

# KCTL Inc.

65, Sinwon-ro, Yeongtong-gu,  
Suwon-si, Gyeonggi-do, 16677, Korea  
TEL: 82-31-285-0894 FAX: 82-505-299-8311  
[www.kctl.co.kr](http://www.kctl.co.kr)

Report No.:  
KR20-SRF0029-B

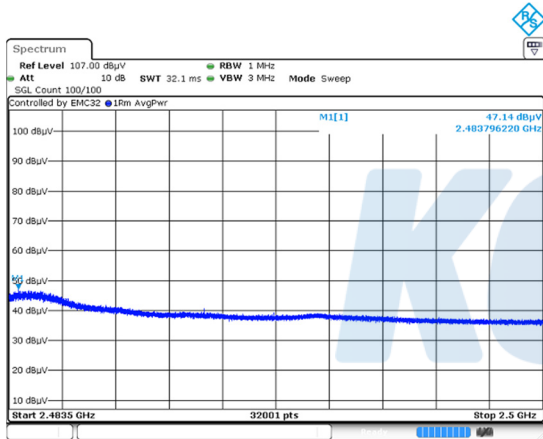
Page (114) of (155)



## Highest Channel (2 462 MHz)

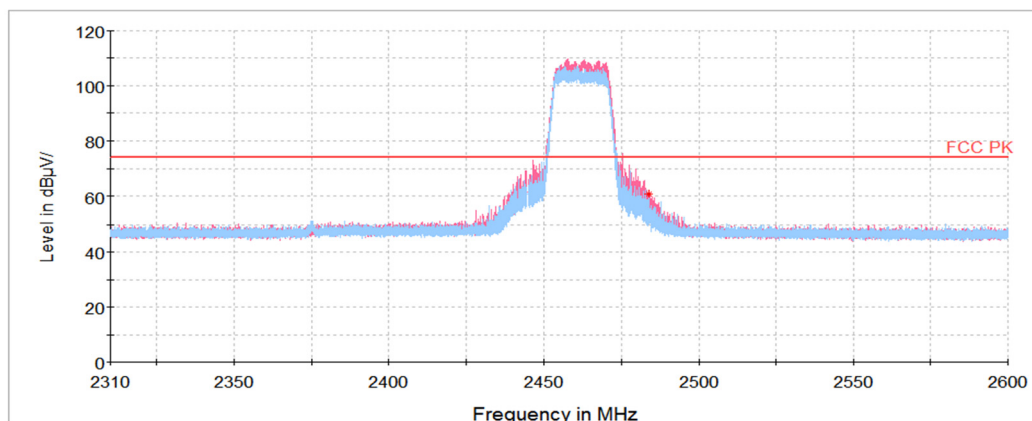
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
2 483.80 <sup>1)</sup>	V	57.93	32.07	-29.21	-	60.79	74.00	13.21
4 000.25 <sup>1)</sup>	V	70.29	33.00	-56.65	-	46.64	74.00	27.36
4 924.17 <sup>1)</sup>	H	60.51	33.97	-54.88	-	39.60	74.00	34.40
7 385.55 <sup>1)</sup>	H	59.99	35.40	-51.13	-	44.26	74.00	29.74
<b>Average Data</b>								
2 483.80 <sup>1)</sup>	V	47.14	32.07	-29.21	0.20	50.20	54.00	3.80

## Average data (2 483.80 MHz)



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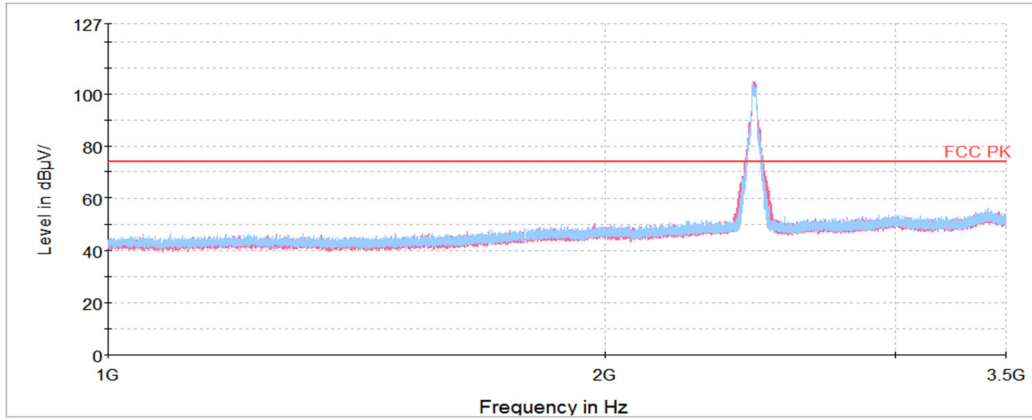
## Horizontal/Vertical for Band-edge



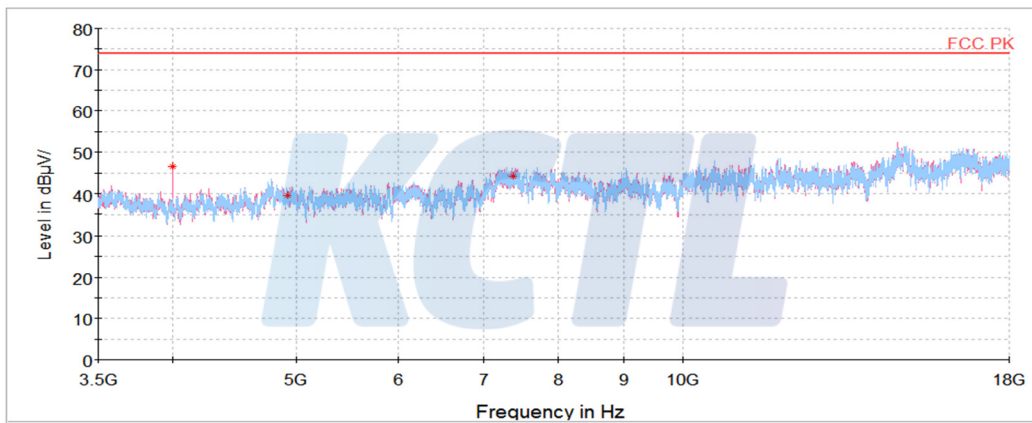
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KCTL-TIR001-003/2

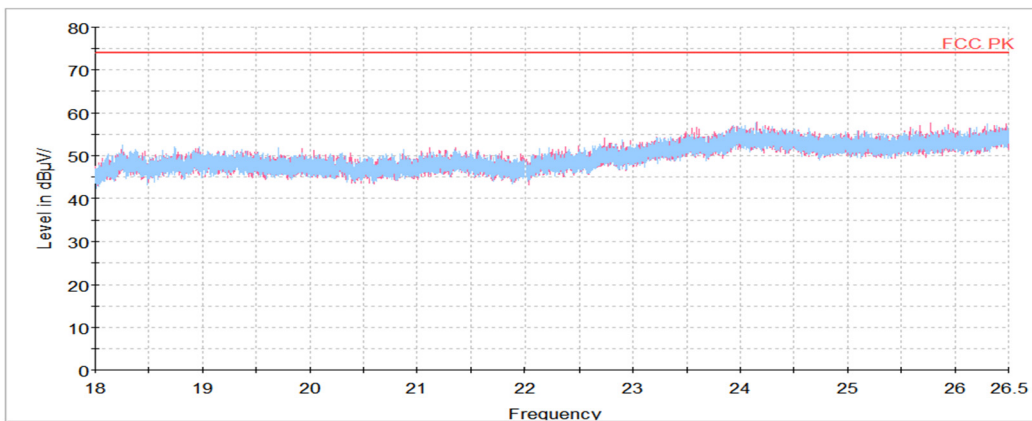
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



**Horizontal/Vertical for 3.5 GHz ~ 18 GHz**



**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**



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Page (116) of (155)

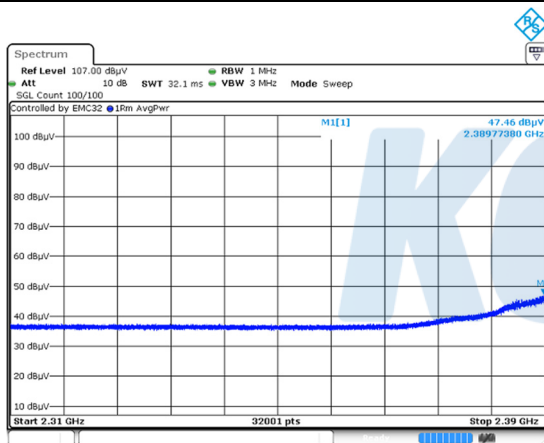


## 802.11n HT40 ANT 0

### Lowest Channel (2 422 MHz)

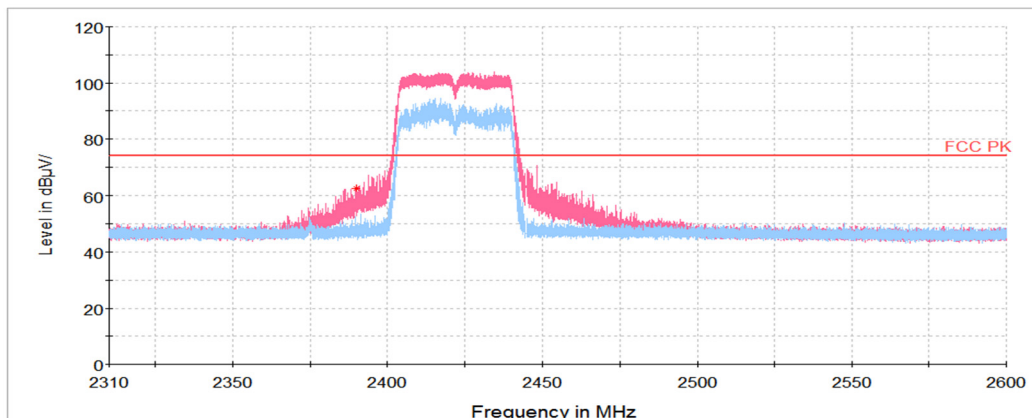
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
2 389.77 <sup>1)</sup>	V	59.59	31.88	-29.04	-	62.43	74.00	11.57
4 000.25 <sup>1)</sup>	V	71.59	33.00	-56.65	-	47.94	74.00	26.06
4 844.88 <sup>1)</sup>	H	60.61	33.94	-53.40	-	41.15	74.00	32.85
7 266.38 <sup>1)</sup>	V	61.66	35.40	-51.72	-	45.34	74.00	28.66
<b>Average Data</b>								
2 389.77 <sup>1)</sup>	V	47.46	31.88	-29.04	0.44	50.74	54.00	3.26

### Average data (2 389.77 MHz)



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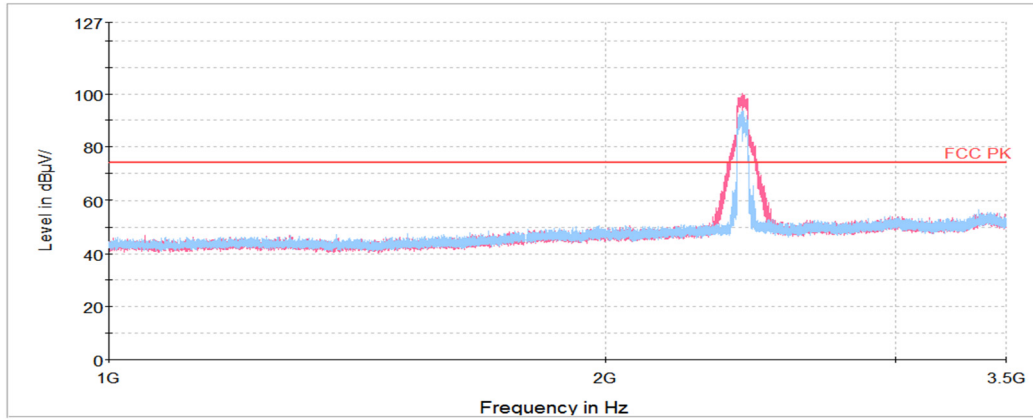
### Horizontal/Vertical for Band-edge



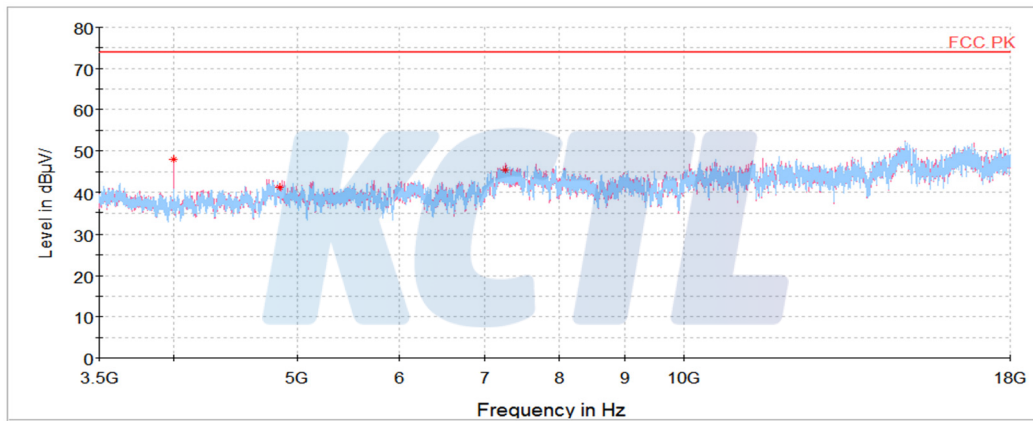
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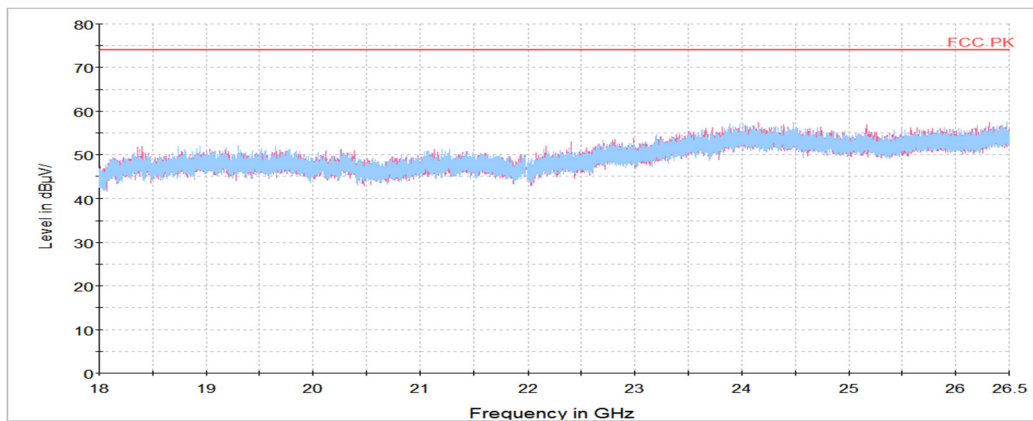
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



**Horizontal/Vertical for 3.5 GHz ~ 18 GHz**



**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**



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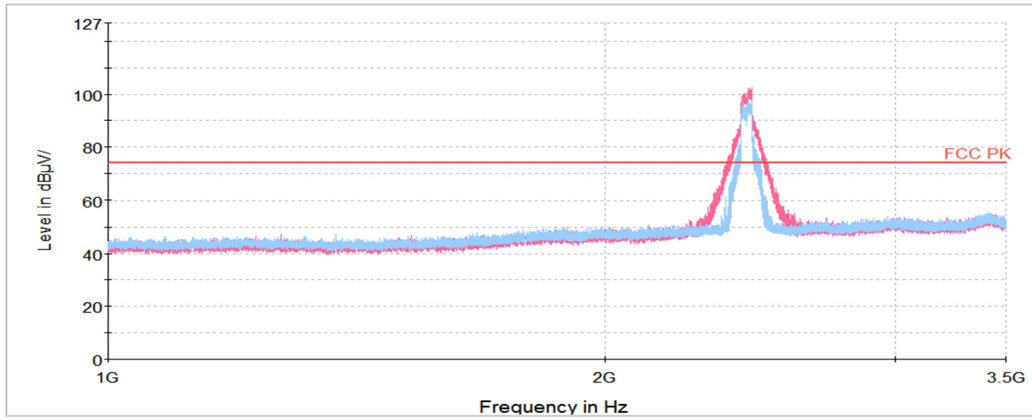
Page (118) of (155)

**KCTL****Middle Channel (2 437 MHz)**

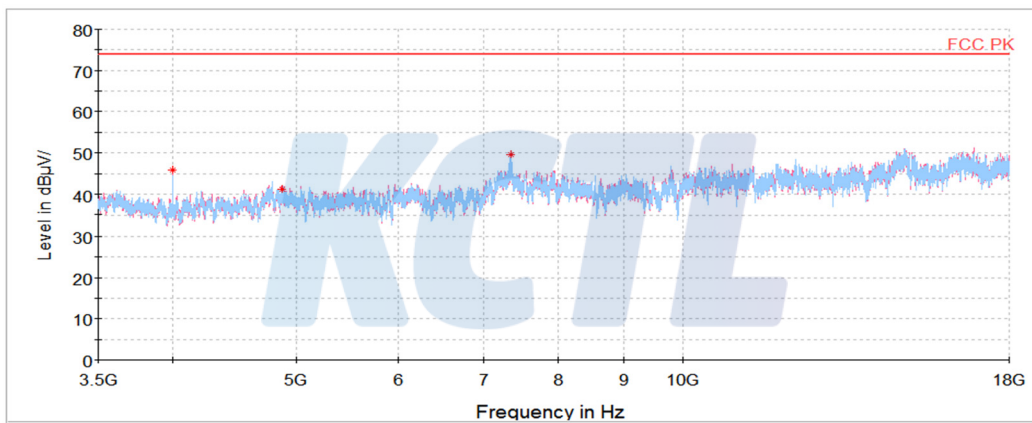
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
3 999.80 <sup>1)</sup>	V	68.79	33.00	-56.65	-	45.14	74.00	28.86
4 872.97 <sup>1)</sup>	V	61.99	33.95	-54.18	-	41.76	74.00	32.24
7 309.88 <sup>1)</sup>	H	63.68	35.40	-51.51	-	47.57	74.00	26.43
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit								

**KCTL**

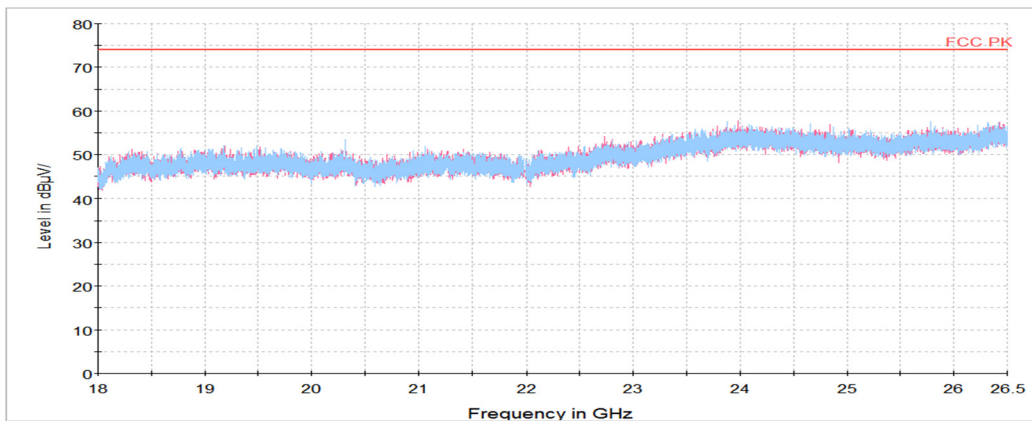
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



**Horizontal/Vertical for 3.5 GHz ~ 18 GHz**



**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**



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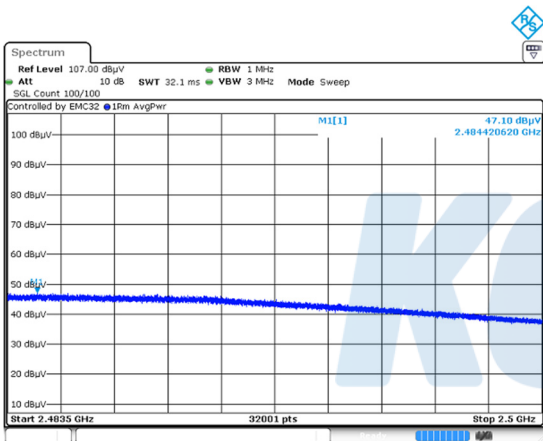
Page (120) of (155)



## Highest Channel (2 452 MHz)

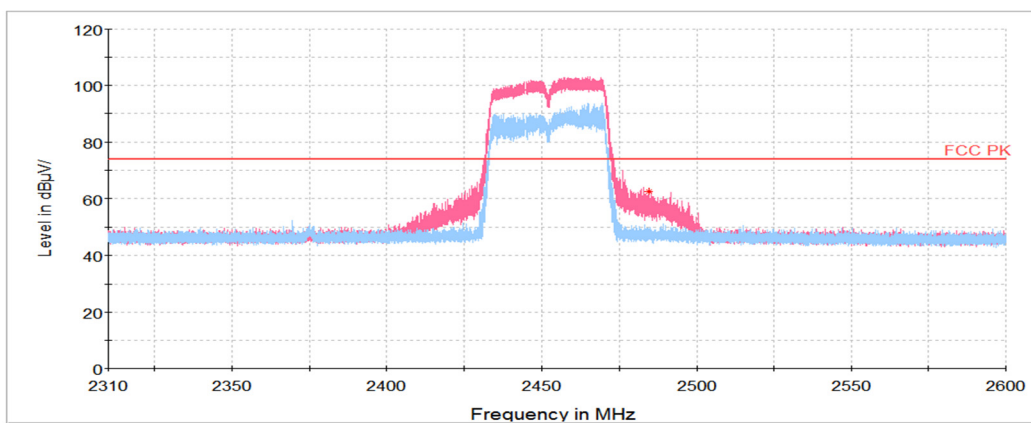
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
2 484.42 <sup>1)</sup>	V	59.42	32.07	-29.22	-	62.27	74.00	11.73
4 000.25 <sup>1)</sup>	H	72.39	33.00	-56.65	-	48.74	74.00	25.26
4 904.69 <sup>1)</sup>	V	59.98	33.96	-54.91	-	39.03	74.00	34.97
7 356.55 <sup>1)</sup>	H	60.74	35.40	-51.28	-	44.86	74.00	29.14
<b>Average Data</b>								
2 484.42 <sup>1)</sup>	V	47.10	32.07	-29.22	0.44	50.39	54.00	3.61

## Average data (2 484.42 MHz)



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## Horizontal/Vertical for Band-edge

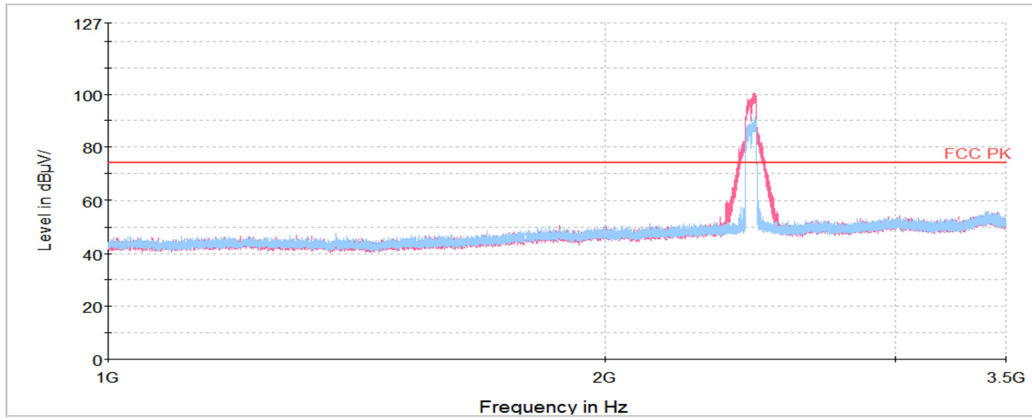


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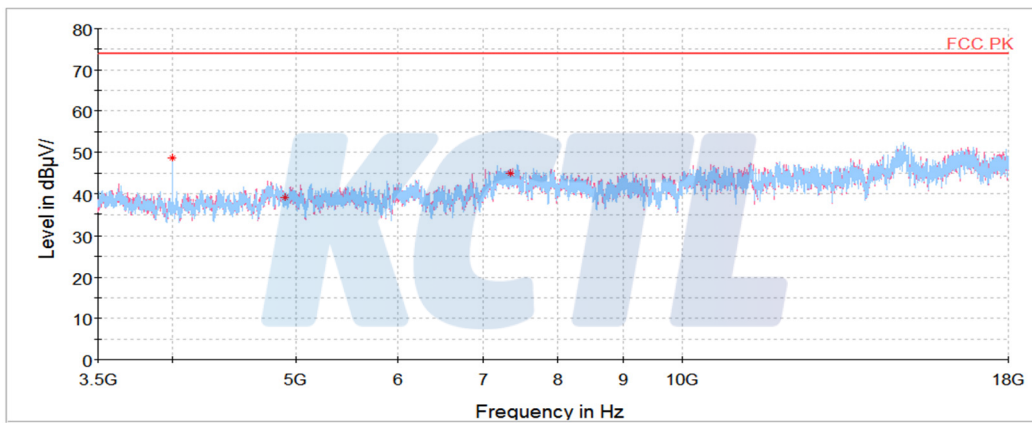
KCTL-TIR001-003/2



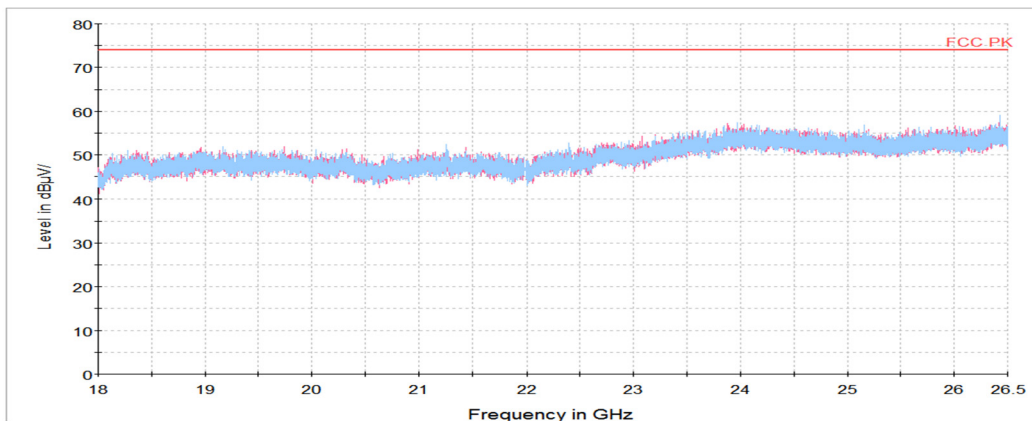
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



**Horizontal/Vertical for 3.5 GHz ~ 18 GHz**



**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**





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KR20-SRF0029-B

Page (122) of (155)

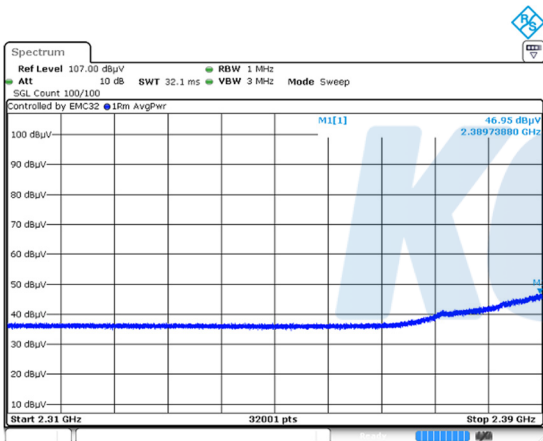


## 802.11n HT40 ANT 1

### Lowest Channel (2 422 MHz)

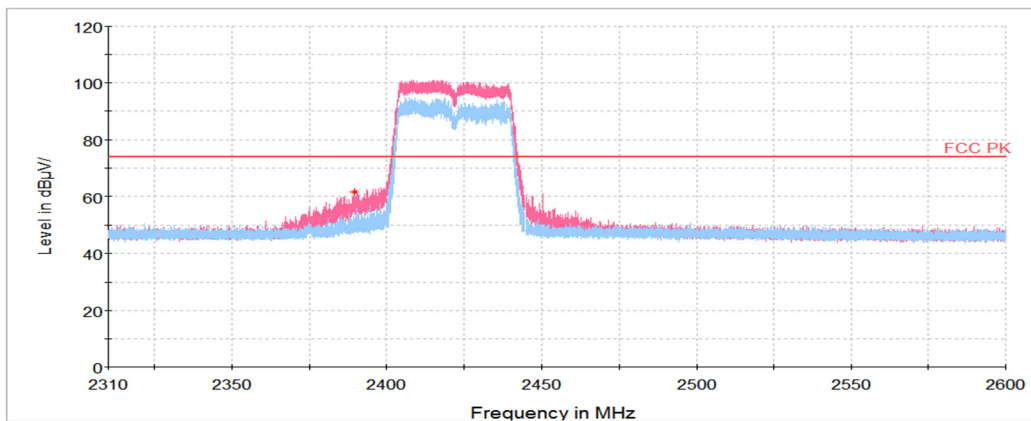
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
2 389.74 <sup>1)</sup>	V	58.70	31.88	-29.04	-	61.54	74.00	12.46
4 000.25 <sup>1)</sup>	V	69.11	33.00	-56.65	-	45.46	74.00	28.54
4 844.42 <sup>1)</sup>	H	60.18	33.94	-53.39	-	40.73	74.00	33.27
7 269.09 <sup>1)</sup>	V	62.28	35.40	-51.71	-	45.97	74.00	28.03
<b>Average Data</b>								
2 389.74 <sup>1)</sup>	V	46.95	31.88	-29.04	0.44	50.23	54.00	3.77

### Average data (2 389.74 MHz)

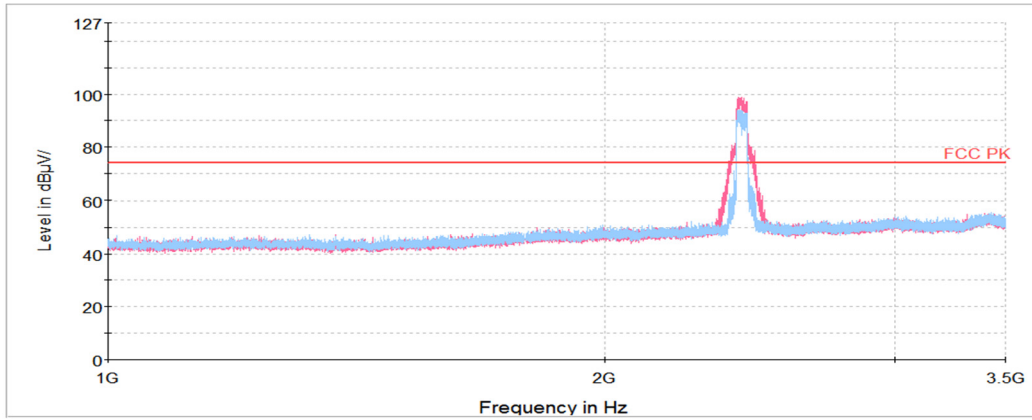


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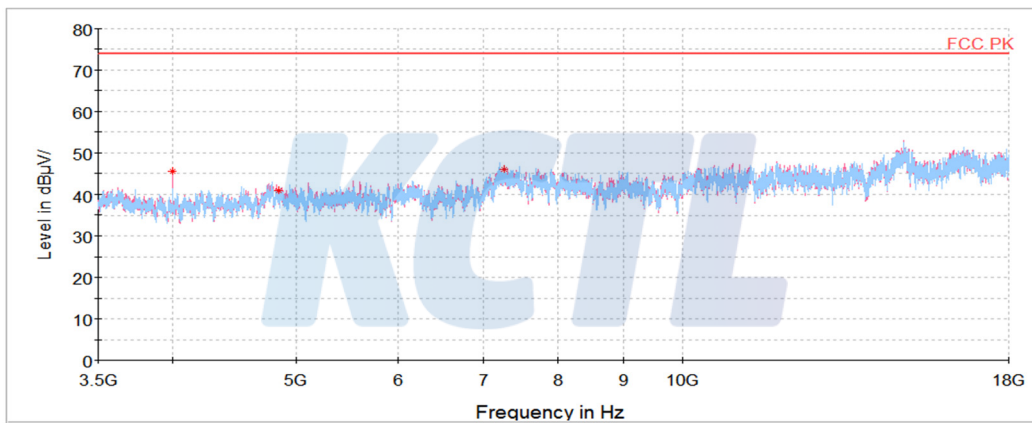
### Horizontal/Vertical for Band-edge



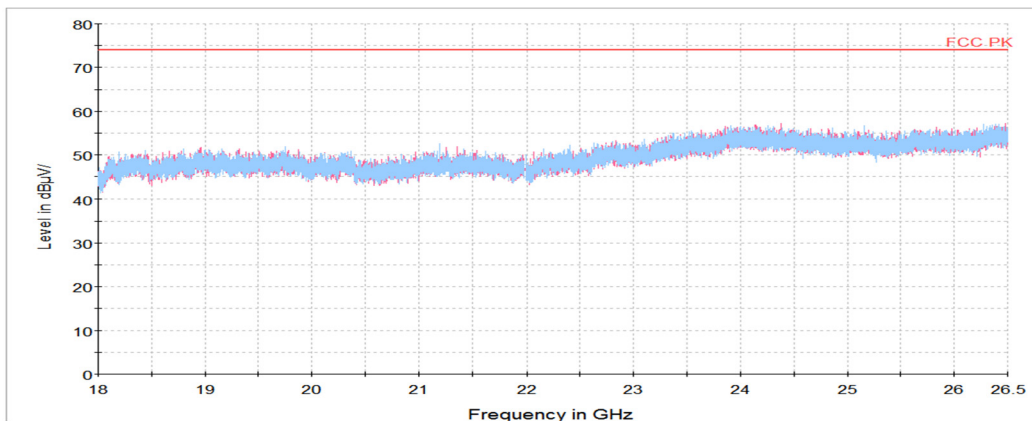
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**Horizontal/Vertical for 3.5 GHz ~ 18 GHz**



**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**



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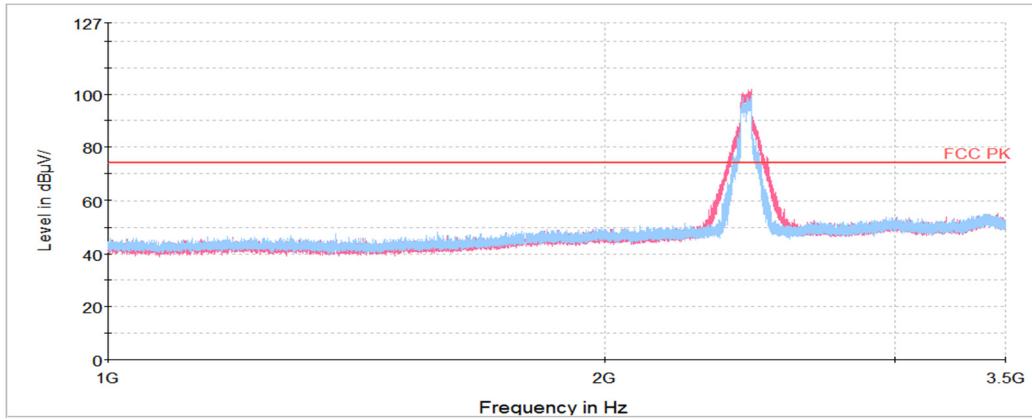
Page (124) of (155)

**Middle Channel (2 437 MHz)**

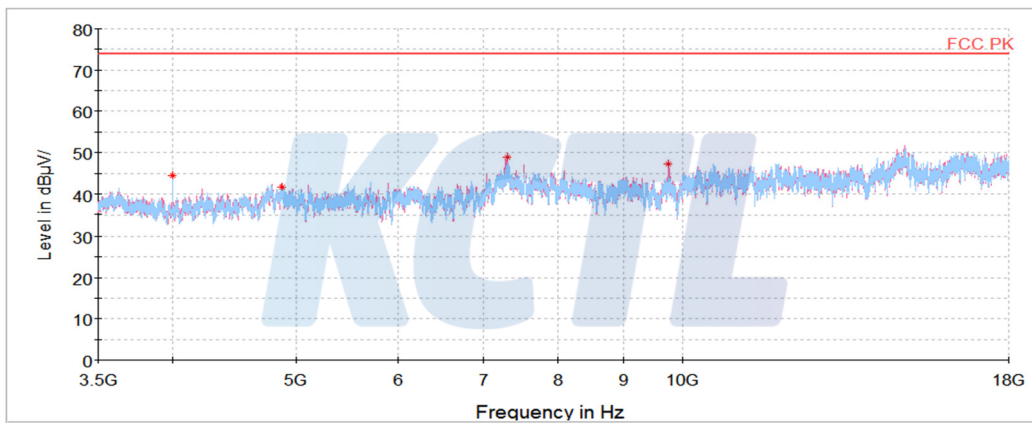
Frequency (MHz)	Pol. (V/H)	Reading (dB( $\mu$ V))	Ant. Factor (dB)	Amp. + Cable (dB)	DCCF (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Peak data</b>								
3 999.80 <sup>1)</sup>	H	68.05	33.00	-56.65	-	44.40	74.00	29.60
4 874.78 <sup>1)</sup>	H	61.92	33.95	-54.23	-	41.64	74.00	32.36
7 307.16 <sup>1)</sup>	V	64.96	35.40	-51.52	-	48.84	74.00	25.16
9 744.97	V	63.20	36.70	-52.54	-	47.36	74.00	26.64
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit								



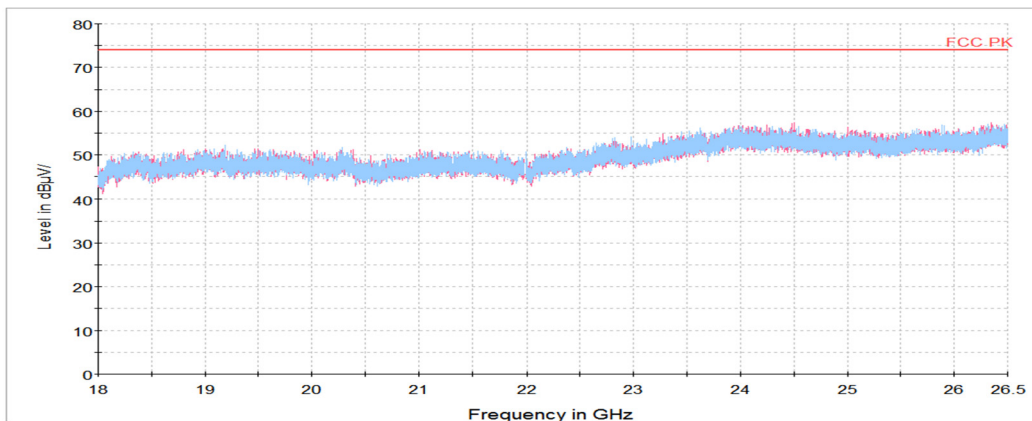
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**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**



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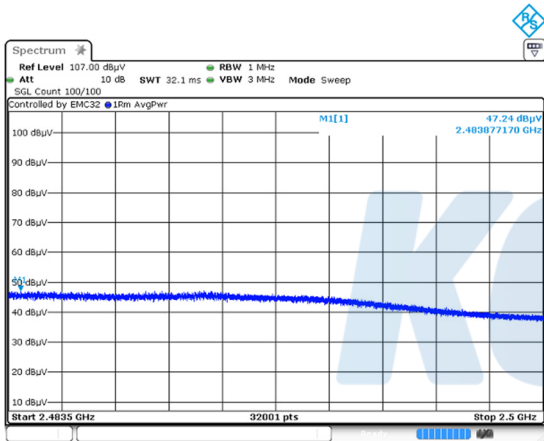
Page (126) of (155)



## Highest Channel (2 452 MHz)

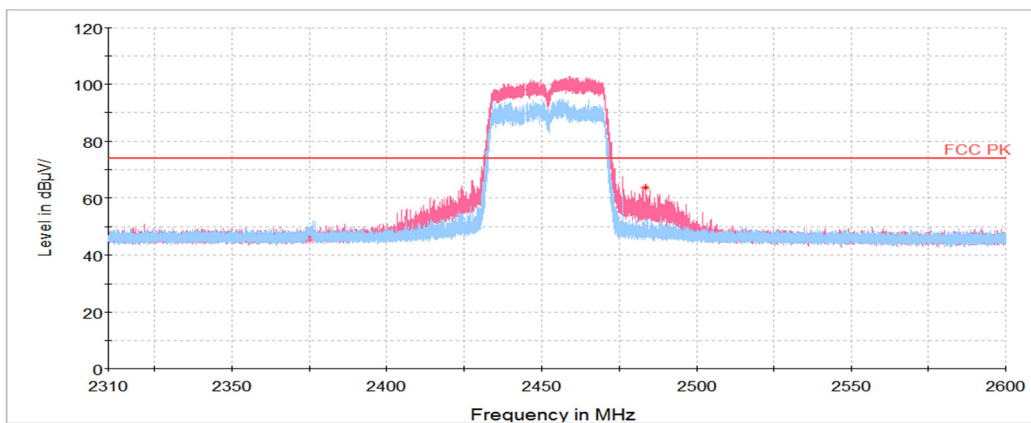
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
2 483.88 <sup>1)</sup>	V	60.81	32.07	-29.21	-	63.67	74.00	10.33
3 999.80 <sup>1)</sup>	V	68.25	33.00	-56.65	-	44.60	74.00	29.40
4 905.59 <sup>1)</sup>	H	59.75	33.96	-54.91	-	38.80	74.00	35.20
7 357.45 <sup>1)</sup>	H	60.84	35.40	-51.27	-	44.97	74.00	29.03
<b>Average Data</b>								
2 483.88 <sup>1)</sup>	V	47.24	32.07	-29.21	0.44	50.54	54.00	3.46

## Average data (2 483.88 MHz)



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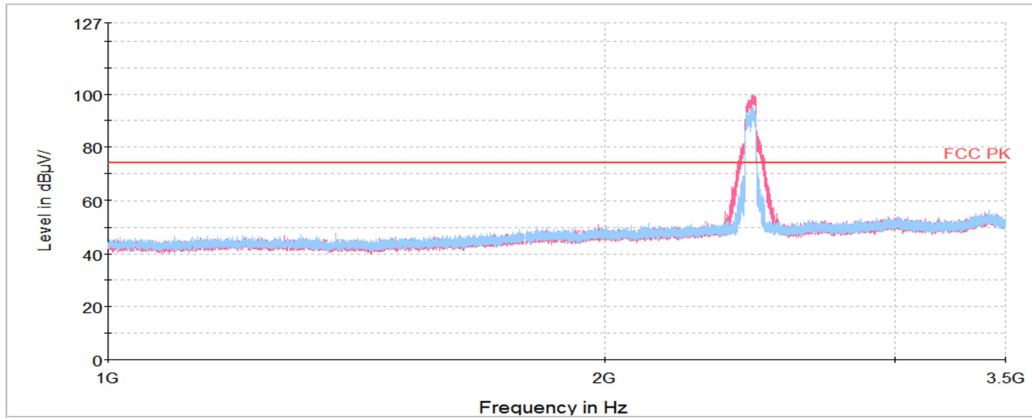
## Horizontal/Vertical for Band-edge



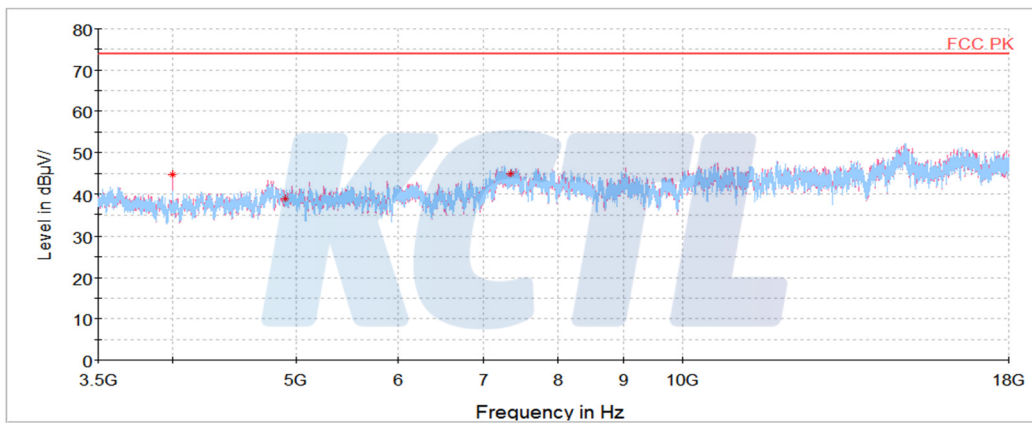
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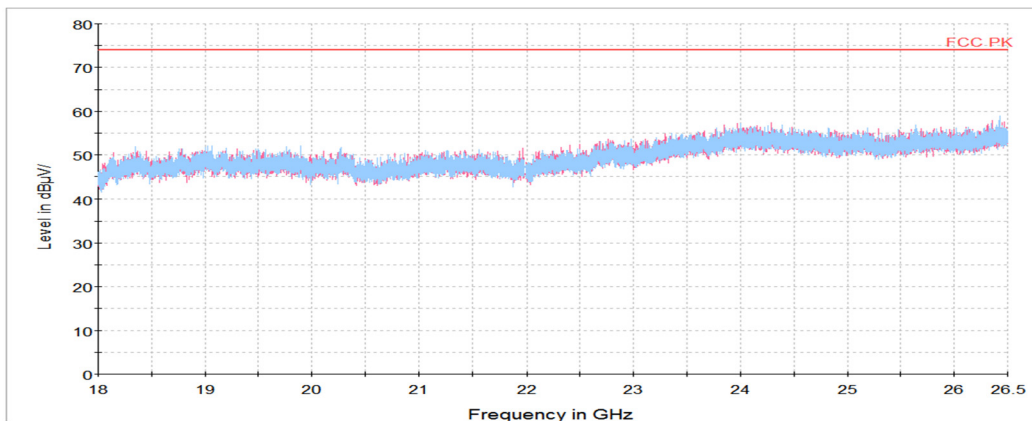
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KR20-SRF0029-B

Page (128) of (155)

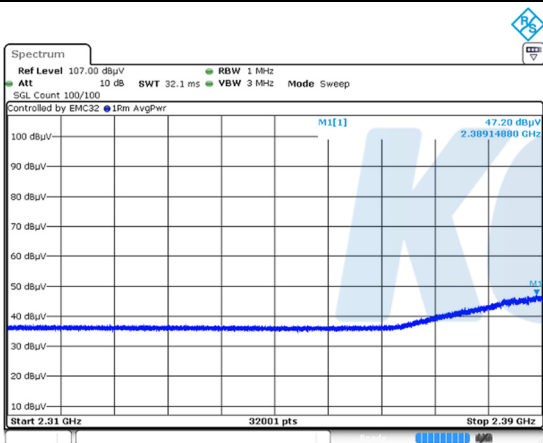


## 802.11n HT40 ANT 2

### Lowest Channel (2 422 MHz)

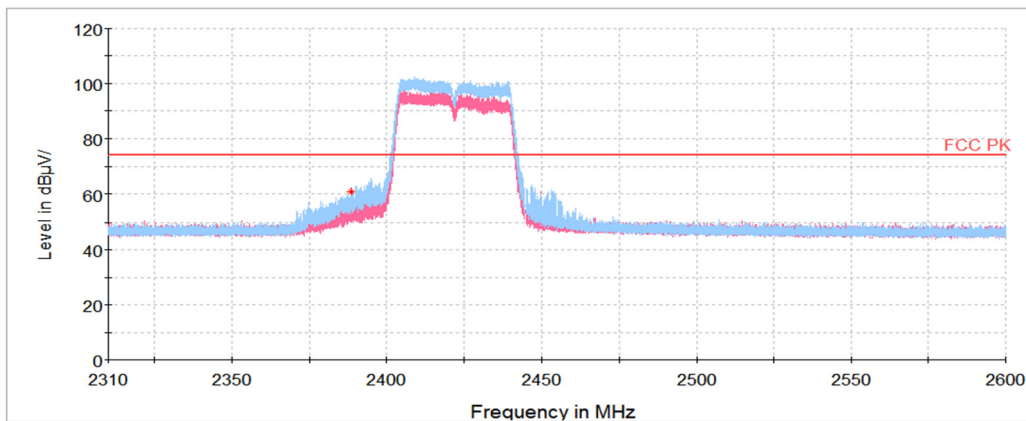
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
2 389.15 <sup>1)</sup>	H	57.69	31.88	-29.04	-	60.53	74.00	13.47
3 999.80 <sup>1)</sup>	V	71.89	33.00	-56.65	-	48.24	74.00	25.76
4 845.78 <sup>1)</sup>	H	60.57	33.94	-53.43	-	41.08	74.00	32.92
7 266.38 <sup>1)</sup>	V	62.51	35.40	-51.72	-	46.19	74.00	27.81
<b>Average Data</b>								
2 389.15 <sup>1)</sup>	H	47.20	31.88	-29.04	0.44	50.48	54.00	3.52

### Average data (2 389.15 MHz)



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### Horizontal/Vertical for Band-edge



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