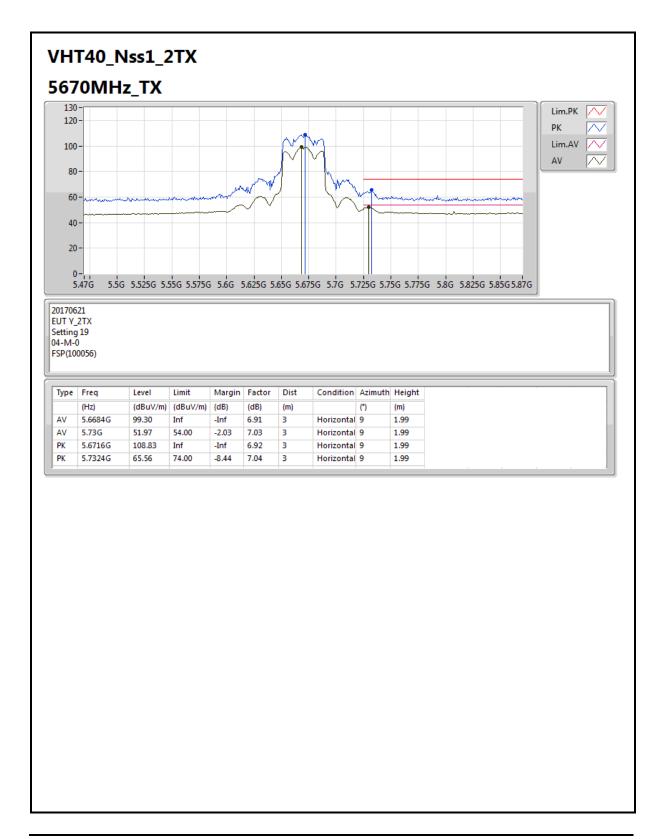


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 163 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018

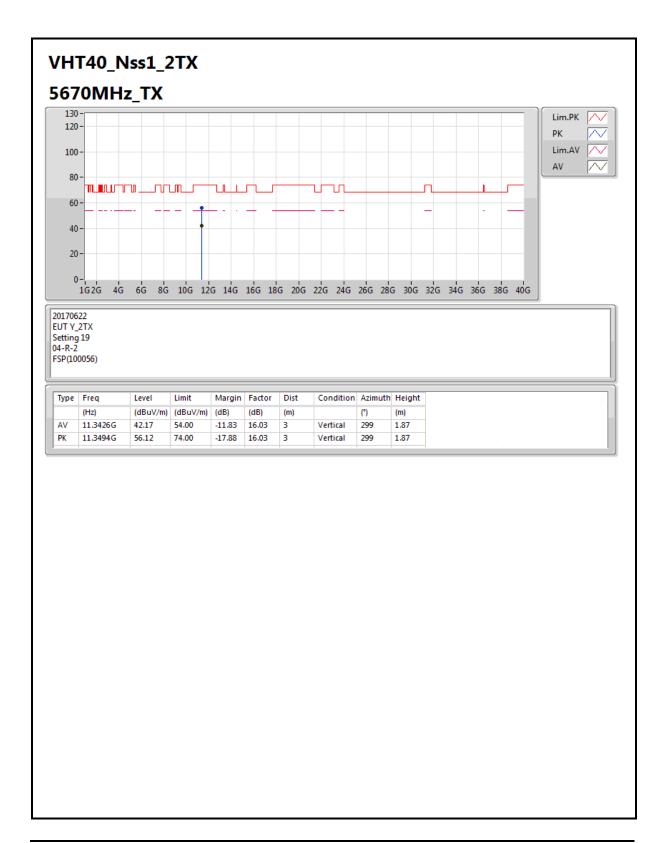




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TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 164 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018

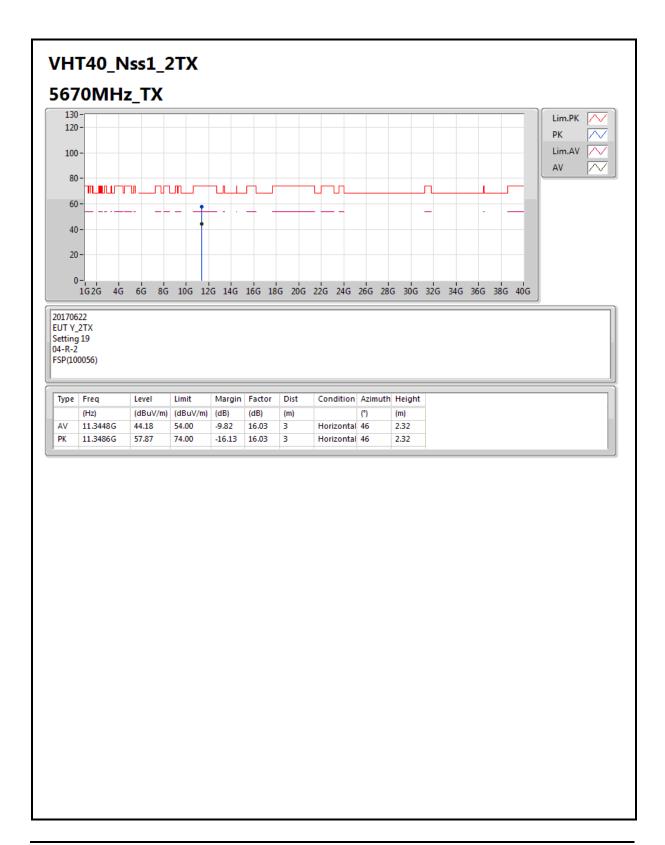




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 165 of 264 : Rev. 03 Report Version Issued Date : Jan. 12, 2018

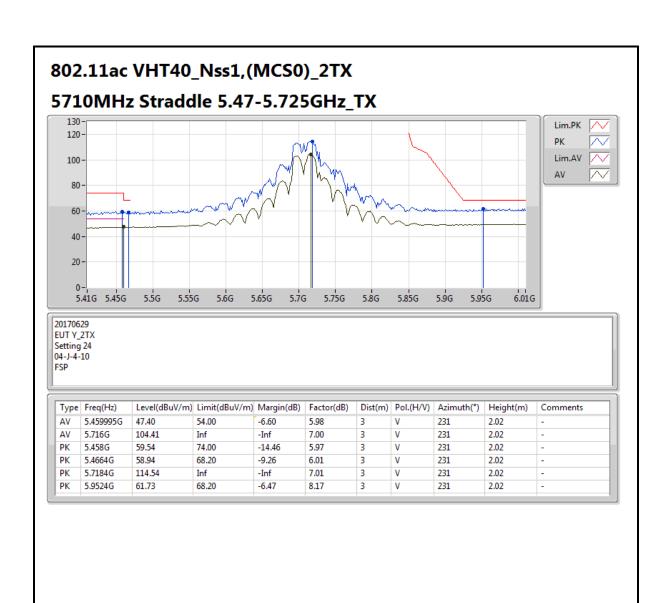




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 166 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018



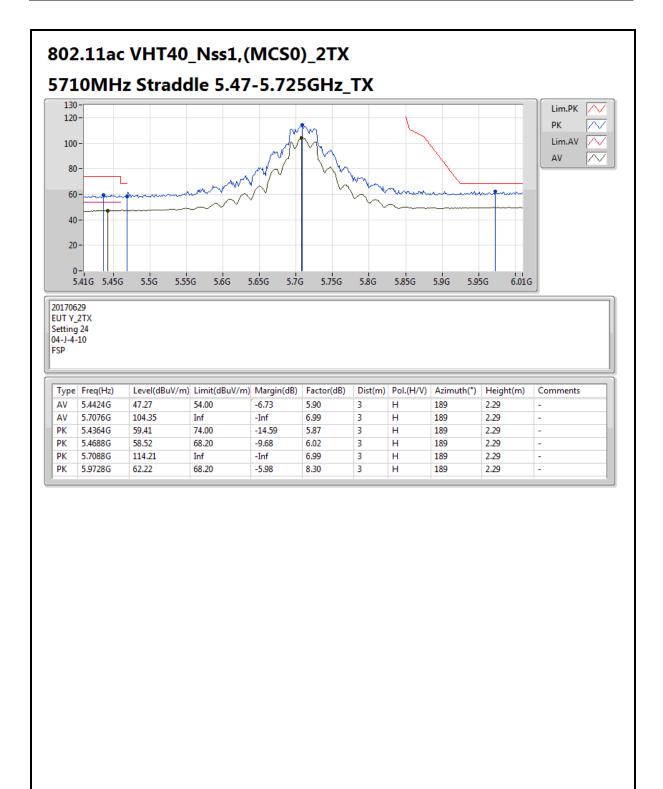


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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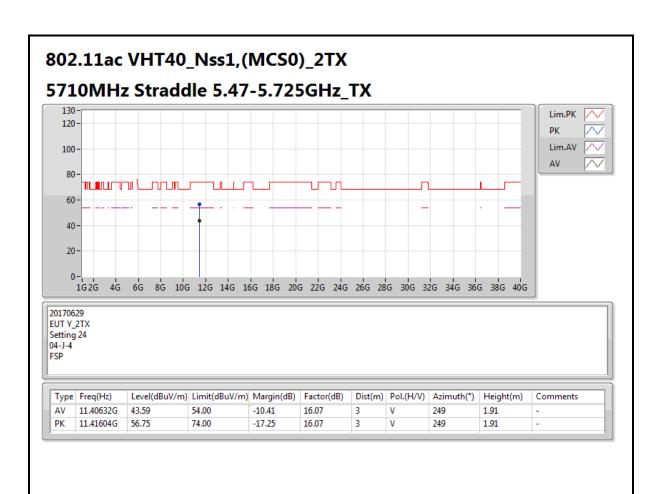


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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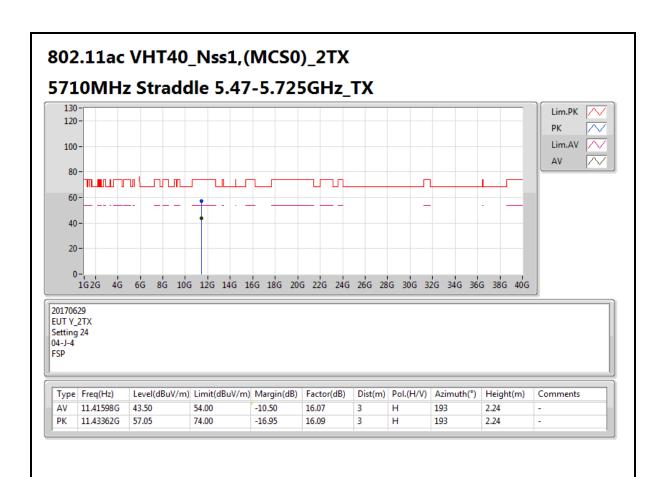


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VHT80\_Nss1\_2TX 5290MHz\_TX 130 Lim.PK 120-PK  $\triangle$ Lim.AV 100-A۷ 80 -60 -40 -20 -5.125G 5.15G 5.175G 5.2G 5.225G 5.25G 5.275G 5.3G 5.325G 5.375G 5.4G 5.425G 5.45G 5.49G 20170621 EUT Y\_2TX Setting 16 04-M-0 FSP(100056) Condition Azimuth Height Type Freq Limit Margin Factor Dist Level (Hz) (dBuV/m) (dBuV/m) (dB) (dB) (m) (°) 5.1412G 46.29 54.00 -7.71 5.28 Vertical 41 1.12 ΑV 5.3028G 91.37 -Inf 5.60 3 Vertical 41 1.12 5.3628G Vertical ΑV 53.98 54.00 -0.02 5.66 41 1.12 5.0972G 59.60 74.00 -14.40 5.13 Vertical 41 1.12 PK 5.3028G 103.76 Inf -Inf 5.60 Vertical 41 1.12 PK 5.3636G 68.87 74.00 -5.13 5.66 Vertical 41 1.12 3

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VHT80\_Nss1\_2TX 5290MHz\_TX 130 Lim.PK 120-PK Lim.AV 100-A۷ 80 -60 -40 -20 -5.125G 5.15G 5.175G 5.2G 5.225G 5.25G 5.275G 5.3G 5.325G 5.375G 5.4G 5.425G 5.45G 5.49G 20170621 EUT Y\_2TX Setting 16 04-M-0 FSP(100056) Condition Azimuth Height Type Freq Limit Margin Factor Dist Level (Hz) (dBuV/m) (dBuV/m) (dB) (dB) (m) (°) 5.106G 46.21 54.00 -7.79 Horizontal 353 1.97 5.16 ΑV 5.2884G 92.06 -Inf 5.59 3 Horizontal 353 1.97 ΑV 5.3516G Horizontal 353 52.28 54.00 -1.72 5.65 1.97 5.0956G 57.91 74.00 5.12 Horizontal 353 1.97 -16.09 PK 5.3108G 102.89 Inf -Inf 5.61 Horizontal 353 1.97 PK 5.3532G 65.07 74.00 -8.93 5.65 Horizontal 353 1.97 3

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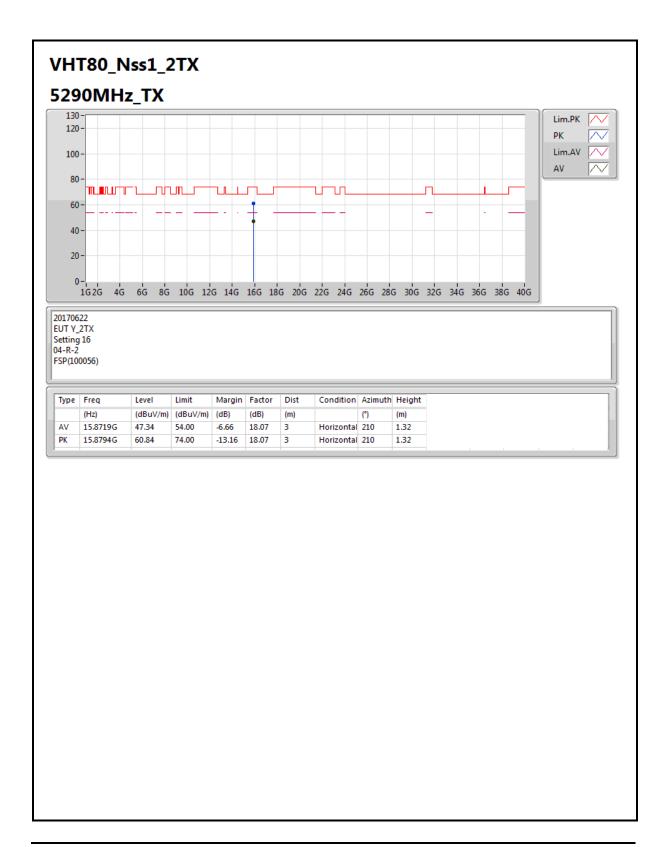
VHT80\_Nss1\_2TX 5290MHz\_TX 130 Lim.PK 120-PK Lim.AV / 100-A۷ 80 -60 -40 -20 -0-| 162G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170622 EUT Y\_2TX Setting 16 04-R-2 FSP(100056)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.8727G	47.32	54.00	-6.68	18.07	3	Vertical	174	1.24
PK	15.875G	61.32	74.00	-12.68	18.07	3	Vertical	174	1.24

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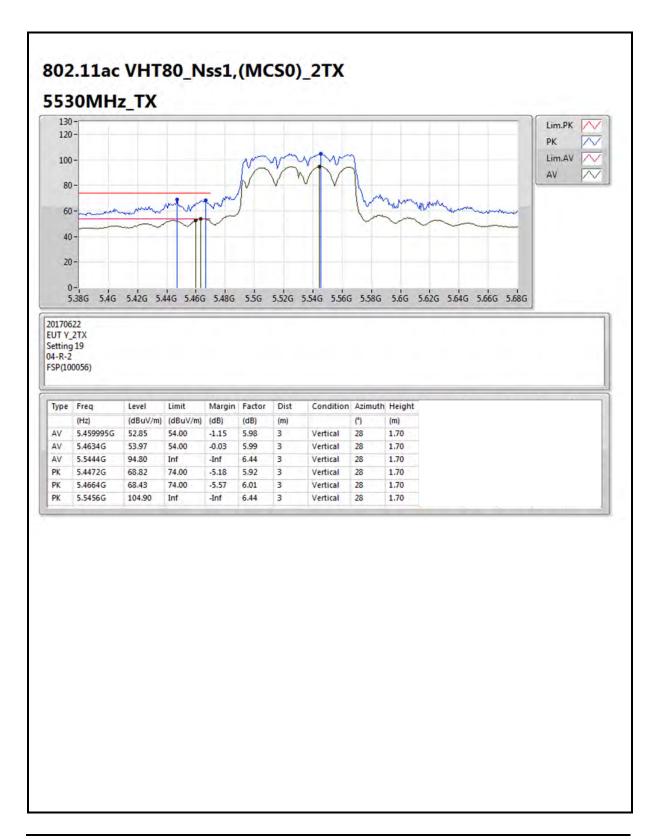




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TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 174 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018



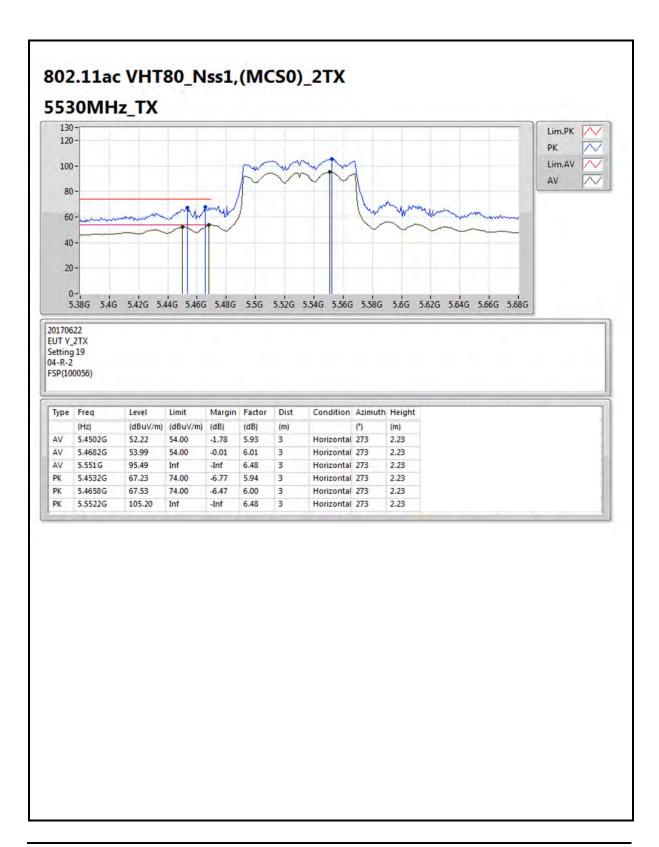


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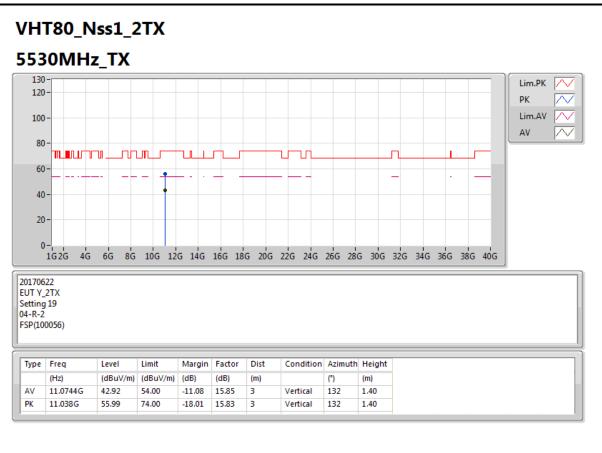
SPORTON INTERNATIONAL INC.

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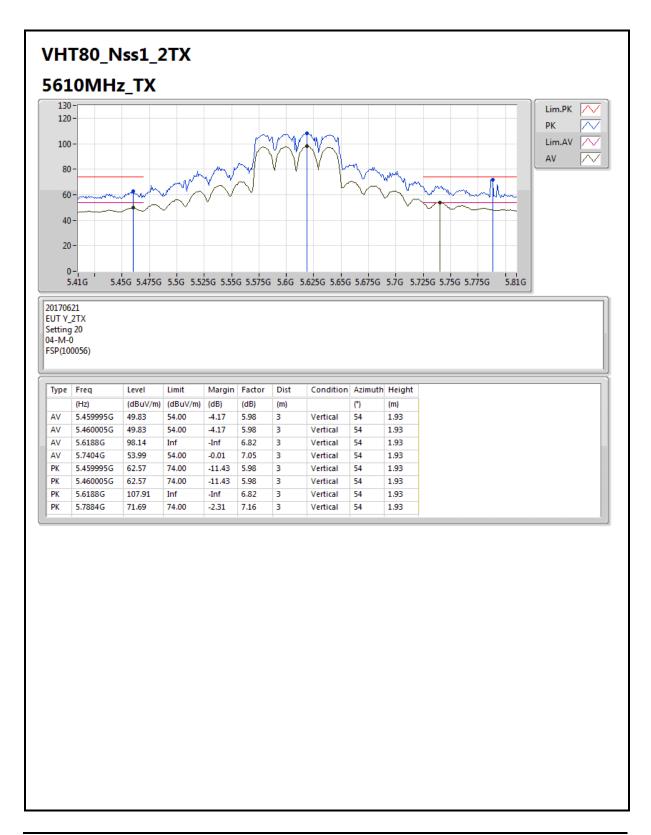


VHT80\_Nss1\_2TX 5530MHz\_TX 130 Lim.PK 120-PK Lim.AV / 100 A۷ 80 -60 -40 -20 -1G2G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170622 EUT Y\_2TX Setting 19 04-R-2 FSP(100056) Type Freq Level Limit Margin Factor Dist Condition Azimuth Height (Hz) (dBuV/m) (dBuV/m) (dB) (dB) (°) 3 ΑV 11.0839G 42.91 54.00 -11.09 15.86 Horizontal 256 1.59 PK 11.0658G 56.43 74.00 -17.57 15.84 3 Horizontal 256 1.59

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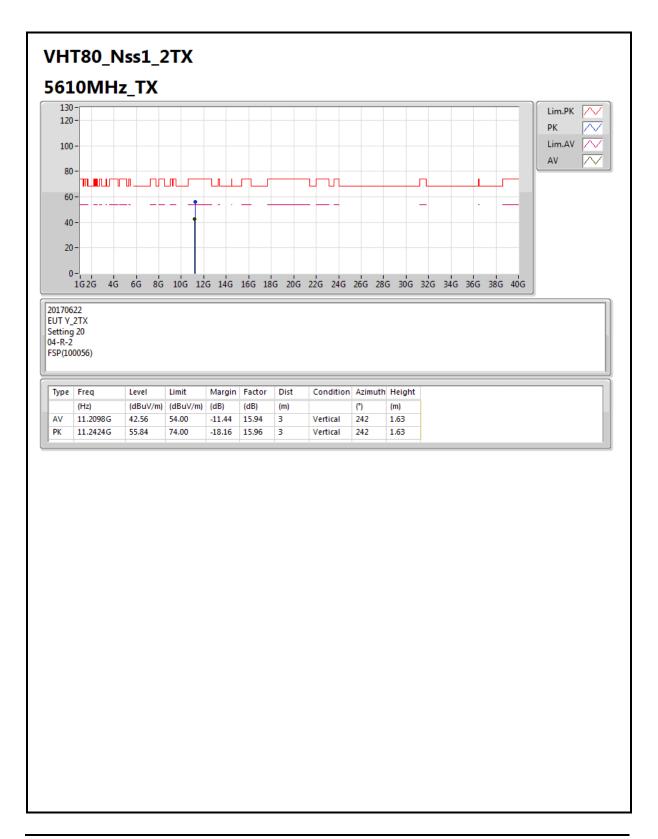


VHT80\_Nss1\_2TX 5610MHz\_TX 130 Lim.PK 120-PK Lim.AV 100 80-60 -40 -20 -5.86G 5.4G 5.65G 5.7G 5.8G 5.36G 5.45G 5.55G 5.6G 5.75G 20170621 EUT Y\_2TX Setting 20 04-M-0 FSP(100056) Type Freq Level Limit Margin Factor Dist Condition Azimuth Height (Hz) (dBuV/m) (dBuV/m) (dB) (dB) (°) ΑV 5.449G 48.66 54.00 -5.34 5.93 3 Horizontal 349 1.98 ΑV 5.469G 54.00 -3.34 6.02 Horizontal 349 1.98 50.66 ΑV 5.589G 97.11 Inf -Inf 6.71 Horizontal 349 1.98 ΑV 7.03 5.73G 54.00 -1.22 Horizontal 349 52.78 1.98 5.449G 62.76 74.00 -11.24 5.93 Horizontal 349 1.98 PK 5.468G 63.51 74.00 -10.49 6.01 Horizontal 349 1.98 PK 5.608G 106.70 6.80 Inf -Inf 3 Horizontal 349 1.98 PK 5.732G 66.01 74.00 -7.99 7.04 Horizontal 349 1.98

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VHT80\_Nss1\_2TX 5610MHz\_TX 130-Lim.PK 120-PK 100 -Lim.AV A۷ 80 -60 -40 -20 -0- | 1G2G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170622 EUT Y\_2TX Setting 20 04-R-2 FSP(100056)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.2289G	42.51	54.00	-11.49	15.95	3	Horizontal	72	1.75
PK	11.2103G	55.34	74.00	-18.66	15.94	3	Horizontal	72	1.75

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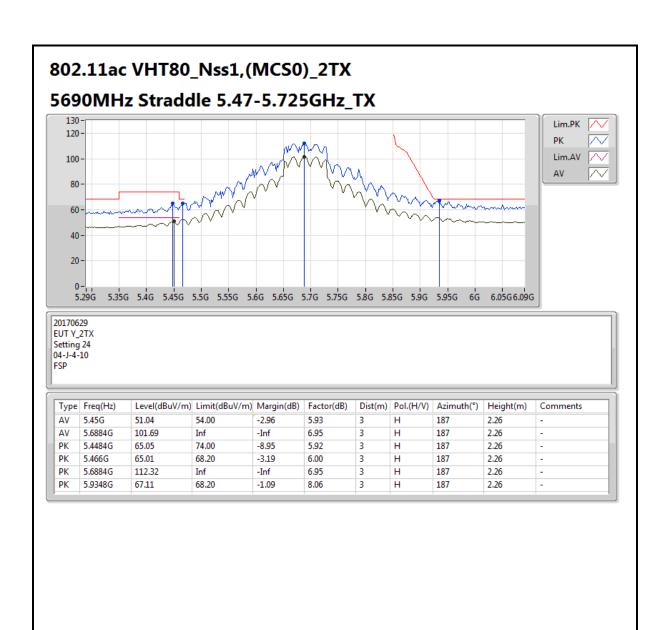


802.11ac VHT80\_Nss1,(MCS0)\_2TX 5690MHz Straddle 5.47-5.725GHz\_TX Lim.PK 120-PK  $\sim$ Lim.AV 100 A۷ 80-60 -40 -20 -5.35G 5.4G 5.45G 5.5G 5.55G 5.6G 5.65G 5.7G 5.75G 5.8G 5.85G 5.9G 5.95G 6G 6.05G6.09G 20170629 EUT Y\_2TX Setting 24 04-J-4-10 FSP Type Freq(Hz) Level(dBuV/m) Limit(dBuV/m) Margin(dB) Factor(dB) Dist(m) Pol.(H/V) Azimuth(°) Height(m) Comments 52.15 1.04 ΑV 5.459995G 54.00 -1.85 5.98 3 231 5.6836G 100.79 6.94 ٧ 1.04 PK 5.459995G 74.00 -9.14 5.98 V 231 1.04 64.86 3 68.20 PK 5.4612G 65.21 -2.99 5.98 3 231 1.04 5.6644G 110.76 Inf -Inf 6.90 231 1.04 68.20 PK 5.9428G 66.29 -1.91 8.11 3 231 1.04

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## 802.11ac VHT80\_Nss1,(MCS0)\_2TX 5690MHz Straddle 5.47-5.725GHz TX Lim.PK 120 -PK Lim.AV / 100 A۷ 80 -60 -40 -20 -1G2G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170629 EUT Y\_2TX Setting 24 04-J-4 FSP

Туре	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.3875G	43.41	54.00	-10.59	16.06	3	V	324	1.94	-
PK	11.39146G	57.15	74.00	-16.85	16.06	3	V	324	1.94	-

SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

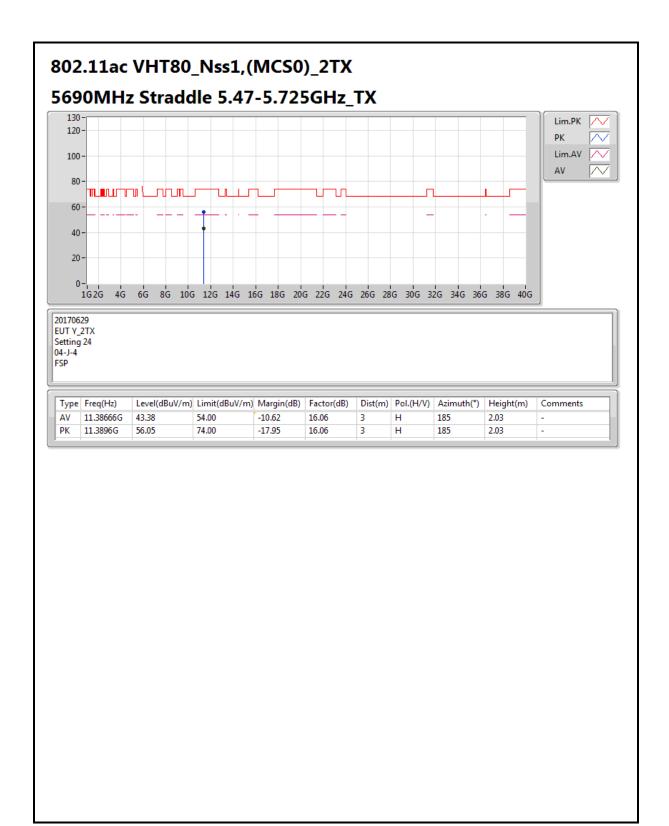
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## FCC Test Report

<For Beamforming Mode>
Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)	
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.25-5.35GHz	Pass	AV	5.3828G	53.87	54.00	-0.13	5.68	3	V	243	1.50	-

Report No. : FR760620-01

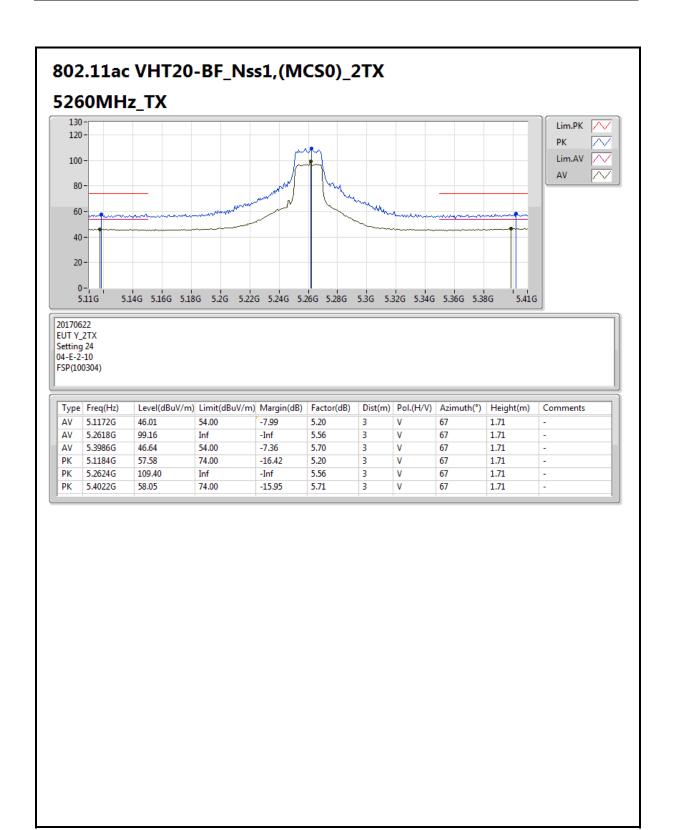
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802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX 5260MHz\_TX 130 Lim.PK 120 -PK  $\triangle$ Lim.AV 100-A۷ 80-60-40 -20 -5.14G 5.16G 5.18G 5.2G 5.22G 5.24G 5.26G 5.28G 5.3G 5.32G 5.34G 5.36G 5.38G 5.11G 20170622 EUT Y\_2TX Setting 24 04-E-2-10 FSP(100304) Type Freq(Hz) Level(dBuV/m) Limit(dBuV/m) Margin(dB) Factor(dB) Dist(m) Pol.(H/V) Azimuth(\*) Height(m) Comments AV 5.1232G 45.99 54.00 -8.01 5.22 3 1.43 ΑV 5.2666G 97.28 5.56 Inf -Inf 3 Н 26 1.43 A۷ 5.4082G 46.85 54.00 -7.15 5.74 3 Н 26 1.43 PK 5.1394G 57.70 74.00 -16.30 5.28 3 Н 26 1.43 1.43 PK 5.257G 108.48 5.55 Inf -Inf 3 Н 26 PK 5.4022G 59.02 74.00 -14.98 5.71 3 1.43

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FSP(100304)

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX 5260MHz\_TX 130 Lim.PK 120-PK Lim.AV / A۷ 80 -60 -40 -20 -1G2G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170622 EUT Y\_2TX Setting 24 04-E-2

Туре	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
ΑV	15.79128G	48.09	54.00	-5.91	18.00	3	V	271	2.07	-
PK	15.7791G	60.55	74.00	-13.45	17.99	3	V	271	2.07	-

SPORTON INTERNATIONAL INC.

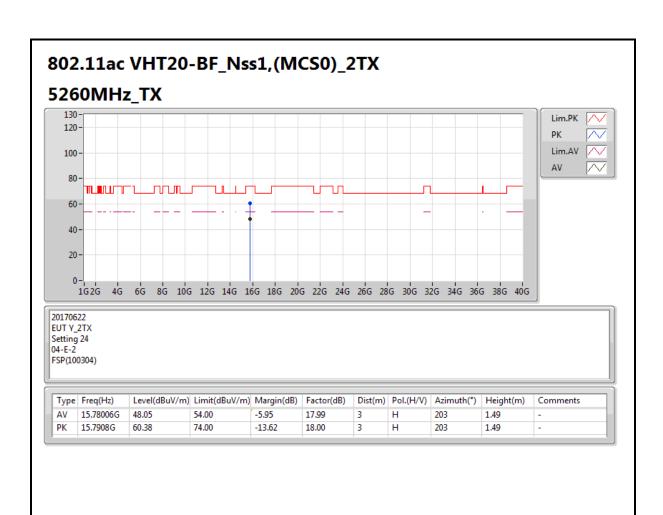
TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 

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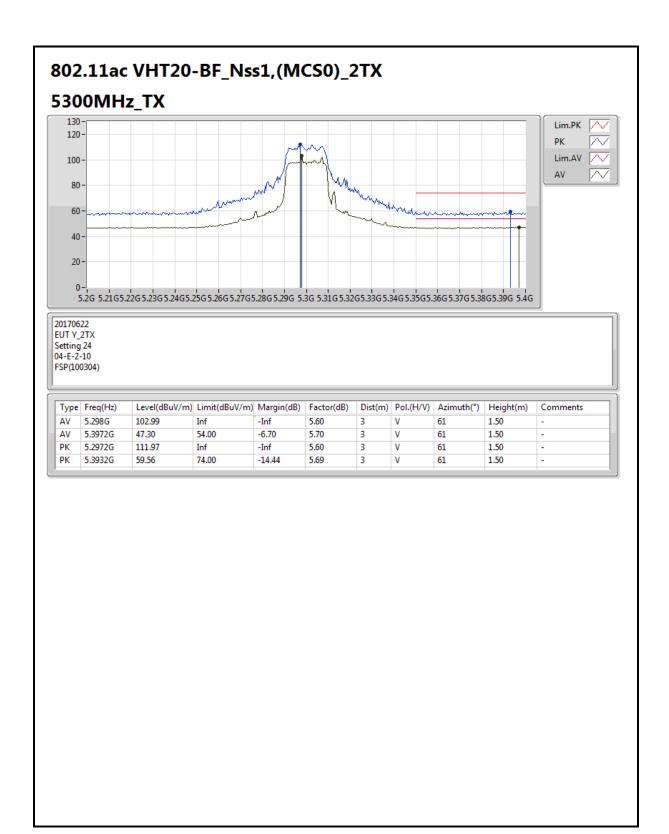
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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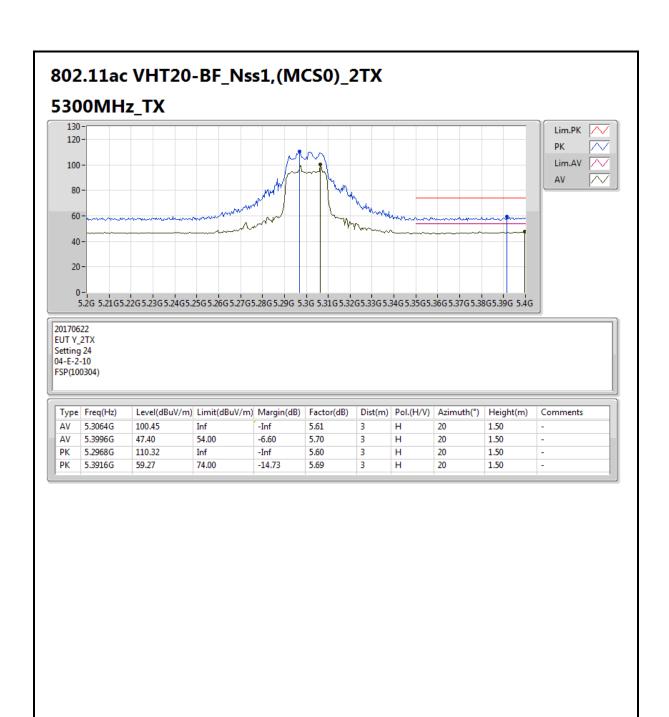




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TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 192 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018





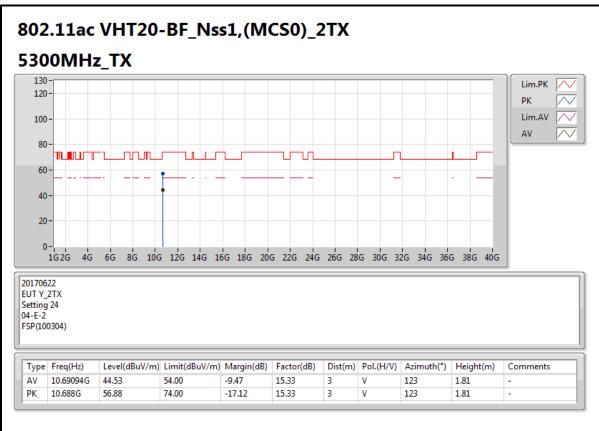
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

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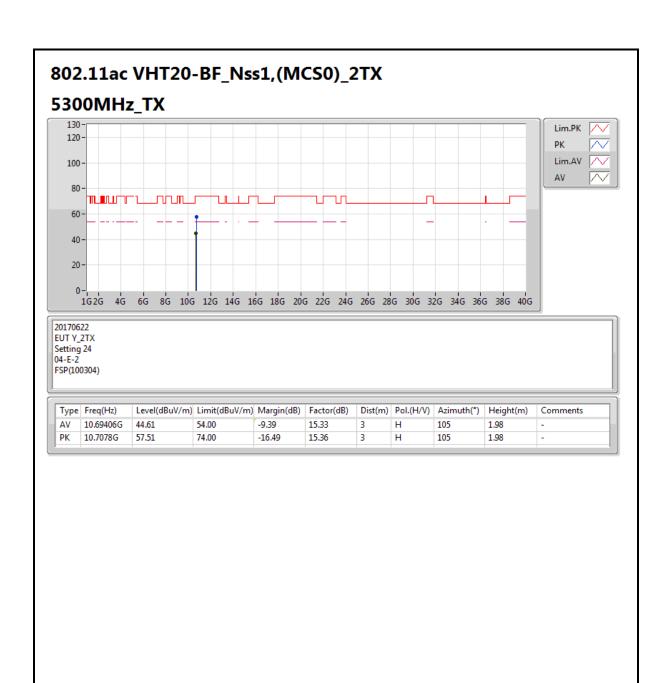




SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: UDX-60066010





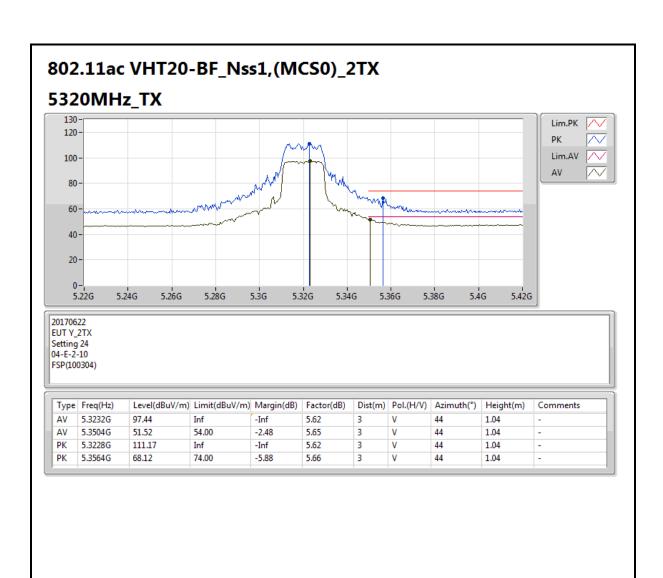
SPORTON INTERNATIONAL INC.

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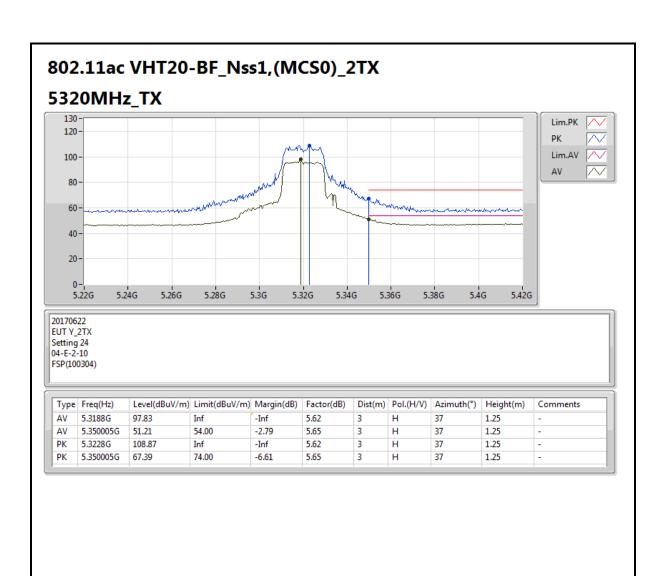
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FAX: 886-3-3270973 FCC ID: UDX-60066010

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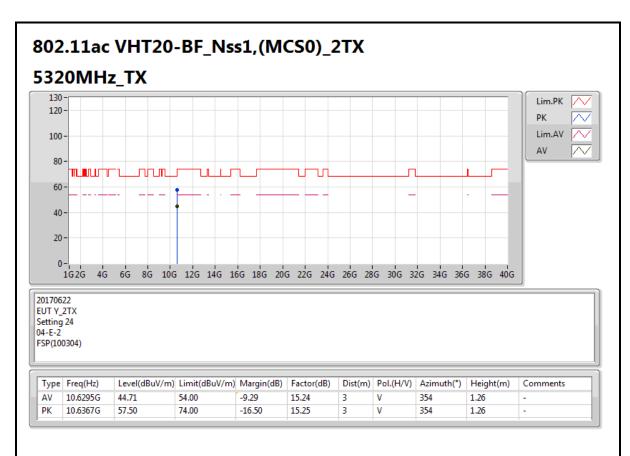
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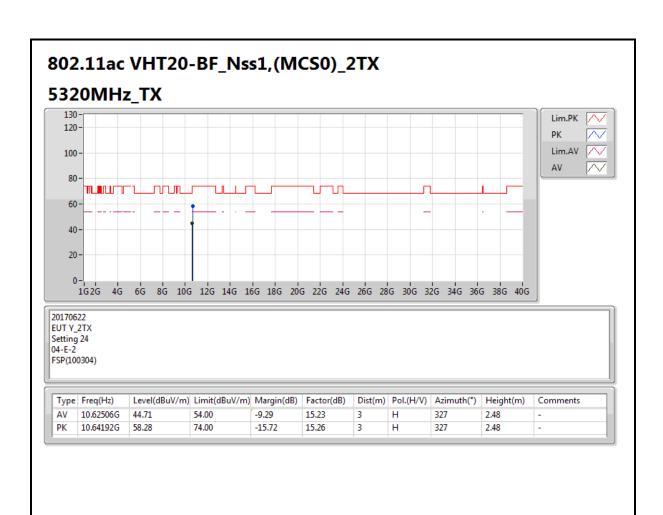




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802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

5500MHz\_TX

130
120
100
80
60
201
5.4G 5.4IG5.42G5.43G5.44G5.45G5.46G5.47G5.48G5.49G 5.5G 5.5IG5.52G5.53G5.54G5.55G5.56G5.57G5.58G5.59G 5.6G

20170622
EUT Y\_2TX
Setting 23
04-E-2-10
FSP(100304)

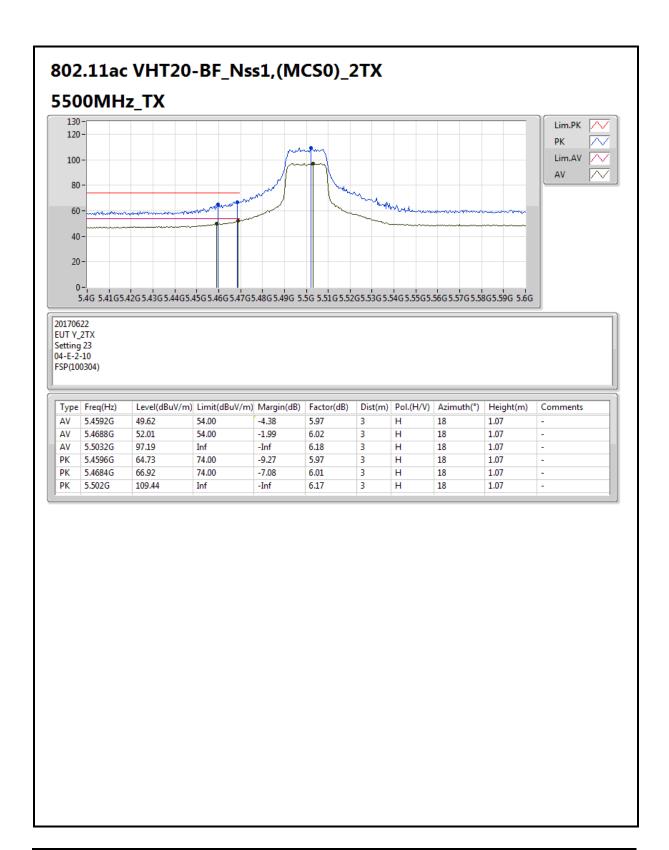
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.46G	49.96	54.00	-4.04	5.98	3	V	46	1.94	-
AV	5.4688G	53.69	54.00	-0.31	6.02	3	V	46	1.94	-
AV	5.498G	98.51	Inf	-Inf	6.15	3	V	46	1.94	-
PK	5.4588G	65.64	74.00	-8.36	5.97	3	V	46	1.94	-
PK	5.4692G	70.37	74.00	-3.63	6.02	3	V	46	1.94	-
PK	5.4968G	110.68	Inf	-Inf	6.15	3	V	46	1.94	-

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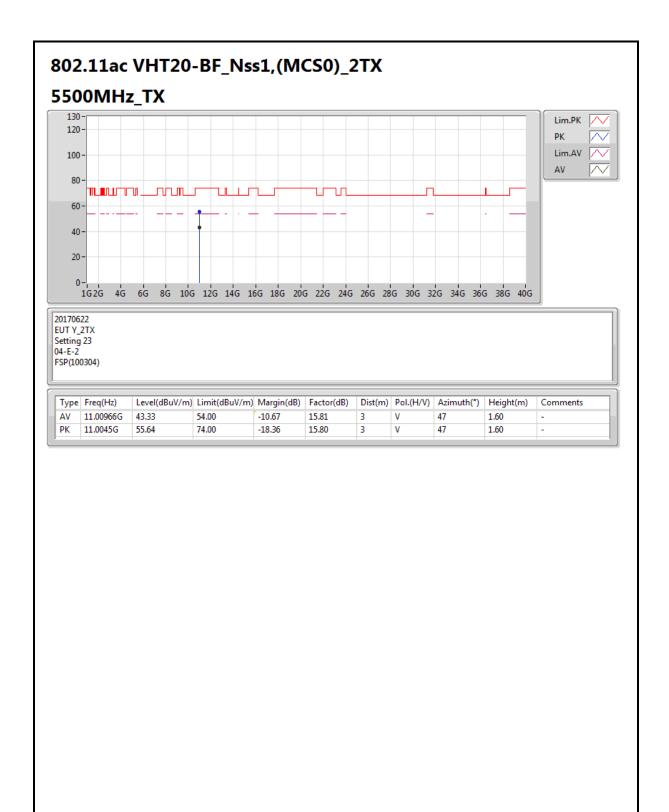
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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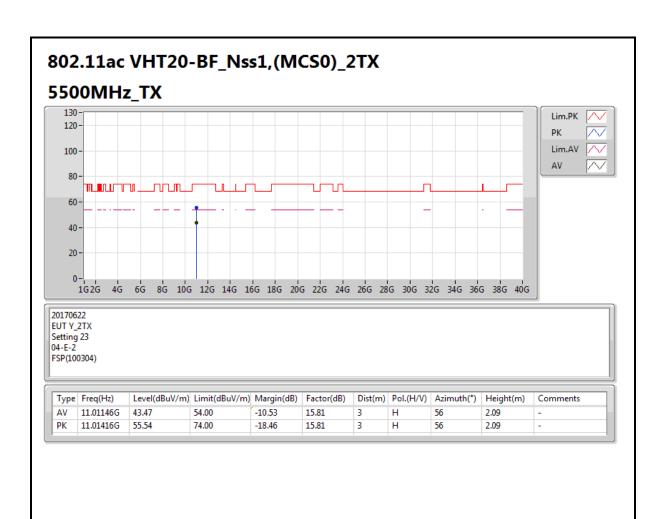




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 202 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018

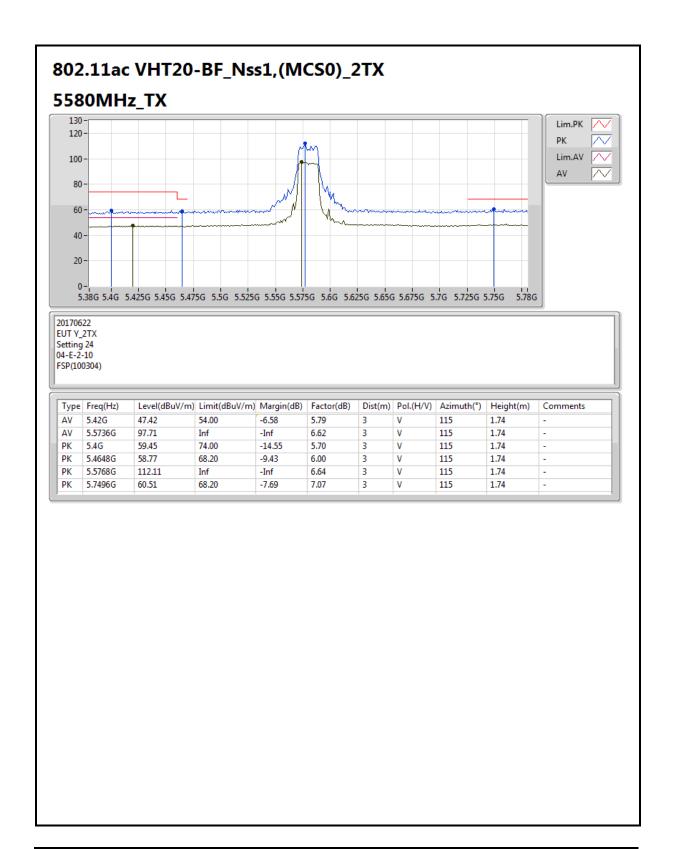




SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 203 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018





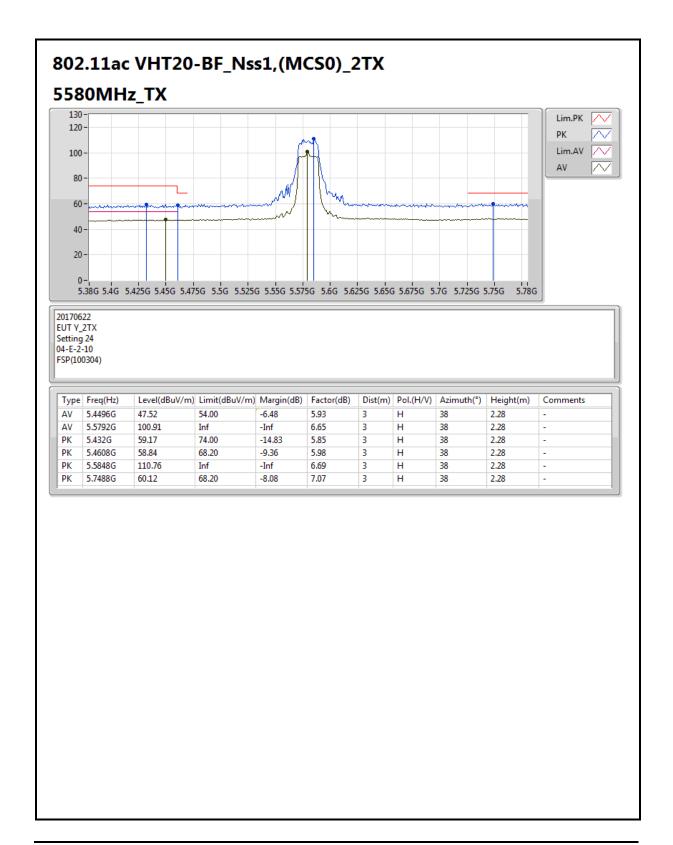
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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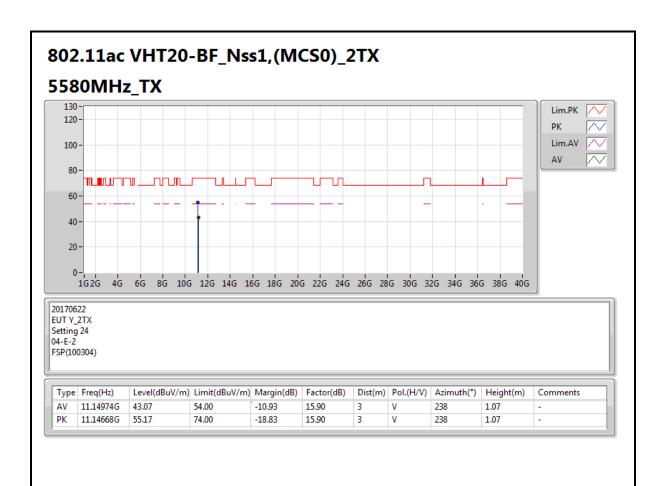


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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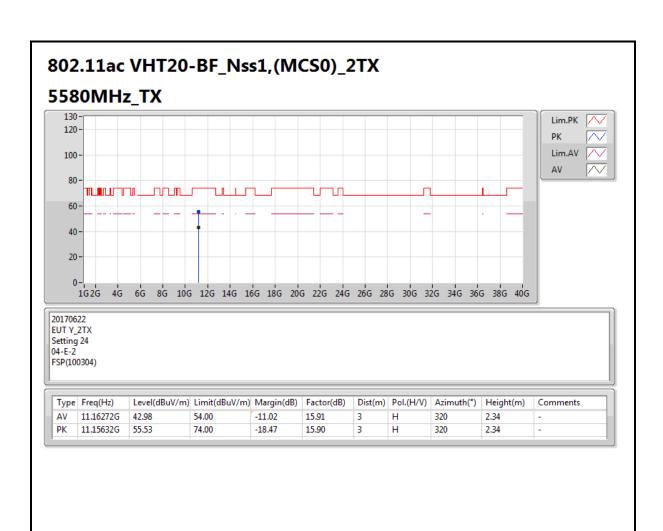




SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 206 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018





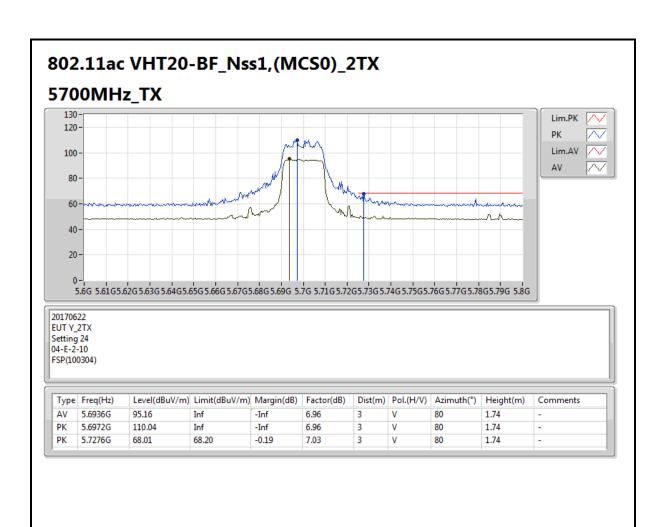
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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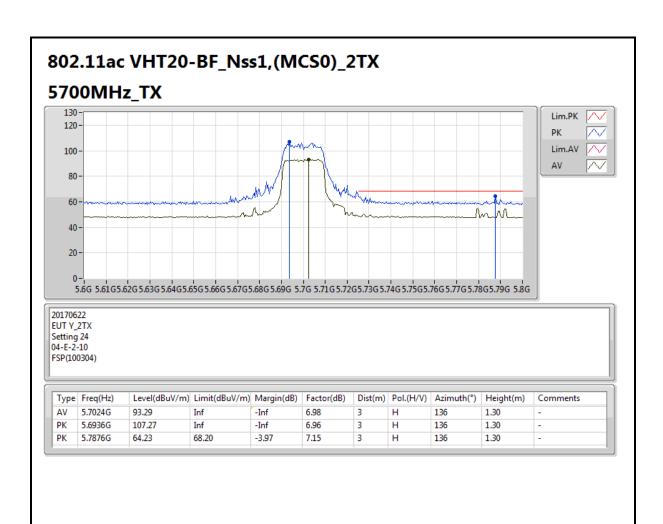




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 208 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018





SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX 5700MHz\_TX 130 Lim.PK 120-PK Lim.AV / A۷ 80 -60 -40 -20 -1G2G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170622 EUT Y\_2TX Setting 24 04-E-2 FSP(100304)

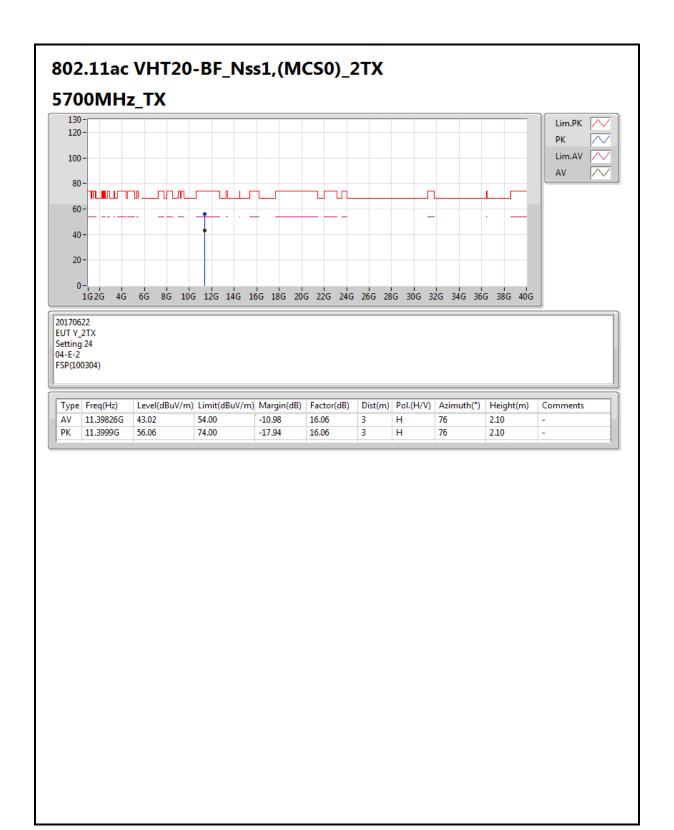
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ΑV	11.40492G	43.46	54.00	-10.54	16.07	3	V	256	2.13	-
PK	11.39788G	56.06	74.00	-17.94	16.06	3	V	256	2.13	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 210 of 264
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Issued Date : Jan. 12, 2018

Report No.: FR760620-01

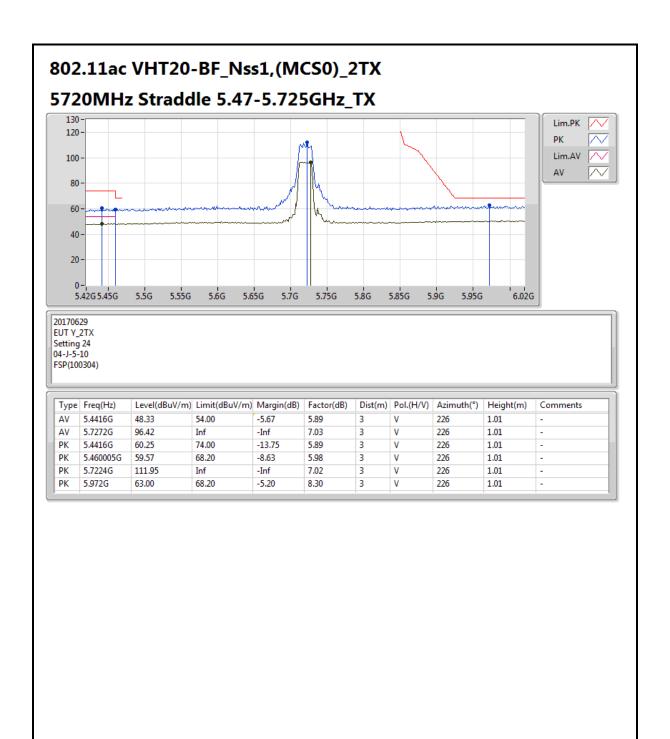




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 211 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018



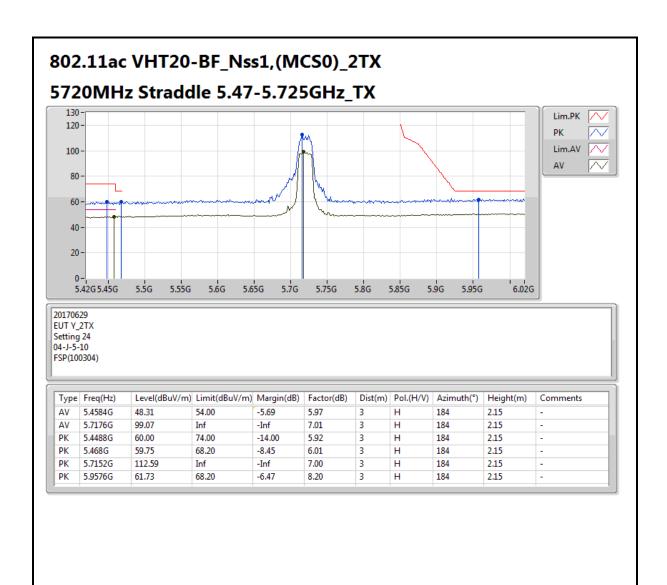


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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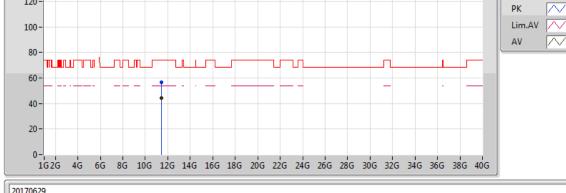
SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX
5720MHz Straddle 5.47-5.725GHz\_TX



20170629 EUT Y\_2TX Setting 24 04-J-5 FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
ΑV	11.43694G	44.24	54.00	-9.76	16.09	3	V	325	1.39	-
PK	11.43268G	56.67	74.00	-17.33	16.09	3	V	325	1.39	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 

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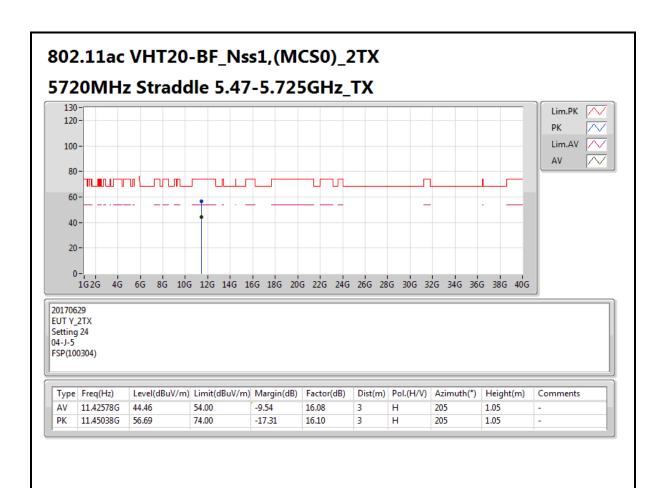
 Report Version
 : Rev. 03

 Issued Date
 : Jan. 12, 2018

Report No.: FR760620-01

Lim.PK



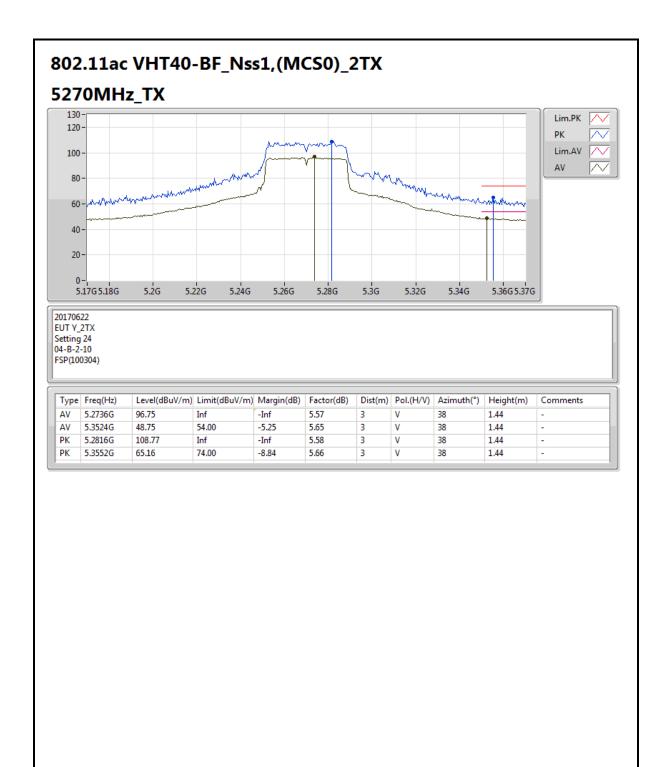


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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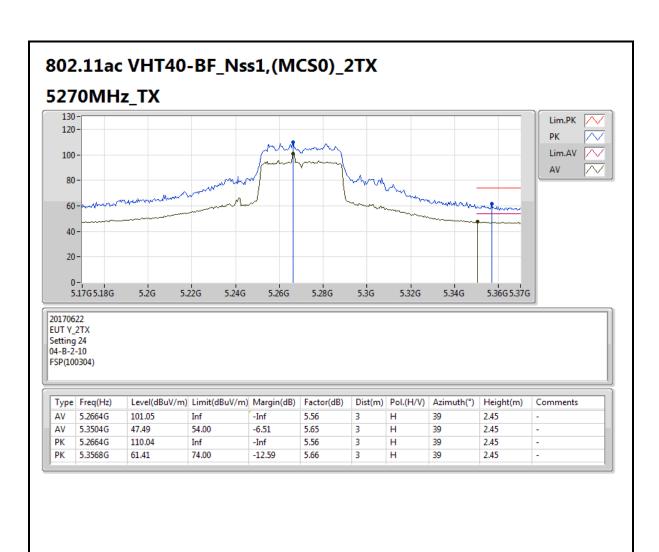
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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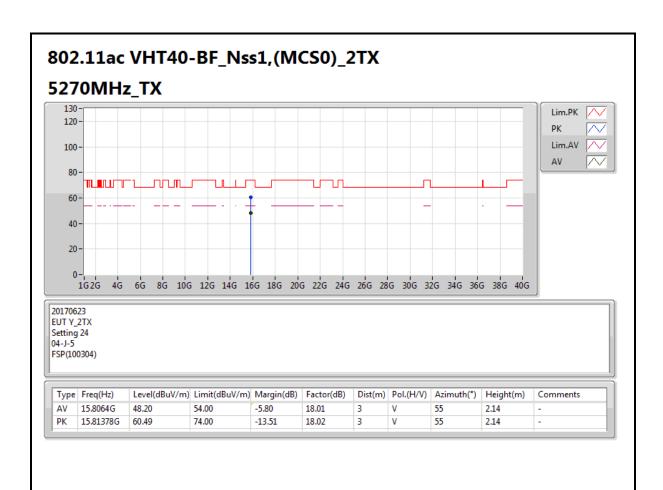




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 217 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018

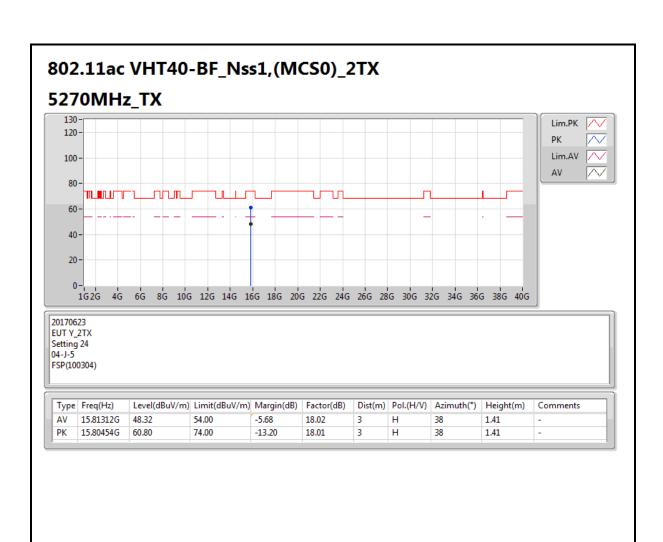




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 218 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018





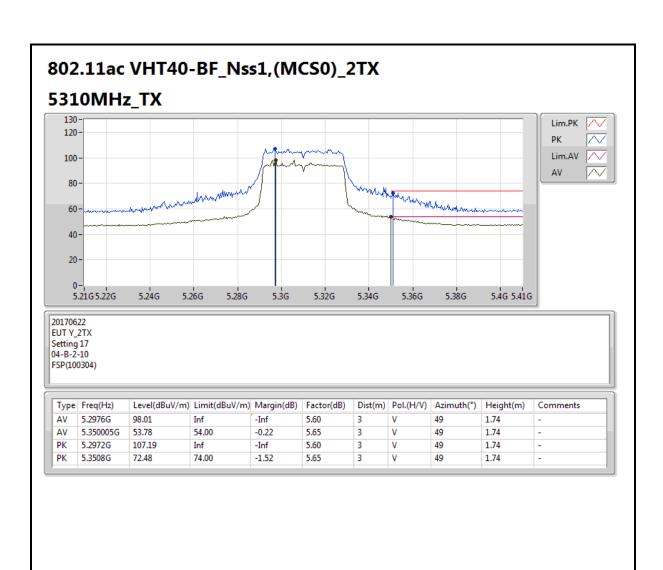
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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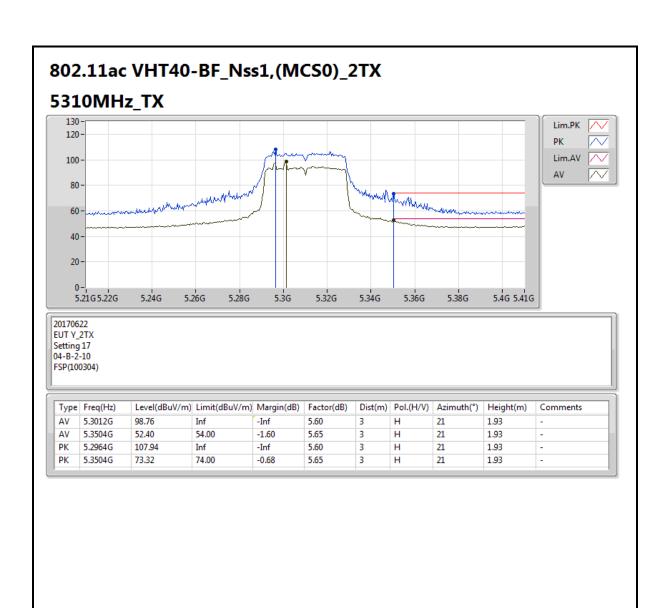
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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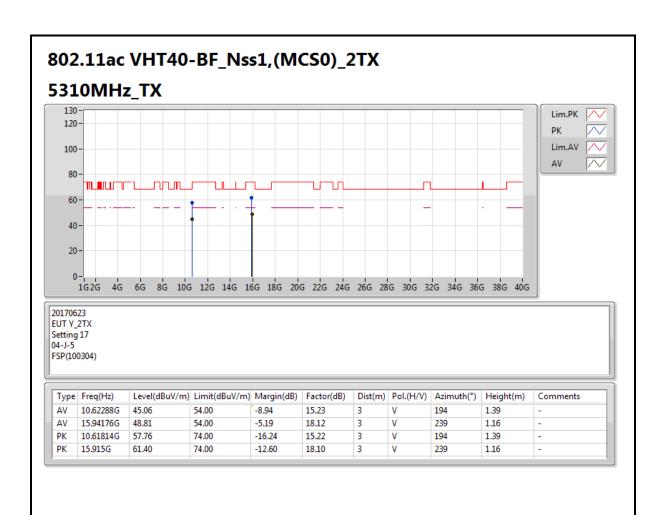
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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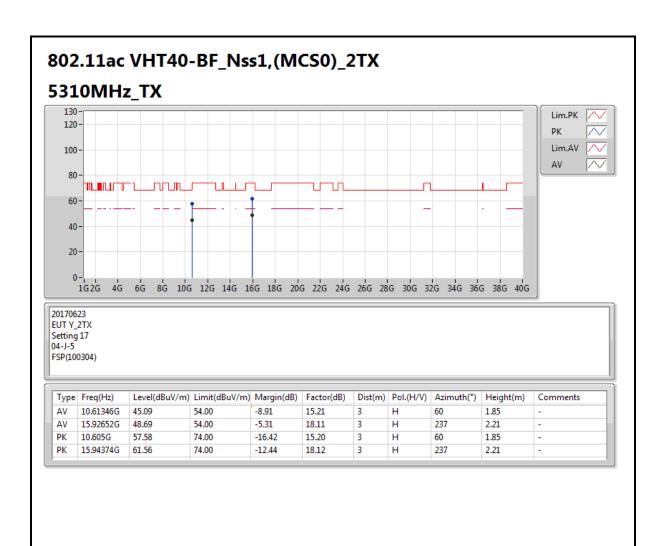
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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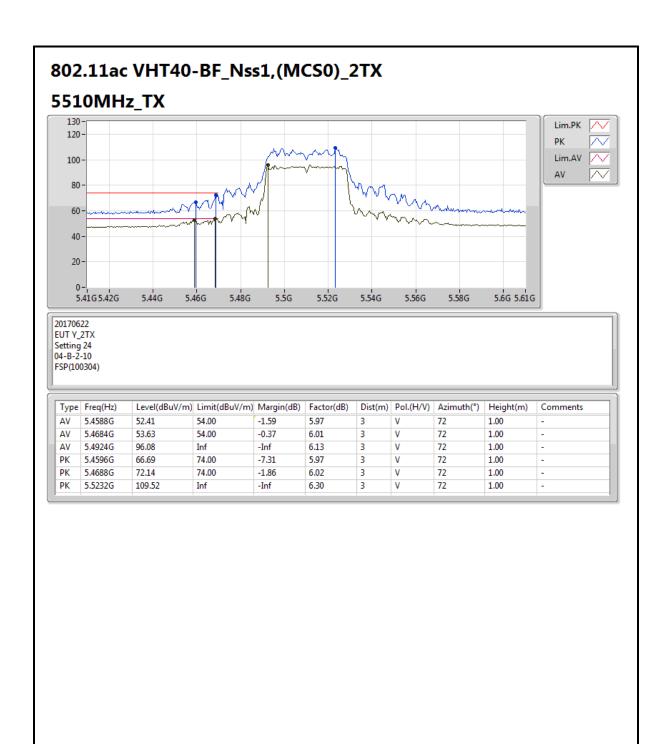
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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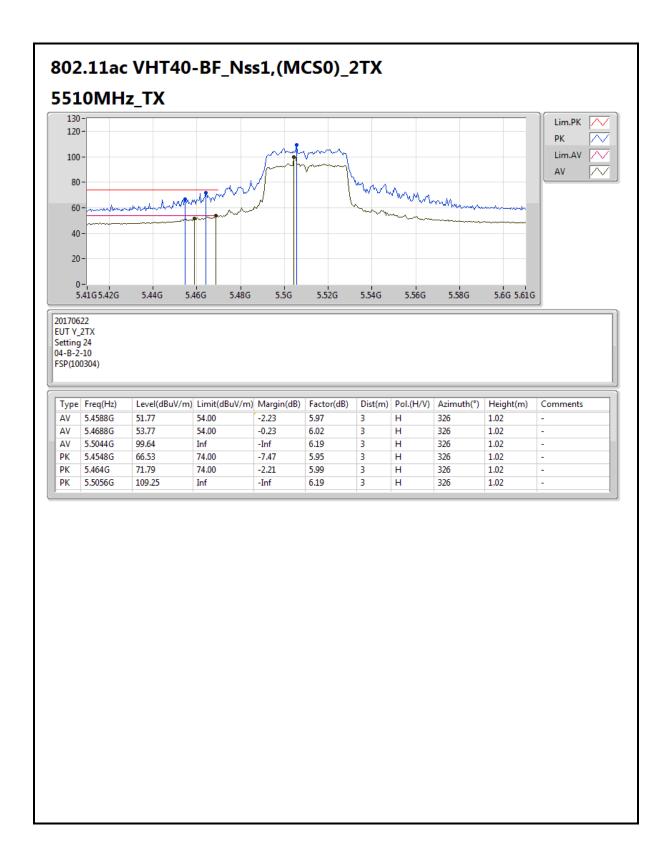


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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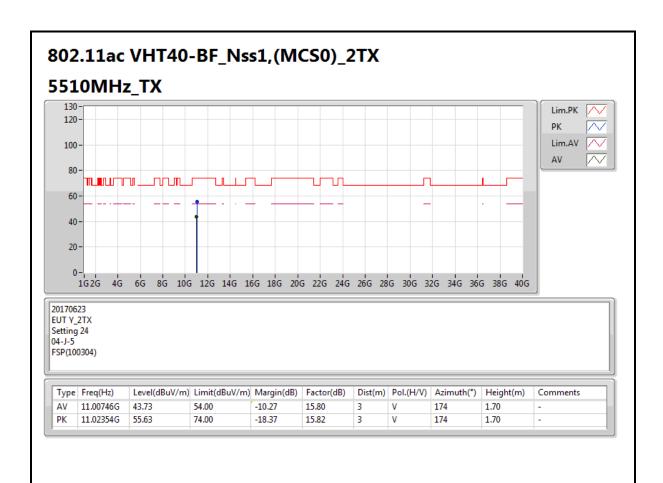
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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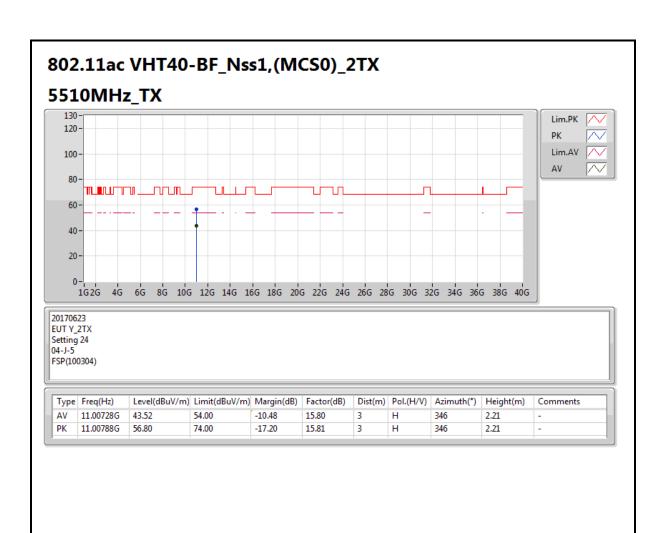




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 226 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018

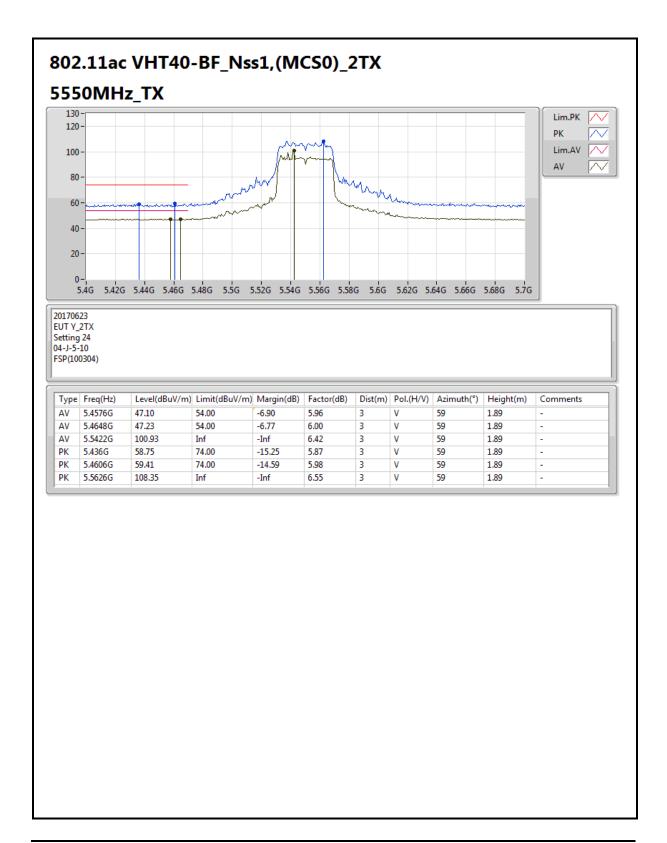




SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 227 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018



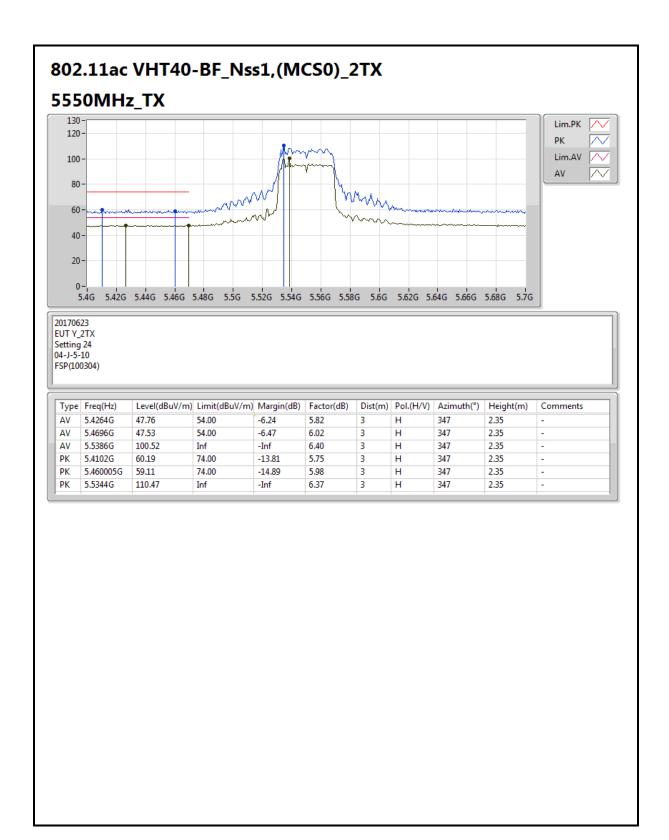


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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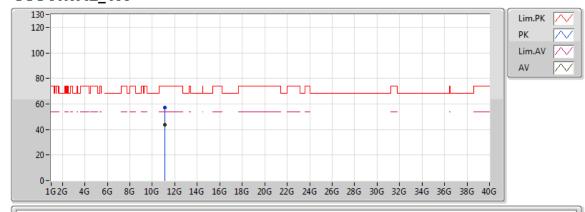
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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20170623 EUT Y\_2TX Setting 24 04-J-5 FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
ΑV	11.08662G	43.75	54.00	-10.25	15.86	3	V	73	1.75	-
PK	11.11284G	56.99	74.00	-17.01	15.87	3	V	73	1.75	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 230 of 264
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Report No.: FR760620-01



802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX 5550MHz\_TX Lim.PK 120-PK Lim.AV / 100 A۷ 80 -60 -40 -20 -0-1G2G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170623 EUT Y\_2TX Setting 24 04-J-5 FSP(100304)

	Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
ı	ΑV	11.09496G	43.80	54.00	-10.20	15.86	3	Н	187	2.42	-
	PK	11.1003G	56.07	74.00	-17.93	15.87	3	Н	187	2.42	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 

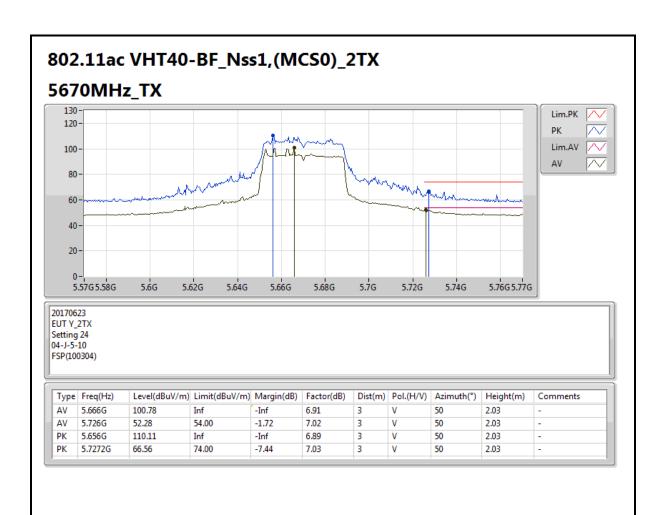
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Report No.: FR760620-01





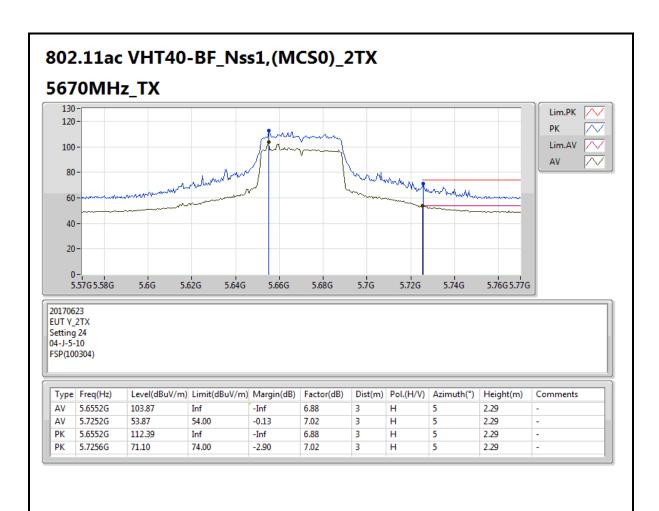
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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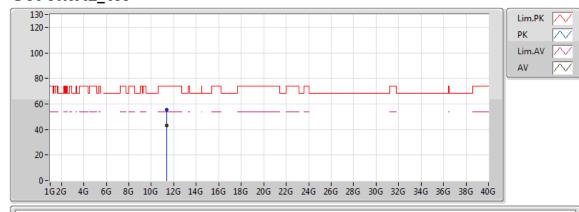


SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 233 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018



802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX 5670MHz\_TX



20170623 EUT Y\_2TX Setting 24 04-J-5 FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
ΑV	11.34708G	43.27	54.00	-10.73	16.03	3	V	74	1.68	-
PK	11.3466G	55.43	74.00	-18.57	16.03	3	V	74	1.68	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 

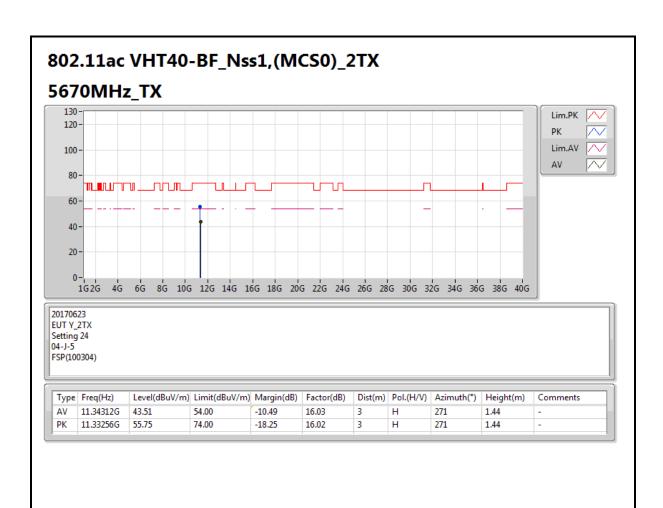
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 Report Version
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Report No.: FR760620-01

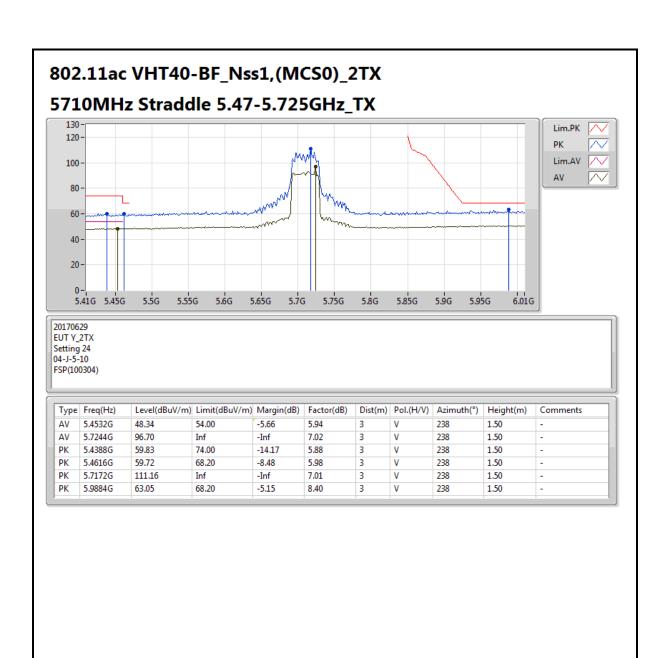




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 235 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018



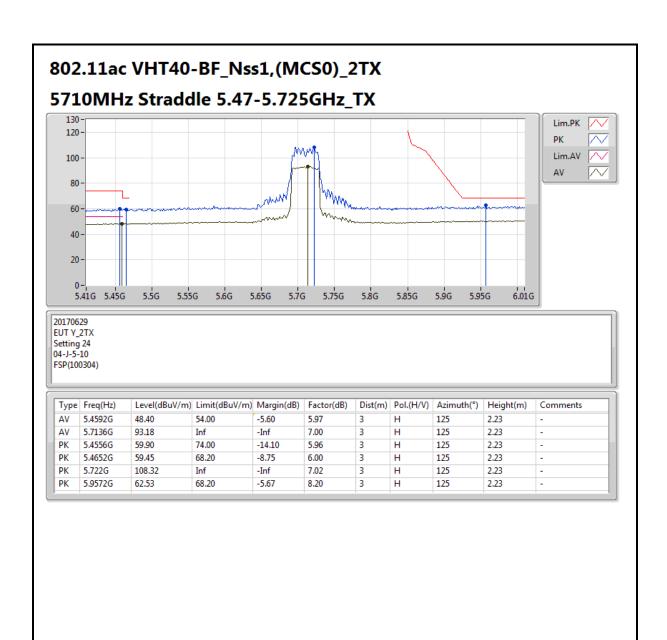


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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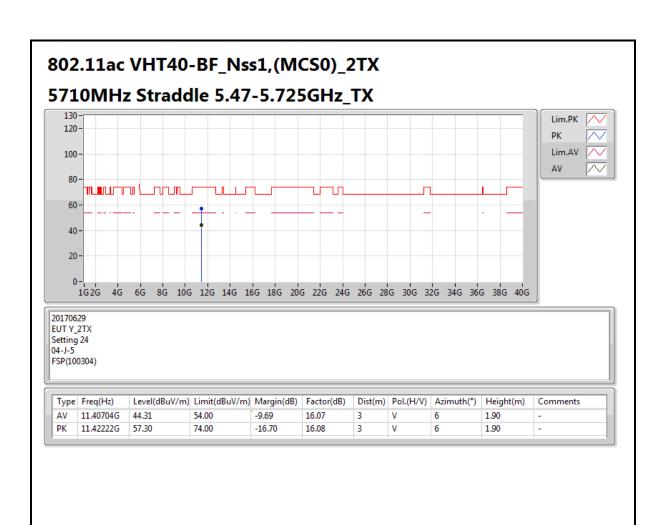


SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010

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SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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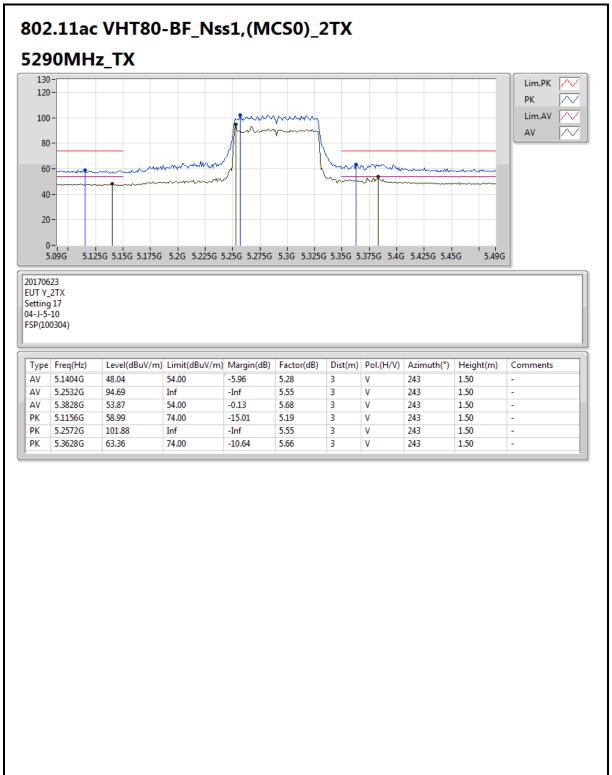


#### 802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX 5710MHz Straddle 5.47-5.725GHz TX Lim.PK 120 -PK Lim.AV 100 A۷ 80 -60 -40 -20 -1G2G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170629 EUT Y\_2TX Setting 24 04-J-5 FSP(100304) Type Freq(Hz) Level(dBuV/m) Limit(dBuV/m) Margin(dB) Factor(dB) Dist(m) Pol.(H/V) Azimuth(°) Height(m) Comments 11.41544G 44.26 54.00 -9.74 16.07 241 1.08 11.42906G 56.97 74.00 -17.03 241 1.08

SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: UDX-60066010





SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 240 of 264
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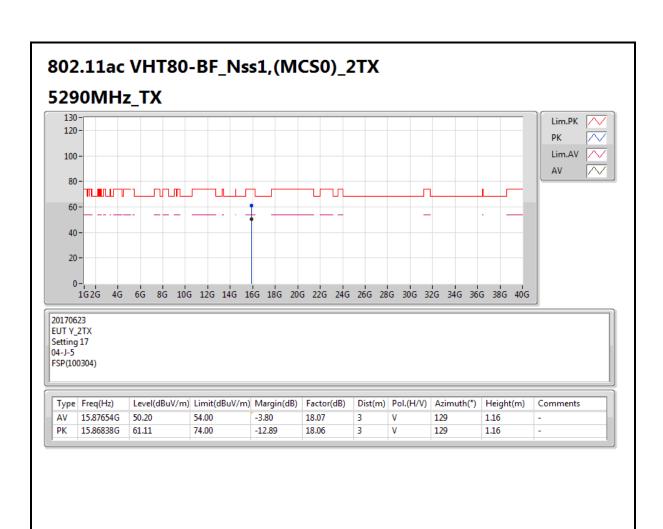
802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX 5290MHz\_TX 130 Lim.PK 120-PK Lim.AV / 100-MMMMMM my my 80 -60 -40 -20 -5.125G 5.15G 5.175G 5.2G 5.225G 5.25G 5.275G 5.3G 5.325G 5.35G 5.375G 5.4G 5.425G 5.45G 20170623 EUT Y\_2TX Setting 17 04-J-5-10 FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1068G	48.23	54.00	-5.77	5.16	3	Н	153	2.09	-
AV	5.2684G	89.75	Inf	-Inf	5.57	3	Н	153	2.09	-
AV	5.3788G	49.68	54.00	-4.32	5.68	3	Н	153	2.09	-
PK	5.1148G	58.89	74.00	-15.11	5.19	3	Н	153	2.09	-
PK	5.2628G	101.09	Inf	-Inf	5.56	3	Н	153	2.09	-
PK	5.3852G	60.26	74.00	-13.74	5.69	3	Н	153	2.09	-

SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 241 of 264
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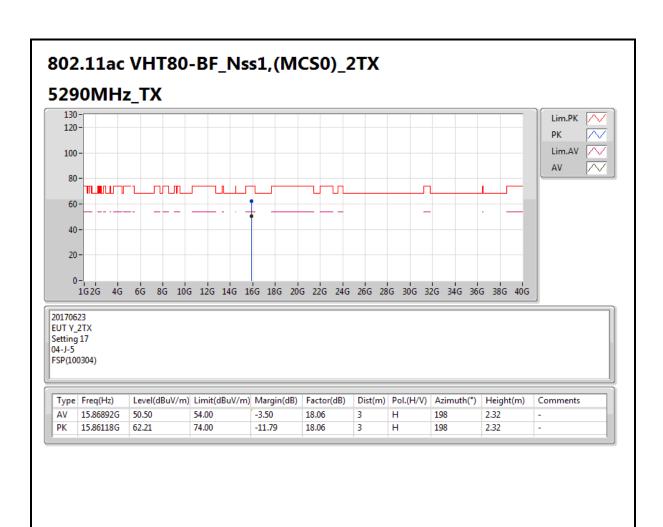




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 242 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018

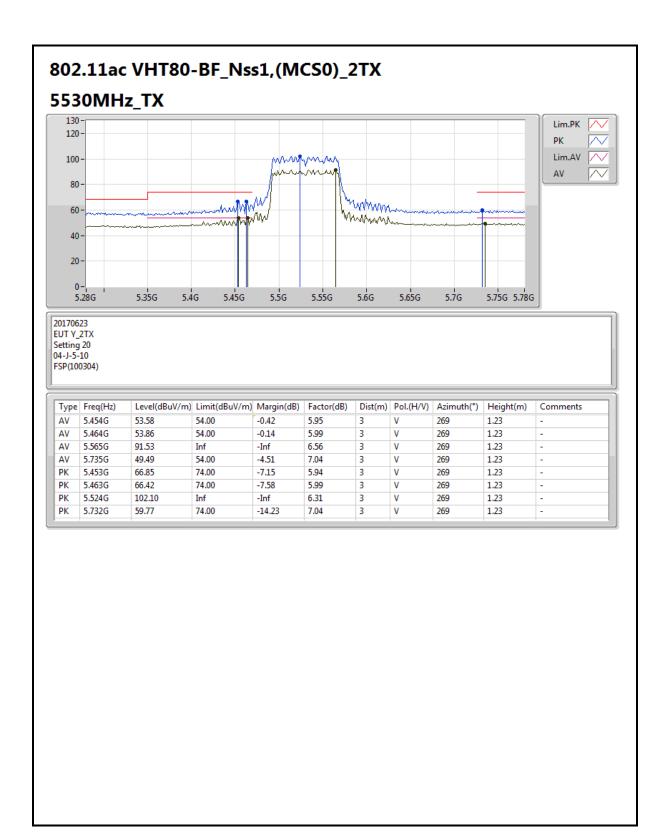




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 243 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018





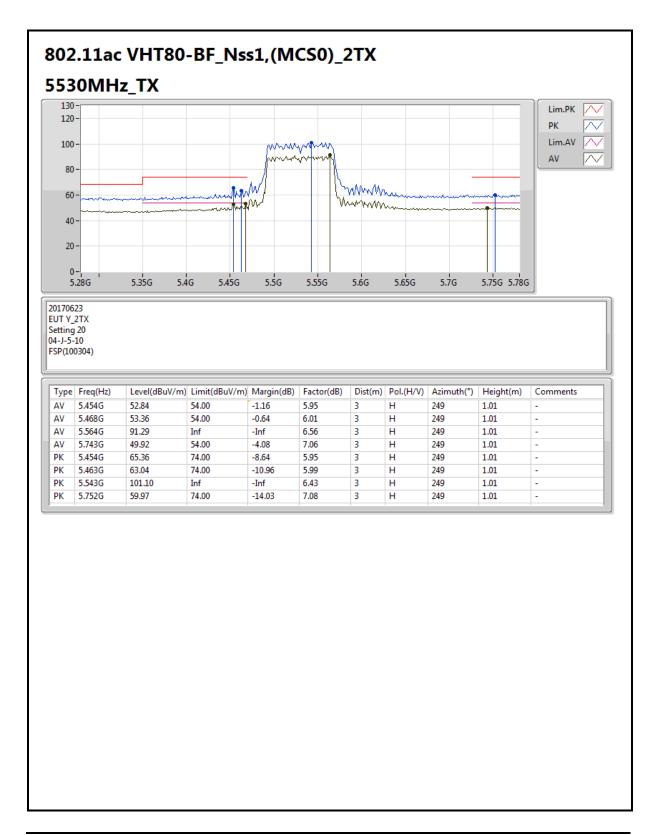
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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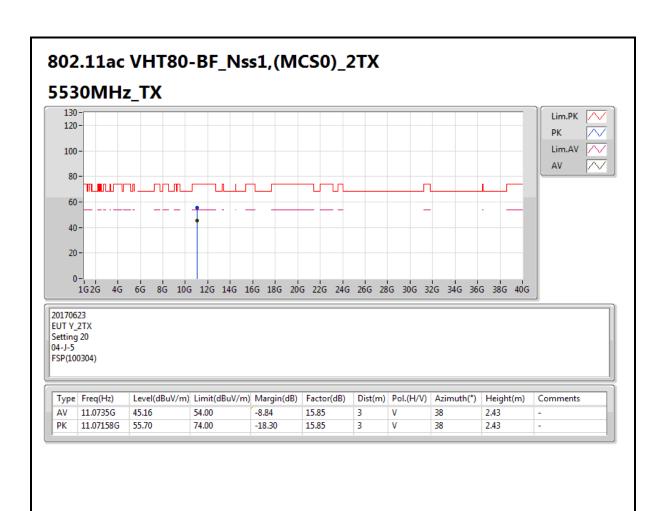
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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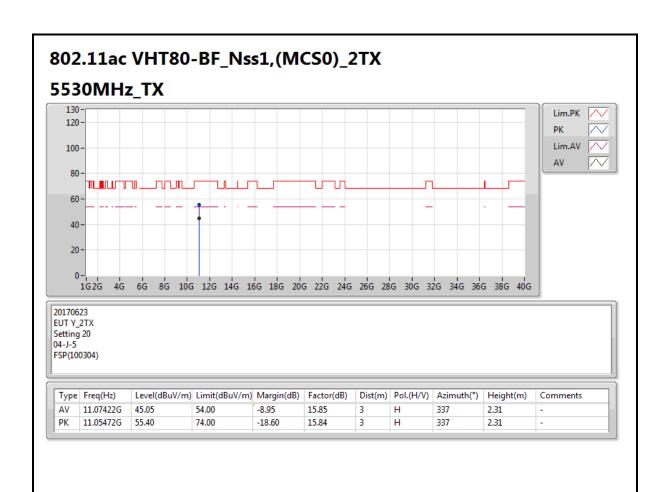




SPORTON INTERNATIONAL INC.

TEL: 886-3-3273456 FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 246 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018

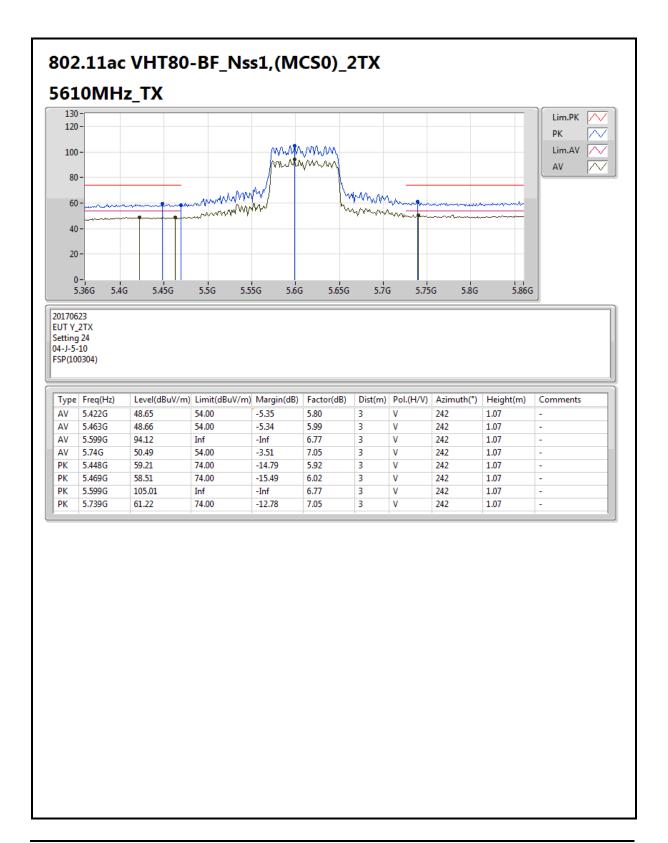




SPORTON INTERNATIONAL INC. TEL: 886-3-3273456

FAX: 886-3-3270973 FCC ID: UDX-60066010 Page No. : 247 of 264 Report Version : Rev. 03 Issued Date : Jan. 12, 2018





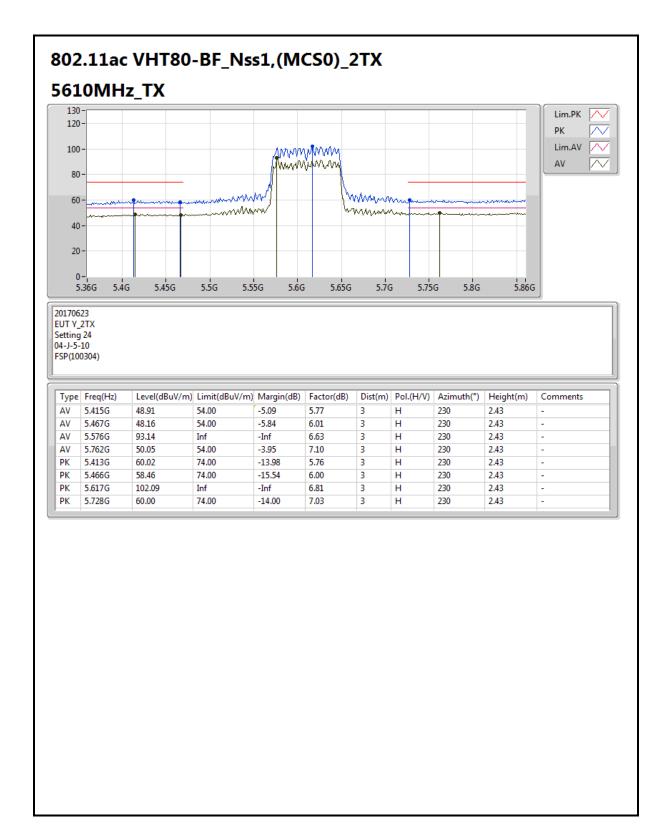
SPORTON INTERNATIONAL INC.

FAX: 886-3-3270973 FCC ID: UDX-60066010

TEL: 886-3-3273456

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SPORTON INTERNATIONAL INC.

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802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX 5610MHz\_TX 130 Lim.PK 120 -PK Lim.AV / 100 A۷ 80 -60 -40 -20 -0-1G2G 4G 6G 8G 10G 12G 14G 16G 18G 20G 22G 24G 26G 28G 30G 32G 34G 36G 38G 40G 20170623 EUT Y\_2TX Setting 24 04-J-5 FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
ΑV	11.2194G	44.70	54.00	-9.30	15.94	3	V	136	1.34	-
PK	11.22834G	55.55	74.00	-18.45	15.95	3	V	136	1.34	-

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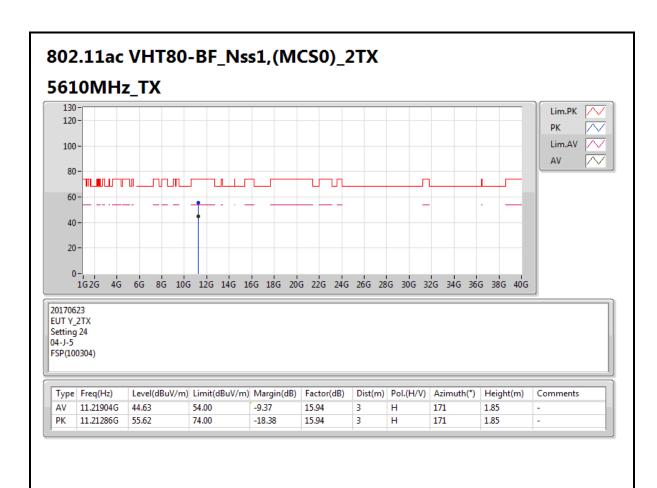
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#### 802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX 5690MHz Straddle 5.47-5.725GHz\_TX Lim.PK 120-PK Lim.AV / 100 A۷ 80 -Man Apply from my 60 -40 -20 -0-5.39G 5.85G 5.5G 5.55G 5.6G 5.65G 5.7G 5.75G 5.8G 5.9G 5.95G 5.99G 5.45G 20170629 EUT Y\_2TX Setting 24 04-J-5-10 FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
ΑV	5.4488G	49.80	54.00	-4.20	5.92	3	V	220	2.01	-
ΑV	5.7176G	98.56	Inf	-Inf	7.01	3	V	220	2.01	-
PK	5.45G	60.24	74.00	-13.76	5.93	3	V	220	2.01	-
PK	5.4632G	59.73	68.20	-8.47	5.99	3	V	220	2.01	-
PK	5.7164G	108.36	Inf	-Inf	7.00	3	V	220	2.01	-
PK	5.9636G	62.00	68.20	-6.20	8.24	3	V	220	2.01	-

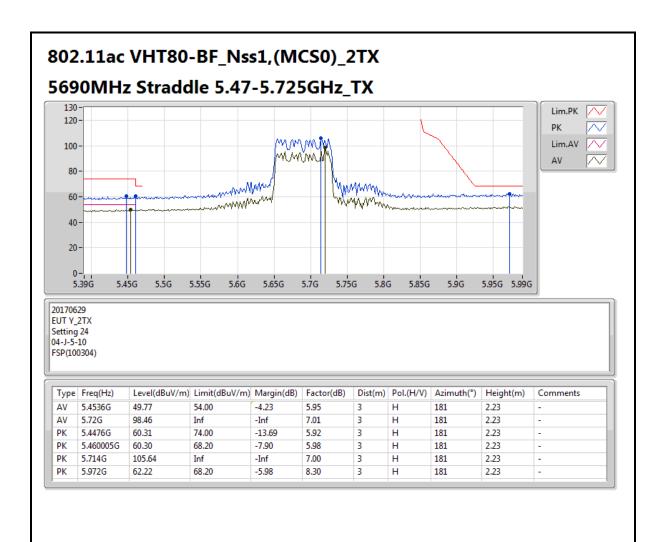
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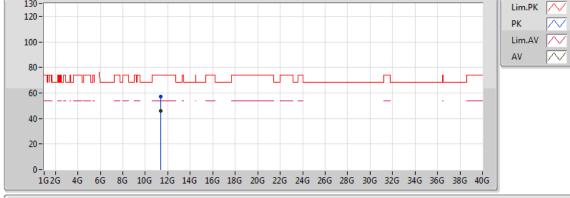
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# 802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX 5690MHz Straddle 5.47-5.725GHz\_TX



20170629 EUT Y\_2TX Setting 24 04-J-5 FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
ΑV	11.38768G	46.17	54.00	-7.83	16.06	3	V	316	1.59	-
PK	11.3866G	57.33	74.00	-16.67	16.06	3	V	316	1.59	-

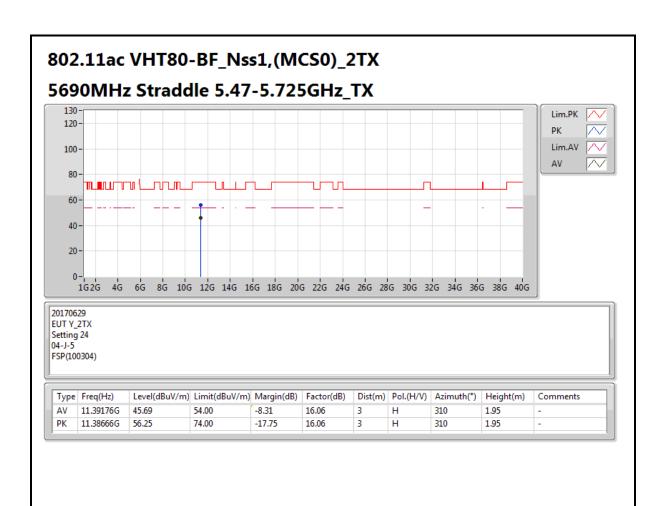
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## 3.6 Frequency Stability

#### 3.6.1 Frequency Stability Limit

#### **Frequency Stability Limit**

#### **UNII Devices**

 In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

#### **LE-LAN Devices**

N/A

#### IEEE Std. 802.11

■ The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25 ppm maximum for the 2.4 GHz band.

#### 3.6.2 Measuring Instruments

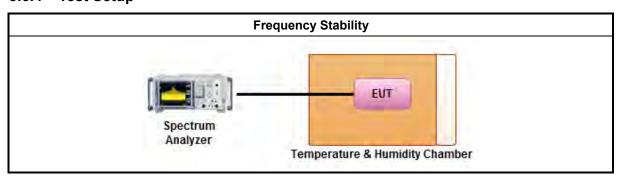
Refer a test equipment and calibration data table in this test report.

#### 3.6.3 Test Procedures

#### **Test Method**

- Refer as ANSI C63.10, clause 6.8 for frequency stability tests
  - Frequency stability with respect to ambient temperature
  - Frequency stability when varying supply voltage
  - Extreme temperature is 0°C~40°C.

#### 3.6.4 Test Setup



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## 3.6.5 Test Result of Frequency Stability

Mode: 20 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)						
() ()	5300 MHz						
(V)	0 Minute	2 Minute	5 Minute	10 Minute			
126.50	5299.9938	5299.9928	5299.9918	5299.9917			
110.00	5299.9934	5299.9928	5299.9919	5299.9916			
93.50	5299.9929	5299.9928	5299.9922	5299.9913			
Max. Deviation (MHz)	0.0071	0.0072	0.0082	0.0087			
Max. Deviation (ppm)	1.34	1.36	1.55	1.64			
Result	esult Pass						

#### Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)						
(°C)	5300 MHz						
(C)	0 Minute	2 Minute	5 Minute	10 Minute			
0	5299.9944	5299.9939	5299.9933	5299.9928			
10	5299.9941	5299.9931	5299.9921	5299.9917			
20	5299.9934	5299.9927	5299.9923	5299.9914			
30	5299.9891	5299.9881	5299.9880	5299.9871			
40	5299.9889	5299.9888	5299.9882	5299.9874			
Max. Deviation (MHz)	0.0111	0.0119	0.0120	0.0129			
Max. Deviation (ppm)	2.09	2.25	2.26	2.43			
Result	Pass						

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## Voltage vs. Frequency Stability

Voltage	requency (MHz)						
0.0	5580 MHz						
(V)	0 Minute	2 Minute	5 Minute	10 Minute 5579.9933 5579.9921 5579.9908 0.0092 1.65			
126.50	5579.9939	5579.9938	5579.9934	5579.9933			
110.00	5579.9934	5579.9931	5579.9924	5579.9921			
93.50	5579.9924	5579.9918	5579.9917	5579.9908			
Max. Deviation (MHz)	0.0076	0.0082	0.0083	0.0092			
Max. Deviation (ppm)	1.36	1.47	1.49	1.65			
Result	Pass						

#### Temperature vs. Frequency Stability

Temperature		Measurement Frequency (MHz)							
(°C)	5580 MHz								
(℃)	0 Minute	2 Minute	5 Minute	10 Minute					
0	5579.9938	5579.9928	5579.9927	5579.9923					
10	5579.9936	5579.9934	5579.9932	5579.9924					
20	5579.9934	5579.9927	5579.9921	5579.9914					
30	5579.9891	5579.9883	5579.9877	5579.9873					
40	5579.9871	5579.9867	5579.9862	5579.9858					
Max. Deviation (MHz)	0.0129	0.0133	0.0138	0.0142					
Max. Deviation (ppm)	2.31	2.38	2.47	2.54					
Result	Pass								

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Mode: 40 MHz / Port 2

## Voltage vs. Frequency Stability

Voltage		Measurement F	requency (MHz)			
(1)		5310	MHz			
(V)	0 Minute	2 Minute	5 Minute	10 Minute 5309.9922 5309.9917 5309.9901 0.0099		
126.50	5309.9941	5309.9933	5309.9923	5309.9922		
110.00	5309.9934	5309.9930	5309.9922	5309.9917		
93.50	5309.9925	5309.9917	5309.9910	5309.9901		
Max. Deviation (MHz)	0.0075	0.0083	0.0090	0.0099		
Max. Deviation (ppm)	1.41	1.56	1.69	1.86		
Result	Pass					

#### Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)						
(°C)		5310	MHz				
(0)	0 Minute	2 Minute	5 Minute	10 Minute			
0	5309.9963	5309.9960	5309.9954	5309.9949			
10	5309.9943	5309.9941	5309.9940	5309.9933			
20	5309.9934	5309.9933	5309.9926	5309.9920			
30	5309.9891	5309.9886	5309.9882	5309.9879			
40	5309.9875	5309.9865	5309.9859	5309.9854			
Max. Deviation (MHz)	0.0125	0.0135	0.0141	0.0146			
Max. Deviation (ppm)	2.35	2.54	2.66	2.75			
Result	Pass						

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## Voltage vs. Frequency Stability

Voltage		Measurement F	requency (MHz)			
00	5550 MHz					
(V)	0 Minute	2 Minute	5 Minute	10 Minute 5549.9927 5549.9921 5549.9919 0.0081 1.46		
126.50	5549.9940	5549.9935	5549.9929	5549.9927		
110.00	5549.9934	5549.9929	5549.9926	5549.9921		
93.50	5549.9932	5549.9922	5549.9920	5549.9919		
Max. Deviation (MHz)	0.0068	0.0078	0.0080	0.0081		
Max. Deviation (ppm)	1.23	1.41	1.44	1.46		
Result Pass						

## Temperature vs. Frequency Stability

Temperature		Measurement F	requency (MHz)			
(°C)	5550 MHz					
(0)	0 Minute	2 Minute	5 Minute	10 Minute 5549.9943 5549.9933 5549.9918 5549.9873 5549.9859		
0	5549.9961	5549.9955	5549.9946	5549.9943		
10	5549.9952	5549.9947	5549.9938	5549.9933		
20	5549.9934	5549.9927	5549.9922	5549.9918		
30	5549.9891	5549.9881	5549.9877	5549.9873		
40	5549.9886	5549.9878	5549.9868	5549.9859		
Max. Deviation (MHz)	0.0114	0.0122	0.0132	0.0141		
Max. Deviation (ppm)	2.05	2.20	2.38	2.54		
Result	Pass					

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## FCC Test Report

Mode: 80 MHz / Port 2

## Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)								
4.4	5290 MHz								
(V)	0 Minute	2 Minute	5 Minute	10 Minute					
126.50	5289.9938	5289.9936	5289.9929	5289.9927					
110.00	5289.9934	5289.9930	5289.9929	5289.9925					
93.50	5289.9925	5289.9919	5289.9912	5289.9904					
Max. Deviation (MHz)	0.0075	0.0081	0.0088	0.0096					
Max. Deviation (ppm)	1.42	1.53	1.66	1.81					
Result	Pass								

#### Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)								
(°C \	5290 MHz								
(℃)	0 Minute	2 Minute	5 Minute	10 Minute					
0	5289.9971	5289.9969	5289.9963	5289.9962					
10	5289.9954	5289.9952	5289.9946	5289.9943					
20	5289.9934	5289.9932	5289.9923	5289.9922					
30	5289.9891	5289.9887	5289.9884	5289.9876					
40	5289.9875	5289.9868	5289.9861	5289.9855					
Max. Deviation (MHz)	0.0125	0.0132	0.0139	0.0145					
Max. Deviation (ppm)	2.36	2.50	2.63	2.74					
Result	Pass								

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## Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)							
0.0	5530 MHz							
(V)	0 Minute	2 Minute	5 Minute	10 Minute				
126.50	5529.9938	5529.9930	5529.9927	5529.9924				
110.00	5529.9934	5529.9924	5529.9914	5529.9913				
93.50	5529.9928	5529.9920	5529.9914	5529.9911				
Max. Deviation (MHz)	0.0072	0.0080	0.0086	0.0089				
Max. Deviation (ppm)	1.30	1.45	1.56	1.61				
Result	Pass							

## Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)								
(°C)	5530 MHz								
(0)	0 Minute	2 Minute	5 Minute	10 Minute					
0	5529.9963	5529.9953	5529.9947	5529.9945					
10	5529.9947	5529.9943	5529.9937	5529.9927					
20	5529.9934	5529.9931	5529.9926	5529.9917					
30	5529.9891	5529.9888	5529.9879	5529.9876					
40	5529.9880	5529.9878	5529.9875	5529.9871					
Max. Deviation (MHz)	0.0120	0.0122	0.0125	0.0129					
Max. Deviation (ppm)	2.17	2.21	2.26	2.33					
Result	Pass								

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## 4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16- 2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Amplifier	-	-	TF-130N-R1	26GHz ~ 40GHz	Jun. 20, 2017	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A 1 GHz ~ 18 GHz		Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)

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## FCC Test Report

Instrument	Manufacturer Model No. Serial No. Characte		Characteristics	Calibration Date	Remark	
Test Software	Audix	E3	6.2009-10-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	TBN-931011 -30~100 degree		Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz–26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz–26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz–26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz–26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz–26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

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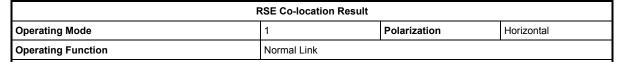
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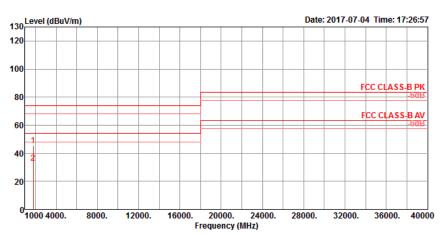
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<sup>&</sup>quot;\*" Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.



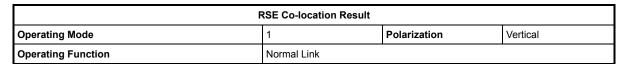


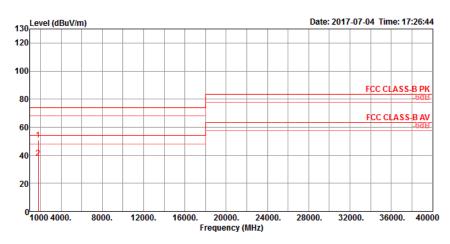


	Freq	Level						Preamp Factor		T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1798.26	45.72	74.00	-28.28	50.76	4.56	27.80	37.40	172	210	Peak	HORIZONTAL
2	1809.32	33.02	54.00	-20.98	37.98	4.57	27.87	37.40	172	210	Average	HORIZONTAL

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# RSE Co-location Result





	Freq	Level		Over Limit							Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1802.10	50.98	74.00	-23.02	55.97	4.57	27.84	37.40	137	259	Peak	VERTICAL
2	1810.00	37.78	54.00	-16.22	42.74	4.57	27.87	37.40	137	259	Average	VERTICAL

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