~ 1000	3	500	54.0		
Above 1000	3	Other:74.0 dB(µV)/m	Other:74.0 dB(µV)/m (Peak) 54.0 dB(µV)/m		
		(Average)	(Average)		

Remark: (1) Emission level dB μ V = 20 log Emission level μ V/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

Note: All modes were tested for restricted band radiated emission, the test records reported below are the worst result compared to other modes.



7.2 MEASUREMENT PROCEDURE

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.



The following table is the setting of spectrum analyzer and receiver.

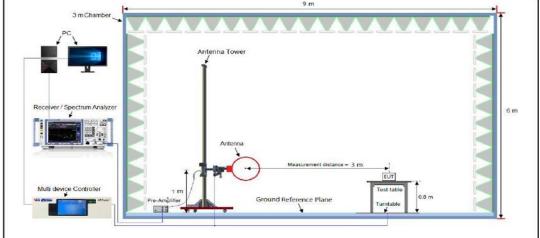
Spectrum Parameter	Setting		
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP		
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP		
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP		
Start ~Stop Frequency	1GHz~26.5GHz		
	1MHz/3MHz for Peak, 1MHz/3MHz for Average		

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP

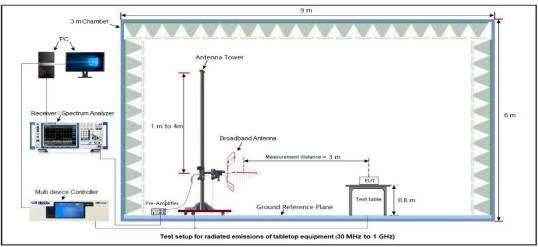


7.3 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)

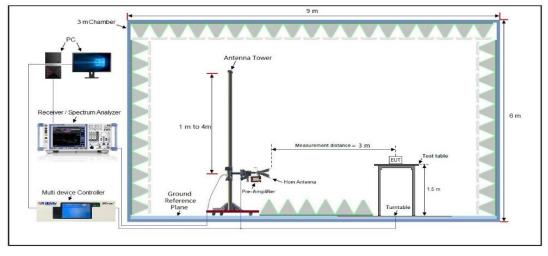
RADIATED EMISSION TEST SETUP 9KHz-30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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 Attestation of Global Compliance(Shenzhen)Co., Ltd

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 E-mail: agc@agccert.com



7.4 MEASUREMENT RESULT

FIELD STRENGTH OF FUNDAMENTAL

EUT	Bike Speed & Cadence Sensor	Model Name	BK9
Temperature	21°C	Relative Humidity	53%
Pressure	985hPa	Test Voltage	Normal Voltage
Test Modulation	GFSK	Polarization	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type		
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type		
2457	40.29	49.05	89.34	114.00	-24.66	peak		
2457	35.25	49.05	84.30	94.00	-9.71	AVG		
Remark:	Remark:							
Factor = Antenna Factor + Cable Loss – Pre-amplifier.								

EUT	Bike Speed & Cadence Sensor	Model Name	BK9
Temperature	21°C	Relative Humidity	53%
Pressure	985hPa	Test Voltage	Normal Voltage
Test Modulation	GFSK	Polarization	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type	
2457	40.28	49.05	89.33	114.00	-24.67	peak	
2457	36.13	49.05	85.18	94.00	-8.82	AVG	
Remark:							
Factor = Ante	Factor = Antenna Factor + Cable Loss – Pre-amplifier.						



RADIATED EMISSION BELOW 30MHZ

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

		RAD	IATED EMIS	SION FROM	1 30MHZ TO	1000MH	Z	
EUT		Bike Sp	eed & Cader	nce Sensor	Model Na	me	BK9	
Temperature		21°C			Relative H	lumidity	53%	
Pressure		985hPa			Test Volta	ige	Norm	al Voltage
Test Mode		Mode 1			Antenna		Horiz	ontal
72.0 dBuV/m	1 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			Revealer and the second of the		orentus and the second		
-8 30.000 4	10 !	50 60 70) 80	(MHz)	300	400	500 600 7	700 1000.000
No.		Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		41.5670	6.28	13.79	20.07	40.00	-19.93	peak
2	1	19.8555	6.00	16.40	22.40	43.50	-21.10	peak
3	4	51.1349	5.54	24.71	30.25	46.00	-15.75	peak
4	5	517.2480	6.14	24.77	30.91	46.00	-15.09	peak
5	6	12.0642	6.94	25.16	32.10	46.00	-13.90	peak
6	* 8	96.9964	5.21	31.42	36.63	46.00	-9.37	peak

RESULT: PASS



EUT			Bik	e Sp	beed	1 & C	ader	ice Sens	or	Model	Na	me			BK9				
Temperatu	re		21°	°C						Relativ	ve H	Humi	dity	/	53%				
Pressure			985	ōhPa	a					Test V	olta	nge			Norr	nal '	Volta	age	
Test Mode			Мо	de 1						Anten	na				Verti	ical			
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	No. M	IK.		req.		Lev		Facto	or	ment									
				Hz		dBu		dB		dBuV/m		dB/			dΒ		tecto	r	
	1		52.9			6.		17.0		23.54		40.0			6.46	<u> </u>	eak	_	
	2	15	50.5	378		6.4	41	18.2)	24.61		43.5	0	-18	3.89	р	eak	_	
	3	44	6.4	141		4.9	93	25.8	1	30.74		46.0	0	-1	5.26	р	eak		
	4	49	9.4	247		7.0	03	24.0)	31.12		46.0	0	-14	4.88	р	eak	_	
	5	72	26.8	052		5.9	92	28.1	5	34.07		46.0	0	-11	1.93	р	eak	_	
	6 *	93	8.8	326		4.9	96	30.84	1	35.80		46.0	0	-1(0.20	р	eak	_	
																		_	

RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Limit-Level.



EUT	Bike Speed & Cadence Sensor Model Name		BK9					
Temperature	21°C	Relative Humidity	53%					
Pressure	985hPa	Test Voltage	Normal Voltage					
Test Mode	Mode 1	Antenna	Horizontal					

RADIATED EMISSION ABOVE 1GHZ

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type				
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type				
4914.000	47.68	0.08	47.76	74	-26.24	peak				
4914.000	37.77	0.08	37.85	54	-16.15	AVG				
7371.000	43.67	2.21	45.88	74	-28.12	peak				
7371.000	34.42	2.21	36.63	54	-17.37	AVG				
Remark:	Remark:									
Factor = Ante	enna Factor + Ca	able Loss – I	Pre-amplifier.							

EUT	Bike Speed & Cadence Sensor	Model Name	BK9
Temperature	21°C	Relative Humidity	53%
Pressure	985hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Vertical

Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
48.67	0.08	48.75	74	-25.25	peak
38.43	0.08	38.51	54	-15.49	AVG
45.61	2.21	47.82	74	-26.18	peak
34.39	2.21	36.6	54	-17.4	AVG
anna Fastar I C		Dro omplifior			
	(dBµV) 48.67 38.43 45.61 34.39	(dBµV) (dB) 48.67 0.08 38.43 0.08 45.61 2.21 34.39 2.21	(dBµV) (dB) (dBµV/m) 48.67 0.08 48.75 38.43 0.08 38.51 45.61 2.21 47.82 34.39 2.21 36.6	(dBµV) (dB) (dBµV/m) (dBµV/m) 48.67 0.08 48.75 74 38.43 0.08 38.51 54 45.61 2.21 47.82 74	(dBµV) (dB) (dBµV/m) (dBµV/m) (dB) 48.67 0.08 48.75 74 -25.25 38.43 0.08 38.51 54 -15.49 45.61 2.21 47.82 74 -26.18 34.39 2.21 36.6 54 -17.4

RESULT: PASS

Note:

The amplitude of other spurious emissions from 1G to 25 GHz which are attenuated more than 20 dB below the permissible value need not be reported.

Factor = Antenna Factor + Cable loss - Amplifier gain, Margin=Emission Level-Limit.

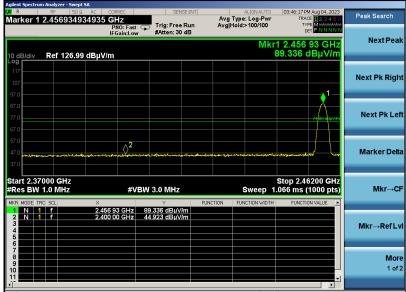
The "Factor" value can be calculated automatically by software of measurement system.



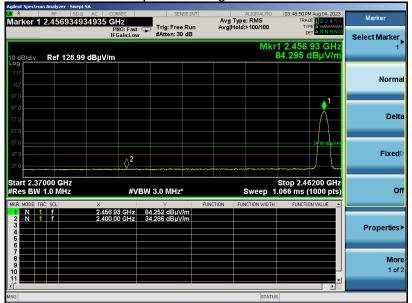
TEST RESULT FOR BAND EDGE EMISSION AT RESTRICTED BANDS							
EUT	Bike Speed & Cadence Sensor	Model Name	ВК9				
Temperature	21°C	Relative Humidity	53%				
Pressure	985hPa	Test Voltage	Normal Voltage				
Test Mode	Mode 1	Antenna	Horizontal				

DAND EDGE ENICOION AT DEC

Test Graph for Peak Measurement



Test Graph for Average Measurement

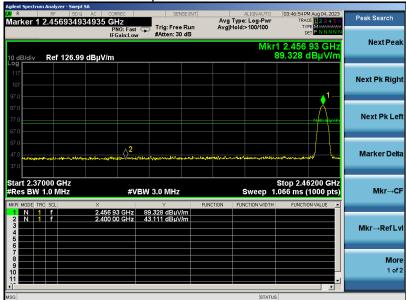


RESULT: PASS

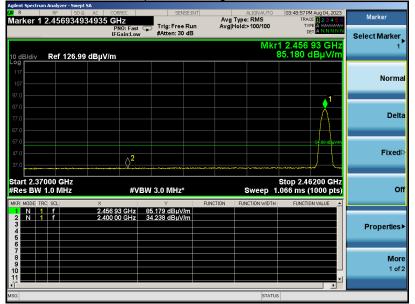


EUT	Bike Speed & Cadence Sensor	Model Name	BK9
Temperature	21°C	Relative Humidity	53%
Pressure	985hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



RESULT: PASS

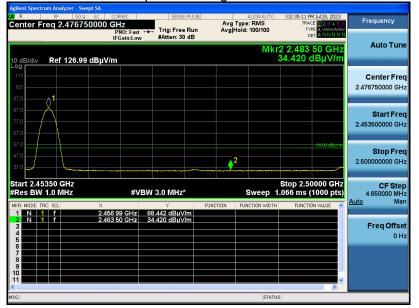


EUT	Bike Speed & Cadence Sensor	Model Name	BK9
Temperature	21°C	Relative Humidity	53%
Pressure	985hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Horizontal

Test Graph for Peak Measurement

	RF 50Ω.		SENSE:F		ALIGNAUTO	02:34:45 PM Jul 28, 2023	Frequency
enter Freq	2.476750	000 GHz PNO: Fast	Trig: Free F	Run Av	g Type: Log-Pwr j Hold: 100/100	TRACE 12345 TYPE Modeland	
		IFGain:Low		B		DET P NNNN	a suite True
0 dB/div R	ef 126.99 d	BµV/m				2 2.483 50 GHz 44.646 dBµV/m	Auto Tun
og 117							Center Fre
107							2.476750000 GH
97.0							2.470750000 81
87.0							
· / `	\						Start Fre
77.0						74.00 dDµVár	2.453500000 GH
67.0	1						
57.0					2		Stop Fre
47.0	Server and	ser Magalan manager bagale	and and a strategy an	and an an and the second s	andha annan an annan an an an an an an an an		2.500000000 GH
37.0							
Start 2.4535	0 GHz					Stop 2.50000 GHz	CF Ste
Res BW 1.0	MHz	#V	BW 3.0 MHz		Sweep 1	.066 ms (1000 pts)	4.650000 MH
MKR MODE TRC S	CL.	×	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	Auto Ma
1 N 1 1	F	2.456 85 GHz 2.483 50 GHz	88.700 dBµV/n 44.646 dBµV/n				
3		2.465 50 GHz	44.040 dBµV/				Freq Offs
4							0 H
6							
8							
9							
10							
11						~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	0

Test Graph for Average Measurement



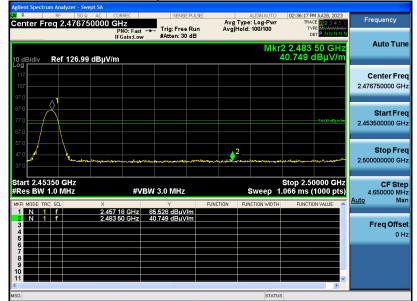
RESULT: PASS



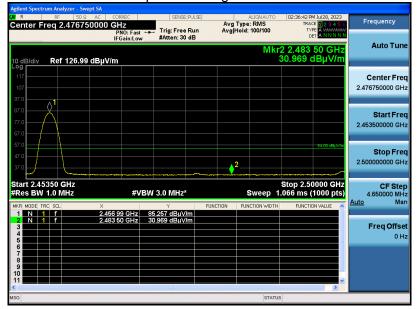


EUT	Bike Speed & Cadence Sensor	Model Name	BK9
Temperature	21°C	Relative Humidity	53%
Pressure	985hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss - Amplifier gain. Field Strength=Factor + Reading level 2. The factor had been edited in the "Input Correction" of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB(μV) to represent the Amplitude. Use the F dB(μV/m) to represent the Field Strength. So A=F.



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APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Refer to the Report No.: AGC01040230701AP02

APPENDIX B: PHOTOGRAPHS OF TEST EUT

Refer to the Report No.: AGC01040230701AP03

-----END OF REPORT-----

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3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.