

Nike, Inc.

Nike Adapt BB

FCC 15.247:2018 **Bluetooth Low Energy Radio**

Report # SYNA0268.1





NVLAP LAB CODE: 200630-0



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CERTIFICATE OF TEST



Last Date of Test: September 27, 2018 Nike, Inc. Model: Nike Adapt BB

Radio Equipment Testing

Standards	
Specification	Method
FCC 15.247:2018	ANSI C63.10:2013, KDB 558074

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	Powerline Conducted Emissions	No	N/A	Not required - EUT has no power connection to AC except during charging via wireless power transfer.
6.5, 6.6 11.12.1, 11.13.2	Spurious Radiated Emissions	Yes	Pass	
11.6	Duty Cycle	Yes	Pass	
11.8.2	Occupied Bandwidth	Yes	Pass	
11.9.1.1	Output Power	Yes	Pass	
11.9.1.1	Equivalent Isotropic Radiated Power	Yes	Pass	
11.10.2	Power Spectral Density	Yes	Pass	
11.11	Band Edge Compliance	Yes	Pass	
11.11	Spurious Conducted Emissions	Yes	Pass	

Deviations From Test Standards

None

Approved By:

Kyle Holgate, Operations Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information. As indicated in the Statement of Work sent with the quotation, Element's standard process is to always use the latest published version of the test methods even when earlier versions are cited in the test specification. Issuance of a purchase order was de facto acceptance of this approach. Otherwise, the client would have advised Element in writing of the specific version of the test methods they wanted applied to the subject testing.

REVISION HISTORY



Revisior Number		Description	Date (yyyy-mm-dd)	Page Number
00	None			

ACCREDITATIONS AND AUTHORIZATIONS



United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Element to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

ISED - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with ISED.

European Union

European Commission - Within Element, we have a EU Notified Body validated for the EMCD and RED Directives.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIT / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFCA – Recognized by OFCA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

SCOPE

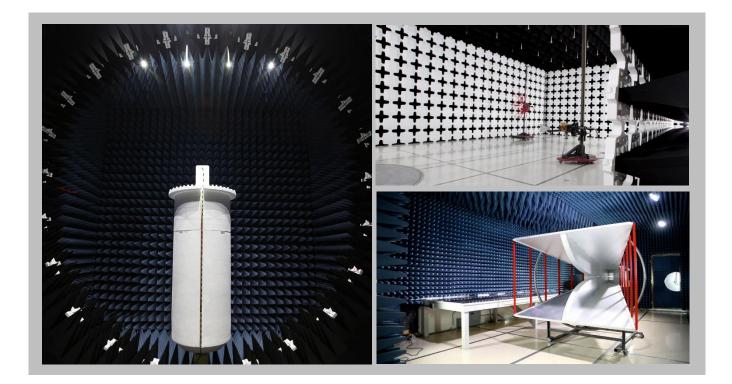
For details on the Scopes of our Accreditations, please visit: https://www.nwemc.com/emc-testing-accreditations

FACILITIES





California Labs OC01-17 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Oregon Labs EV01-12 6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 98011 (425)984-6600
		NV	LAP		
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
	Innovation, Science and Economic Development Canada				
2834B-1, 2834B-3	2834E-1, 2834E-3	N/A	2834D-1, 2834D-2	2834G-1	2834F-1
		BSI	МІ		
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
		VC	CI		
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
	Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA				
US0158	US0175	N/A	US0017	US0191	US0157



MEASUREMENT UNCERTAINTY



Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

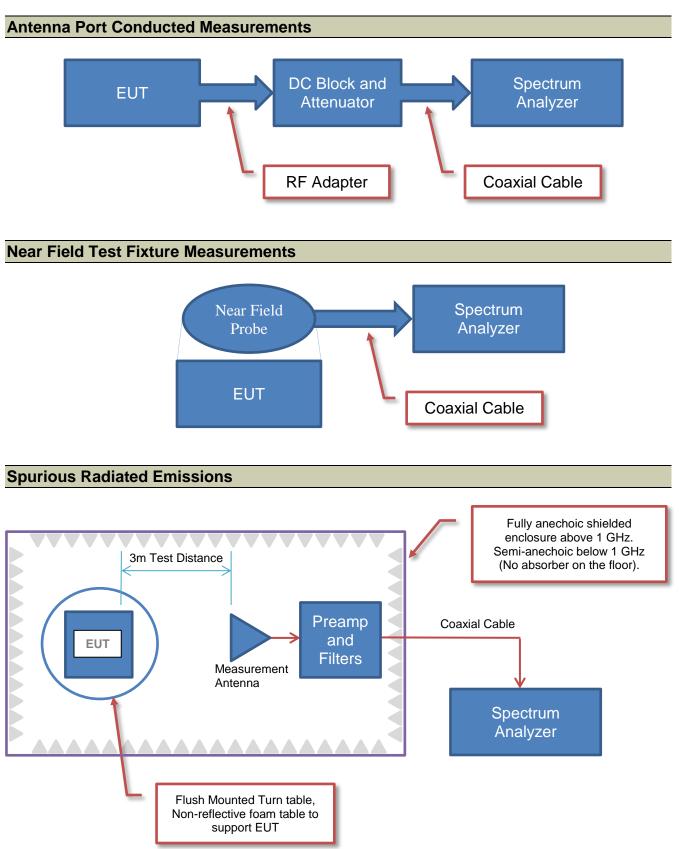
A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.2 dB	-5.2 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

Test Setup Block Diagrams





PRODUCT DESCRIPTION



Client and Equipment Under Test (EUT) Information

Company Name:	Nike, Inc.	
Address:	One Bowerman Drive	
City, State, Zip:	Beaverton, OR 97005	
Test Requested By:	Brian Piquette of Synapse Product Development on behalf of Nike, Inc.	
Model:	Nike Adapt BB	
First Date of Test:	September 27, 2018	
Last Date of Test:	September 27, 2018	
Receipt Date of Samples:	September 27, 2018	
Equipment Design Stage:	Production	
Equipment Condition:	No Damage	
Purchase Authorization:	Verified	

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

BLE enabled footwear.

Testing Objective:

To demonstrate compliance of the Bluetooth Low Energy radio to FCC 15.247 requirements.

POWER SETTINGS



The EUT was tested using the power settings provided by the manufacturer:

SETTINGS FOR ALL TESTS IN THIS REPORT

Modulation Types / Data Rates	Туре	Channel	Frequency (MHz)	Power Setting
		0	2402	+4
BLE	DTS	20	2442	+4
		39	2480	+4

CONFIGURATIONS



Configuration SYNA0268-1

Software/Firmware Running during test		
Description	Version	
Putty	0.70	
Firmware	Archive_20080810025548	

EUT				
Description	Manufacturer	Model/Part Number	Serial Number	
Right Lace Engine	Nike, Inc.	Nike Adapt BB	1700121R	
Left Lace Engine	Nike, Inc.	Nike Adapt BB	1200813L	

Remote Equipment Outside of Test Setup Boundary			
Description Manufacturer Model/Part Number Serial Number			
Remote Laptop	Microsoft	Surface	046856662454

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
UART to USB	Yes	2.0 m	No	Left or Right lace Engine	Remote Laptop

Configuration SYNA0268-2

Software/Firmware Running during test		
Description	Version	
Bigfoot Bench	V2.1.0	

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Left Lace Engine	Nike, Inc.	Nike Adapt BB	1200838L
Right Lace Engine	Nike, Inc.	Nike Adapt BB	1700172R

Remote Equipment Ou	tside of Test Setup Bo	undary	
Description	Manufacturer	Model/Part Number	Serial Number
Remote Laptop	Apple	MacBook Air	None

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
		Spurious	Tested as	No EMI suppression	EUT remained at
1	2018-09-27	Radiated	delivered to	devices were added or	Element following
		Emissions	Test Station.	modified during this test.	the test.
			Tested as	No EMI suppression	EUT remained at
2	2018-09-27	Duty Cycle	delivered to	devices were added or	Element following
			Test Station.	modified during this test.	the test.
		Occupied	Tested as	No EMI suppression	EUT remained at
3	2018-09-27	Bandwidth	delivered to	devices were added or	Element following
		Danuwuun	Test Station.	modified during this test.	the test.
			Tested as	No EMI suppression	EUT remained at
4	2018-09-27	Output Power	delivered to	devices were added or	Element following
			Test Station.	modified during this test.	the test.
		Equivalent	Tested as	No EMI suppression	EUT remained at
5	2018-09-27	Isotropic	delivered to	devices were added or	Element following
		Radiated Power	Test Station.	modified during this test.	the test.
		Power Spectral	Tested as	No EMI suppression	EUT remained at
6	2018-09-27	Density	delivered to	devices were added or	Element following
		Density	Test Station.	modified during this test.	the test.
		Band Edge	Tested as	No EMI suppression	EUT remained at
7	2018-09-27	Compliance	delivered to	devices were added or	Element following
		Compliance	Test Station.	modified during this test.	the test.
		Spurious	Tested as	No EMI suppression	Scheduled testing
8	2018-09-27	Conducted	delivered to	devices were added or	was completed.
		Emissions	Test Station.	modified during this test.	was completed.

SPURIOUS RADIATED EMISSIONS



PSA-ESCI 2018.07.27

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

BLE Continuous Tx, GFSK, Low Ch. = 2402 MHz, Mid Ch. = 2442 MHz, High Ch. = 2480 MHz

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

SYNA0268 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz

Stop Frequency 26.5 GHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Cable	ESM Cable Corp.	KMKM-72	EVY	24-Aug-2018	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	24-Aug-2018	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-09	AIV	NCR	0 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	30-Nov-2017	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-08	AHV	NCR	0 mo
Cable	None	Standard Gain Horns Cable	EVF	30-Nov-2017	12 mo
Amplifier - Pre-Amplifier	L-3 Narda-MITEQ	AMF-6F-08001200-30-10P	PAO	30-Nov-2017	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AHU	NCR	0 mo
Attenuator	Coaxicom	3910-20	AXZ	28-Feb-2018	12 mo
Cable	N/A	Double Ridge Horn Cables	EVB	29-Nov-2017	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAG	29-Nov-2017	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AIZ	7-Feb-2018	24 mo
Filter - Low Pass	Micro-Tronics	LPM50004	LFD	28-Feb-2018	12 mo
Cable	N/A	Bilog Cables	EVA	25-Jul-2018	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AOL	30-Nov-2017	12 mo
Antenna - Biconilog	EMCO	3142	AXA	24-Oct-2016	24 mo
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	18-Mar-2018	12 mo

TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequencies and the modes as showed in the data sheets.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. These "pre-scans" are not included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector PK = Peak Detector AV = RMS Detector

Measurements were made to satisfy the specific requirements of the test specification for out of band emissions as well as the restricted band requirements.

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Measurements at the edges of the allowable band may be presented in an alternative method as provided for in the ANSI C63.10 Marker-Delta method. This method involves performing an in-band fundamental measurement followed by a screen capture of the fundamental and out-of-band emission using reduced measurement instrumentation bandwidths. The amplitude delta measured on this screen capture is applied to the fundamental emission value to show the out-of-band emission level as applied to the limit.

Where the radio test software does not provide for a duty cycle at continuous transmit conditions (> 98%) and the RMS (power average) measurements were made across the on and off times of the EUT transmissions, a duty cycle correction is added to the measurements using the formula of 10*LOG(dc).

SPURIOUS RADIATED EMISSIONS



													1
	k Order:				Date:	27-Sep			1	- /	/	/	12
	Project:				perature:	22.7	°C	(/	1	24	- /		
	Job Site:	EV0		Н	lumidity:	43.7%			0	1/	14/1	82	
Serial I	Number:		uration	Barometr	ric Pres.:	1015 r	nbar		Testeo	d by: Jet	ff Alcoke		
		Nike Adapt E	ЗB										
	juration:												
		Nike, Inc.											
Att	tendees:	Phil Meneau	and Brian	n Piquette									
EUT	Power:	Battery											
Operatin	g Mode:	BLE Continu	ous Tx, G	FSK, Low C	h. = 2402 N	1Hz, Mid C	n. = 2442	MHz, High	Ch. =	2480 MF	łz		
Dev	viations	None											
Cor	mments	See commer 61.1%, a dut										luty cyc	cle (DC
st Specifi	ications					1	est Meth	od					
C 15.247:							NSI C63.						
Run #	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		F	Results	I	Pass
Run #	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		F	Results	I	Pass
	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		F	Results	I	Pass
80 -	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		F	Results		Pass
	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		F	Results		Pass
80	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		F	Results		Pass
	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		F	Results		Pass
80	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		F	Results		Pass
80	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)			Results		Pass
80	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)			Results		Pass
80	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)			Results		Pass
80	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		<u></u>	Results		Pass
80	18	Test Dista	ance (m)	3	Antenna H	leight(s)		1 to 4(m)		<u></u>			Pass
80	18	Test Dista		3	Antenna H	leight(s)		1 to 4(m)					Pass
80	18	Test Dista		3	Antenna H	leight(s)		1 to 4(m)					Pass
80	18	Test Dista		3	Antenna H	leight(s)		1 to 4(m)					Pass
80	18	Test Dista		3	Antenna H	leight(s)		1 to 4(m)			Results		Pass
80	18	Test Dista		3	Antenna H			1 to 4(m)					Pass
80	18	Test Dista		3	Antenna H			1 to 4(m)					Pass
80		Test Dista		3	Antenna H			1 to 4(m)		*			Pass
80 70 60 50 40 30		Test Dista		3	Antenna H	leight(s)		1 to 4(m)					Pass
80 70 60 50 40 30 20		Test Dista		3	Antenna H	leight(s)		1 to 4(m)		2 2 2 2			Pass
80 70 60 50 40 30		Test Dista		3	Antenna H			1 to 4(m)					Pass
80 70 60 50 40 30 20				3	Antenna H			1 to 4(m)	•				Pass
80 70 60 50 40 30 20 10		Test Dist:		3	Antenna H			1 to 4(m)					Pass
80 70 60 50 40 30 20 10 0		Test Dista		3	Antenna H			1 to 4(m)		\$			
80 70 60 50 40 30 20 10		Test Dista	ance (m)	3	Antenna H			1 to 4(m)	*	\$			Pass

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor (dB)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
12008.820	43.2	1.0	3.0	298.0	2.1	0.0	Vert	AV	0.0	46.3	54.0	-7.7	Low Ch. EUT Horz
4959.817	37.5	5.2	1.0	79.0	2.1	0.0	Vert	AV	0.0	44.8	54.0	-9.2	High Ch, EUT Horz
4959.883	37.2	5.2	1.0	108.0	2.1	0.0	Horz	AV	0.0	44.5	54.0	-9.5	High Ch, EUT Horz
4883.850	37.0	5.1	1.0	100.0	2.1	0.0	Vert	AV	0.0	44.2	54.0	-9.8	Mid Ch. EUT Horz
7439.483	28.9	13.0	3.6	163.0	2.1	0.0	Vert	AV	0.0	44.0	54.0	-10.0	High Ch, EUT Horz
4883.758	36.2	5.1	1.0	113.0	2.1	0.0	Horz	AV	0.0	43.4	54.0	-10.6	Mid Ch. EUT Horz
7439.642	28.3	13.0	1.0	360.0	2.1	0.0	Horz	AV	0.0	43.4	54.0	-10.6	High Ch, EUT Horz
7325.525	28.8	12.3	1.0	90.0	2.1	0.0	Vert	AV	0.0	43.2	54.0	-10.8	Mid Ch. EUT Horz
7324.683	28.5	12.2	1.9	5.0	2.1	0.0	Horz	AV	0.0	42.8	54.0	-11.2	Mid Ch. EUT Horz
4959.683	35.3	5.2	2.3	295.0	2.1	0.0	Horz	AV	0.0	42.6	54.0	-11.4	High Ch, EUT Vert
12398.760	39.0	1.2	1.0	43.0	2.1	0.0	Vert	AV	0.0	42.3	54.0	-11.7	High Ch, EUT Horz
4959.917	34.8	5.2	2.4	331.0	2.1	0.0	Vert	AV	0.0	42.1	54.0	-11.9	High Ch, EUT on Side
12008.810	39.0	1.0	1.0	222.0	2.1	0.0	Horz	AV	0.0	42.1	54.0	-11.9	Low Ch. EUT Horz
4959.833	34.7	5.2	2.0	22.0	2.1	0.0	Horz	AV	0.0	42.0	54.0	-12.0	High Ch, EUT on Side
12208.880	38.5	1.0	1.0	246.0	2.1	0.0	Vert	AV	0.0	41.6	54.0	-12.4	Mid Ch. EUT Horz
4803.750	35.6	3.8	1.0	110.0	2.1	0.0	Horz	AV	0.0	41.5	54.0	-12.5	Low Ch., EUT Horz
4959.758	34.0	5.2	1.0	290.0	2.1	0.0	Vert	AV	0.0	41.3	54.0	-12.7	High Ch, EUT Vert
12208.760	37.6	1.0	1.1	39.0	2.1	0.0	Horz	AV	0.0	40.7	54.0	-13.3	Mid Ch. EUT Horz

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor (dB)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
4803.775	34.2	3.8	1.0	128.0	2.1	0.0	Vert	AV	0.0	40.1	54.0	-13.9	Low Ch., EUT Horz
12398.820	35.6	1.2	1.0	270.0	2.1	0.0	Horz	AV	0.0	38.9	54.0	-15.1	High Ch, EUT Horz
7440.817	39.8	13.0	1.0	360.0	0.0	0.0	Horz	PK	0.0	52.8	74.0	-21.2	High Ch, EUT Horz
7325.542	39.5	12.3	1.0	90.0	0.0	0.0	Vert	PK	0.0	51.8	74.0	-22.2	Mid Ch. EUT Horz
7440.183	38.8	13.0	3.6	163.0	0.0	0.0	Vert	PK	0.0	51.8	74.0	-22.2	High Ch, EUT Horz
12011.140	50.8	1.0	3.0	298.0	0.0	0.0	Vert	PK	0.0	51.8	74.0	-22.2	Low Ch. EUT Horz
7325.150	38.6	12.3	1.9	5.0	0.0	0.0	Horz	PK	0.0	50.9	74.0	-23.1	Mid Ch. EUT Horz
4883.525	45.6	5.1	1.0	100.0	0.0	0.0	Vert	PK	0.0	50.7	74.0	-23.3	Mid Ch. EUT Horz
4959.583	45.2	5.2	1.0	79.0	0.0	0.0	Vert	PK	0.0	50.4	74.0	-23.6	High Ch, EUT Horz
4959.642	45.1	5.2	1.0	108.0	0.0	0.0	Horz	PK	0.0	50.3	74.0	-23.7	High Ch, EUT Horz
12398.570	48.5	1.2	1.0	43.0	0.0	0.0	Vert	PK	0.0	49.7	74.0	-24.3	High Ch, EUT Horz
4883.542	44.5	5.1	1.0	113.0	0.0	0.0	Horz	PK	0.0	49.6	74.0	-24.4	Mid Ch. EUT Horz
4960.292	43.9	5.2	2.3	295.0	0.0	0.0	Horz	PK	0.0	49.1	74.0	-24.9	High Ch, EUT Vert
4960.150	43.6	5.2	2.0	22.0	0.0	0.0	Horz	PK	0.0	48.8	74.0	-25.2	High Ch, EUT on Side
12208.910	47.7	1.0	1.0	246.0	0.0	0.0	Vert	PK	0.0	48.7	74.0	-25.3	Mid Ch. EUT Horz
12011.150	47.3	1.0	1.0	222.0	0.0	0.0	Horz	PK	0.0	48.3	74.0	-25.7	Low Ch. EUT Horz
4960.100	43.0	5.2	2.4	331.0	0.0	0.0	Vert	PK	0.0	48.2	74.0	-25.8	High Ch, EUT on Side
12210.970	47.2	1.0	1.1	39.0	0.0	0.0	Horz	PK	0.0	48.2	74.0	-25.8	Mid Ch. EUT Horz
4804.300	43.8	3.8	1.0	110.0	0.0	0.0	Horz	PK	0.0	47.6	74.0	-26.4	Low Ch., EUT Horz
4960.450	42.4	5.2	1.0	290.0	0.0	0.0	Vert	PK	0.0	47.6	74.0	-26.4	High Ch, EUT Vert
4804.108	43.2	3.8	1.0	128.0	0.0	0.0	Vert	PK	0.0	47.0	74.0	-27.0	Low Ch., EUT Horz
12398.960	45.2	1.2	1.0	270.0	0.0	0.0	Horz	PK	0.0	46.4	74.0	-27.6	High Ch, EUT Horz

SPURIOUS RADIATED EMISSIONS



		-							EmiR5 2018.07.19.3	PSA-ESCI 2018.07
Wor	k Order:		IA0268		Date:	27-Se			- //	Ma
	Project:		e Adapt	Te	mperature:	22.		1/0	24 /	
	Job Site:		V01		Humidity:	43.79	6 RH	00	14/2	
Serial I	Number:		nfiguration	Barom	etric Pres.:	1015	mbar	Tested	I by: Jeff Alcoke	
		Nike Ada	pt BB							
	juration:									
		Nike, Inc.								
Att	tendees:	Phil Mene	eau and Bria	in Piquette						
EUT	Power:									
Operatin	g Mode:		tinuous Ix, (GFSK, Low	Ch. = 2402	MHz, Mid (Ch. = 2442	MHz, High Ch. = 2	2480 MHz	
Dev	viations:	None								
Сог	mments:	See comments below for Channel and EUT orientation. 61.1%, a duty cycle correction factor of 2.1 dB was add								luty cycle (DC) of
Test Specifi	ications						Test Meth	od		
CC 15.247	2018						ANSI C63.			
Run #	20	Test D	istance (m)	3	Antenna	Height(s)		1 to 4(m)	Results	Pass
80										
70										
60										
50	•								+ + +	
40										
30										
20										
10										
0 2380		240	0	2420		2440 MHz	· · · · ·	2460	2480	2500
								■ PK •	AV OP	

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor (dB)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Commonte
0.400.050	00.0	4 5	4.4	070.0	0.4	00.0	Lines	A) (40.0	54.0		Comments
2483.650	32.3	-4.5	1.1	278.0	2.1	20.0	Horz	AV	0.0	49.9	54.0	-4.1	High Ch, EUT Horz
2483.870	31.8	-4.5	3.8	208.0	2.1	20.0	Vert	AV	0.0	49.4	54.0	-4.6	High Ch, EUT Horz
2483.917	31.8	-4.5	1.0	274.0	2.1	20.0	Vert	AV	0.0	49.4	54.0	-4.6	High Ch, EUT on Side
2483.590	31.6	-4.5	3.0	339.0	2.1	20.0	Horz	AV	0.0	49.2	54.0	-4.8	High Ch, EUT on Side
2483.737	31.6	-4.5	3.8	150.0	2.1	20.0	Horz	AV	0.0	49.2	54.0	-4.8	High Ch, EUT Vert
2483.637	31.6	-4.5	1.0	267.0	2.1	20.0	Vert	AV	0.0	49.2	54.0	-4.8	High Ch, EUT Vert
2388.127	31.4	-4.9	1.0	358.0	2.1	20.0	Horz	AV	0.0	48.6	54.0	-5.4	Low Ch., EUT Horz
2388.847	31.3	-4.9	1.1	140.0	2.1	20.0	Vert	AV	0.0	48.5	54.0	-5.5	Low Ch., EUT Horz
2483.627	50.5	-4.5	1.1	278.0	0.0	20.0	Horz	PK	0.0	66.0	74.0	-8.0	High Ch, EUT Horz
2484.163	48.4	-4.4	3.8	208.0	0.0	20.0	Vert	PK	0.0	64.0	74.0	-10.0	High Ch, EUT Horz
2483.517	47.4	-4.5	1.0	274.0	0.0	20.0	Vert	PK	0.0	62.9	74.0	-11.1	High Ch, EUT on Side
2483.577	47.2	-4.5	1.0	267.0	0.0	20.0	Vert	PK	0.0	62.7	74.0	-11.3	High Ch, EUT Vert
2483.620	45.8	-4.5	3.0	339.0	0.0	20.0	Horz	PK	0.0	61.3	74.0	-12.7	High Ch, EUT on Side
2483.693	45.6	-4.5	3.8	150.0	0.0	20.0	Horz	PK	0.0	61.1	74.0	-12.9	High Ch, EUT Vert
2389.853	44.1	-4.9	1.0	358.0	0.0	20.0	Horz	PK	0.0	59.2	74.0	-14.8	Low Ch., EUT Horz
2389.380	42.3	-4.9	1.1	140.0	0.0	20.0	Vert	PK	0.0	57.4	74.0	-16.6	Low Ch., EUT Horz



XMit 2017.12.13

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFU	27-Oct-15	27-Oct-18
Cable	Micro-Coax	UFD150A-1-0720-200200	EVH	23-Apr-18	23-Apr-19
Attenuator	S.M. Electronics	SA26B-20	AUY	16-Apr-18	16-Apr-19
Block - DC	Fairview Microwave	SD3379	AMW	23-Apr-18	23-Apr-19
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	12-Jan-18	12-Jan-19

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The Duty Cycle (x) of the single channel operation of the radio as controlled by the provided test software was measured for each of the EUT operating modes.

There is no compliance requirement to be met by this test, so therefore no Pass / Fail criteria.

The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum.

The duty cycle was calculated by dividing the transmission pulse duration (T) by the total period of a single on and total off time.

If the transmit duty cycle < 98 percent, burst gating may have been used during some of the other tests in this report to only take the measurement during the burst duration.



	Nike Adapt BB						Work Order:		
	: See configuration							27-Sep-18	
	: Nike, Inc.						Temperature:		
	Phil Meneau and Brian Piquette						Humidity:		
	:: Nike Adapt						Barometric Pres.:		
	: Jeff Alcoke		Pov	wer: Battery			Job Site:	EV06	
EST SPECIFICAT	TIONS			Test Method					
CC 15.247:2018				ANSI C63.10:2013					
OMMENTS									
	ffset includes cable loss from meas	a on one oyotenn a	and shift right court to shift						
EVIATIONS FRO	M TEST STANDARD								
one									
				- 1					
onfiguration #	1		T	1/1					
onfiguration #	1	Signature	Tel						
onfiguration #	1	Signature	Telf			Number of	Value	Limit	
onfiguration #	1	Signature	Telf	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
configuration #	1	Signature	Jelf	Pulse Width	Period				Result
	1 BLE/GFSK Low Channel, 2402 MH.	×	Tæl	Pulse Width 381.912 us	Period 625.1 us				Result: N/A
			JA			Pulses	(%)	(%)	
	BLE/GFSK Low Channel, 2402 MH.		Tæl	381.912 us	625.1 us	Pulses 1	(%) 61.1	(%) N/A	N/A
	BLE/GFSK Low Channel, 2402 MH. BLE/GFSK Low Channel, 2402 MH.		TA	381.912 us N/A	625.1 us N/A	Pulses 1	(%) 61.1 N/A	(%) N/A N/A	N/A N/A
	BLE/GFSK Low Channel, 2402 MH BLE/GFSK Low Channel, 2402 MH BLE/GFSK Mid Channel, 2442 MH2		TA	381.912 us N/A 381.844 us	625.1 us N/A 625.4 us	Pulses 1	(%) 61.1 N/A 61.1	(%) N/A N/A N/A	N/A N/A N/A
	BLE/GFSK Low Channel, 2402 MH BLE/GFSK Low Channel, 2402 MH BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz	2 : : z	TA	381.912 us N/A 381.844 us N/A	625.1 us N/A 625.4 us N/A	Pulses 1	(%) 61.1 N/A 61.1 N/A	(%) N/A N/A N/A N/A	N/A N/A N/A N/A
eft Engine	BLE/GFSK Low Channel, 2402 MH: BLE/GFSK Low Channel, 2402 MH: BLE/GFSK Mid Channel, 2442 MH2 BLE/GFSK Mid Channel, 2448 MH2 BLE/GFSK High Channel, 2480 MH BLE/GFSK High Channel, 2480 MH	2 : : : : :	TA	381.912 us N/A 381.844 us N/A 382.544 us	625.1 us N/A 625.4 us N/A 624.8 us	Pulses 1 5 1 5 1 5 1	(%) 61.1 N/A 61.1 N/A 61.2	(%) N/A N/A N/A N/A N/A	N/A N/A N/A N/A
eft Engine	BLE/GFSK Low Channel, 2402 MH BLE/GFSK Low Channel, 2402 MH BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MH	2 : : : : :	TA	381.912 us N/A 381.844 us N/A 382.544 us	625.1 us N/A 625.4 us N/A 624.8 us	Pulses 1 5 1 5 1 5 1	(%) 61.1 N/A 61.1 N/A 61.2	(%) N/A N/A N/A N/A N/A	N/A N/A N/A N/A
	BLE/GFSK Low Channel, 2402 MH: BLE/GFSK Low Channel, 2402 MH: BLE/GFSK Mid Channel, 2442 MH2 BLE/GFSK Mid Channel, 2448 MH2 BLE/GFSK High Channel, 2480 MH BLE/GFSK High Channel, 2480 MH	2 2 2	TA	381.912 us N/A 381.844 us N/A 382.544 us N/A	625.1 us N/A 625.4 us N/A 624.8 us N/A	Pulses	(%) 61.1 N/A 61.1 N/A 61.2 N/A	(%) N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A
eft Engine	BLE/GFSK Low Channel, 2402 MH. BLE/GFSK Low Channel, 2402 MH. BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Migh Channel, 2448 MH BLE/GFSK High Channel, 2480 MH BLE/GFSK High Channel, 2480 MH	2 : : : : :	JA	381.912 us N/A 381.844 us N/A 382.544 us N/A 382.7 us	625.1 us N/A 625.4 us N/A 624.8 us N/A 624.4 us	Pulses 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	(%) 61.1 N/A 61.1 N/A 61.2 N/A 61.3	(%) N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A
eft Engine	BLE/GFSK Low Channel, 2402 MH BLE/GFSK Low Channel, 2402 MH BLE/GFSK Mid Channel, 2442 MH2 BLE/GFSK Mid Channel, 2442 MH2 BLE/GFSK High Channel, 2480 MH BLE/GFSK High Channel, 2402 MH BLE/GFSK Low Channel, 2402 MH	2 2 2	TA	381.912 us N/A 381.844 us N/A 382.544 us N/A 382.7 us N/A	625.1 us N/A 625.4 us N/A 624.8 us N/A 624.4 us N/A	Pulses 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	(%) 61.1 N/A 61.1 N/A 61.2 N/A 61.3 N/A	(%) N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A
eft Engine	BLE/GFSK Low Channel, 2402 MH; BLE/GFSK Low Channel, 2402 MH; BLE/GFSK Mid Channel, 2442 MH2 BLE/GFSK Mid Channel, 2442 MH2 BLE/GFSK High Channel, 2480 MH BLE/GFSK High Channel, 2480 MH BLE/GFSK Low Channel, 2402 MH; BLE/GFSK Low Channel, 2402 MH; BLE/GFSK Low Channel, 2402 MH;	2 2 2 2	TA	381.912 us N/A 381.844 us N/A 382.544 us N/A 382.7 us N/A 382.023 us	625.1 us N/A 625.4 us N/A 624.8 us N/A 624.4 us N/A 624.9 us	Pulses 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	(%) 61.1 N/A 61.2 N/A 61.3 N/A 61.3	(%) N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A



		.eft Engine, BLE/	Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	381.912 us	625.1 us	1	61.1	N/A	N/A
	301.312 u3	020.1 03	1	01.1	11/7	19/73
Agilent Spectrum Analyzer -						
LXIRL RF 5	i0 Ω DC	SENSE	rig Delay-100.0 µs	ALIGN OFF #Avg Type	u La n Duni	09:57:22 AM Sep 27, 2018
		PNO: Fast 🛶 T	rig: Video	#Avg type	. Log-Fwi	TRACE 1 2 3 4 5 6 TYPE WWWWWWW DET P P P P P
			Atten: 10 dB			DETPPPP
						Mkr2 480.3 µs
Ref Offse 5 dB/div Ref 8.00	dBm					-10.07 dBm
3.00		+			+	
-2.001	√ 3			<mark> </mark>		
-7.00 2	Υ <u></u>					
-12.0						
-17.0						
-22.0						
-27.0						TRIG LVL
-32.0						
-37.0						
Center 2.40200000	0 GHz					Span 0 Hz
Res BW 3.0 MHz		#VBW 3	0 kHz		Sweep 5.	.000 ms (8192 pts)
MKR MODE TRC SCL	×	Y		FUNCTION WIDTH	FUNCTI	ON VALUE
1 N 1 t 2 N 1 t	98.40 µs 480.3 µs	-5.96 dBr -10.07 dBn	n			
3 N 1 t	723.5 µs	-6.40 dBr	n			
4						
6						
7						
9						
10						~
<		1	uu.			>
MSG				STATUS		

	Number of Value Limit						
 Pulse Width	Period	Pulses	(%)	(%)	Results		
N/A	N/A	5	N/A	N/A	N/A		

RL RF	50 Ω DC	S	ENSE:INT	ALIGN OFF		09:57:28 AM Sep 27, 201
		PNO: Fast +++ IFGain:Low	Trig: Video #Atten: 10 dB	#Avg Type	: Log-Pwr	TRACE 12345 TYPE WUWWWW DET PPPP
RefOf B/div Ref8	fset 21.91 dB .00 dBm					
00						
00						
00						ļ
.0						
.0						TRIG L
.0						
.0						
.0						
enter 2.402000 s BW 3.0 MHz	000 GHz	#VBV	V 30 kHz		Sweep	Span 0 H 2.813 ms (8192 pt
				STATUS		



Period				
	Pulses	(%)	(%)	Results
625.4 us	1	61.1	N/A	N/A
	INT	ALIGN OFF		10:06:15 AM Sep 27, 20
Contraction of the second s		#Avg Type	: Log-Pwr	TRACE 1234 TYPE WHANN DET P P P P
				DET PPP
				Mkr2 480.1
		1	,	-9.87 dB
				_
				TRIGI
#VBM 30) kHz		Sween 5	Span 0 I 000 ms (8192 pt.
		UNCTION WIDTH	-	ION VALUE
μs -6.05 dBm				
μs -5.53 dBm				
	au.])
	PN0: Fast → Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr Tr	SENSE:INT Trig Delay-100.0 µs PNO: Fast Trig Delay-100.0 µs IFGain:Low #Atten: 10 dB #VBW 30 kHz #VBW 30 kHz	SENSE:INT Trig Delay-100.0 µs #Avg Type: PN0: Fast IFGain:Low + + #Ising Video #Avg Type: #Atten: 10 dB #Atten: 10 dB # # # #VBW 30 kHz # # # # #VBW 30 kHz Y FUNCTION FUNCTION WIDTH #S - 5.53 dBm - - - -	SENSE:INT ALLISN CFF Trig Delay-100.0 µs #Avg Type: Log-Pwr PRO: Fast

		Number of Value Limit						
	Pulse Width	Period	Pulses	(%)	(%)	Results		
	N/A	N/A	5	N/A	N/A	N/A		

RL RF 50Ω DC	SENSE:INT	ALIGN OFF	10:06:29 AM Sep 27, 2018
	PNO: Fast ↔ Trig: Video IFGain:Low #Atten: 10 dB	#Avg Type: Log-Pwr	TRACE 12345 TYPE WUWWWW DET PPPPP
Ref Offset 21.91 dB dB/div Ref 8.00 dBm			
.00			
.00			
.00			
2.0			
7.0			
2.0			
			TRIG L
.0			
enter 2.442000000 GHz es BW 3.0 MHz	#VBW 30 kHz	Swee	Span 0 H ep 2.814 ms (8192 pts



			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	382.544 us	624.8 us	1	61.2	N/A	N/A
	50 Ω DC	SENSE	EINT rig Delay-100.0 µs rig: Video Atten: 10 dB	ALIGN OFF #Avg Type:	Log-Pwr	10:19:34 AM Sep 27, 20 TRACE 12:23 4:3 TYPE WWW.WO DET PPPP Mkr2 481.1 µ -5.83 dBr
-28.0 -33.0 -38.0 Center 2.48000000 Res BW 3.0 MHz	00 GHz	#VBW 3	0 kHz		Sweep 5	Span 0 H .000 ms (8192 pt
MKR MODE TRC SCL 1 N 1 t 2 N 1 t 3 N 1 t 4 5	× 98.60 µs 481.1 µs 723.4 µs	Y -5.68 dBn -5.83 dBn	FUNCTION I	UNCTION WIDTH		ION VALUE
6 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9				STATUS		

		Lett Engine, BL	Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	N/A	N/A	5	N/A	N/A	N/A

RL RF	50 Ω DC		SENSE:INT	ALIGN OFF		10:19:41 AM Sep 27, 201
		PNO: Fast ↔ IFGain:Low	. Trig: Video #Atten: 10 dB	#Avg	Type: Log-Pwr	TRACE 12345 TYPE WWWWWW DET PPPP
Ref Offs dB/div Ref 7.0	et 21.91 dB 00 dBm					
.00						
00						
00						
3.0						
.0						
.0						
3.0						TRIG LY
3.0						
.0						
enter 2.4800000 es BW 3.0 MHz	00 GHz	#VE	SW 30 kHz		Sweep	Span 0 H 2.812 ms (8192 pt
3				STAT		



			_E/GFSK Low Cha Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	382.7 us	624.4 us	1	61.3	N/A	N/A
	302.7 US	024.4 03		01.5	11/7	11/7
Agilent Spectrum Analyzer						
LXIRL RF	50 Ω DC	SE	Trig Delay-1.000 ms	ALIGN OFF #Avg Type	. Log Pwr	09:16:05 AM Sep 27, 2018
		PNO: Fast 🔸	Trig: Video	weig type	. Log-i wi	TRACE 12345 TYPE WWWWWW DET PPPPP
		IFGain:Low	#Atten: 10 dB			DET P P P P P
Ref Offs	et 21.91 dB					Mkr3 998.0 µs
5 dB/div Ref 7.0	0 dBm					-6.91 dBm
Log						
2.00	$\sqrt{2}$ 3					
-3.00						
-8.00						(
-13.0						
-18.0				1		
-23.0						
						TRIG LVL
-28.0						
-33.0						
-38.0						
Center 2.4020000						Span 0 Hz
Res BW 3.0 MHz	00 GHZ	#VBM	/ 30 kHz		Sween 5	.000 ms (8192 pts)
					•	
MKR MODE TRC SCL	× 373.6 µ	y -6.79 d		FUNCTION WIDTH	FUNCT	ION VALUE
2 N 1 t 3 N 1 t	756.3 L	ıs -4.22 d	Bm			
3 N 1 t	ب 998.0 µ	ıs -6.91 d	Bm			
5						
6						
8						
9						
11						
<)
MSG				STATUS		

	Right Engine, BLE/GFSK Low Channel, 2402 MHz								
			Number of	Value	Limit				
	Pulse Width	Period	Pulses	(%)	(%)	Results			
	N/A	N/A	5	N/A	N/A	N/A			

RL	RF 50	Ω DC		SEN	SE:INT	AL	IGN OFF		09:	16:11 AM Sep 27, 2018
			PNO: F IFGain:L		Trig: Video #Atten: 10 dB		#Avg T	'ype: Log-Pwr		TRACE 12345 TYPE WHATMAN DET PPPP
dB/div	Ref Offset 2 Ref 7.00	21.91 dB d B m						4	1	1
.00								_		
.00										
.00										
3.0										
3.0										
3.0										
3.0										TRIG LV
3.0										
3.0										
ontor 2	40200000	CHA								Enon 0 H
enter 2. es BW 3	402000000 3.0 MHz	GHZ		#VBW	30 kHz			S	weep 2.810	Span 0 H: ms (8192 pts
G							STATU	s		



			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	382.023 us	624.9 us	1	61.1	N/A	N/A
÷	<u> </u>					
Agilent Spectrum Analyzer	r - Element Materials Tech	nology				
IXI RL RF		SEN	ISE:INT	ALIGN OFF		09:31:26 AM Sep 27, 2018
			Trig Delay-100.0 µs	#Avg Type	e: Log-Pwr	TRACE 1 2 3 4 5 TYPE WWWWWW DET P P P P P
			Trig: Video #Atten: 10 dB			DET PPPPI
						Mkr2 480.9 µs
Ref Offs	et 21.91 dB 00 dBm					-3.73 dBm
5 dB/div Ref 7.0		1				0.70 abiii
2.00 2		——————————————————————————————————————	(— <u> </u>	+	
-3.00						
-8.00	Ý III					
-13.0						
-18.0						
-23.0						
-28.0						ING LVL
-33.0						
-38.0						
Center 2.4420000						Span 0 Hz
Res BW 3.0 MHz	00 GH2	#VBW	30 kHz		Sweep 5	.000 ms (8192 pts)
MKR MODE TRC SCL	×	Y		UNCTION WIDTH		ION VALUE
1 N 1 t	98.90 µ	s -6.01 dE	3m		PUNCT	
2 N 1 t 3 N 1 t	480.9 μ 723.8 μ	s -3.73 dE	3m			
4	123.0 μ	-0.09 dE				
5						
7						
8						
10						
11			111			×
MSG				STATUS		

		Right Engine, BL		annei, 2442 MHZ		
			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	N/A	N/A	5	N/A	N/A	N/A

RL RF	50 Ω DC	9	ENSE:INT	ALIGN OFF		09:31:34 AM Sep 27, 201
		PNO: Fast 🔸	Trig: Video #Atten: 10 dB	#Avg 1	「ype: Log-Pwr	TRACE 12345 TYPE WWWWWW DET PPPP
Ref Offs dB/div Ref 7.0	et 21.91 dB 1 0 dBm					
00						
0						
.0						
.0						
.0						
						TRIG L
.0						
.0						
enter 2.4420000 es BW 3.0 MHz	00 GHz	#VB\	N 30 kHz		Sweep	Span 0 H 2.812 ms (8192 pt
1				STATU		



			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	382.7 us	625 us	1	61.2	N/Á	N/A
And the Article And the	er - Element Materials Tech					
Agrient Spectrum Analyze			TIM	ALIGN OFF		09:41:43 AM Sep 27, 201
	30 x DC		rig Delay-1.000 m	is #Avg Type	e: Log-Pwr	TRACE 1 2 3 4 5
			rig: Video			TRACE 1 2 3 4 5 TYPE WWWWW DET P P P P
		FGain:Low #/	Atten: 10 dB			
Ref Off	set 21.91 dB					Mkr3 998.0 µ
5 dB/div Ref 7.	.00 dBm					-7.11 dBr
2.00						
	2 3					
-3.00	¥ ∮ ³†					
-8.00						
-13.0						
-18.0						
-23.0						
-28.0						TRIG LV
-33.0						
-38.0						
Center 2.480000	000 CH7					Span 0 H
Res BW 3.0 MHz		#VBW 3	0 kHz		Sweep 5	i.000 ms (8192 pts
				FUNCTION & AD TH		· · ·
MKR MODE TRC SCL	× 373.0 µs	∀ -7.00 dBn	FUNCTION	FUNCTION WIDTH	FUNCT	ION VALUE
2 N 1 t	755.7 µs	-4.79 dBn	n			
3 N 1 t	998.0 µs	-7.11 dBn	1			
5						
6						
8						
9						
11						
<			00.			>
MSG				STATUS		

			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	N/A	N/A	5	N/A	N/A	N/A

RL RF 50 Ω	DC	S	ENSE:INT	ALIGN OFF		09:41:50 AM Sep 27, 201
		PNO: Fast ↔ IFGain:Low	Trig: Video #Atten: 10 dB	#Avg	Type: Log-Pwr	TRACE 12345 TYPE WWWWWW DET PPPP
Ref Offset 21. dB/div Ref 7.00 dE	91 dB 3m					
						Í
00						
3.0						
3.0						
.0						
3.0						TRIG LV
.0						
.0						
enter 2.480000000 G es BW 3.0 MHz	Hz	#VBV	∿ 30 kHz		Swee	Span 0 H 2.813 ms (8192 pts
à				STAT		



XMit 2017.12.13

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFU	27-Oct-15	27-Oct-18
Cable	Micro-Coax	UFD150A-1-0720-200200	EVH	23-Apr-18	23-Apr-19
Attenuator	S.M. Electronics	SA26B-20	AUY	16-Apr-18	16-Apr-19
Block - DC	Fairview Microwave	SD3379	AMW	23-Apr-18	23-Apr-19
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	12-Jan-18	12-Jan-19

TEST DESCRIPTION

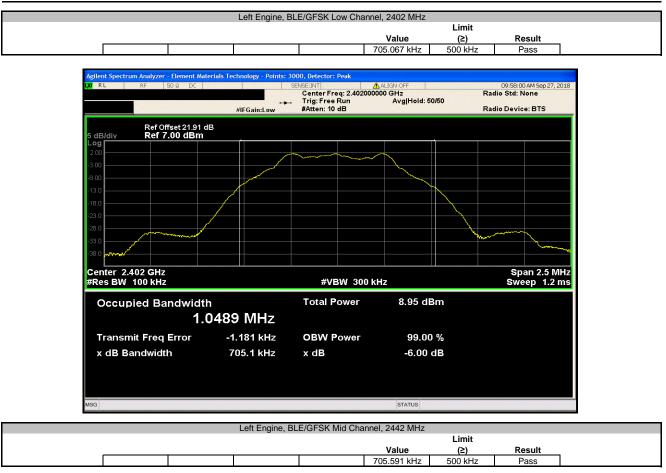
The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The EUT was set to the channels and modes listed in the datasheet.

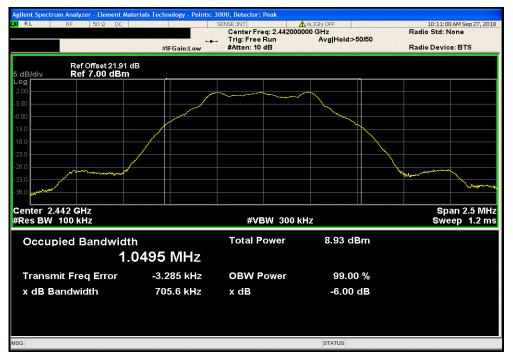
The 6dB occupied bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The 99.0% occupied bandwidth was also measured at the same time which can be needed during Output Power depending on the applicable method.



ThrTy 2 XMit 2017 12 Work Order: SYNA0268 Date: 27-Sep-18 Temperature: 22.1 °C EUT: Nike Adapt BB Serial Number: See configuration Customer: Nike, Inc. Attendees: Phil Meneau and Brian Piquette Project: Nike Adapt Tested by: Jeff Alcoke TEST SPECIFICATIONS Humidity: 42.1% RH Barometric Pres.: 1018 mbar Job Site: EV06 Power: Battery Test Method FCC 15.247:2018 ANSI C63.10:2013 COMMENTS Reference level offset includes cable loss from measurement system and simi rigid coax to SMA cable. DEVIATIONS FROM TEST STANDARD None JAL / Configuration # 1 Signature Limit Value Result (≥) Left Engine BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz 705.067 kHz 705.591 kHz 500 kHz 500 kHz Pass Pass BLE/GFSK High Channel, 2480 MHz 704.929 kHz 500 kHz Pass Right Engine BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz 696.537 kHz 500 kHz Pass 694.383 kHz 500 kHz Pass BLE/GFSK High Channel, 2480 MHz 709.694 kHz 500 kHz Pass

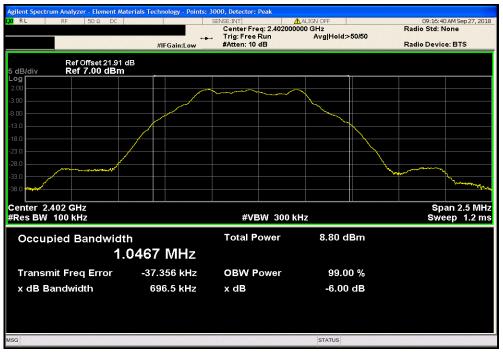




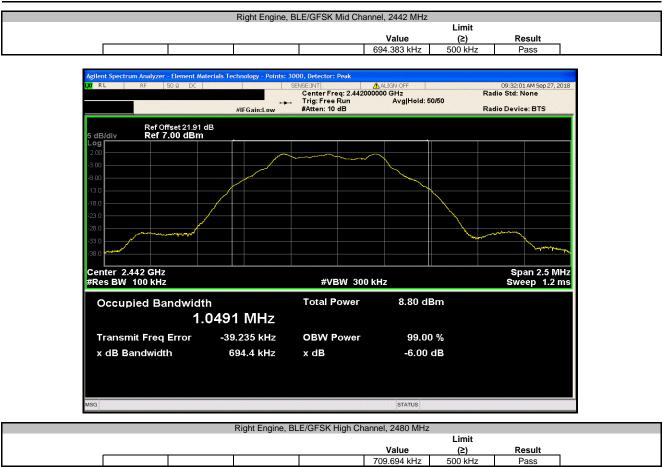


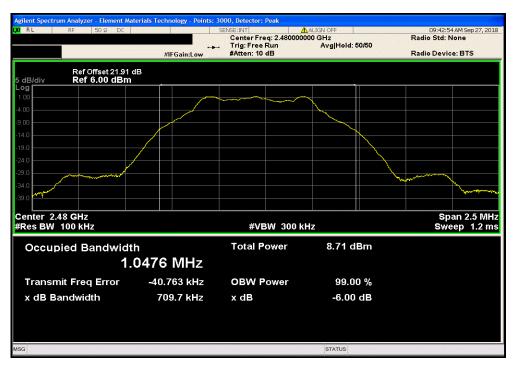














XMit 2017.12.13

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TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFU	27-Oct-15	27-Oct-18
Cable	Micro-Coax	UFD150A-1-0720-200200	EVH	23-Apr-18	23-Apr-19
Attenuator	S.M. Electronics	SA26B-20	AUY	16-Apr-18	16-Apr-19
Block - DC	Fairview Microwave	SD3379	AMW	23-Apr-18	23-Apr-19
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	12-Jan-18	12-Jan-19

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum.

Prior to measuring peak transmit power the DTS bandwidth (B) was measured.

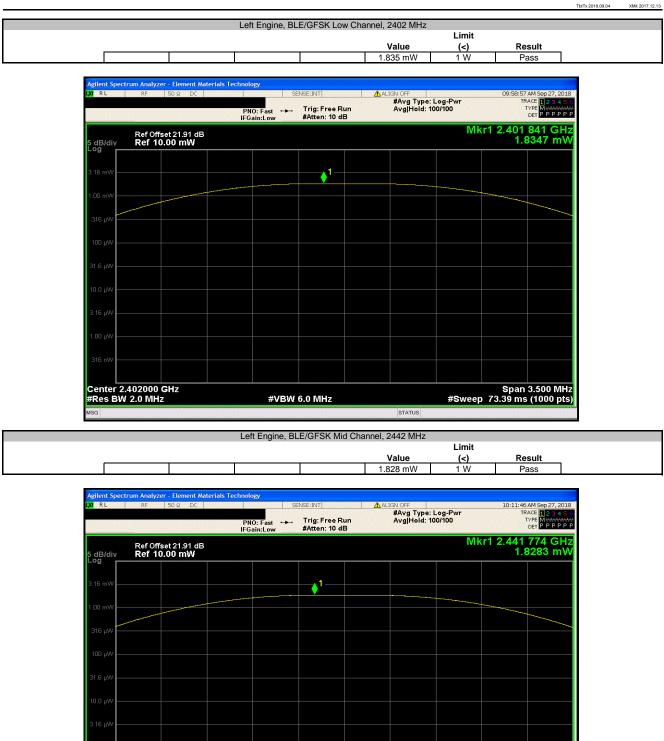
The method found in ANSI C63.10:2013 Section 11.9.1.1 was used because the RBW on the analyzer was greater than the DTS Bandwidth of the radio.

De Facto EIRP Limit: The EUT meets the de facto EIRP limit of +36 dBm.



						TbtTx 2018.09.0	4 XMit 2017.12.13
	Nike Adapt BB					r: SYNA0268	
	See configuration					e: 27-Sep-18	
Customer:					Temperatur		
	Phil Meneau and Brian P	liquette				/: 42.3% RH	
	Nike Adapt				Barometric Pres	.: 1018 mbar	
Tested by:	Jeff Alcoke		Pow	er: Battery	Job Sit	e: EV06	
TEST SPECIFICAT	IONS			Test Method			
FCC 15.247:2018				ANSI C63.10:2013			
COMMENTS							
Reference level of	fset includes cable loss fr	om measurement system ar	nd simi rigid coax to SM	A cable.			
		· · · · · · · · · · · · · · · · · · ·	5				
DEVIATIONS FROM	M TEST STANDARD						
None							
Configuration #	1	Signature	Tel				
		Signature				Limit	
					Value	(<)	Result
Left Engine					Tuluc	(9)	rtcourt
Lett Engine	BLE/GFSK Low Channel, 2	2402 MHz			1.835 mW	1 W	Pass
	BLE/GFSK Mid Channel, 2				1.828 mW	1 W	Pass
	BLE/GFSK High Channel,				1.742 mW	1 W	Pass
Right Engine	BEE/OF SIX High Channel,	2400 10112			1.742 1100	1 VV	1 835
Right Engine	BLE/GFSK Low Channel, 2	2402 MH-			1.765 mW	1 W	Pass
	BLE/GFSK Low Channel, 2 BLE/GFSK Mid Channel, 2				1.765 mW 1.778 mW	1 W	Pass
	BLE/GFSK High Channel,	240U WHZ			1.709 mW	1 W	Pass





Center 2.442000 GHz #Res BW 2.0 MHz

STATUS

#VBW 6.0 MHz

Span 3.500 MHz #Sweep 73.39 ms (1000 pts)





STATUS



#Avg Type: Log-Pwr	Result
Agilent Spectrum Analyzer - Element Materials Technology ΔΔ RL RF 50 Ω DC SENSE:INT ΔΔ ALIGN OFF 09: #Avg Type: Log-Pwr	
UX RL RF 50 Ω DC SENSE:INT ΔALIGN OFF 09: #Avg Type: Log-Pwr	Pass
#Avg Type: Log Pwr	
	2:52 AM Sep 27, 2018 TRACE 1 2 3 4 5 6 TYPE M WWWWW
IFGain:Low #Atten: 10 dB	DET PPPPF
	41 697 GHz 1.7775 mW
5 dB/div Ref 10.00 mW	
3.16 mW	
1.00 mW	
316 µW	
100 μW	
31.6 µW	
10. بwu	
3.16 µW	
1.00 μW	
316 nW	
Center 2.442000 GHz Sp #Res BW 2.0 MHz #VBW 6.0 MHz #Sweep 73.39	an 3.500 MHz ms (1000 pts)
MSG	
Right Engine, BLE/GFSK High Channel, 2480 MHz	
Limit Value (<)	Result
1.709 mW 1 W	Pass
Agilent Spectrum Analyzer - Element Materials Technology	IS:02 AM Sep 27, 2018 TRACE 1 2 3 4 5 6 TYPE M WWWWW
DX RL RF 50Ω DC SENSE:INT ALIGN OFF 09↔ #Avg Type: Log-Pwr	
UX RL RF 50 Ω DC SENSE:INT ALGN OFF 09: #Avg Type: Log-Pwr PNO: Fast -→- Trig: Free Run Avg Hold: 100/100 IF6atin:Low #Atten: 10 dB	DETPPPPP
09: March RF 50 Ω DC SENSE:INT ALIGN OFF 09: #Avg Type: Log-Pwr PNO: Fast →→ Trig: Free Run Avg Hold: 100/100 IFGain:Low #Atten: 10 dB Mikr1 2.4 Ref Offset 21.91 dB	_{рет} ререре 80 180 GHz 1.7092 mW
02 RL RF 50 Ω DC SENSE:INT ALGN OFF 09: PNO: Fast →→ Trig: Free Run Avg]Hold: 100/100 #Atten: 10 dB Mkr1 2.4	80 180 GHz
04 RL RF 50 Ω DC SENSE:INT ALIGN OFF 09: #Avg Type: Log-Pwr PNO: Fast →→ Trig: Free Run IFGain:Low #Atten: 10 dB Ref Offiset 21.91 dB Mkr1 2.4	80 180 GHz
OW RL RF 50 Ω DC SENSE:INT ALIGN OFF 09: PNO: Fast IFGain:Low Free Run #Atten: 10 dB #Avg Type: Log-Pwr Avg]Hold: 100/100 Mkr1 2.4 S dB/div Ref Offset 21.91 dB Ref 10.00 mW Mkr1 2.4	80 180 GHz
M RL RF 50 Ω DC SENSE:INT ▲ ALIGN OFF OP: #Avg Type: Log-Pwr Avg]Hold: 100/100 PNO: Fast IFGain:Low Trig: Free Run #Atten: 10 dB Mkr1 2.4 S dB/div Ref Offset 21.91 dB Ref 10.00 mW 3.16 mW 1	80 180 GHz
DM RL RF 50 Ω DC SENSE:INT ▲ALION OFF 09: #Avg Type: Log-Pwr Avg]Hold: 100/100 PNO: Fast IFGain:Low → Trig: Free Run #Atten: 10 dB Mkr1 2.4 S dB/div Ref 0ffset 21.91 dB Mkr1 2.4 S dB/div Ref 10.00 mW 3.16 mW 3.16 mW	80 180 GHz
M RL RF 50 Ω DC SENSE:INT ▲ ALIGN OFF OP: #Avg Type: Log-Pwr Avg]Hold: 100/100 PNO: Fast IFGain:Low Trig: Free Run #Atten: 10 dB Mkr1 2.4 S dB/div Ref Offset 21.91 dB Ref 10.00 mW 3.16 mW 1	80 180 GHz
D2 RL RF 50 Ω DC SENSE:INT ▲ ALIGN OFF 09: #Avg Type: Log-Pwr Avg]Hold: 100/100 PNO: Fast IFGain:Low → Trig: Free Run #Atten: 10 dB Mkr1 2.4 S dB/div Ref Offset 21.91 dB Mkr1 2.4 5 dB/div Ref 10.00 mW 3 16 mW 3 16 mW	80 180 GHz
D2 RL RF 50 Ω DC SENSE INT ▲ ALIGN OFF 09: #Avg Type: Log-Pwr Avg]Hold: 100/100 PNO: Fast IFGain:Low Trig: Free Run #Atten: 10 dB 09: #Avg Type: Log-Pwr Avg]Hold: 100/100 S G B OFF 09: #Avg Type: Log-Pwr Avg]Hold: 100/100 S G B OFF 09: #Atten: 10 dB S G B OFF 09: #Avg Type: Log-Pwr Avg]Hold: 100/100 S G B OFF 09: #Atten: 10 dB S G B OFF 0 S G B OFF 0 A OFF 0 S G B OFF 0 S G B OFF 0 S G B OFF	80 180 GHz
DX RL RF SO Ω DC SENSE INT ▲ ALIGN OFF O9: #Avg Type: Log-Pwr Avg]Hold: 100/100 PNO: F ast IFGain:Low → Trig: Free Run #Atten: 10 dB Mkr1 2.4 S dB/div Log Ref Offset 21.91 dB Mkr1 2.4 3.16 mV ↓ ↓ 1.00 mV ↓ ↓ 316 µV ↓ ↓ 100 µV ↓ ↓	80 180 GHz
OP RL RF 50.2 DC SENSE:INT ▲ALION OFF 09: #Avg Type: Log-Pwr Avg]Hold: 100/100 PNO: Fast IFGain:Low → Trig: Free Run #Atten: 10 dB Mkr1 2.4 S dB/div E dB/div 3.16 mW Ref Offset 21.91 dB Ref 10.00 mW Mkr1 2.4 3.16 mW ↓ ↓ 3.16 µW ↓ ↓ 3.16 µW ↓ ↓	80 180 GHz
Ref S0 R DC SERSE:INT ALLISH OFF 09: #Avg Type: Log-Pwr AvgHold: 100/100 PN0: Fast IFGain:Low ++	80 180 GHz

Center 2.480000 GHz #Res BW 2.0 MHz

STATUS

#VBW 6.0 MHz

Span 3.500 MHz #Sweep 73.39 ms (1000 pts)

EQUIVALENT ISOTROPIC RATED POWER



XMit 2017.12.13

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TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFU	27-Oct-15	27-Oct-18
Cable	Micro-Coax	UFD150A-1-0720-200200	EVH	23-Apr-18	23-Apr-19
Attenuator	S.M. Electronics	SA26B-20	AUY	16-Apr-18	16-Apr-19
Block - DC	Fairview Microwave	SD3379	AMW	23-Apr-18	23-Apr-19
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	12-Jan-18	12-Jan-19

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum.

Prior to measuring peak transmit power the DTS bandwidth (B) was measured.

The method found in ANSI C63.10:2013 Section 11.9.1.1 was used because the RBW on the analyzer was greater than the DTS Bandwidth of the radio.

EIRP = Max Measured Power + Antenna Gain (dBi)

De Facto EIRP Limit: The EUT meets the de facto EIRP limit of +36 dBm.

EQUIVALENT ISOTROPIC RATED POWER



	T: Nike Adapt BB						Work Order:		
	er: See configuration							27-Sep-18	
Custome	er: Nike, Inc.						Temperature:		
	s: Phil Meneau and Brian Piquette						Humidity:		
Projec	ct: Nike Adapt						Barometric Pres.:	1018 mbar	
Tested by	y: Jeff Alcoke			Power: Battery			Job Site:	EV06	
TEST SPECIFICA	TIONS			Test Method					
CC 15.247:2018				ANSI C63.10:2013					
COMMENTS									
oference level o	offset includes cable loss from measure	mont evetom and	l eimi rigid coay to	SMA cable					
			· · · · · · · · · · · · · · · · · · ·						
DEVIATIONS FRO	OM TEST STANDARD								
DEVIATIONS FRO	OM TEST STANDARD								
	DM TEST STANDARD	Signature	Ta	4.//L					
None	DM TEST STANDARD	Signature	Ta	Value	Value	Antenna	EIRP	Limit	
None	DM TEST STANDARD	Signature	Ta	Value (mW)	Value (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Result
None	DM TEST STANDARD	Signature	Ta						Result
None Configuration #	DM TEST STANDARD	Signature	Ja						Result
None Configuration #	1 BLE/GFSK Low Channel, 2402 MHz	Signature	Ja	(mW)	(dBm)	Gain (dBi)	(dBm)	(dBm)	
None Configuration #	1 BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz	Signature	Jæ	(mW)	(dBm) 2.636	Gain (dBi) 0.000	(dBm) 2.636	(dBm) ≤ 36	Pass
None Configuration #	1 BLE/GFSK Low Channel, 2402 MHz	Signature	Ja	(mW) 1.835 1.828	(dBm) 2.636 2.620	Gain (dBi) 0.000 0.000	(dBm) 2.636 2.620	(dBm) ≤ 36 ≤ 36	Pass Pass
None Configuration #	1 BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz	Signature	Tæ	(mW) 1.835 1.828	(dBm) 2.636 2.620	Gain (dBi) 0.000 0.000	(dBm) 2.636 2.620	(dBm) ≤ 36 ≤ 36	Pass Pass
None Configuration #	1 BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK Low Channel, 2402 MHz	Signature	Jæ	(mW) 1.835 1.828 1.742 1.765	(dBm) 2.636 2.620 2.410 2.467	Gain (dBi) 0.000 0.000 0.000 0.000	(dBm) 2.636 2.620 2.410 2.467	(dBm) ≤ 36 ≤ 36 ≤ 36 ≤ 36	Pass Pass Pass Pass
None Configuration #	1 BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz	Signature	Tæ	(mW) 1.835 1.828 1.742	(dBm) 2.636 2.620 2.410	Gain (dBi) 0.000 0.000 0.000	(dBm) 2.636 2.620 2.410	(dBm) ≤ 36 ≤ 36 ≤ 36	Pass Pass Pass

EQUIVALENT ISOTROPIC RATED POWER



						15(12 2010.00.04	Anna 2017.1.
	Left Engine, BL	E/GFSK Low Cha	annel, 2402 MHz				
Value	Value	Antenna	EIRP	Limit			
					D W		
(mW)	(dBm)	Gain (dBi)	(dBm)	(dBm)	Result		
1.835	2.636	0.00	2.636	≤ 36	Pass		

RL RF 50Ω DC	S	ENSE:INT	ALIGN OFF #Avg Type: Log-Pwr	09:58:57 AM Sep 27, 201 TRACE 1 2 3 4 5
	PNO: Fast ↔ IFGain:Low	Trig: Free Run #Atten: 10 dB	Avg Hold: 100/100	TYPE MWWWW DET P P P P
Ref Offset 21.91 dB dB/div Ref 10.00 mW			М	kr1 2.401 841 GH 1.8347 mV
16 mW		↓ ¹		
D0 mW				
116 µW				
00 . W				
00 μW				
1.6 µW				
0.0 µW				
16 µW				
00 μΨ				
16 nW				
enter 2.402000 GHz Res BW 2.0 MHz	#VBW	6.0 MHz	#Swee	Span 3.500 MH p 73.39 ms (1000 pt
G			STATUS	

	Left Engine, BL	E/GFSK Mid Cha	annel, 2442 MHz		
Value	Value	Antenna	EIRP	Limit	
 (mW)	(dBm)	Gain (dBi)	(dBm)	(dBm)	Result
1.828	2.620	0.00	2.620	≤ 36	Pass

RL RF 50Ω DC	S	ENSE:INT	ALIGN OFF	10:11:46 AM Sep 27, 201
	PNO: Fast 🔸	Trig: Free Run #Atten: 10 dB	#Avg Type: Log-Pwr Avg Hold: 100/100	TRACE 1 2 3 4 5 TYPE M
Ref Offset 21.91 dB dB/div Ref 10.00 mW			MI	kr1 2.441 774 GH 1.8283 mV
16 mW		↓ ¹		
D0 mW				
16 μW				
ννμ ος				
.6 µW				
.0 μΨ				
16 μW				
16 nW				
enter 2.442000 GHz Res BW 2.0 MHz	#VBW	6.0 MHz	#Swee	Span 3.500 MH p 73.39 ms (1000 pt
3			STATUS	

EQUIVALENT ISOTROPIC RATED POWER



						10(1X 2018.09.04	^
	Left Engine, BL	E/GFSK High Cha	annel, 2480 MHz				
Value	Value		EIRP	Limit			
value	value	Antenna		Limit			
(mW)	(dBm)	Gain (dBi)	(dBm)	(dBm)	Result		
1.742	2.410	0.00	2.410	≤ 36	Pass		
1.7 42	2.110	0.00	2.110	= 00	1 400		

RL RF 50 Q DC	SENSE:INT PNO: Fast →→→ Trig: Free Run IFGain:Low #Atten: 10 dB	ALIGN OFF #Avg Type: Log-Pwr Avg[Hold: 100/100	10:20:49 AM Sep 27, 2018 TRACE 1 2 3 4 5 TYPE M 44444 DET P P P P P
Ref Offset 21.91 dB dB/div Ref 10.00 mW	IFGain:Low watten. IO up	Mk	r1 2.479 757 GH 1.7421 mV
.16 mW	1		
.00 mW			
316 µW			
100 µW			
0.0 µW			
.16 µW			
.00 μνν			
316 nW			
enter 2.480000 GHz Res BW 2.0 MHz	#VBW 6.0 MHz	#Sweep	Span 3.500 MH 73.39 ms (1000 pt

	Right Engine, Bl	E/GFSK Low Ch	annel, 2402 MHz		
Value	Value	Antenna	EIRP	Limit	
 (mW)	(dBm)	Gain (dBi)	(dBm)	(dBm)	Result
1.765	2.467	0.00	2.467	≤ 36	Pass

RL RF	50 Ω DC		SENSE:INT	ALIGN OFF		09:17:16 AM Sep 27, 20:
		PNO: Fast 🔸	. Trig: Free Run #Atten: 10 dB		Type: Log-Pwr Iold: 100/100	TRACE 1234 TYPE MWWWW DET PPPF
Ref Offs dB/div Ref 10	et 21.91 dB .00 mW				Mk	r1 2.402 222 GH 1.7651 m\
-						
16 mW				• ¹		
10 mW						
16 μW						
00 µW						
.6 μW						
.ο μW						
I6 µW						
00 μW						
16 nW						
enter 2.402000 (Res BW 2.0 MHz	GHz	#\(B)(√ 6.0 MHz		# C woon	Span 3.500 MH 73.39 ms (1000 pt
		#VBV	V 0.0 WH2	STAT		73.39 ms (1000 pt

EQUIVALENT ISOTROPIC RATED POWER



		Right Engine, Bl	LE/GFSK Mid Cha	annel. 2442 MHz			
	Value	Value	Antenna	EIRP	Limit		
						Description	
	(mW)	(dBm)	Gain (dBi)	(dBm)	(dBm)	Result	
	1.778	2.499	0.00	2.499	≤ 36	Pass	

RL RF 50Ω DC	S	ENSE:INT	ALIGN OFF	09:32:52 AM Sep 27, 201
	PNO: Fast ↔→ IFGain:Low	Trig: Free Run #Atten: 10 dB	#Avg Type: Log-Pwr Avg Hold: 100/100	TRACE 12345 TYPE MWWWW DET PPPP
Ref Offset 21.91 dB dB/div Ref 10.00 mW				Mkr1 2.441 697 GH 1.7775 mV
16 mW		♦ ¹		
30 mW				
16 μW				
ου μνν				
I.6 μW				
0.0 μW				
16 μW				
ου μνν				
16 nW				
enter 2.442000 GHz Res BW 2.0 MHz	#VBW	6.0 MHz	#S1	Span 3.500 MH weep 73.39 ms (1000 pt
G			STATUS	

Right Engine, BLE/GFSK High Channel, 2480 MHz							
Value	Value	Antenna	EIRP	Limit			
 (mW)	(dBm)	Gain (dBi)	(dBm)	(dBm)	Result		
1.709	2.327	0.00	2.327	≤ 36	Pass		

RL RF 50Ω DC	S	ENSE:INT	ALIGN OFF		09:45:02 AM Sep 27, 20
	PNO: Fast ↔→ IFGain:Low	Trig: Free Run #Atten: 10 dB	#Avg Type: Avg Hold: 1	Log-Pwr 00/100	TRACE 1234 TYPE MWWWW DET PPPP
Ref Offset 21.91 dB B/div Ref 10.00 mW				Mkr	1 2.480 180 GH 1.7092 m
6 mW			×1		
) mW					
5 µW					
δ μW					
β μΨ/					
5 nW					
nter 2.480000 GHz es BW 2.0 MHz	#\/B)A(6.0 MHz		#Sween	Span 3.500 M 73.39 ms (1000 p



XMit 2017.12.13

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFU	27-Oct-15	27-Oct-18
Cable	Micro-Coax	UFD150A-1-0720-200200	EVH	23-Apr-18	23-Apr-19
Attenuator	S.M. Electronics	SA26B-20	AUY	16-Apr-18	16-Apr-19
Block - DC	Fairview Microwave	SD3379	AMW	23-Apr-18	23-Apr-19
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	12-Jan-18	12-Jan-19

TEST DESCRIPTION

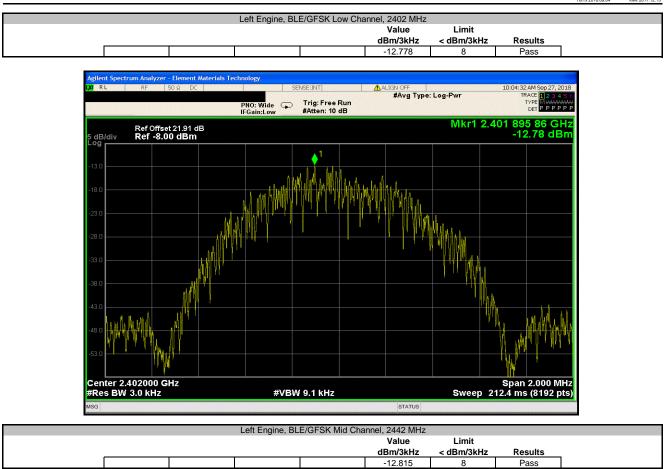
The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

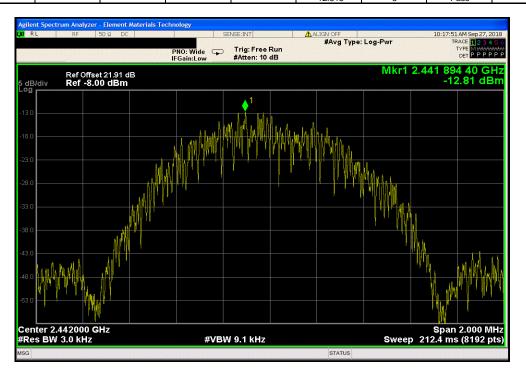
Per the procedure outlined in ANSI C63.10 the peak power spectral density was measured in a 3 kHz RBW.



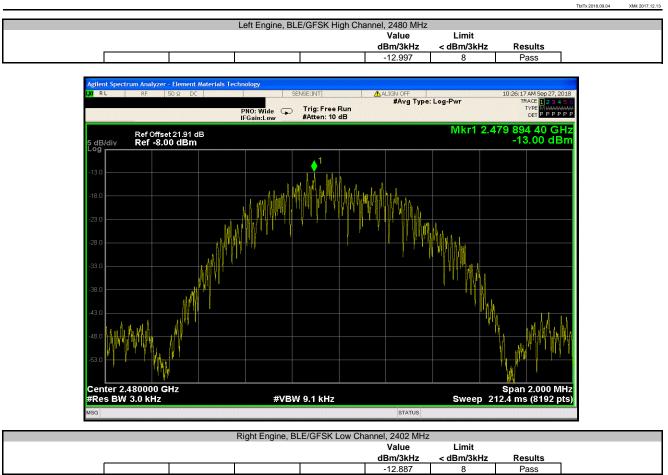
TbtTx 2018.09 Work Order: SYNA0268 EUT: Nike Adapt BB Date: 27-Sep-18 Temperature: 22.2 °C Serial Number: See configuration Customer: Nike, Inc. Attendees: Phil Meneau and Brian Piquette Project: Nike Adapt Tested by: Jeff Alcoke TEST SPECIFICATIONS Humidity: 42.3% RH Barometric Pres.: 1018 mbar Power: Battery Test Method Job Site: EV06 FCC 15.247:2018 ANSI C63.10:2013 COMMENTS Reference level offset includes cable loss from measurement system and simi rigid coax to SMA cable. DEVIATIONS FROM TEST STANDARD None de la Jaf / Configuration # 1 Signature Value Limit < dBm/3kHz dBm/3kHz Results Left Engine BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz -12.778 -12.815 8 Pass 8 8 Pass BLE/GFSK High Channel, 2480 MHz -12.997 Pass Right Engine BLE/GFSK Low Channel, 2402 MHz -12.887 Pass 8 8 BLE/GFSK Mid Channel, 2442 MHz -12.902 Pass BLE/GFSK High Channel, 2480 MHz -13.079 8 Pass

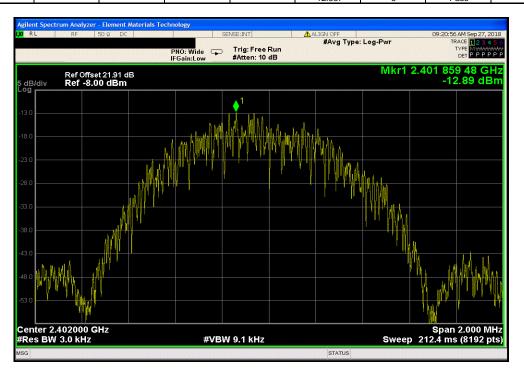




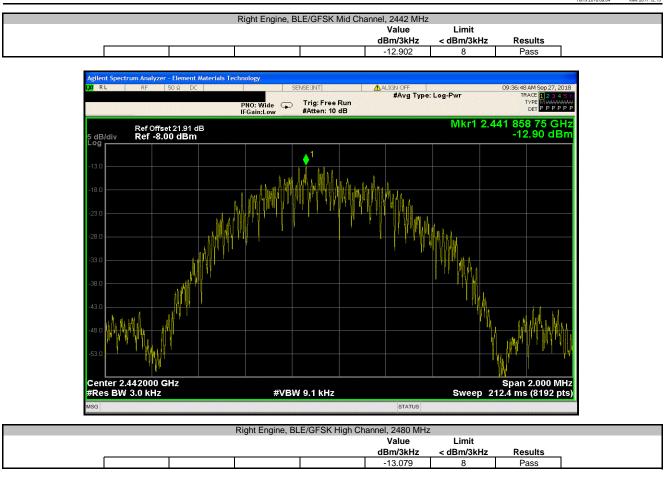


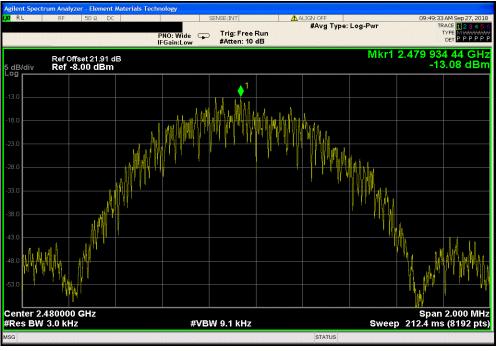














Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFU	27-Oct-15	27-Oct-18
Cable	Micro-Coax	UFD150A-1-0720-200200	EVH	23-Apr-18	23-Apr-19
Attenuator	S.M. Electronics	SA26B-20	AUY	16-Apr-18	16-Apr-19
Block - DC	Fairview Microwave	SD3379	AMW	23-Apr-18	23-Apr-19
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	12-Jan-18	12-Jan-19

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

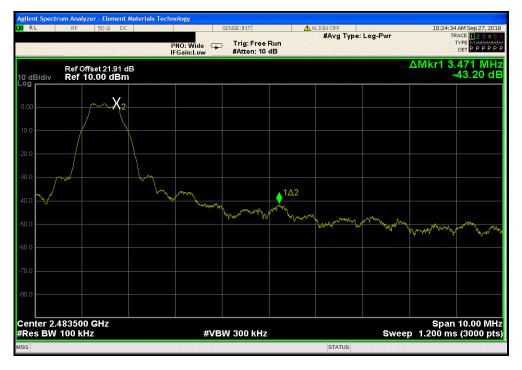


						TbtTx 2018.09.04	XMit 2017.12.13
EUT:	Nike Adapt BB				Work Order:	SYNA0268	
Serial Number:	See configuration				Date:	27-Sep-18	
Customer:	Nike, Inc.				Temperature:	22.2 °C	
Attendees:	Phil Meneau and Brian Pi	iquette			Humidity:	42.1% RH	
Project:	Nike Adapt				Barometric Pres.:	1018 mbar	
Tested by:	Jeff Alcoke		Power:	Battery	Job Site:	EV06	
TEST SPECIFICAT	ONS			Test Method			
FCC 15.247:2018				ANSI C63.10:2013			
COMMENTS							
		om measurement system and	simi rigid coax to SMA ca	ible.			
	I TEST STANDARD						
None							
Configuration #	1	Signature	JAF				
					Value (dBc)	Limit ≤ (dBc)	Result
Left Engine					(486)	= (ubc)	Result
Lon Engine	BLE/GFSK Low Channel, 2	2402 MHz			-39.19	-20	Pass
	BLE/GFSK High Channel, 2				-43.2	-20	Pass
Right Engine	bee/or orthigh onamiel, 2	2400 10112			-43.2	20	1 433
. ug. u E. ugino	BLE/GFSK Low Channel, 2	2402 MHz			-39.32	-20	Pass
	BLE/GFSK High Channel, 2	2480 MHz			-43.96	-20	Pass





		Value	Limit	
		(dBc)	≤ (dBc)	Result
		-43.2	-20	Pass











XMit 2017.12.13

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFU	27-Oct-15	27-Oct-18
Cable	Micro-Coax	UFD150A-1-0720-200200	EVH	23-Apr-18	23-Apr-19
Attenuator	S.M. Electronics	SA26B-20	AUY	16-Apr-18	16-Apr-19
Block - DC	Fairview Microwave	SD3379	AMW	23-Apr-18	23-Apr-19
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	12-Jan-18	12-Jan-19

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.



						TbtTx 2018.09.04	XMit 2017.	
EUT	Nike Adapt BB				Work Order:	SYNA0268		
Serial Number	: See configuration				Date:	27-Sep-18		
Customer	Nike, Inc.			Temperature: 22.2 °C				
Attendees	Phil Meneau and Brian Piquette				Humidity:	42.5% RH		
	: Nike Adapt				Barometric Pres.:			
	ted by: Jeff Alcoke Power: Battery				Job Site:	EV06		
EST SPECIFICAT	TIONS	1	Fest Method					
CC 15.247:2018		A	ANSI C63.10:2013					
OMMENTS								
eference level of	fset includes cable loss from measurement	nt system and simi rigid coax to SMA cable	э.					
EVIATIONS FRO	M TEST STANDARD							
lone								
			1 /4					
Configuration #	1	1 AL						
	5	Signature	182-					
			Frequency	Measured	Max Value	Limit		
			Range	Freq (MHz)	(dBc)	≤ (dBc)	Result	
eft Engine								
Ū	BLE/GFSK Low Channel, 2402 MHz		Fundamental	2401.76	N/A	N/A	N/A	
	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz	3	Fundamental 30 MHz - 12.5 GHz	2401.76 2397.34	N/A -48.56	N/A -20	N/A Pass	
	BLE/GFSK Low Channel, 2402 MHz		30 MHz - 12.5 GHz	2397.34	-48.56	-20	Pass	
	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz		80 MHz - 12.5 GHz 12.5 GHz - 25 GHz	2397.34 24027.9	-48.56 -52.47	-20 -20	Pass Pass	
	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz	3	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	2397.34 24027.9 2441.74	-48.56 -52.47 N/A	-20 -20 N/A	Pass Pass N/A	
	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz	3	80 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 80 MHz - 12.5 GHz	2397.34 24027.9 2441.74 3709.65	-48.56 -52.47 N/A -54.41	-20 -20 N/A -20	Pass Pass N/A Pass	
	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	2397.34 24027.9 2441.74 3709.65 23769.99	-48.56 -52.47 N/A -54.41 -53.22	-20 -20 N/A -20 -20	Pass Pass N/A Pass Pass	
	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz		80 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 80 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24	-48.56 -52.47 N/A -54.41 -53.22 N/A	-20 -20 N/A -20 -20 N/A	Pass Pass N/A Pass Pass N/A	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77	-20 -20 N/A -20 -20 N/A -20	Pass Pass N/A Pass Pass N/A Pass	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77	-20 -20 N/A -20 -20 N/A -20	Pass Pass N/A Pass Pass N/A Pass	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16 22504.88	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77 -51.93	-20 -20 N/A -20 -20 N/A -20 -20 -20	Pass Pass N/A Pass Pass N/A Pass Pass	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK Low Channel, 2402 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16 22504.88 2401.73	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77 -51.93 N/A	-20 -20 N/A -20 -20 N/A -20 -20	Pass Pass N/A Pass N/A Pass Pass N/A	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Migh Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16 22504.88 2401.73 2397.34	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77 -51.93 N/A -45.49	-20 -20 N/A -20 -20 N/A -20 -20 -20	Pass Pass N/A Pass N/A Pass Pass N/A Pass	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2402 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16 22504.88 2401.73 2397.34 23400.68 2441.72	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77 -51.93 N/A -45.49 -52.83 N/A	-20 -20 N/A -20 -20 N/A -20 -20 N/A	Pass Pass N/A Pass N/A Pass Pass N/A Pass Pass	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2402 MHz BLE/GFSK Mid Channel, 2402 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz MHz - 12.5 GHz	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16 22504.88 2401.73 2397.34 2397.34 23400.68 2441.72 3735.53	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77 -51.93 N/A -45.49 -52.83 N/A -53.1	-20 -20 N/A -20 -20 N/A -20 -20 -20 -20 N/A -20 -20 N/A -20	Pass Pass N/A Pass Pass N/A Pass N/A Pass N/A Pass N/A Pass	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Migh Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 2.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16 22504.88 2401.73 2397.34 2397.34 23400.68 2441.72 3735.53 23930.23	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77 -51.93 N/A -52.83 N/A -53.1 -52.66	-20 -20 N/A -20 -20 N/A -20 -20 N/A -20 -20 N/A -20 -20	Pass Pass N/A Pass Pass Pass Pass N/A Pass Pass N/A Pass Pass Pass	
ight Engine	BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2402 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK Mid Channel, 2442 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK High Channel, 2480 MHz BLE/GFSK Low Channel, 2402 MHz BLE/GFSK Mid Channel, 2402 MHz BLE/GFSK Mid Channel, 2402 MHz		30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz MHz - 12.5 GHz	2397.34 24027.9 2441.74 3709.65 23769.99 2480.24 2487.16 22504.88 2401.73 2397.34 2397.34 23400.68 2441.72 3735.53	-48.56 -52.47 N/A -54.41 -53.22 N/A -50.77 -51.93 N/A -45.49 -52.83 N/A -53.1	-20 -20 N/A -20 -20 N/A -20 -20 -20 -20 N/A -20 -20 N/A -20	Pass Pass N/A Pass Pass N/A Pass N/A Pass N/A Pass N/A Pass	



	Left Engi	ne, BLE/GFSK Low Cha	innel, 2402 MHz		
	Frequency	Measured	Max Value	Limit	
	Range	Freq (MHz)	(dBc)	≤ (dBc)	Result
	Fundamental	2401.76	N/A	N/A	N/A
DXIRL	Analyzer - Element Materials Technology RF 50 Q DC PNO: Wide IFGain:Low	SENSE:INT Trig: Free Run #Atten: 10 dB	ALIGN OFF #Avg Type:		10:01:20AM Sep 27, 2018 TRACE 1 2 3 4 5 6 TYPE MULLIUM DET P P P P P 01 762 97 GHz
10 dB/div R	ef 10.00 dBm				1.71 dBm
0.00	↓ 1				
-10.0					
-20.0					
-30.0					
-40.0					
-50.0					
-60.0					
-70.0					
-80.0					
-00.0					
Center 2.402 #Res BW 10		#VBW 300 kHz		Sweep 1.	Span 1.000 MHz 092 ms (8192 pts)
MSG			STATUS		
		ne, BLE/GFSK Low Cha			
	Frequency	Measured	Max Value	Limit	Beault
	Range 30 MHz - 12.5 GHz	Freq (MHz) 2397.34	(dBc) -48.56	≤ (dBc) -20	Result Pass
	30 IVINZ - 12.3 GNZ	2391.34	-40.00	-20	rass

Leit Engine, DL	E/GFSK LOW Cha			
Frequency	Measured	Max Value	Limit	
Range	Freq (MHz)	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	2397.34	-48.56	-20	Pass

RL	RF 50 Ω DC	9	ENSE:INT	ALIGN OFF		10:02:19 AM Sep 27, 201
	•	PNO: Fast 🖵 IFGain:Low	Trig: Free Run #Atten: 10 dB	#Avg Type: L	og-Pwr	TRACE 12345 TYPE MWWWM DET PPPP
dB/div	Ref Offset 21.91 dB Ref 10.00 dBm				MI	kr1 2.397 3 GH -46.85 dBr
9 00						
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.0						
.0	1					
.0	and the second sec	البذاق وسلاطتين المتكمم المتكم فيصبغ المساليه	New March	a di Mala da kata kata kata kata kata kata kata	tili sa ng pilak sa si	والمعادية المحادثة المحددة المعادية المعادية
.0						
.0						
art 30 MI	Hz					Stop 12.500 GF
tes BW 1		#VB	N 300 kHz		Sweep	1.192 s (8192 pt
				STATUS		

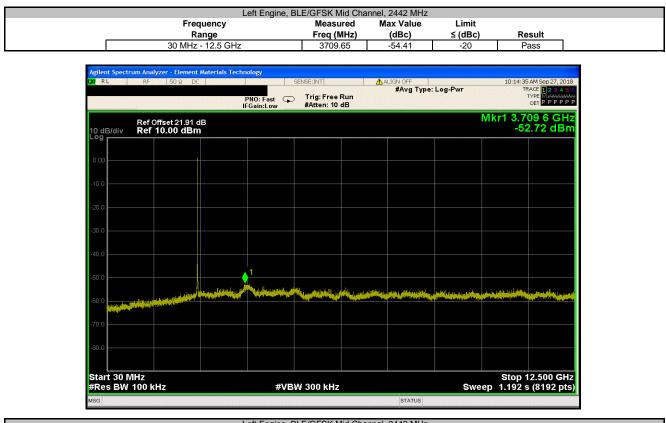


Freque		Measured	nnel, 2402 MHz Max Value	Limit	
Rang		Freq (MHz)	(dBc)	≤ (dBc)	Result
12.5 GHz - 2		24027.9	-52.47	-20	Pass
-					
Agilent Spectrum Analyzer - Element Mate					
Agilent Spectrum Analyzer - Element Mate		NSE:INT	ALIGN OFF		10:03:21 AM Sep 27, 20:
	3		#Avg Type	: Log-Pwr	TRACE 1 2 3 4 5
	PNO: Fast 😱	Trig: Free Run #Atten: 10 dB			TYPE MUJAJAAA DET P P P P
	IFGain:Low	#Atten: 10 dB			
Ref Offset 21.91 dB				Wikr	1 24.027 9 GH
10 dB/div Ref 10.00 dBm					-50.76 dBr
0.00					
0.00					
-10.0					
-20.0					
-30.0					
-40.0					
					▲1
-50.0					
والمردي أكالعمور فالأوطري وبالساطين ويربانه والترويل والرو	الماميحة وروار مساط المرور ويتعادانه	a line and a state of the state	And the backgood are all have		
-60.0	and the second secon				
-70.0					
-80.0					
Start 12.500 GHz				0	Stop 25.000 GH
#Res BW 100 kHz	#VBN	300 kHz	0	Sweep	1.195 s (8192 pt
MSG			STATUS		

Left Engine, BLE/GFSK Mid Channel, 2442 MHz							
	Frequency Measured Max Value Limit						
Range		Freq (MHz)	(dBc)	≤ (dBc)	Result		
	Fundamental	2441.74	N/A	N/A	N/A		

RL	RF 50 Ω DC		S	ENSE:INT	ALIGN OFF		10:13:	18 AM Sep 27, 201
		Pi IFi	10: Wide 🖵 Gain:Low	Trig: Free Run #Atten: 10 dB	#Avg	Type: Log-Pwr		TRACE 1 2 3 4 5 TYPE MWWWM DET P P P P
dB/div	Ref Offset 21.91 o Ref 10.00 dBn	dB N				Mkr	1 2.441 74	43 07 GH 1.69 dBr
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	and the second s							
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	4420000 GHz 100 kHz		#VBV	V 300 kHz		Swee	Spa 2011 Spa	n 1.000 MH Is (8192 pt
à					STAT			





Left Engine, BLE/GFSK Mid Channel, 2442 MHz								
Frequency	Measured	Max Value	Limit					
Range	Freq (MHz)	(dBc)	≤ (dBc)	Result				
12.5 GHz - 25 GHz	23769.99	-53.22	-20	Pass				

RL	R	F 50 Ω	DC		SENSE:INT	<u>A</u>	ALIGN OFF		10:16:4	4 AM Sep 27, 201
				PNO: Fast G	⊃ Trig: Free F #Atten: 10 ¢	Run dB	#Avg Type:	Log-Pwr	1	RACE 12345 TYPE MWWW DET PPPP
0 dB/	Re div R e	f Offset 21.9′ ef 10.00 dB	1 dB Sm					I	Mkr1 23.7 -5	'70 0 GH 1.53 dBr
0.0										
0.0										
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0.0										1
0.0	inde Dranker, and		tent outlated and an	ini antina di tana di tang	heiden bister			فالزيمانا إناعار		and the second database
0.0 -	<u>لەر د د </u>									
J.O -										
0.0										
	12.500 (BW 100			#VI	BW 300 kHz			Sw	Stop eep 1.195	25.000 GH s (8192 pt



	Frequency		Measured	Max Value	Limit	Basalt
	Range		Freq (MHz)	(dBc) N/A	≤ (dBc) N/A	Result N/A
	Fundamental		2480.24	IN/A	IN/A	N/A
Agilent Spectrum Analyzer						
KAL RF	50Ω DC	S	ENSE:INT	ALIGN OFF #Avg Type	: Log-Pwr	10:21:18 AM Sep 27, 20 TRACE 1 2 3 4
		PNO: Wide 😱	Trig: Free Run			
		IFGain:Low	#Atten: 10 dB			
Ref Offse	t 21.91 dB				Mkr1 2	.480 235 81 GH
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#Res BW 100 kHz		#VBV	V 300 kHz		Sweep	1.092 ms (8192 pt
MSG				STATUS		

Left Engine, BLE/GFSK High Channel, 2480 MHz									
Frequency	Measured	Max Value	Limit						
Range	Freq (MHz)	(dBc)	≤ (dBc)	Result					
30 MHz - 12.5 GHz	2487.16	-50.77	-20	Pass					

RL RF 50Ω DC		SENSE:INT	ALIGN OFF	10:22:16 AM Sep 27, 201
	PNO: Fast 😱 IFGain:Low	Trig: Free Run #Atten: 10 dB	#Avg Type: Log-F	Pwr TRACE 12345 TYPE MWWWW DET PPPP
Ref Offset 21.91 dB dB/div Ref 10.00 dBm				Mkr1 2.487 2 GH -49.35 dBr
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art 30 MHz				Stop 12.500 GH
Res BW 100 kHz	#VB	W 300 kHz		Sweep 1.192 s (8192 pt



Freque	ncy	Measured	Max Value	Limit		
Rang	e	Freq (MHz)	(dBc)	≤ (dBc)	Result	
12.5 GHz -	25 GHz	22504.88	-51.93	-20	Pass	
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LX/ RL RF 50 Ω DC		SENSE:INT	ALIGN OFF		10:24:02 AM Sep 27, 201	18
	PNO: Fast 😱 IFGain:Low	Trig: Free Run #Atten: 10 dB	#Avg Type:	: Log-Pwr	TRACE 12345 TYPE MWWWW DET PPPP	4AL
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Start 12.500 GHz #Res BW 100 kHz	#\/P	W 300 kHz		Swaan	Stop 25.000 GH 1.195 s (8192 pts	Z
#Res BW 100 KHZ	#V6	W 300 KHZ	STATUS	Sweep	1. 195 S (8192 pt	2

Right Engine, BLE/GFSK Low Channel, 2402 MHz								
	Frequency							
	Range	Freq (MHz)	(dBc)	≤ (dBc)	Result	_		
	Fundamental	2401.73	N/A	N/A	N/A			

RL RF 50	DΩ DC	9	SENSE:INT	ALIGN OFF		09:17:40 AM Sep 27, 20:
		PNO: Wide 😱 IFGain:Low	Trig: Free Run #Atten: 10 dB	#Avg Type: L	og-Pwr	TRACE 1234 TYPE MWWW DET PPPF
Ref Offset dB/div Ref 10.00	21.91 dB 0 dBm				Mkr1 2.4	401 729 76 GH 1.59 dBr
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enter 2.4020000 G Res BW 100 kHz	iHz	#VB	N 300 kHz		Sweep 1	Span 1.000 MH I.092 ms (8192 pt
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	Frequency	ine, BLE/GFSK Low Ch Measured	Max Value	Limit	
	Range	Freq (MHz)	(dBc)	≤ (dBc)	Result
	30 MHz - 12.5 GHz	2397.34	-45.49	-20	Pass
Anilant Spactrum Analy	yzer - Element Materials Technology			unano andre andre a dive a di	
	50 Q DC	SENSE:INT	ALIGN OFF		09:18:50 AM Sep 27, 2018
	PNO: Fast IFGain:Lov	, Trig: Free Run , #Atten: 10 dB	#Avg Type:	: Log-Pwr	TRACE 123456 TYPE MWWWW DET PPPPP
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Start 30 MHz #Res BW 100 kH	Hz	#VBW 300 kHz		Sweep	Stop 12.500 GHz 1.192 s (8192 pts)
MSG			STATUS		
	Right Enc	ine, BLE/GFSK Low Ch	annel. 2402 MHz		
	Frequency	Measured	Max Value	Limit	
	Range	Freg (MHz)	(dBc)	≤ (dBc)	Result

Right Engine, Bl	_E/GFSK Low Ch	annel, 2402 MHz			
Frequency	Measured	Max Value	Limit		
Range	Freq (MHz)	(dBc)	≤ (dBc)	Result	
12.5 GHz - 25 GHz	23400.68	-52.83	-20	Pass	

RL	RF	50Ω C	C		SENSE:INT	<u>∧</u> ∧	LIGN OFF			3 AM Sep 27, 2018
				PNO: Fast 😱 FGain:Low	Trig: Free #Atten: 10		#Avg Type:	Log-Pwr		RACE 1 2 3 4 5 TYPE MWWWWW DET P P P P P
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	12.500 G BW 100			#VB	W 300 kHz			Sw	eep 1.195	25.000 GH s (8192 pt:
G							STATUS			



	Right	Engine, BLE/GFSK Mid Cha	annel, 2442 MHz		
	Frequency	Measured	Max Value	Limit	
	Range	Freq (MHz)	(dBc)	≤ (dBc)	Result
	Fundamental	2441.72	N/A	N/A	N/A
	yzer - Element Materials Technology			nin salar ada salar salar sa	
IXI RL RF		SENSE:INT Wide Trig: Free Run 1:Low #Atten: 10 dB	ALIGN OFF #Avg Type:		09:33:18 AM Sep 27, 2018 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P P
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MSG			STATUS		
	0	Engine, BLE/GFSK Mid Cha			
	Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result
	30 MHz - 12.5 GHz	3735.53	-53.1	-20	Pass

KI RL	RF	50 Ω DC			SENSE:INT	<u> </u>	ALIGN OFF			AM Sep 27, 201
			I	PNO: Fast 🖵	Trig: Free I #Atten: 10		#Avg Type:	Log-Pwr	TF	ACE 1 2 3 4 5 TYPE MUMM DET P P P P P
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	80 MHz 3W 100 k	Hz	1	#VB	W 300 kHz			Swe	Stop 1 ep 1.192 s	2.500 GH
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Frequ		Measured	Max Value	Limit	
	nge	Freq (MHz)	(dBc)	≤ (dBc)	Result
12.5 GHz	- 25 GHz	23930.23	-52.66	-20	Pass
Agilent Spectrum Analyzer - Element M	aterials Technology				
		ENSE:INT	ALIGN OFF		09:36:07 AM Sep 27, 201
		Trig: Free Run	#Avg Type	: Log-Pwr	TRACE 1 2 3 4 5 TYPE M WWWW DET P P P P P
	PNO: Fast 😱 IFGain:Low	#Atten: 10 dB			DET PPPP
				Mkr	1 23.930 2 GH
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Start 12.500 GHz					Stop 25.000 GH
#Res BW 100 kHz	#VB	N 300 kHz		Sweep	1.195 s (8192 pts
MSG			STATUS		
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Right Engine, BLE/GFSK High Channel, 2480 MHz									
Frequency	Measured	Max Value	Limit						
Range	Freq (MHz)	(dBc)	≤ (dBc)	Result					
Fundamental	2479.7	N/A	N/A	N/A					

RL RF 50 Ω DC	S	ENSE:INT	ALIGN OFF	09:46:00 AM Sep 27, 201
	PNO: Wide 🖵 IFGain:Low	Trig: Free Run #Atten: 10 dB	#Avg Type: Log-Pwr	TRACE 12345 TYPE MUMANIAN DET PPPP
Ref Offset 21.91 dB dB/div Ref 10.00 dBm			Mł	r1 2.479 696 31 GH 1.46 dBn
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		ine, BLE/GFSK High Ch			
	Frequency	Measured	Max Value	Limit	
	Range	Freq (MHz)	(dBc)	≤ (dBc)	Result
	30 MHz - 12.5 GHz	2487.16	-52.15	-20	Pass
Agilent Spectrum An	alyzer - Element Materials Technology				
IXI RL RF	50 Ω DC	SENSE:INT	ALIGN OFF		09:47:05 AM Sep 27, 2018
	PNO: Fast	👝 Trig: Free Run	#Avg Type	: Log-Pwr	TRACE 123456 TYPE M MANANA DET P P P P P
	IFGain:Lov				DET PPPPP
Bof	Offset 21.91 dB			Mk	r1 2.487 2 GHz
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Start 30 MHz					Stop 12.500 GHz
#Res BW 100	kHz	#VBW 300 kHz		Sweep	1.192 s (8192 pts)
MSG			STATUS		
		ine, BLE/GFSK High Ch			
	Frequency	Measured	Max Value	Limit	
	Range	Frea (MHz)	(dBc)	≤ (dBc)	Result

Right Engine, BLE/GFSK High Channel, 2480 MHz									
Frequency	Measured	Max Value	Limit						
Range	Freq (MHz)	(dBc)	≤ (dBc)	Result					
12.5 GHz - 25 GHz	22430.11	-52.68	-20	Pass					

RL	RL RF 50Ω DC			5		S	ENSE:INT	4	ALIGN OFF #Avg Tv	pe: Log-Pwr	09:48:08 AM Sep 27, 2018 TRACE 1 2 3 4 5 1		
					PNO: Fast IFGain:Low	Ģ	Trig: Free I #Atten: 10	Run dB				DET PPPP	
0 dE	3/div	Ref Off: Ref 10	set 21.91).00 dBr	dB n							Mkr1 22	2.430 1 GH -51.22 dBr	
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