

# FCC Test Report

Product Name	:Vehicle Gateway
Trade Name	: Samsara
Model No.	:VG54-NA, VG54-NAE
FCC ID	: 2AIHD0054

Applicant : SAMSARA NETWORKS INC

Address : 1900 Alameda Street, San Francisco, CA 94103

Date of Receipt	:	Jul. 02, 2020
Issued Date	:	Sep. 07, 2020
Report No.	:	2070056R-E3032110123
Report Version	:	V1.0
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The test results relate only to the samples tested.

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# **Test Report Certification**

Issued Date : Sep. 07, 2020 Report No. : 2070056R-E3032110123



Product Name		:	Vehicle Gateway					
Applicant		:	SAMSARA NETWORKS INC					
Address		:	1900 Alameda Street, San Francisco, CA 94103					
Manufacturer		:	SAMSARA NETWORKS INC					
Address		:	Wistron Neweb Corporation					
Model No.		:	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308,					
			Taiwan, R.O.C					
Trade Name		:	Samsara					
FCC ID		:	2AIHD0054					
EUT Voltage		:	DC 12/24/48V					
Testing Voltage		:	DC 12V					
Applicable Standard		:	FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2019					
			ANSI C63.10: 2013					
Laboratory Name		:	: Hsin Chu Laboratory					
Address		No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu						
			County 310, Taiwan, R.O.C.					
			TEL: +886-3-582-8001 / FAX: +886-3-582-8958					
Test Result		:	Complied					
Documented By	:		Lypa Jang					
	-							
			( Lyla Yang / Engineering Adm. Specialist )					
Tootod Py			T I I					
Tested by	•		Elwin Lin					
	-		(Elwin Lin / Engineer)					
Approved By	:		A size Here					
			LowsTon					
		·	( Louis Hsu / Deputy Manager )					



# **Revision History**

Version	Description	Issued Date
V1.0	Initial issue of report	Sep. 07, 2020



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# DEKRA

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# 1. General Information

# 1.1. EUT Description

Product Name	Vehicle Gateway	/ehicle Gateway						
Trade Name	Samsara	Samsara						
Model No.	VG54-NA, VG54-NA	Ξ						
Frequency Range/	IEEE 802.11a/n	5180~5240MHz / 4 Channels						
Channel Number	(20MHz) 5745~5825MHz / 5 Channels							
	5190~5230MHz / 2 Channels							
	(40MHz)	5755~5795MHz / 2 Channels						
Type of Modulation	IEEE 802.11a/n	Orthogonal Frequency Division Multiplexing						
Data Speed	IEEE 802.11a	6, 9, 18, 24, 36, 48, 54Mbps						
	IEEE 802.11n	Support a subset of the combination of GI,						
		MCS 0~MCS 7 and bandwidth defined in 802.11n						
HW Version	1.0							
SW Version	10							

Antenna Information								
No.	No. Brand Model No. Antenna Type Antenna Gain							
0	WNC	JVS1		BT5.0: 2.7dBi				
			DIEA Antonno	WiFi 2.4G: 2.7dBi				
			FIFA Amenina	WiFi 5G Band 1: 3.28dBi				
				WiFi 5G Band 4: 3.9dBi				



# ANT-TX / RX & Bandwidth

ANT-TX / RX		ТХ	
Mode/ Channel Bandwidth	20MHz	40MHz	80MHz
IEEE802.11a	$\checkmark$		
IEEE802.11n	$\checkmark$	$\checkmark$	



MCS			NBPSCS	NCBPS		NDBPS		Data Rate(Mb/s)			
INCS	Modulation	R		201411-	400411-	201411-	400411-	800ns GI		400ns Gl	
Index							40MHZ	20MHz	40MHz	20MHz	40MHz
0	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.2	15.0
1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.4	30.0
2	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.7	45.0
3	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.9	60.0
4	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.3	90.0
5	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.8	120.0
6	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.0	135.0
7	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.2	150.0
6 7	64-QAM 64-QAM	3/4 5/6	6 6	312 312 312	648 648	234 260	486 540	58.5 65.0	121.5 135.0	65.0 72.2	13: 15:

#### IEEE 802.11n

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 1 – MCS parameters for TX Antenna number = 1

Symbol	Explanation
R	Code rate
N <sub>BPSC</sub>	Number of coded bits per single carrier
N <sub>CBPS</sub>	Number of coded bits per symbol
NDBPS	Number of data bits per symbol
GI	guard interval



#### IEEE 802.11a & IEEE 802.11n (20MHz)

Working Frequency of Each Channel									
Channel	Frequency	Channel Frequency Channel Frequency Channel Frequency							
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz		
149	5745 MHz	153	5765 MHz	157	5785 MHz	161	5805 MHz		
165	5825 MHz								

#### IEEE 802.11n (40MHz)

Working Frequency of Each Channel							
Channel Frequency Channel Frequency Channel Frequency Channel Frequency							
38	5190 MHz	46	5230 MHz	151	5755 MHz	159	5795 MHz

#### Note:

- 1. This device is a Vehicle Gateway including 2.4GHz b/g/n, 5GHz a/n and BT 5.0 transmitting functions.
- 2. The difference of each model is shown as below:

Model Number	Difference
VG54-NA	With internal GPS Antenna
VG54-NAE	With external GPS Antenna

- 3. Regards to the frequency band operation; the lowest, middle and highest frequency of channel were selected to perform the test, and then shown on this report.
- 4. The spurious emission was measured in three position (X, Y & Z axis), and the worst case (Z axis) was recorded in the report.
- 5. This device contains a certified WWAN module (FCC ID: NKRM18QF).
- 6. The EUT description is from the customer declaration.

# 1.2. Test Mode

DEKRA has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

Test Mode	Mode 1: Transmit M	ode	
Test Items	Modulation	Channel	Result
Conducted Emission	11n(40MHz)		
26dD 9 00% 9 DTC Departuidth	а	36/44/48/149/157/165	Complies
260B & 99% & DTS Bandwidth	11n(20MHz)	36/44/48/149/157/165	Complies
	11n(40MHz)	38/46/151/159	Complies
	а	36/44/48/149/157/165	Complies
Maximum conducted output power	11n(20MHz)	36/44/48/149/157/165	Complies
	11n(40MHz) 38/46/151/159		Complies
	а	36/44/48/149/157/165	Complies
Maximum power spectral density	11n(20MHz)	36/44/48/149/157/165	Complies
	11n(40MHz)	11n(40MHz) 38/46/151/159	
	а	36/44/48/149/157/165	Complies
Radiated Emission	11n(20MHz)	36/44/48/149/157/165	Complies
	11n(40MHz)	38/46/151/159	Complies
	а	36/44/48/149/157/165	Complies
Band Edge	11n(20MHz)	36/44/48/149/157/165	Complies
	11n(40MHz)	38/46/151/159	Complies

Note: Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

# 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	Lenove	80SJ	MP16Z7TB	DoC	Non-Shielded, 1.8m
2	DC Power Supply	Topward	6303D	809497	DoC	

# 1.4. Configuration of tested System





# 1.5. EUT Exercise Software

1	Set the EUT as shown in Section 1.4.
2	Execute QPST software on the laptop.
3	Configure test mode, test channel and data rate.
4	Let the EUT start sending or receiving continuously.
5	Verify that the device is working properly.

# 1.6. Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.



# 1.7. Test Facility

Ambient conditions in the laboratory:

ltems	Test Item	Required	Test Site	
Temperature (°C)	FCC PART 15E 15.407	15 - 35		
Humidity (%RH)	Conducted Emission	25 - 75		
Temperature (°C)	FCC PART 15E 15.407	15 - 35	0	
Humidity (%RH)	26dB & 99% & DTS Bandwidth	25 - 75	3	
Temperature (°C)	FCC PART 15E 15.407	15 - 35	0	
Humidity (%RH)	Maximum conducted output power	25 - 75	3	
Temperature (°C)	FCC PART 15E 15.407	15 - 35	3	
Humidity (%RH)	Maximum power spectral density	25 - 75		
Temperature (°C)	FCC PART 15E 15.407	15 - 35	0	
Humidity (%RH)	Radiated Emission	25 - 75	2	
Temperature (°C)	FCC PART 15E 15.407	15 - 35	0	
Humidity (%RH)	Band Edge	25 - 75	2	

Note: Test site information refers to Laboratory Information.



# Laboratory Information

USA	:	FCC Registration Number: TW3024
Canada	:	IC Registration Number: 22397-1 / 22397-2 / 22397-3

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: <u>http://www.dekra.com.tw</u>

Test Laboratory	DEKRA Testing and Certification Co., Ltd.					
Address	1. No. 75-2, 3rd Lin, WangYe Keng, Yonghxing Tsuen, Qionglin					
	Shiang, Hsinchu County 307, Taiwan, R.O.C.					
	2. No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu					
	County 31061, Taiwan, R.O.C.					
	3. No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu					
	County 31061, Taiwan, R.O.C.					
Phone number	1. +886-3-592-8858					
	2. +886-3-582-8001					
	3. +886-3-582-8001					
Fax number	1. +886-3-592-8859					
	2. +886-3-582-8958					
	3. +886-3-582-8958					
Email address	info.tw@dekra.com					
Website	http://www.dekra.com.tw					

If you have any comments, please don't hesitate to contact us. Our test sites as below:

# 1.8. List of Test Equipment

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2020/06/03	2021/06/02
Spectrum Analyzer	Keysight	N9010B	MY57110159	2020/04/15	2021/04/14
Spectrum Analyzer	Agilent	N9010A	US47140172	2020/06/18	2021/06/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29

Occupied Bandwidth / SR12-H

#### Maximum conducted output power / SR12-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
High Speed Peak Power	Apritou	MI 2406A	1602004	2010/12/02	2020/12/01
Meter Dual Input	Annisu	ML2490A	1002004	2019/12/02	2020/12/01
Pulse Power Sensor	Anritsu	MA2411B	1531043	2019/12/02	2020/12/01
Pulse Power Sensor	Anritsu	MA2411B	1531044	2019/12/02	2020/12/01
Power Meter	Keysight	8990B	MY51000248	2020/05/20	2021/05/19
Power Sensor	Keysight	N1923A	MY57240005	2020/05/20	2021/05/19

#### Maximum power spectral density / SR12-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2020/06/03	2021/06/02
Spectrum Analyzer	Keysight	N9010B	MY57110159	2020/04/15	2021/04/14
Spectrum Analyzer	Agilent	N9010A	US47140172	2020/06/18	2021/06/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29



#### Radiated Emission / CB2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2019/10/21	2020/10/20
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29
Signal Analyzer	R&S	FSV40	101435	2020/06/24	2021/06/23
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2020/02/21	2021/02/20
Bilog Antenna	Teseq	CBL6112D	23191	2020/06/12	2021/06/11
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2020/06/04	2021/06/03
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	2019/10/25	2020/10/24
Horn Antenna	Schwarzbeck	BBHA 9170	202	2019/12/27	2020/12/26
Horn Antenna	Schwarzbeck	BBHA 9170	203	2020/03/09	2021/03/08
Pre-Amplifier	DEKRA	AP-025C	12183122	2019/09/24	2020/09/23
Pre-Amplifier	EMCI	EMC11830I	980366	2019/12/03	2020/12/02
Pre-Amplifier	DEKRA	AP-400C	201801231	2019/12/03	2020/12/02
Band Reject Filter	Micro-Tronics	BRM50716	G089	2020/03/18	2021/03/17
Band Reject Filter	Micro-Tronics	BRM50716	G068	2020/03/09	2021/03/08
Coaxial Cable(16m)	Huber+Suhner	SF104	CB2-H	2019/07/25	2020/07/24
EMI system	DEKRA	Version 1.0	CB2-H	NA	NA

#### Band Edge / CB2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2019/10/21	2020/10/20
Signal & Spectrum Analyzer	R&S	FSV40	101049	2020/03/30	2021/03/29
Signal Analyzer	R&S	FSV40	101435	2020/06/24	2021/06/23
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2020/02/21	2021/02/20
Bilog Antenna	Teseq	CBL6112D	23191	2020/06/12	2021/06/11
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2020/06/04	2021/06/03
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	2019/10/25	2020/10/24
Horn Antenna	Schwarzbeck	BBHA 9170	202	2019/12/27	2020/12/26
Horn Antenna	Schwarzbeck	BBHA 9170	203	2020/03/09	2021/03/08
Pre-Amplifier	DEKRA	AP-025C	12183122	2019/09/24	2020/09/23
Pre-Amplifier	EMCI	EMC11830I	980366	2019/12/03	2020/12/02
Pre-Amplifier	DEKRA	AP-400C	201801231	2019/12/03	2020/12/02
Band Reject Filter	Micro-Tronics	BRM50716	G089	2020/03/18	2021/03/17
Band Reject Filter	Micro-Tronics	BRM50716	G068	2020/03/09	2021/03/08
Coaxial Cable(16m)	Huber+Suhner	SF104	CB2-H	2019/07/25	2020/07/24
EMI system	DEKRA	Version 1.0	CB2-H	NA	NA

Note: All equipment upon which need to calibrated are with calibration period of 1 year.



# 1.9. Duty Cycle

Mada	On	On+Off	Duty	Duty Factor(dB)	Duty Factor(dB)	1/T Minimum
Mode	Time(ms)	Time(ms)	Cycle(%)	linear voltage	Power	VBW (kHz)
11a	2.027	2.135	94.96%	0.448848	0.22	0.493
HT20	1.879	2.013	93.37%	0.596182	0.30	0.532
HT40	0.920	1.033	89.01%	1.010972	0.51	1.088



#### 802.11a

Date: 8.JUL.2020 19:00:13



802.11n(20M)



Date: 8.JUL.2020 19:01:48

#### 802.11n(40M)



Date: 8 JUL 2020 19:03:41



# 1.10. Uncertainty

Test item	Uncertainty		
Conducted Emission	± 2.26 dB		
26dB & 99% & DTS Bandwidth	± 50 Hz		
Maximum conducted output power	± 1.27 dB		
Maximum power spectral density	± 1.27 dB		
Radiated Emission	30MHz~1GHz as ± 3.43 dB		
	1GHz~26.5GHz as ± 3.65 dB		
Band Edge	± 3.65 dB		



# 2. Conducted Emission

## 2.1. Test Setup



### 2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)								
Frequency MHz	Frequency QP AV MHz							
0.15 - 0.50	66 - 56	56 - 46						
0.50 - 5.0	56	46						
5.0 - 30	60	50						

Remark: In the above table, the tighter limit applies at the band edges.

# 2.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

## 2.4. Test Result

Owing to the DC operation of EUT, this test item is not performed.



# 3. 26dB & 99% & DTS Bandwidth

#### 3.1. Test Setup



#### 3.2. Limits

99% & 26dB Bandwidth : No Required

6dB Bandwidth ≧ 500KHz

## 3.3. Test Procedure

99% & 26dB Bandwidth :

The EUT was tested according to U-NII test procedure of KDB 789033 D02 v02r01 Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW. DTS Bandwidth :

Set RBW = 100KHz, VBW≧3xRBW, Sweep time=Auto, Set Peak detector.



# 3.4. Test Result

Product	Vehicle Gateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Temperature(°C)	24	Humidity (%RH)	60

IEEE 802.11a (ANT 0)									
	Frequency	Measur	e Value	Limit					
Channel No.	(MHz)	99% Bandwidth	26dB Bandwidth	(MHz)	Result				
		(MHz)	(MHz)						
36	5180	16.758	30.800		Pass				
44	5220	31.725	46.240		Pass				
48	5240	17.661	33.930		Pass				
149	5745	35.295			Pass				
157	5785	35.056	35.056 N/A		Pass				
165	5825	35.175			Pass				

# Channel 36 (5180MHz)

🗾 Ag	ilent Sp	ectrum	Analyzer - (	Occupied BW								
w. ℝ Cer	L Iter F	50 Frea	ົ 5.1800	00000 G	Hz	AC S	ENSE:INT Freq: 5.1800	00000 GHz	ALIGN AUTO	04:42:36 Radio Sto	AM Jul 15, 2020 I: None	Freq / Channel
	Input: RF Trig: Free Run Avg Hold>100/100 #IFGain:Low #Atten: 30 dB Ext Gain: -2.30 dB Radio Device: BTS											
10 d Loa	B/div		Ref 20 c	Bm						1		
10	<u> </u>					North Martin Strate		Anite				Center Freq
0							1					5.180000000 GHz
-10						_		<u> </u>				
-20			A STREET	Service States		_			· · · · · · · · · · · · · · · · · · ·	Karmu		
-30			<b></b>								The state of the s	
-40	ryr -					-						
-50												
-60		-										
-70		-			-							CF Step
Cen	ter 5	5.18 C	GHz				1			Spa	n 50 MHz	5.000000 MHz
#Re	s BW	510	) kHz			#V	BW 1.5 N	/IHz		Sweep	1.333 ms	Auto Man
с	)ccu	pied	d Band	width			Total F	ower	22.0	9 dBm		
				16.7	′58 N	1Hz						
т												
÷	dRF	Rand	width	01	30.80	MHZ	v dB	01101	-26	00 dB		
^		Janu	mun		50.00	1711 12			-20			
MSG									STATU	s		1



🗾 Agilent Spectrum Analyzer - Occupied BW								
M RL 50 Ω AC SERVET ALIGNAUTO 04:43:20 AM Jul 5, 2   Center Freq 5.220000000 GHz Center Freq 5.220000000 GHz Radio Std: None Radio Std: None   Insut: RF Trig: Free Run Avg Hold>100/100 Avg Hold>100/100 Avg Hold>100/100	Freq / Channel							
#IFGain:Low #Atten: 30 dB Ext Gain: -2.30 dB Radio Device: BTS	_							
10 dB/div Ref 20 dBm								
	Center Fred							
	5.220000000 GHz							
10 Marine Ma								
	~							
-30								
-40	-							
-50	-							
-60								
-70	CF Step							
Center 5.22 GHz Span 50 M	5.000000 MHz							
#Res BW 510 kHz #VBW 1.5 MHz Sweep 1.333 r	ns <u>Auto</u> Man							
Occupied Bandwidth Total Power 25.17 dBm								
31.725 MHz								
Transmit Freq Error 613.41 kHz OBW Power 99.00 %								
x dB Bandwidth 46.24 MHz x dB -26.00 dB								
MSG STATUS								

#### Channel 44 (5220MHz)

#### Channel 48 (5240MHz)





🔟 Agi	Agilent Spectrum Analyzer - Occupied BW										
	- 50	Ω 5 7450	00000 C	U-7	AC SE	NSE:INT reg: 5 74500	0000 GHz	ALIGN AUTO	04:37:54	AM Jul 15, 2020	Freq / Channel
Cen	Input: RF Trig: Free Run Avg Hold>100/100										
			#IF0	Gain:Low	#Atten: 3	0 dB	Ext Gain:	-2.30 dB	Radio De	vice: BTS	
			_								
10 dE	3/div	Ref 20 d	IBM				1				
10					-		-				Center Frec
n											5.745000000 GHz
	العبين	How Highland	the second s	and a				ALL AND	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
-10	a the second second									and the second second	
-20											
-30									<u> </u>		
-40											
-50											
c0											
-00											
-70											CF Step
Cent	ter 5.745	GHz			1				Spa	n 50 MHz	5.000000 MHz
#Re	s BW 51	0 kHz			#VE	3W 1.5 Ⅳ	IHz		Sweep	1.333 ms	<u>Auto</u> Mar
0	ccupie	d Band	width			Total P	ower	25.3	8 dBm		
			35.2	95 MI	Hz						
Т	Transmit Freq Error -254956 Hz OBW Power 99.00 %										
x	dB Bano	dwidth		49.21 N	ЛНz	x dB		-26.	00 dB		
MSG								STATUS	3		

#### Channel 149 (5745MHz)

#### Channel 157 (5785MHz)





🗊 Agilent Spec	trum Analyzer - (	Occupied BW								
LXIRL	50 Ω	00000 01	/	AC SE	NSE:INT	00000 GH-	ALIGN AUTO	04:36:37	' AM Jul 15, 2020	Freg / Channel
Center Fr	eq 5.8250	OUUUU GF aut: RF	1Z	Trig: Free	eq. 5.6250 e Run	Avg Hold	I:>100/100	Radio Stu	. None	
		#IFG	ain:Low	#Atten: 3	DdB	Ext Gain	: -2.30 dB	Radio Dev	vice: BTS	
10 dB/div	Ref 20 c	Bm								
10			4.0							Contor From
10			and the second second			- And and a second s				E ROEDODODO CU-
0		mannan	put -			*	M. Manuar Augurnan			5.825000000 GH2
-10	at A and a second	0							March	
-20										
-30										
-40										
-50										
-60										
-70										
										CF Step
Center 5.8	325 GHz							Spa	an 50 MHz	5.000000 MHz
#Res BW	510 kHz			#VE	SW 1.5 M	ЛНz		Sweep	1.333 ms	
Оссир	ied Band	width			Total I	Power	24.48	3 dBm		
		25 4	76 N/I	1-						
		<b>3</b> 0. I		72						
Transm	nit Freq Err	or	-506459	Hz	OBW	Power	99	9.00 %		
x dB Ba	andwidth		48.62 N	<b>AHz</b>	x dB		-26.	00 dB		
MEC							CTATIC			
Mag							STATUS	'		

### Channel 165 (5825MHz)



Product	Vehicle Gateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Temperature(°C)	24	Humidity (%RH)	60

IEEE 802.11n_20M(ANT 0)									
	Frequency	Measur	e Value	Limit					
Channel No.	(MHz)	99% Bandwidth	26dB Bandwidth	(MHz)	Result				
		(MHz)	(MHz)						
36	5180	17.952	28.210		Pass				
44	5220	32.825	46.730		Pass				
48	5240	18.503	35.030		Pass				
149	5745	38.664			Pass				
157	5785	34.759	N/A		Pass				
165	5825	32.621			Pass				

#### Channel 36 (5180MHz)





🗊 Agil	Agilent Spectrum Analyzer - Occupied BW											
LXI RL	RL 50 Ω AC SENSE:INT ALIGN AUTO 04:53:37 AM Jul 15, 2020   Patter Freq: 5.220000000 GHz Radio Std: None											
Cen		<u>5.2200</u> In	put: RF	<u></u>	Trig: Fre	e Run	Avg Hold:	>100/100				
			#IF	Gain:Low	#Atten: 3	DdB	Ext Gain:	-2.30 dB	Radio Dev	/ice: BTS		
10 dE	3/div	Ref 20 c	1Bm					1				
10							Per dillara da				Center Freq	
				1							5.220000000 GHz	
ů		Marthan					, °	and the second second	with the set the set			
-10	- Aleman Marth	a linear a sur								March and and		
-20		· · · ·										
-30												
-40												
-50												
-60												
-70											CF Step	
Cent	ter 5.22	GH7							Sna	n 50 MHz	5.000000 MHz	
#Res	8 BW 51	0 kHz			#VE	3W 1.5 M	IHz		Sweep	1.333 ms	<u>Auto</u> Man	
0	ccunie	d Band	width			Total P	ower	25.0	7 dBm			
	ooupio	a Bana	20.0		<b>U</b> -							
			3Z.C	23 11	п							
Tr	Transmit Freq Error 589.24 kHz OBW Power 99.00 %											
x	dB Ban	dwidth		46.73	MHz	x dB		-26.	00 dB			
MSG								STATUS	6		1	

#### Channel 44 (5220MHz)

#### Channel 48 (5240MHz)





💴 Agiler	Agilent Spectrum Analyzer - Occupied BW											
Cente	er Freq	Ω 5.7450 Inj	00000 G	Hz	AC SE Center F Trig: Fre	NSE:INT req: 5.74500 e Run	0000 GHz Avg Hold:	ALIGN AUTO	04:59:21 Radio Std	. AM Jul 15, 2020 : None	Freq / Channel	
<u> </u>	#I-Gain:Low #Atten: 30 db Ext Gain: -2.30 db Radio Device: D 15											
10 dB/o	dB/div Ref 20 dBm											
10 —				Januar		وباليابعه مدفيه	a tradit of the state of the st				Center Freq	
-10	بدر المراد	Nerver and a state	the states of th	w/			₩¥		and a start of the	When the state of	5.745000000 GHz	
-20	Artis.									ine - frent		
-30 —												
-40 —												
-50 —												
-60 —												
-70 —											CF Step	
Cente #Res	er 5.745 BW 510	GHz ) kHz			#VE	3W 1.5 M	IHz		Spa Sweep	n 50 MHz 1.333 ms	5.000000 MHz <u>Auto</u> Man	
Oc	cupied	d Band	width			Total P	ower	24.8	9 dBm			
	38.664 MHz											
Tra	unsmit F	Freq Err	or	713.61	kHz	OBW Power		99.00 %				
хd	B Banc	lwidth		49.91 N	ЛНz	x dB		-26.	00 dB			
MSG								STATUS	3			

#### Channel 149 (5745MHz)

#### Channel 157 (5785MHz)





💴 Agil	ent Spectrum	n Analyzer - (	Occupied BW									
	tor Frog	Ω 5 9250			AC SE	NSE:INT	0000 GHz	ALIGN AUTO	05:01:17 Radio Std	AM Jul 15, 2020	Freq / Channe	el
Cell	lei Fieq	<u>J.02</u> 30	out: RF	<u>۲۷</u>	Trig: Free	Run	Avg Hold	:>100/100				
			#IFC	Gain:Low	#Atten: 30	DdB	Ext Gain:	-2.30 dB	Radio Dev	vice: BTS		
10 dE	3/div	Ref 20 d	IBM				1					
10					-	and an and the second second	1 (M) (4) (m)				Center F	rea
				A second second	•		and the second s				5.825000000	GHz
l °		هناليه	المانية المجرحة فالمناط	۲.			<u>بر</u>	and the second design of the s				
-10		And the second states.							A NUMBER OF STREET	Walk		
-20	Munu									1.08		
-30												
-40												
-50												
-60 -												
-70											05.0	4.0.0
											5.000001	MHZ
Cent #Res	ter 5.825 s BW 510	GHZ 0 kHz			#VE	SW 1.5 M	Hz		Spa Sweep	n 50 MHz 1.333 ms	Auto I	Man
0	ccupied	d Band	width			Total P	ower	24.57	7 dBm			
			32.6	21 M	Hz							
Tr	ansmit	Freq Err	or	-41020	Hz OBW Power		99	9.00 %				
x	dB Band	dwidth		46.93 I	₩Hz	x dB		-26.	00 dB			
MSG								STATUS	•			

### Channel 165 (5825MHz)



Product	Vehicle Gateway		
Test Item	26dB & 99% Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Temperature(°C)	24	Humidity (%RH)	60

IEEE 802.11n_40M(ANT 0)											
	Frequency	Measu	re Value	Limit	<b>.</b>						
Channel No.	(MHz)	99% Bandwidth	26dB Bandwidth	(MHz)	Result						
		(MHz)	(MHz)								
38	5190	35.888	40.980		Pass						
46	5230	37.008	78.250		Pass						
151	5755	69.298	N1/A		Pass						
159	5795	68.467	IN/A		Pass						



💴 Agilent S	pectrum Ana	lyzer - O	ccupied	BW									
Center	50 Ω Freq 5.4	19000 Inn	)0000 ut: RE	GHz	A	C SE Center F Trig: Fre	NSE:INT req: 5.19000 e Run	00000 GHz Avg Hol	ALIGN AUTO	05:03:54 Radio Std	AM Jul 15, 2020 : None	Freq / C	hannel
			uu 1u	#IFGain:L	ow	#Atten: 3	0 dB	Ext Gair	n: -2.30 dB	Radio Dev	vice: BTS		
10 dB/div	Ref	20 d	Bm	<u> </u>			1	1		1			
10												Cen	ter Freq
0						بسير بالأرب الأربيس	Aprilia		Luk			5.19000	0000 GHz
-10							Y						
-20			/						<u> </u>				
-30			Hard Barry Barry						Ny tel				
-40	بالابداء والماينين	when							144	maxing line	المسار المليلية		
50													
-50													
-60													
-70													CF Step
Center	5.19 GHz	:								Spa	n 80 MHz	8.000 Auto	0000 MHz Man
#Res BV	V 510 kH	lz				#VE	BW 1.5 №	1Hz		Sweep	1.333 ms	<u>/////////////////////////////////////</u>	man
Οςςι	Occupied Bandwidth						Total F	ower	17.73	3 dBm			
	35.888 M						1Hz						
Trans	mit Fre	q Erro	or	-3	3501	1 Hz OBW Power		99.00 %					
x dB	Bandwid	dth		40.	98 M	IHz	x dB		-26	.00 dB			
MSG									STATUS	3		1	

#### Channel 38 (5190MHz)

#### Channel 46 (5230MHz)





🗊 Agilen	t Spectrun	n Analyzer -	Occupied BV	V							
LXI RL	50		00000 0	N 1	AC SE	NSE:INT	0000 GHz	ALIGN AUTO	05:03:05	AM Jul 15, 2020	Freq / Channel
Cente	rrieq	5.755U	100000 C	<u>202</u>	Trig: Free	e Run	Avg Hold	:>100/100		·······	
			. #IF	Gain:Low	#Atten: 3	0 dB	Ext Gain:	-2.30 dB	Radio Dev	/ice: BTS	
10 dB/c	vik	Ref 20	dBm								
10											Contor From
10				-	a seal of the seal	<b>بالاحت</b> دامية	Last and the second				
			فريدد راهمار بمرار	J.		1	1	washing the	<u> </u>		5.755000000 GH2
-10	معلالية. أأر	a planta series and	Millin State & Mailer and					An a second second second second	WAR AND	WILLIAM II	
-20	Arthan .									A.J. WINNAN	
-30											
-40											
-50											
-60											
-70											
											CF Step
Cente	r 5.755	i GHz							Spar	100 MHz	10.000000 MHz Auto Man
#Res I	BW 51	0 kHz			#VE	3W 1.5 N	IHz		Sweep	1.333 ms	<u>Auto</u> mun
00	aunia	d Done	huidth			Total P	ower	25.01	2 dBm		
00	cupie	u Danc				Totari	0.001	20.07			
			69.2	298 1111	ΗZ						
Tra	nsmit	Freq Er	ror	94.689 I	кHz	OBW Power		99	9.00 %		
vd	D Dane	dwidth		07 07 8	л⊔- <b>,</b>	v dB		26.00 dB			
× u	D Dane	uwiuui		91.97 N	1112			-20.	uB		
MSG								STATUS	6		

### Channel 151 (5755MHz)

Channel 159 (5795MHz)

🗊 Agil	Agilent Spectrum Analyzer - Occupied BW											
Cent	ter Fr	50 Ω eq 5.7	7 <b>9500</b> Inp	)0000 ut: RF	GHz (IFGain:Low	AC Cente Trig: F #Atter	SENSE:INT Freq: 5.79 Free Run h: 30 dB	5000000 GHz Avg Hold Ext Gain:	ALIGNAUTO > 100/100 -2.30 dB	05:02:37 Radio Std Radio Dev	AM Jul 15, 2020 : None /ice: BTS	Freq / Channel
10 dE Log [	3/div	Ref	20 d	Bm					1			
10 - 0 -		_				yaya (ang tang tang tang tang tang tang tang t	*	town				Center Freq 5.795000000 GHz
-10 -20	properti li fasse	bilanteral stands	************	y popular					**************************************	and the second section	walana	
-30 - -40 -		_										
-50 -60												
-70 Cent	ter 5.7	795 GH	z							Spar	100 MHz	CF Step 10.000000 MHz
#Res	s BW	510 kH	z			#	VBW 1.5	MHz		Sweep	1.333 ms	Auto Man
0	ccup	ied B	and	width 68.	467 N	ЛНz	Total	Power	25.0	1 dBm		
Tr	ansm	nit Free	q Erro	or	-13729	35 Hz	OBW	Power	99	9.00 %		
x	dB Ba	andwid	lth		99.1	5 MHz	x dB		-26	.00 dB		
MSG									STATUS	5		



Product	Vehicle Gateway		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Temperature(°C)	24	Humidity (%RH)	60

IEEE 802.11a (ANT 0)										
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)	Result						
149	5745	15.580	≧ 0.500	Pass						
157	5785	15.570	≧ 0.500	Pass						
165	5825	15.290	≧ 0.500	Pass						

### Channel 36 (5180MHz)

🗊 Agilent Spectrum Analyzer - Occupied BW												
Cent	ter F	50 req	Ω 5.7450 In	00000 G	iHz	Center Fi	NSE:INT req: 5.74500 e Run	0000 GHz Avg Hold:	ALIGN AUTO	04:31:47 Radio Std	AM Jul 15, 2020 : None	Freq / Channel
10 dE	3/div	, ,	Ref 20 d	aBm	Gain:Low	#Atten: 3		Ext Gain:	-2.30 ab	Radio Dev	nce: BTS	
10 - 0 -					ant work was	howww	mmun	manna				Center Freq 5.745000000 GHz
-10 -20	www	wheth	, Marina	wwwww					WWWWWW	ntrangentus	Arroxin Whyn	
-30 - -40 -												
-50 -60												
-70 - Cent	ter 5	.745	GHz							Spa	n 40 MHz	CF Step 4.000000 MHz
#Res	s BW	100	) kHz			#VE	300 k	Hz		Swe	eep 4 ms	<u>Auto</u> Man
0	ccu	pied	d Band	width	10 B.4		Total P	ower	25.64	l dBm		
				32.3	946 IVI	HZ						
Tr	ansi	mit I	Freq Err	ror	375.97	kHz	OBW P	ower	99	9.00 %		
x	dB E	Band	lwidth		15.58 N	ΛHz	x dB		-6.	00 dB		
MSG									STATUS			1



🗊 Agile	Agilent Spectrum Analyzer - Occupied BW										
LXI RL	or Frog	Ω E 70E00	00000 C	/   /	AC SE	NSE:INT	0000 GHz	ALIGN AUTO	04:33:15 Radio Std	AM Jul 15, 2020	Freq / Channel
Cent	erried	5.76500	out: RF	<u>nz</u>	Trig: Fre	e Run	Avg Hold:	>100/100	Huuro Otu.		
			#IF	Gain:Low	#Atten: 3	DdB	Ext Gain:	-2.30 dB	Radio Dev	rice: BTS	
10 dB.	/div	Ref 20 d	Bm					1			
10											Center Fred
				Jun hander	havent	mound	mound				5 78500000 GHz
U-			. intell		,,	1		WARAA			3.78300000 8112
-10	www.	mhathat	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					**************************************	Wwwwwww	manne	
-20										• ••••••	
-30											
40											
-40											
-50 -											
-60 -											
-70 -											
											CF Step
Cent	er 5.785	GHz							Spa	n 40 MHz	Auto Man
#Res	BW 10	0 KHZ			#VE	300 k	Hz		Swe	ep 4 ms	
0	cunie	d Band	width			Total P	ower	25.5	dBm		
<b>–</b>	Joupio	a Bana	20.0		1-						
	32.052 IVIHZ										
Tra	ansmit	Freq Err	or	-292936	Hz	OBW Power		99	9.00 %		
x	B Ban	dwidth		15.57 N	<b>/IH</b> z	x dB		-6.	00 dB		
MEC								CTATIC			
MSG								STATUS	'		

### Channel 157 (5785MHz)

# Channel 165 (5825MHz)

💴 Agilent Spec	trum Analyzer -	Occupied BW								
Center Fr	50 Ω eq 5.8250 In	00000 G put: RF #IF	iHz Gain:Low	AC SE Center F Trig: Fre #Atten: 3	NSE:INT req: 5.82500 e Run 0 dB	00000 GHz Avg Hold: Ext Gain:	>100/100 -2.30 dB	Radio Sto Radio De	9 AM Jul 15, 2020 I: None vice: BTS	Freq / Channel
10 dB/div Log	Ref 20 c	lBm								
0		,	mohnten	hmm	protocol	malmarka	w.			Center Freq 5.825000000 GHz
-10 -20 mm/m/W	www.	have a second					Wyergen	hungala	whon when	
-30										
-50										
-60										CE Stop
Center 5.8 #Res BW	enter 5.825 GHz Span 40 MHz Res BW 100 kHz #VBW 300 kHz Sweep 4 ms									4.000000 MHz Auto Man
Occup	ied Band	Total Power 24.81 dBm		1 dBm						
_	29.787 MHz									
ransm x dB Ba	x dB Bandwidth 15.29 MHz					x dB -6.		9.00 % .00 dB		
MSG							STATUS	6		



Product	Vehicle Gateway		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Temperature(°C)	24	Humidity (%RH)	60

IEEE 802.11n_20M(ANT 0)									
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)	Result					
149	5745	16.040	≧ 0.500	Pass					
157	5785	16.030	≧ 0.500	Pass					
165	5825	16.020	≧ 0.500	Pass					

### Channel 36 (5180MHz)

📭 Agilent Spectrum Analyzer - Occupied BW												
Cent	ter F	50 req	Ω 5.7450	00000 G	Hz	AC SE Center Fi	NSE:INT req: 5.74500	00000 GHz	ALIGN AUTO	04:30:50 Radio Std:	AM Jul 15, 2020 None	Freq / Channel
Input: RF IFGain:Low #Atten: 30					0 dB	Ext Gain:	Jain: -2.30 dB Radio Device: BTS					
10 dE	10 dB/div Ref 20 dBm											
Log 10												Center Fred
0-				٨٨	almanter	mumun	walkyderica	with with which	h-1,			5.745000000 GHz
-10	ኊሇኯ	www	when w	Winthow					www.	mannamlan	hornor horn	
-20												
-30 -												
-40 -50												
-60 -												
-70												CE Stop
L Cent	ter 5	.745	GHz							Spa	n 40 MHz	4.000000 MHz
#Res	#Res BW 100 kHz #VB						300 k	(Hz		Swe	ep 4 ms	<u>Auto</u> Man
Occupied Bandwidth					Total Power 26.12 dBn		2 dBm					
34.701 MHz												
Transmit Freq Error 47.841 kHz					OBW Power		99	99.00 %				
x	x dB Bandwidth 16.04 MHz				xdB -		-6.	-6.00 dB				
										1		
MSG									STATUS			


OX  RL  50 Q  AC  SERVE:INT  ALIGNAUTO  04:29:03 AM Jul 5, 2020    Center Freq  5.785000000 GHz  Center Freq: 5.785000000 GHz  Radio Std: None    Input: RF  #//FGain:Low  #//FGain:Low  Arg Hold>100/100    India B/div  Ref  20 dBm    Log
Center Freq 5.78500000 GHZ      Trig: Free Run      Avg[Hold>100/100        Input: RF      #IFGain:Low      #Atten: 30 dB      Ext Gain: -2.30 dB      Radio Device: BTS        10 dB/div      Ref 20 dBm
10 dB/div Ref 20 dBm
10 dB/div      Ref      20 dBm        Log
Center Fre 0
0 5.785000000 GH
-10 may approximation and a second a
-20
-30
-70 CESte
Conter 5 795 CH2 Cr 3te
#Res BW 100 kHz #VBW 300 kHz Sweep 4 ms
Occupied Bandwidth Total Power 26.15 dBm
33.261 MHz
Transmit Freq Error -164637 Hz OBW Power 99.00 %
x dB Bandwidth 16.03 MHz x dB -6.00 dB
MSG STATUS

### Channel 157 (5785MHz)

#### Channel 165 (5825MHz)

🗊 Agilent Spectru	ım Analyzer -	Occupied BW								
Center Fred	<sup>30 Ω</sup>   <b>3</b> 5.8250	00000 G	Hz	AC SE Center F Trig: Fre	NSE:INT req: 5.8250 e Run	00000 GHz Avg Hold	ALIGN AUTO	04:26:05 Radio Sto	5 AM Jul 15, 2020 I: None	Freq / Channel
10 dB/div	Ref 20 c	iBm	Gain:Low	4Atten: 3	0 dB	Ext Gain	: -2.30 dB	Radio De	vice: BTS	
10			. I. Mar	Alle Martin	. Aller March	من الم				Center Freq
-10		MANAMAN	al within the second	i soot meal hood	and to keep	WINN IN AND IN AND	white white	hinder all the section of a		5.825000000 GHz
-20 mm/w/w//	And and have							A LEADING AND	viru hava	
-30										
-50										
-60										
Center 5.82	5 GHz							Spa	an 40 MHz	CF Step 4.000000 MHz Auto Man
#Res BW 10	00 kHz			#VE	BW 300	kHz		Sw	eep 4 ms	
Occupie	Occupied Bandwidth					ower	25.1	9 dBm		
Tronomit								0.00 %		
x dB Ban	x dB Bandwidth 16.02 MH			/Hz	x dB		-6.	-6.00 dB		
								-		
MSG							STATUS	5		



Product	Vehicle Gateway		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Temperature(°C)	24	Humidity (%RH)	60

IEEE 802.11n_40M(ANT 0)									
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)	Result					
151	5755	33.460	≧ 0.500	Pass					
159	5795	32.580	≧ 0.500	Pass					

## Channel 151 (5755MHz)

D Agile	ent Spec	trum Analyzer - (	Occupied BW	/							
LXI RL		50 Ω	00000 0	· · · ·	AC SE	NSE:INT	0000 GHz	ALIGN AUTO	04:22:26	AM Jul 15, 2020	Freq / Channel
Cent	err	eq 5.7550	out: RF		Trig: Free	e Run	Avg Hold	> 100/100	Radio Sto	. None	
			#IF	Gain:Low	#Atten: 3	0 dB	Ext Gain:	-2.30 dB	Radio De	vice: BTS	
10 dB	/div	Ref 20 c	Bm								
10											Contor From
10											5 755000000 CH-
U-			mlat	and the states of the states of the		H MARINA MARANA	WWW/WWWWWW	MANNA (			5.75500000 GHZ
-10		halle has a hadeleddor	ahallahight			<b>r</b>		Net-Withinstands	uluda halida.	add data .	
-20 #	hter we have a state of the sta	Mandal Mandal and a construction of the second s	դերքար և չ						an a	In the second	
-30											
-40											
-50 -											
-60											
-70 -											
											CF Step
Cent	er 5.7	'55 GHz							Spa	an 80 MHz	8.000000 MHz
#Res	BW	100 kHz			#VE	300 k	Hz		Sw	eep 8 ms	
00	ccup	ied Band	width			Total P	ower	25.08	3 dBm		
			64.9	912 MI	Ηz						
Tra	ansm	it Freq Err	or	-160151	Hz	OBW P	ower	99	9.00 %		
хо	dB Ba	andwidth		33.46 N	ΛHz	x dB		-6.	00 dB		
MSG								STATUS	;		



💴 Agilent Spectr	🛛 Agilent Spectrum Analyzer - Occupied BW										
LXI RL	50 Ω			AC SE	INSE:INT		ALIGN AUTO	04:21:39	AM Jul 15, 2020	Freg / Channel	
Center Fre	q 5.7950	00000 G	Hz	Trig: Fre	req:5./9500 e Run	AvalHold	:>100/100	Radio Std	: None	i i eq i ename	
	IUI	pucier #IF	Gain:Low 🗭	#Atten: 3	0 dB	Ext Gain	: -2.30 dB	Radio Dev	/ice: BTS		
10 dB/div	Ref 20 c	IBm									
10										Center Freq	
0			با شير ما ا	Mary Industria	munul	him til an of				5.795000000 GHz	
	J	, minim	Mildelik and a set		Warnen de de la compañía de co	a	M MM				
-10	in hypericated whe	na analina ina ina ina ina ina ina ina ina ina					harman har	where the leaven	Walady Hynnes		
-30											
-40											
-50											
-60											
70											
-70										CF Step	
Center 5.79	05 GHz			#\/F	Span 80 MHz				8.000000 MHz <u>Auto</u> Man		
mices BW 1	00 1112				500 000 0	112		0			
Occupie	ed Band	width			Total P	ower	25.33	3 dBm			
		66.8	892 MI	Ηz							
Transmit	Transmit Freq Error -1405203 Hz			OBW Power 99		9.00 %					
x dB Bar	x dB Bandwidth 32.58 N		AHz	x dB		-6.00 dB					
MSG							STATUS	•			

### Channel 159 (5795MHz)



### 4. Maximum conducted output power

#### 4.1. Test Setup



#### 4.2. Limits

- For the band 5.15-5.25 GHz, the Maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1W. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- 2. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. The maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- 3. For the band 5.25-5.35 GHz, the Maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- 4. For the band 5.725-5.850 GHz, the Maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1W. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.



## 4.3. Test Procedure

The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of KDB 789033 D02 v02r01 for compliance to FCC 47CFR Subpart E requirements. The Method Measurement using a Power Meter (PM) of the Maximum conducted output power was used.



# 4.4. Test Result

Product	Vehicle Gateway					
Test Item	faximum conducted output power					
Test Mode	Mode 1: Transmit Mode					
Date of Test	2020/07/15	Test Site	SR12-H			
Temperature(°C)	24	Humidity (%RH)	60			

## IEEE 802.11a (ANT 0)

Channel No.	Frequency	Measure Value	Limit		
	(MHz)	(dBm)	(dBm)		
36	5180	16.910	≦30.000		
44	5220	17.640	≦30.000		
48	5240	17.380	≦30.000		
149	5745	19.920	≦30.000		
157	5785	19.850	≦30.000		
165	5825	19.770	≦30.000		

The worst emission of data rate is 6 Mbps.

Channel	Frequency		Data Rate								
No	(MHz)	6	9	12	18	24	36	48	54	Limit	
36	5180	16.910								≦30.000	
44	5220	17.640								≦30.000	
48	5240	17.380								≦30.000	
149	5745	19.920								≦30.000	
157	5785	19.850	19.720	19.580	19.440	19.300	19.160	19.010	18.880	≦30.000	
165	5825	19.770								≦30.000	



Product	Vehicle Gateway					
Test Item	laximum conducted output power					
Test Mode	Mode 1: Transmit Mode					
Date of Test	2020/07/15	Test Site	SR12-H			
Temperature(°C)	24	Humidity (%RH)	60			

## IEEE 802.11n(20MHz)(ANT 0)

Channel No	Frequency	Measure Value	Limit	
Channel No.	(MHz)	(dBm)	(dBm)	
36	5180	16.840	≦30.000	
44	5220	17.580	≦30.000	
48	5240	17.250	≦30.000	
149	5745	19.860	≦30.000	
157	5785	19.810	≦30.000	
165	5825	19.740	≦30.000	

The worst emission of data rate is MCS0

Channel	Frequency		MCS Index								
No	(MHz)	0	1	2	3	4	5	6	7	Limit	
36	5180	16.840			-					≦30.000	
44	5220	17.580								≦30.000	
48	5240	17.250			-					≦30.000	
149	5745	19.860								≦30.000	
157	5785	19.810	19.670	19.520	19.370	19.230	19.100	18.970	18.830	≦30.000	
165	5825	19.740								≦30.000	



Product	Vehicle Gateway		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Temperature(°C)	24	Humidity (%RH)	60

### IEEE 802.11n(40MHz)(ANT 0)

Channel No.	Frequency	Measure Value	Limit
Channel No.	(MHz)	(dBm)	(dBm)
38	5190	12.730	≦30.000
46	5230	17.710	≦30.000
151	5755	20.030	≦30.000
159	5795	19.880	≦30.000

The worst emission of data rate is MCS0

Channel	Frequency		MCS Index							
No	(MHz)	0	1	2	3	4	5	6	7	Limit
38	5190	12.730					-			≦30.000
46	5230	17.710	17.570	17.430	17.280	17.130	17.000	16.850	16.700	≦30.000
151	5755	20.030	19.890	19.760	19.610	19.480	19.350	19.200	19.060	≦30.000
159	5795	19.880								≦30.000



### 5. Maximum power spectral density

### 5.1. Test Setup



### 5.2. Limits

- For the band 5.15-5.25 GHz, the Maximum power spectral density shall not exceed 17 dBm in any 1MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- 2. For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi
- For the band 5.25-5.35 GHz, the Maximum power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- 4. For the band 5.725-5.850 GHz, the Maximum power spectral density shall not exceed 30 dBm in any 500KHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

### 5.3. Test Procedure

The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of KDB 789033 D02 v02r01 for compliance to FCC 47CFR Subpart E requirements.

For Band1 : Set RBW=1MHz, VBW=3MHz with RMS detector. The PPSD is the highest level found across the emission in any 1-MHz band after 100 sweeps of averaging.

For Band4 : Set RBW=500KHz, VBW=1.5MHz with RMS detector. The PPSD is the highest level found across the emission in any 500KHz band after 100 sweeps of averaging.



# 5.4. Test Result

Product	Vehicle Gateway		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Test Temperature	24	Humidity (%RH)	60

IEEE 802.11a (ANT0)				
Channel No.	Frequency	Measure Level	Limit	Deput
	(MHz)	(dBm)	(dBm)	Result
36	5180	4.900	≦17.000	Pass
44	5220	6.950	≦17.000	Pass
48	5240	6.110	≦17.000	Pass
149	5745	4.630	≦30.000	Pass
157	5785	3.970	≦30.000	Pass
165	5825	3.400	≦30.000	Pass



Channel 36 (5180MHz)



Channel 44 (5220MHz)





Channel 48 (5240MHz)



Channel 149 (5745MHz)





Channel 157 (5785MHz)



Channel 165 (5825MHz)





Product	Vehicle Gateway		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Test Temperature	24	Humidity (%RH)	60

IEEE 802.11n(20MHz)(ANT0)				
Channel No.	Frequency	Measure Level	Limit	Popult
	(MHz)	(dBm)	(dBm)	Result
36	5180	4.730	≦17.000	Pass
44	5220	6.810	≦17.000	Pass
48	5240	5.870	≦17.000	Pass
149	5745	4.320	≦30.000	Pass
157	5785	3.590	≦30.000	Pass
165	5825	2.850	≦30.000	Pass



Channel 36 (5180MHz)



Channel 44 (5220MHz)





Channel 48 (5240MHz)



Channel 149 (5745MHz)





Channel 157 (5785MHz)



Channel165 (5825MHz)





Product	Vehicle Gateway		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2020/07/15	Test Site	SR12-H
Test Temperature	24	Humidity (%RH)	60

IEEE 802.11n(40MHz)(ANT0)				
Channel No.	Frequency	Measure Level	Limit	Deput
Channel No.	(MHz)	(dBm)	(dBm)	Result
38	5190	-2.890	≦17.000	Pass
46	5230	2.520	≦17.000	Pass
151	5755	0.800	≦30.000	Pass
159	5795	0.630	≦30.000	Pass



Channel 38 (5190MHz)



#### Channel 46 (5230MHz)





Channel 151 (5755MHz)



Channel 159 (5795MHz)





### 6. Radiated Emission

### 6.1. Test Setup

Under 30MHz Test Setup:



Under 1GHz Test Setup:







### 6.2. Limits

#### General Radiated Emission Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits				
Frequency MHz	uV/m @3m	dBuV/m@3m		
30 - 88	100	40		
88 - 216	150	43.5		
216 - 960	200	46		
Above 960	500	54		

Remark:

- 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

# Unwanted Emission out of the restricted bands Limits

FCC Part 15 Subpart C Paragraph 15.407(b) Limits				
Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (dBuV/m@3m)		
5150 - 5250	-27	68.3		
5250 - 5350	-27	68.3		
5470 - 5725	-27	68.3		
5705 5050	-27 (Note1)	68.3		
5725 - 5850	-17 (Note2)	78.3		

Remark:

- 1. For frequencies more than 10 MHz above or below the band edges.
- 2. For frequency range from the band edges to 10 MHz above or below the band edges.

3. 
$$uV/m = \frac{1000000/30 \times EIRP}{3}$$
, RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

### 6.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.

The frequency range from 30MHz to 10th harminics is checked.



# 6.4. Test Result

#### **30MHz-1GHz Spurious**

Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO_802.11a_Ch44_5.22G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	96.324	29.80	43.50	-13.70	34.36	-4.56	QP
2	167.983	30.75	43.50	-12.75	34.79	-4.04	QP
3	197.931	30.46	43.50	-13.04	34.70	-4.24	QP
* 4	296.629	34.68	46.00	-11.32	35.17	-0.49	QP
5	495.6	29.40	46.00	-16.60	24.80	4.60	QP
6	928.948	32.12	46.00	-13.88	22.11	10.01	QP

Note:

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO_802.11a_Ch44_5.22G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
* 1	67.588	33.88	40.00	-6.12	42.04	-8.16	QP
2	124.939	30.79	43.50	-12.71	32.69	-1.90	QP
3	167.983	29.94	43.50	-13.56	33.98	-4.04	QP
4	312.028	32.42	46.00	-13.58	32.45	-0.03	QP
5	531.005	31.78	46.00	-14.22	26.70	5.08	QP
6	939.739	31.81	46.00	-14.19	21.62	10.19	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch44 5.22G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	95.475	29.85	43.50	-13.65	34.60	-4.75	QP
2	149.431	29.41	43.50	-14.09	32.25	-2.84	QP
3	196.961	30.74	43.50	-12.76	35.01	-4.27	QP
* 4	297.356	34.90	46.00	-11.10	35.37	-0.47	QP
5	494.266	30.16	46.00	-15.84	25.59	4.57	QP
6	939.133	32.09	46.00	-13.91	21.91	10.18	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO_802.11n_20M_Ch44_5.22G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
* 1	71.589	34.61	40.00	-5.39	42.60	-7.99	QP
2	124.939	30.16	43.50	-13.34	32.06	-1.90	QP
3	167.983	29.78	43.50	-13.72	33.82	-4.04	QP
4	312.028	31.88	46.00	-14.12	31.91	-0.03	QP
5	531.369	30.08	46.00	-15.92	25.00	5.08	QP
6	948.833	32.11	46.00	-13.89	21.78	10.33	QP

1. All reading levels is Quasi-Peak value.

2. "  $^{\ast}$  ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO_802.11n_40M_Ch38_5.19G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	94.869	29.67	43.50	-13.83	34.55	-4.88	QP
2	167.983	31.36	43.50	-12.14	35.40	-4.04	QP
3	198.295	30.15	43.50	-13.35	34.38	-4.23	QP
* 4	296.75	35.10	46.00	-10.90	35.59	-0.49	QP
5	603.028	30.71	46.00	-15.29	24.69	6.02	QP
6	954.774	32.68	46.00	-13.32	22.26	10.42	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO_802.11n_40M_Ch38_5.19G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
* 1	71.589	34.60	40.00	-5.40	42.59	-7.99	QP
2	124.939	31.31	43.50	-12.19	33.21	-1.90	QP
3	167.983	29.28	43.50	-14.22	33.32	-4.04	QP
4	312.028	31.66	46.00	-14.34	31.69	-0.03	QP
5	531.126	30.13	46.00	-15.87	25.05	5.08	QP
6	950.894	32.38	46.00	-13.62	22.03	10.35	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO_802.11a_Ch157_5.785G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	95.233	29.37	43.50	-14.13	34.17	-4.80	QP
2	150.765	30.36	43.50	-13.14	33.29	-2.93	QP
3	198.295	30.12	43.50	-13.38	34.35	-4.23	QP
* 4	296.75	34.83	46.00	-11.17	35.32	-0.49	QP
5	495.6	29.53	46.00	-16.47	24.93	4.60	QP
6	952.591	32.95	46.00	-13.05	22.56	10.39	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO_802.11a_Ch157_5.785G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
* 1	71.589	34.42	40.00	-5.58	42.41	-7.99	QP
2	124.939	30.86	43.50	-12.64	32.76	-1.90	QP
3	167.983	29.77	43.50	-13.73	33.81	-4.04	QP
4	312.028	32.25	46.00	-13.75	32.28	-0.03	QP
5	530.884	33.65	46.00	-12.35	28.57	5.08	QP
6	946.044	32.20	46.00	-13.80	21.92	10.28	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch157 5.785G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	95.475	30.65	43.50	-12.85	35.40	-4.75	QP
2	143.611	30.57	43.50	-12.93	33.06	-2.49	QP
3	197.81	30.55	43.50	-12.95	34.81	-4.26	QP
* 4	295.416	34.96	46.00	-11.04	35.47	-0.51	QP
5	494.751	28.42	46.00	-17.58	23.84	4.58	QP
6	947.863	32.36	46.00	-13.64	22.05	10.31	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	CB2-H
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch157 5.785G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
* 1	71.589	34.19	40.00	-5.81	42.18	-7.99	QP
2	124.939	31.14	43.50	-12.36	33.04	-1.90	QP
3	167.983	29.17	43.50	-14.33	33.21	-4.04	QP
4	312.028	31.16	46.00	-14.84	31.19	-0.03	QP
5	532.46	31.29	46.00	-14.71	26.19	5.10	QP
6	941.679	32.56	46.00	-13.44	22.35	10.21	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11n 40M Ch151 5.755G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	95.111	29.49	43.50	-14.01	34.32	-4.83	QP
2	124.939	29.52	43.50	-13.98	31.42	-1.90	QP
3	197.083	30.66	43.50	-12.84	34.93	-4.27	QP
* 4	296.75	34.79	46.00	-11.21	35.28	-0.49	QP
5	396.66	28.37	46.00	-17.63	25.62	2.75	QP
6	943.013	32.47	46.00	-13.53	22.23	10.24	QP

1. All reading levels is Quasi-Peak value.

2. "  $^{\ast}$  ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO_802.11n_40M_Ch151_5.755G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
* 1	71.589	35.05	40.00	-4.95	43.04	-7.99	QP
2	124.939	31.51	43.50	-11.99	33.41	-1.90	QP
3	167.983	29.10	43.50	-14.40	33.14	-4.04	QP
4	312.028	32.00	46.00	-14.00	32.03	-0.03	QP
5	531.126	30.82	46.00	-15.18	25.74	5.08	QP
6	951.5	32.37	46.00	-13.63	22.01	10.36	QP

1. All reading levels is Quasi-Peak value.

2. " \* ", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor


### Above 1GHz Spurious

Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11a Ch36 5.18G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10360	59.13	68.20	-9.07	56.35	2.78	PK
2	15540	59.34	74.00	-14.66	52.19	7.15	PK
* 3	15540	45.50	54.00	-8.50	38.35	7.15	AV

Note:

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. " \* ", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11a Ch36 5.18G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10360	59.56	68.20	-8.64	56.78	2.78	PK
2	15540	59.13	74.00	-14.87	51.98	7.15	PK
* 3	15540	45.40	54.00	-8.60	38.25	7.15	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11a Ch44 5.22G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10440	58.45	68.20	-9.75	55.38	3.07	PK
2	15660	58.45	74.00	-15.55	51.60	6.85	PK
* 3	15660	45.28	54.00	-8.72	38.43	6.85	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11a Ch44 5.22G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10440	58.05	68.20	-10.15	54.98	3.07	PK
2	15660	58.51	74.00	-15.49	51.66	6.85	PK
* 3	15660	45.22	54.00	-8.78	38.37	6.85	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11a Ch48 5.24G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10480	58.11	68.20	-10.09	54.83	3.28	PK
2	15720	59.10	74.00	-14.90	52.36	6.74	PK
* 3	15720	45.76	54.00	-8.24	39.02	6.74	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11a Ch48 5.24G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10480	58.43	68.20	-9.77	55.15	3.28	PK
2	15720	58.80	74.00	-15.20	52.06	6.74	PK
* 3	15720	45.65	54.00	-8.35	38.91	6.74	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch36 5.18G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10360	59.26	68.20	-8.94	56.48	2.78	PK
2	15540	59.40	74.00	-14.60	52.25	7.15	PK
* 3	15540	45.56	54.00	-8.44	38.41	7.15	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch36 5.18G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
* 1	10360	59.87	68.20	-8.33	57.09	2.78	PK
2	15540	59.14	74.00	-14.86	51.99	7.15	PK
3	15540	45.57	54.00	-8.43	38.42	7.15	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch44 5.22G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10440	58.16	68.20	-10.04	55.09	3.07	PK
2	15660	59.30	74.00	-14.70	52.45	6.85	PK
* 3	15660	45.35	54.00	-8.65	38.50	6.85	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch44 5.22G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10440	58.62	68.20	-9.58	55.55	3.07	PK
2	15660	58.71	74.00	-15.29	51.86	6.85	PK
* 3	15660	45.32	54.00	-8.68	38.47	6.85	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch48 5.24G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10480	57.86	68.20	-10.34	54.58	3.28	PK
2	15720	58.78	74.00	-15.22	52.04	6.74	PK
* 3	15720	45.71	54.00	-8.29	38.97	6.74	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11n 20M Ch48 5.24G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10480	58.59	68.20	-9.61	55.31	3.28	PK
2	15720	58.96	74.00	-15.04	52.22	6.74	PK
* 3	15720	45.77	54.00	-8.23	39.03	6.74	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11n 40M Ch38 5.19G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10380	58.36	68.20	-9.84	55.54	2.82	PK
2	15570	58.05	74.00	-15.95	51.06	6.99	PK
* 3	15570	45.70	54.00	-8.30	38.71	6.99	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11n 40M Ch38 5.19G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10380	58.29	68.20	-9.91	55.47	2.82	PK
2	15570	58.33	74.00	-15.67	51.34	6.99	PK
* 3	15570	45.53	54.00	-8.47	38.54	6.99	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	22.0
Test Condition	SISO 802.11n 40M Ch46 5.23G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10460	58.68	68.20	-9.52	55.52	3.16	PK
2	15690	58.84	74.00	-15.16	51.98	6.86	PK
* 3	15690	46.05	54.00	-7.95	39.19	6.86	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/14
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	22.0
Test Condition	SISO 802.11n 40M Ch46 5.23G	Humidity (%RH)	54.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	10460	58.08	68.20	-10.12	54.92	3.16	PK
2	15690	58.23	74.00	-15.77	51.37	6.86	PK
* 3	15690	45.88	54.00	-8.12	39.02	6.86	AV

1.All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3.Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch149 5.745G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11490	44.68	54.00	-9.32	39.63	5.05	AV
2	11490	58.89	74.00	-15.11	53.84	5.05	PK
* 3	17235	60.80	68.20	-7.40	52.08	8.72	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch149 5.745G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11490	60.11	74.00	-13.89	55.06	5.05	PK
* 2	11490	47.19	54.00	-6.81	42.14	5.05	AV
3	17235	60.32	68.20	-7.88	51.60	8.72	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO_802.11a_Ch157_5.785G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11570	44.78	54.00	-9.22	39.70	5.08	AV
2	11570	59.27	74.00	-14.73	54.19	5.08	PK
* 3	17355	61.47	68.20	-6.73	52.23	9.24	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch157 5.785G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11570	59.53	74.00	-14.47	54.45	5.08	PK
2	11570	45.65	54.00	-8.35	40.57	5.08	AV
* 3	17355	62.10	68.20	-6.10	52.86	9.24	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch165 5.825G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11650	58.06	74.00	-15.94	52.95	5.11	PK
2	11650	44.22	54.00	-9.78	39.11	5.11	AV
* 3	17475	63.26	68.20	-4.94	53.57	9.69	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch165 5.825G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11650	45.38	54.00	-8.62	40.27	5.11	AV
2	11650	58.74	74.00	-15.26	53.63	5.11	PK
* 3	17475	62.69	68.20	-5.51	53.00	9.69	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch149 5.745G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11490	43.04	54.00	-10.96	37.99	5.05	AV
2	11490	57.84	74.00	-16.16	52.79	5.05	PK
* 3	17235	60.77	68.20	-7.43	52.05	8.72	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch149 5.745G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11490	44.03	54.00	-9.97	38.98	5.05	AV
2	11490	57.83	74.00	-16.17	52.78	5.05	PK
* 3	17235	60.85	68.20	-7.35	52.13	8.72	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO_802.11n_20M_Ch157_5.785G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11570	59.14	74.00	-14.86	54.06	5.08	PK
2	11570	44.79	54.00	-9.21	39.71	5.08	AV
* 3	17355	62.02	68.20	-6.18	52.78	9.24	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO_802.11n_20M_Ch157_5.785G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11570	59.80	74.00	-14.20	54.72	5.08	PK
2	11570	45.71	54.00	-8.29	40.63	5.08	AV
* 3	17355	62.12	68.20	-6.08	52.88	9.24	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch165 5.825G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11650	44.20	54.00	-9.80	39.09	5.11	AV
2	11650	58.53	74.00	-15.47	53.42	5.11	PK
* 3	17475	62.41	68.20	-5.79	52.72	9.69	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch165 5.825G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11650	45.56	54.00	-8.44	40.45	5.11	AV
2	11650	60.63	74.00	-13.37	55.52	5.11	PK
* 3	17475	62.64	68.20	-5.56	52.95	9.69	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO_802.11n_40M_Ch151_5.755G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11510	59.03	74.00	-14.97	53.96	5.07	PK
2	11510	44.83	54.00	-9.17	39.76	5.07	AV
* 3	17265	61.10	68.20	-7.10	52.25	8.85	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch151 5.755G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11510	45.18	54.00	-8.82	40.11	5.07	AV
2	11510	58.94	74.00	-15.06	53.87	5.07	PK
* 3	17265	60.28	68.20	-7.92	51.43	8.85	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch159 5.795G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11590	44.92	54.00	-9.08	39.84	5.08	AV
2	11590	58.48	74.00	-15.52	53.40	5.08	PK
* 3	17385	61.36	68.20	-6.84	52.01	9.35	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/13
Test Mode	Mode 1: Transmit Mode	Engineer	Elwin
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch159 5.795G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	11590	58.28	74.00	-15.72	53.20	5.08	PK
2	11590	45.07	54.00	-8.93	39.99	5.08	AV
* 3	17385	61.59	68.20	-6.61	52.24	9.35	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. "\*", means this data is the worst value.

3. Emission Level = Reading Level + Correct Factor.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



# 7. Band Edge

## 7.1. Test Setup

RF Radiated Measurement:



### 7.2. Limits

#### General Radiated Emission Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits						
Frequency MHz	uV/m @3m	dBuV/m@3m				
30 - 88	100	40				
88 - 216	150	43.5				
216 - 960	200	46				
Above 960	500	54				

Remark:

1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

FCC Part 15 Subpart E Paragraph 15.407(b) Limits					
Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (dBuV/m@3m)			
5150 - 5250	-27	68.3			
5250 - 5350	-27	68.3			
5470 - 5725	-27	68.3			
E70E E0E0	-27 (Note1)	68.3			
5725 - 5850	-17 (Note2)	78.3			

#### > Unwanted Emission out of the restricted bands Limits

4. For transmitters operating in the 5.725-5.85 GHz band

- (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.
- (ii) Devices certified before March 2, 2019 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in Section 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in Section 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.



#### Remark:

- 1. For frequencies more than 10 MHz above or below the band edges.
- 2. For frequency range from the band edges to 10 MHz above or below the band edges.

3. 
$$uV/m = \frac{1000000 \sqrt{30 \times EIRP}}{3}$$
, RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

# 7.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.



# 7.4. Test Result

Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch36 5.18G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	52.98	74.00	-21.02	28.96	24.02	PK
2	5148	70.63	74.00	-3.37	45.70	24.93	PK
3	5150	69.57	74.00	-4.43	44.64	24.93	PK
! 4	5177.5	109.99	74.00	35.99	84.96	25.03	PK
5	5350	56.65	74.00	-17.35	31.14	25.51	PK
6	5460	56.54	74.00	-17.46	30.75	25.79	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

4. The fundamental for reference only, it's not restricted by unwanted emission limit.


Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch36 5.18G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	41.93	54.00	-12.07	17.91	24.02	AV
2	5149.9	52.94	54.00	-1.06	28.01	24.93	AV
3	5150	53.01	54.00	-0.99	28.08	24.93	AV
! 4	5183	100.40	54.00	46.40	75.36	25.04	AV
5	5350	45.66	54.00	-8.34	20.15	25.51	AV
6	5460	45.64	54.00	-8.36	19.85	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch36 5.18G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	53.47	74.00	-20.53	29.45	24.02	PK
2	5147.75	70.07	74.00	-3.93	45.14	24.93	PK
3	5150	68.41	74.00	-5.59	43.48	24.93	PK
!4	5177.5	107.05	74.00	33.05	82.02	25.03	PK
5	5350	55.38	74.00	-18.62	29.87	25.51	PK
6	5460	57.61	74.00	-16.39	31.82	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch36 5.18G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	42.00	54.00	-12.00	17.98	24.02	AV
2	5149.9	50.81	54.00	-3.19	25.88	24.93	AV
3	5150	51.14	54.00	-2.86	26.21	24.93	AV
!4	5183.25	97.51	54.00	43.51	72.47	25.04	AV
5	5350	45.57	54.00	-8.43	20.06	25.51	AV
6	5460	45.68	54.00	-8.32	19.89	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch48 5.24G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	53.69	74.00	-20.31	29.67	24.02	PK
2	5150	55.39	74.00	-18.61	30.46	24.93	PK
! 3	5237.875	112.75	74.00	38.75	87.58	25.17	PK
4	5350	56.73	74.00	-17.27	31.22	25.51	PK
5	5417.125	58.87	74.00	-15.13	33.12	25.75	PK
6	5460	56.83	74.00	-17.17	31.04	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch48 5.24G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	42.04	54.00	-11.96	18.02	24.02	AV
2	5150	44.62	54.00	-9.38	19.69	24.93	AV
!3	5238.5	102.91	54.00	48.91	77.74	25.17	AV
4	5350	45.85	54.00	-8.15	20.34	25.51	AV
5	5357.625	46.03	54.00	-7.97	20.48	25.55	AV
6	5460	45.62	54.00	-8.38	19.83	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch48 5.24G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	52.68	74.00	-21.32	28.66	24.02	PK
2	5150	55.85	74.00	-18.15	30.92	24.93	PK
! 3	5238	108.88	74.00	34.88	83.71	25.17	PK
4	5350	56.88	74.00	-17.12	31.37	25.51	PK
5	5356.125	58.74	74.00	-15.26	33.20	25.54	PK
6	5460	57.28	74.00	-16.72	31.49	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	CB2-H
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch48 5.24G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	41.84	54.00	-12.16	17.82	24.02	AV
2	5150	44.41	54.00	-9.59	19.48	24.93	AV
! 3	5238.625	99.08	54.00	45.08	73.91	25.17	AV
4	5350	45.56	54.00	-8.44	20.05	25.51	AV
5	5442.75	45.85	54.00	-8.15	20.07	25.78	AV
6	5460	45.44	54.00	-8.56	19.65	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch36 5.18G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	52.46	74.00	-21.54	28.44	24.02	PK
2	5149.125	72.92	74.00	-1.08	47.99	24.93	PK
3	5150	65.40	74.00	-8.60	40.47	24.93	PK
! 4	5178.75	110.07	74.00	36.07	85.04	25.03	PK
5	5350	56.14	74.00	-17.86	30.63	25.51	PK
6	5460	55.67	74.00	-18.33	29.88	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch36 5.18G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	41.98	54.00	-12.02	17.96	24.02	AV
2	5149.9	53.16	54.00	-0.84	28.23	24.93	AV
3	5150	53.05	54.00	-0.95	28.12	24.93	AV
!4	5181.875	100.23	54.00	46.23	75.19	25.04	AV
5	5350	45.72	54.00	-8.28	20.21	25.51	AV
6	5460	45.43	54.00	-8.57	19.64	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch36 5.18G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	53.88	74.00	-20.12	29.86	24.02	PK
2	5143.375	68.83	74.00	-5.17	43.92	24.91	PK
3	5150	61.69	74.00	-12.31	36.76	24.93	PK
! 4	5183.5	107.02	74.00	33.02	81.98	25.04	PK
5	5350	56.60	74.00	-17.40	31.09	25.51	PK
6	5460	56.38	74.00	-17.62	30.59	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch36 5.18G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	42.24	54.00	-11.76	18.22	24.02	AV
2	5149.9	49.19	54.00	-4.81	24.26	24.93	AV
3	5150	49.19	54.00	-4.81	24.26	24.93	AV
!4	5182	96.90	54.00	42.90	71.86	25.04	AV
5	5350	45.64	54.00	-8.36	20.13	25.51	AV
6	5460	45.57	54.00	-8.43	19.78	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch48 5.24G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	53.24	74.00	-20.76	29.22	24.02	PK
2	5150	55.01	74.00	-18.99	30.08	24.93	PK
! 3	5238.875	112.58	74.00	38.58	87.41	25.17	PK
4	5350	58.04	74.00	-15.96	32.53	25.51	PK
5	5441.625	58.56	74.00	-15.44	32.78	25.78	PK
6	5460	56.32	74.00	-17.68	30.53	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch48 5.24G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	42.05	54.00	-11.95	18.03	24.02	AV
2	5150	44.83	54.00	-9.17	19.90	24.93	AV
! 3	5236.875	102.61	54.00	48.61	77.44	25.17	AV
4	5350	45.70	54.00	-8.30	20.19	25.51	AV
5	5426	45.74	54.00	-8.26	19.97	25.77	AV
6	5460	45.47	54.00	-8.53	19.68	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch48 5.24G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	53.21	74.00	-20.79	29.19	24.02	PK
2	5150	54.78	74.00	-19.22	29.85	24.93	PK
! 3	5239	108.12	74.00	34.12	82.94	25.18	PK
4	5350	56.14	74.00	-17.86	30.63	25.51	PK
5	5436.75	58.27	74.00	-15.73	32.49	25.78	PK
6	5460	56.31	74.00	-17.69	30.52	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch48 5.24G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	42.12	54.00	-11.88	18.10	24.02	AV
2	5150	44.42	54.00	-9.58	19.49	24.93	AV
! 3	5241.875	98.10	54.00	44.10	72.92	25.18	AV
4	5350	45.65	54.00	-8.35	20.14	25.51	AV
5	5450.5	45.70	54.00	-8.30	19.92	25.78	AV
6	5460	45.71	54.00	-8.29	19.92	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch38 5.19G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	52.50	74.00	-21.50	28.48	24.02	PK
2	5148.25	70.55	74.00	-3.45	45.62	24.93	PK
3	5150	64.51	74.00	-9.49	39.58	24.93	PK
! 4	5186.625	103.53	74.00	29.53	78.48	25.05	PK
5	5350	57.93	74.00	-16.07	32.42	25.51	PK
6	5460	56.71	74.00	-17.29	30.92	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch38 5.19G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	42.29	54.00	-11.71	18.27	24.02	AV
2	5149.9	53.58	54.00	-0.42	28.65	24.93	AV
3	5150	53.20	54.00	-0.80	28.27	24.93	AV
!4	5186.25	93.41	54.00	39.41	68.36	25.05	AV
5	5350	45.98	54.00	-8.02	20.47	25.51	AV
6	5460	45.96	54.00	-8.04	20.17	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch38 5.19G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	52.70	74.00	-21.30	28.68	24.02	PK
2	5148.625	68.88	74.00	-5.12	43.95	24.93	PK
3	5150	62.76	74.00	-11.24	37.83	24.93	PK
! 4	5186.5	100.39	74.00	26.39	75.34	25.05	PK
5	5350	57.51	74.00	-16.49	32.00	25.51	PK
6	5460	56.81	74.00	-17.19	31.02	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	CB2-H
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch38 5.19G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	42.39	54.00	-11.61	18.37	24.02	AV
2	5149.9	50.97	54.00	-3.03	26.04	24.93	AV
3	5150	50.96	54.00	-3.04	26.03	24.93	AV
!4	5186.25	90.35	54.00	36.35	65.30	25.05	AV
5	5350	45.82	54.00	-8.18	20.31	25.51	AV
6	5460	46.07	54.00	-7.93	20.28	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch46 5.23G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	53.34	74.00	-20.66	29.32	24.02	PK
2	5142.25	64.84	74.00	-9.16	39.93	24.91	PK
3	5150	61.48	74.00	-12.52	36.55	24.93	PK
!4	5227.625	109.22	74.00	35.22	84.07	25.15	PK
5	5350	56.76	74.00	-17.24	31.25	25.51	PK
6	5460	56.74	74.00	-17.26	30.95	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch46 5.23G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	42.40	54.00	-11.60	18.38	24.02	AV
2	5149.9	51.60	54.00	-2.40	26.67	24.93	AV
3	5150	51.62	54.00	-2.38	26.69	24.93	AV
!4	5227.875	98.90	54.00	44.90	73.74	25.16	AV
5	5350	46.65	54.00	-7.35	21.14	25.51	AV
6	5460	45.73	54.00	-8.27	19.94	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch46 5.23G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	52.63	74.00	-21.37	28.61	24.02	PK
2	5145.125	63.10	74.00	-10.90	38.17	24.93	PK
3	5150	61.71	74.00	-12.29	36.78	24.93	PK
!4	5235.75	105.75	74.00	31.75	80.58	25.17	PK
5	5350	57.82	74.00	-16.18	32.31	25.51	PK
6	5460	56.68	74.00	-17.32	30.89	25.79	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch46 5.23G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	4500	41.98	54.00	-12.02	17.96	24.02	AV
2	5149.9	50.25	54.00	-3.75	25.32	24.93	AV
3	5150	50.27	54.00	-3.73	25.34	24.93	AV
! 4	5238	95.47	54.00	41.47	70.30	25.17	AV
5	5350	46.45	54.00	-7.55	20.94	25.51	AV
6	5460	45.88	54.00	-8.12	20.09	25.79	AV

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch149 5.745G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	56.42	74.00	-17.58	30.91	25.51	PK
2	5350	45.48	54.00	-8.52	19.97	25.51	AV
3	5460	57.69	74.00	-16.31	31.90	25.79	PK
4	5460	45.41	54.00	-8.59	19.62	25.79	AV
5	5607.563	59.15	68.20	-9.05	32.79	26.36	PK
6	5659.078	59.53	74.94	-15.41	33.10	26.43	PK
7	5742.75	112.72	131.20	-18.48	86.05	26.67	PK
8	5922.016	59.96	70.40	-10.44	32.79	27.17	PK
* 9	6025.594	61.82	68.20	-6.38	34.30	27.52	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch149 5.745G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	56.98	74.00	-17.02	31.47	25.51	PK
2	5350	45.58	54.00	-8.42	20.07	25.51	AV
3	5460	57.69	74.00	-16.31	31.90	25.79	PK
4	5460	45.48	54.00	-8.52	19.69	25.79	AV
5	5579.125	59.67	68.20	-8.53	33.42	26.25	PK
6	5658.422	59.81	74.46	-14.64	33.38	26.43	PK
7	5742.859	109.44	131.20	-21.76	82.77	26.67	PK
8	5920.594	60.18	71.45	-11.26	33.01	27.17	PK
* 9	5995.844	61.29	68.20	-6.91	33.92	27.37	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch165 5.825G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	57.96	74.00	-16.04	32.45	25.51	PK
2	5350	45.47	54.00	-8.53	19.96	25.51	AV
3	5460	56.87	74.00	-17.13	31.08	25.79	PK
4	5460	45.43	54.00	-8.57	19.64	25.79	AV
5	5515.141	59.34	68.20	-8.86	33.42	25.92	PK
6	5658.75	59.00	74.70	-15.70	32.57	26.43	PK
7	5822.922	112.67	131.20	-18.53	85.70	26.97	PK
8	5920.594	60.59	71.45	-10.85	33.42	27.17	PK
* 9	6013.891	61.39	68.20	-6.81	33.94	27.45	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11a Ch165 5.825G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	56.91	74.00	-17.09	31.40	25.51	PK
2	5350	45.52	54.00	-8.48	20.01	25.51	AV
3	5460	57.11	74.00	-16.89	31.32	25.79	PK
4	5460	45.47	54.00	-8.53	19.68	25.79	AV
5	5631.844	60.21	68.20	-7.99	33.81	26.40	PK
6	5657	59.02	73.40	-14.38	32.60	26.42	PK
7	5822.922	108.85	131.20	-22.35	81.88	26.97	PK
8	5919.609	60.46	72.17	-11.71	33.29	27.17	PK
* 9	6008.859	62.18	68.20	-6.02	34.76	27.42	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch149 5.745G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	57.34	74.00	-16.66	31.83	25.51	PK
2	5350	45.43	54.00	-8.57	19.92	25.51	AV
3	5460	57.66	74.00	-16.34	31.87	25.79	PK
4	5460	45.39	54.00	-8.61	19.60	25.79	AV
5	5613.578	60.10	68.20	-8.10	33.73	26.37	PK
6	5660.281	60.97	75.83	-14.86	34.54	26.43	PK
7	5740.672	112.63	131.20	-18.57	85.98	26.65	PK
8	5920.922	61.31	71.21	-9.89	34.14	27.17	PK
* 9	6029.75	61.93	68.20	-6.27	34.40	27.53	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch149 5.745G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	56.03	74.00	-17.97	30.52	25.51	PK
2	5350	45.46	54.00	-8.54	19.95	25.51	AV
3	5460	56.30	74.00	-17.70	30.51	25.79	PK
4	5460	45.47	54.00	-8.53	19.68	25.79	AV
5	5578.578	60.06	68.20	-8.14	33.81	26.25	PK
6	5658.531	59.61	74.54	-14.93	33.18	26.43	PK
7	5740.672	109.47	131.20	-21.73	82.82	26.65	PK
8	5923.766	60.84	69.11	-8.27	33.67	27.17	PK
* 9	6016.406	61.59	68.20	-6.61	34.13	27.46	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch165 5.825G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	56.43	74.00	-17.57	30.92	25.51	PK
2	5350	45.57	54.00	-8.43	20.06	25.51	AV
3	5460	57.45	74.00	-16.55	31.66	25.79	PK
4	5460	45.52	54.00	-8.48	19.73	25.79	AV
5	5600.453	59.49	68.20	-8.71	33.13	26.36	PK
6	5653.938	58.17	71.13	-12.95	31.75	26.42	PK
7	5820.734	112.46	131.20	-18.74	85.49	26.97	PK
8	5922.125	60.42	70.32	-9.90	33.25	27.17	PK
* 9	6069.234	62.00	68.20	-6.20	34.27	27.73	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 20M Ch165 5.825G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	56.25	74.00	-17.75	30.74	25.51	PK
2	5350	45.52	54.00	-8.48	20.01	25.51	AV
3	5460	55.92	74.00	-18.08	30.13	25.79	PK
4	5460	45.51	54.00	-8.49	19.72	25.79	AV
5	5586.016	59.66	68.20	-8.54	33.38	26.28	PK
6	5653,719	58.50	70.96	-12.46	32.08	26.42	PK
7	5823.906	108.53	131.20	-22.67	81.56	26.97	PK
8	5922.563	59.92	70.00	-10.08	32.75	27.17	PK
* 9	6009.516	62.96	68.20	-5.24	35.53	27.43	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch151 5.755G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	55.95	74.00	-18.05	30.44	25.51	PK
2	5350	45.46	54.00	-8.54	19.95	25.51	AV
3	5460	56.68	74.00	-17.32	30.89	25.79	PK
4	5460	45.53	54.00	-8.47	19.74	25.79	AV
* 5	5645.406	66.96	68.20	-1.24	40.55	26.41	PK
6	5655.688	67.73	72.43	-4.70	41.31	26.42	PK
7	5768.125	109.95	131.20	-21.25	83.17	26.78	PK
8	5919.063	61.14	72.58	-11.44	33.98	27.16	PK
9	6047.359	61.53	68.20	-6.67	33.91	27.62	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch151 5.755G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	56.55	74.00	-17.45	31.04	25.51	PK
2	5350	45.50	54.00	-8.50	19.99	25.51	AV
3	5460	55.95	74.00	-18.05	30.16	25.79	PK
4	5460	45.57	54.00	-8.43	19.78	25.79	AV
* 5	5645.734	63.24	68.20	-4.96	36.83	26.41	PK
6	5655.359	63.95	72.18	-8.23	37.53	26.42	PK
7	5745.922	106.21	131.20	-24.99	79.53	26.68	PK
8	5921.031	59.72	71.13	-11.40	32.55	27.17	PK
9	5976.047	62.29	68.20	-5.91	34.97	27.32	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Horizontal	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch159 5.795G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	57.14	74.00	-16.86	31.63	25.51	РК
2	5350	45.39	54.00	-8.61	19.88	25.51	AV
3	5460	56.76	74.00	-17.24	30.97	25.79	PK
4	5460	45.56	54.00	-8.44	19.77	25.79	AV
5	5587.328	62.01	68.20	-6.19	35.72	26.29	PK
6	5653.828	60.08	71.04	-10.96	33.66	26.42	PK
7	5786.281	110.49	131.20	-20.71	83.62	26.87	PK
8	5920.375	65.06	71.61	-6.54	37.89	27.17	PK
* 9	5927.156	64.95	68.20	-3.25	37.76	27.19	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Model No	VG54-NA	Site	СВ2-Н
Test Voltage	DC 12V	Test Date	2020/7/11
Test Mode	Mode 1: Transmit Mode	Engineer	Lion
Polarity	Vertical	Temperature (°C)	23.0
Test Condition	SISO 802.11n 40M Ch159 5.795G	Humidity (%RH)	55.0



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	5350	57.44	74.00	-16.56	31.93	25.51	PK
2	5350	45.48	54.00	-8.52	19.97	25.51	AV
3	5460	58.04	74.00	-15.96	32.25	25.79	PK
4	5460	45.48	54.00	-8.52	19.69	25.79	AV
5	5582.625	60.37	68.20	-7.83	34.10	26.27	PK
6	5658.75	59.33	74.70	-15.37	32.90	26.43	PK
7	5800.719	106.15	131.20	-25.05	79.22	26.93	PK
8	5919.063	62.74	72.58	-9.84	35.58	27.16	PK
* 9	6043.203	62.01	68.20	-6.19	34.41	27.60	PK

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.

2. Emission Level = Reading Level + Correct Factor.

3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.