

# 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-SRF0081-A

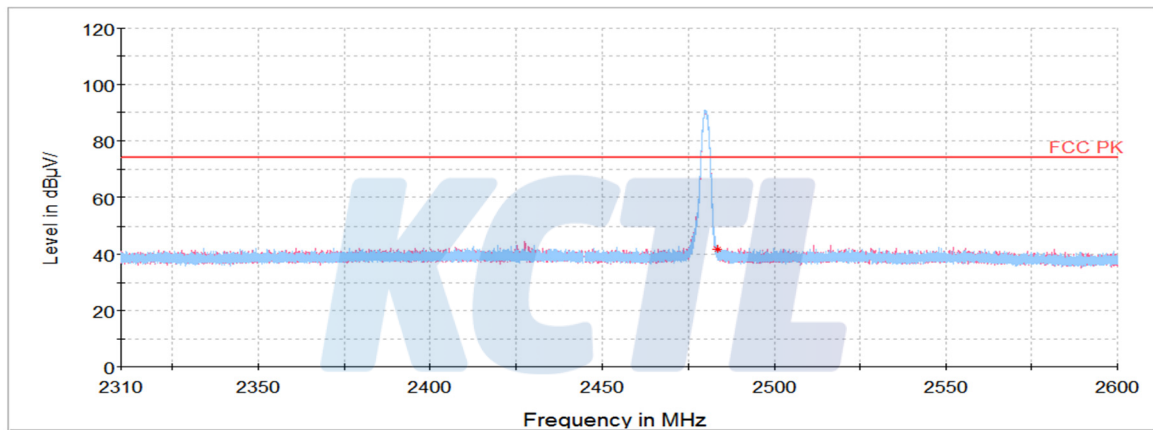
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## High Channel

Frequency (MHz)	Pol. (V/H)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	DCCF (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Peak data</b>								
1 652.66	H	70.06	28.95	-49.92	-	49.09	74.00	19.11
2 483.50 <sup>1)</sup>	H	39.07	32.07	-29.21	-	41.93	74.00	32.07
4 960.88 <sup>1)</sup>	H	67.52	33.98	-54.80	-	46.70	74.00	27.30
7 440.83 <sup>1)</sup>	H	58.29	35.40	-50.86	-	42.83	74.00	31.17
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

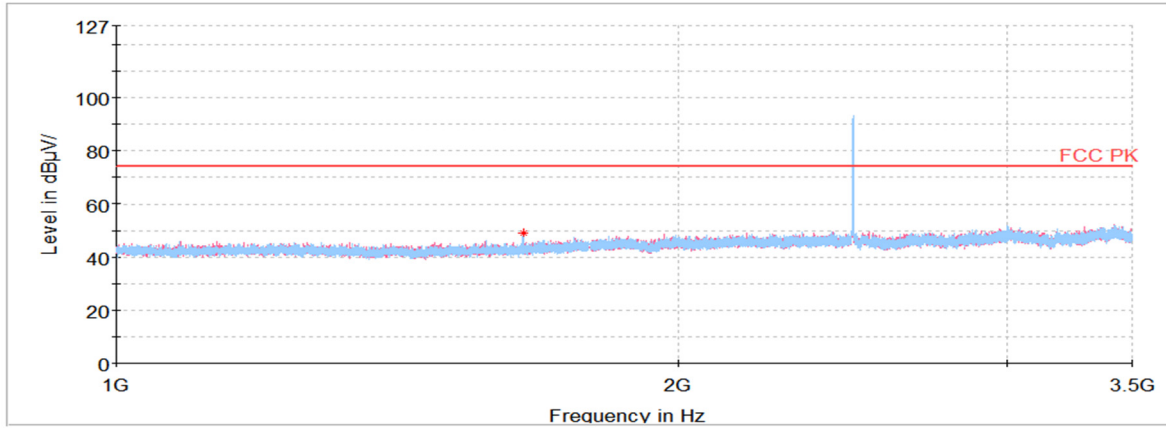
## Horizontal/Vertical for Band-edge



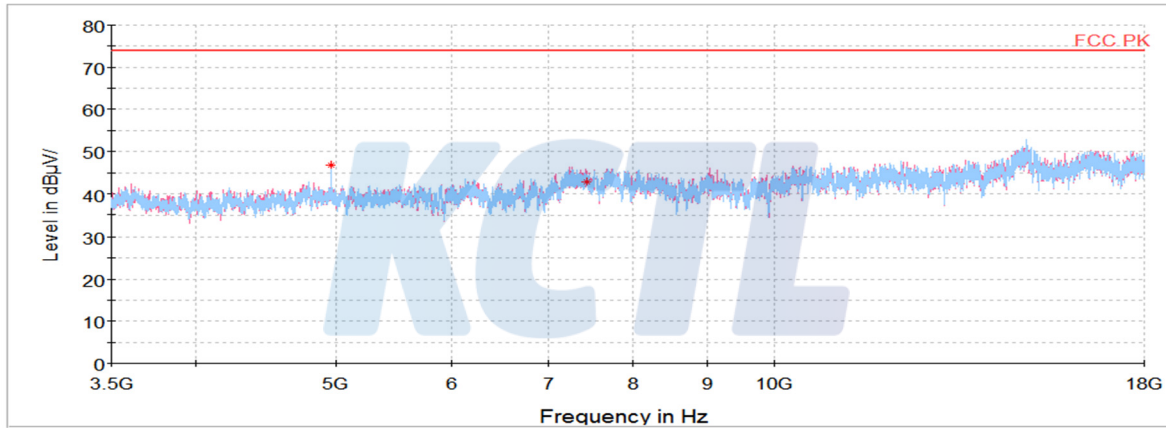
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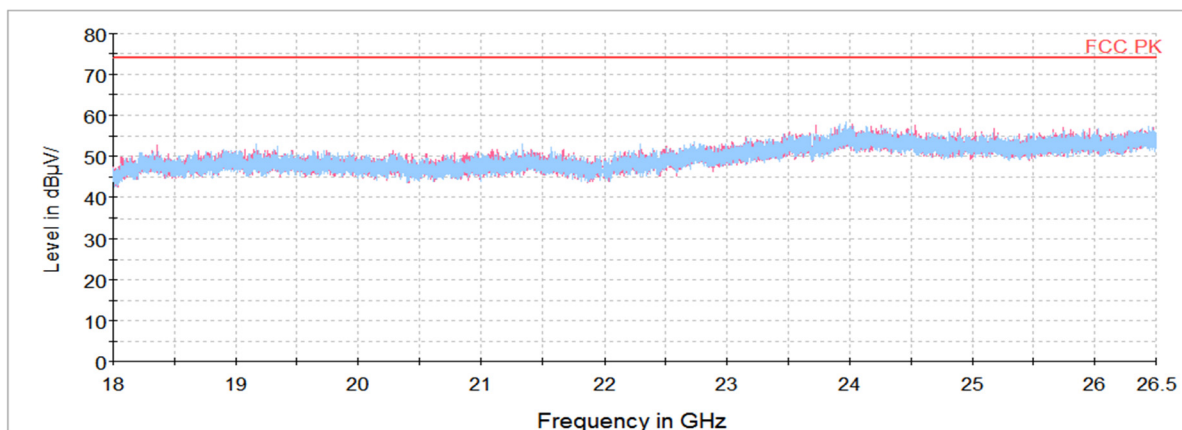
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



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



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



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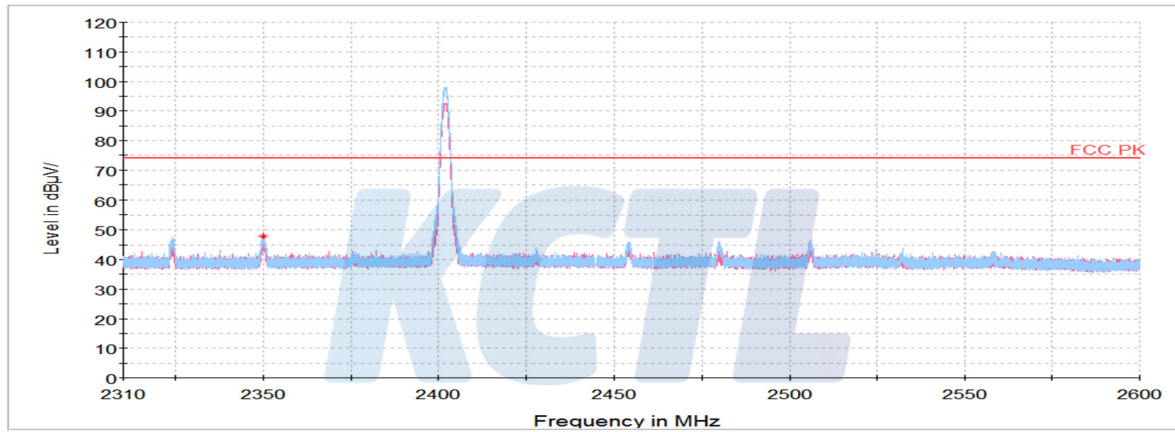
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# KCTL

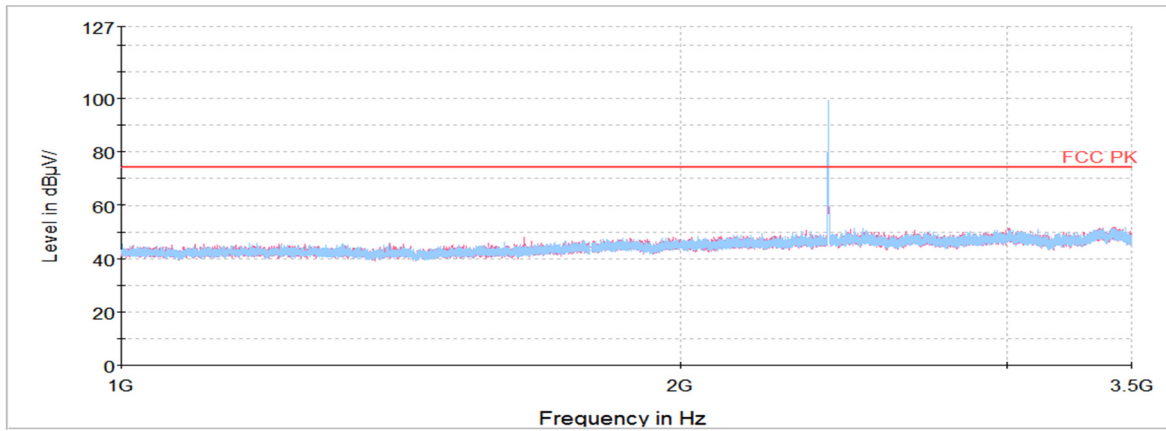
## Ant 2 Low Channel

Frequency (MHz)	Pol. (V/H)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	DCCF (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Peak data</b>								
2 349.88 <sup>1)</sup>	H	45.39	31.80	-29.26	-	47.93	74.00	26.07
4 803.64 <sup>1)</sup>	V	64.43	33.92	-52.27	-	46.08	74.00	27.92
12 011.05 <sup>1)</sup>	H	68.15	38.61	-50.21	-	56.55	74.00	17.45
<b>Average Data</b>								
12 011.05 <sup>1)</sup>	H	68.15	38.61	-50.21	-22.50	34.05	54.00	19.95

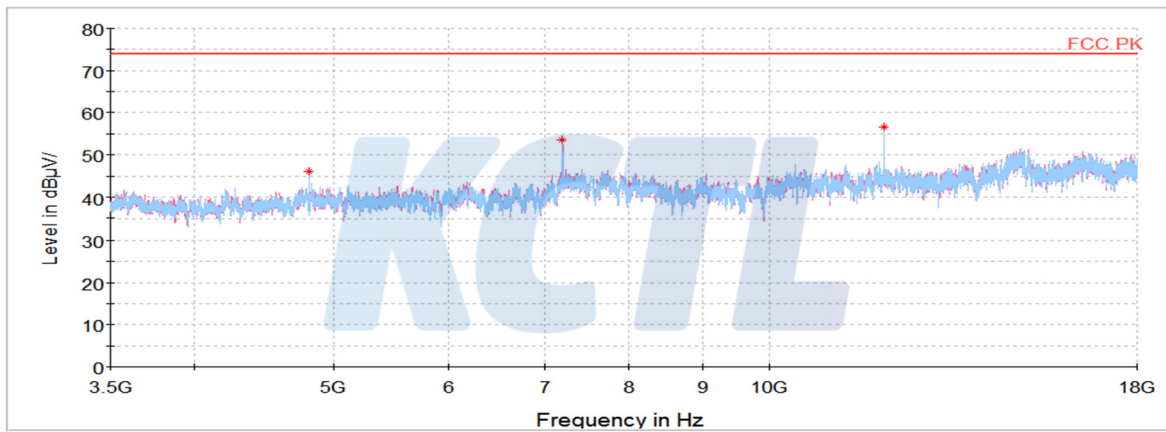
## Horizontal/Vertical for Band-edge



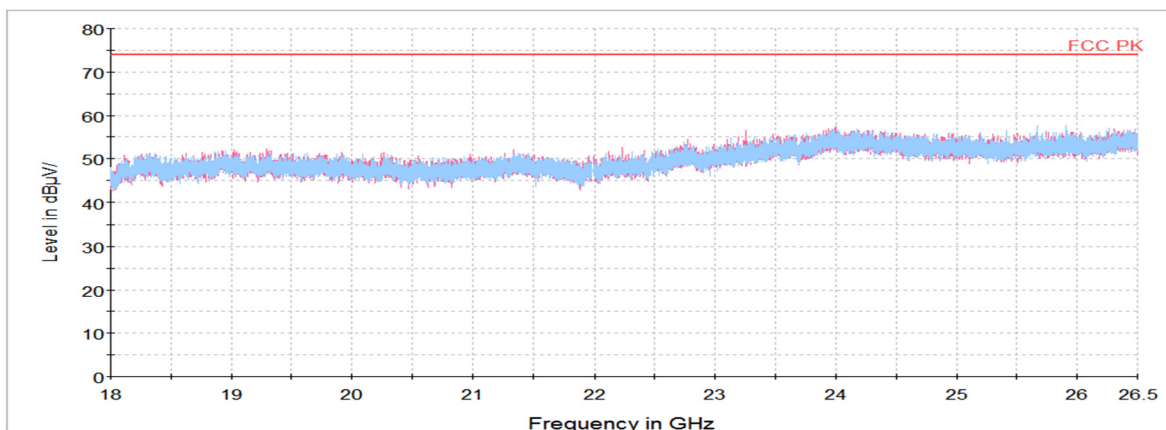
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



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**KCTL****Middle Channel**

Frequency	Pol.	Reading	Antenna 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>								
4 882.03 <sup>1)</sup>	V	70.46	33.95	-54.43	-	49.98	74.00	24.02
7 323.02 <sup>1)</sup>	V	70.60	35.40	-51.44	-	54.56	74.00	19.44
12 205.89 <sup>1)</sup>	V	66.01	38.85	-50.26	-	54.60	74.00	19.40
<b>Average Data</b>								
7 323.02 <sup>1)</sup>	V	70.60	35.40	-51.44	-22.50	32.06	54.00	21.94
12 205.89 <sup>1)</sup>	V	66.01	38.85	-50.26	-22.50	32.10	54.00	21.90

**KCTL**

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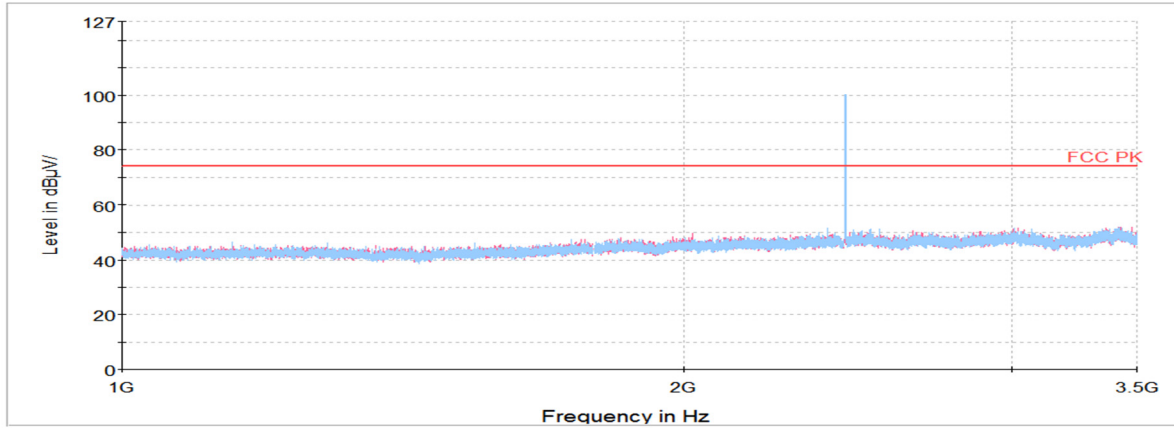
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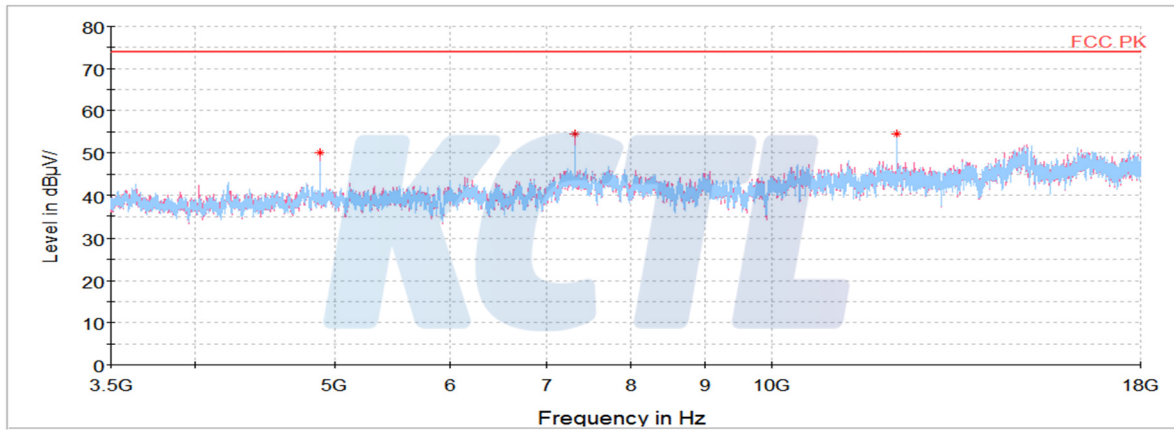
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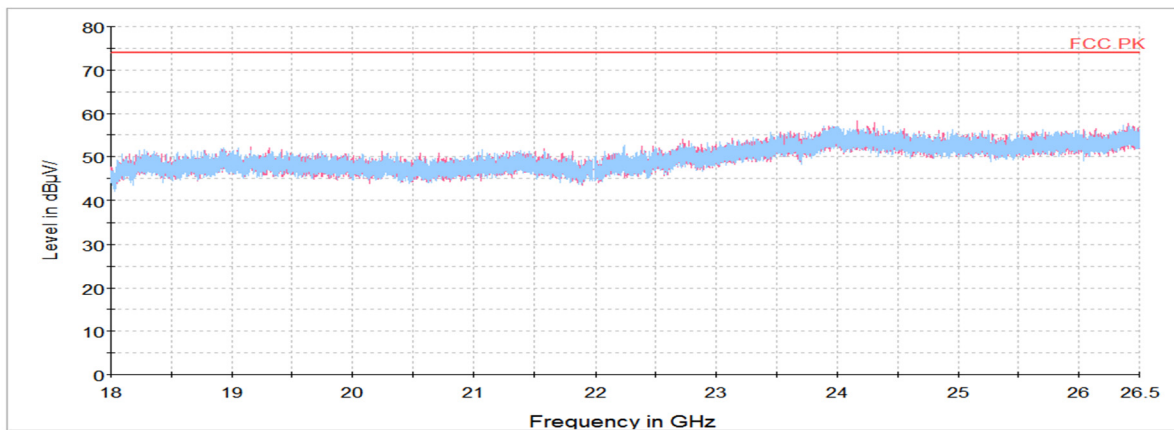
## Horizontal/Vertical for 1 GHz ~ 3.5 GHz



## Horizontal/Vertical for 3.5 GHz ~ 18 GHz



## Horizontal/Vertical for 18 GHz ~ 26.5 GHz



**KCTL Inc.**

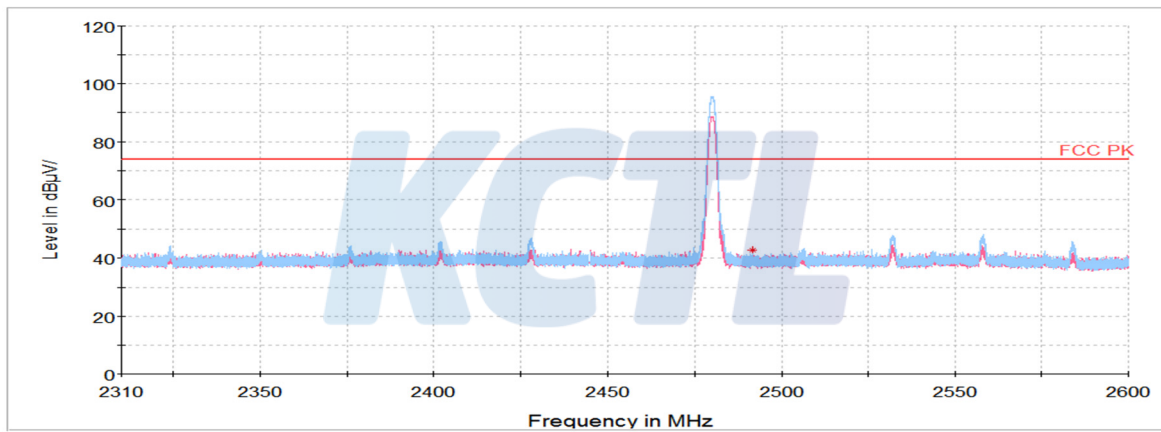
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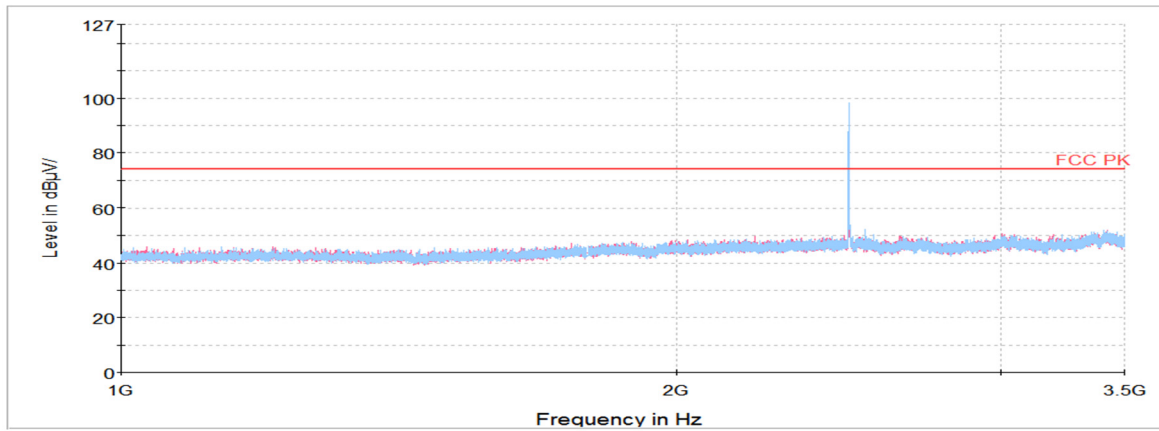
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**KCTL****High Channel**

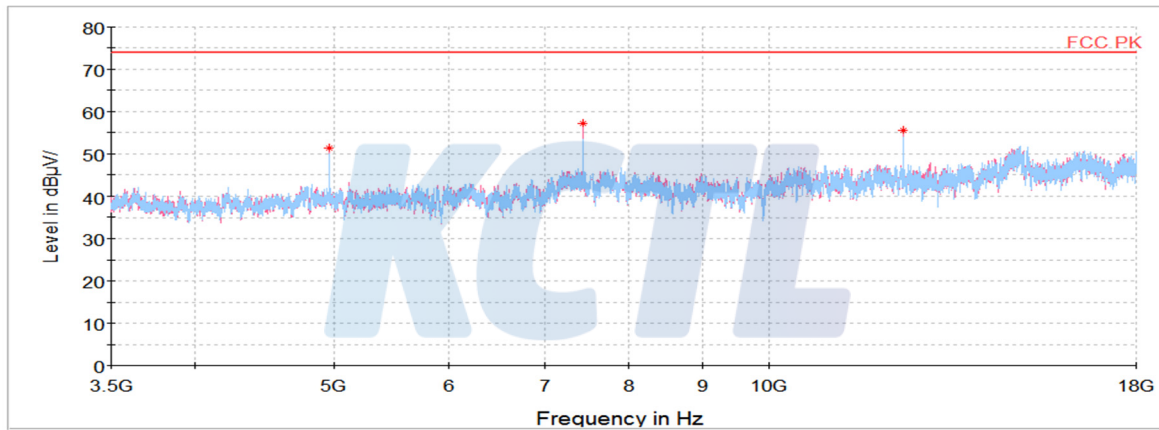
Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
2 491.59 <sup>1)</sup>	H	40.02	32.08	-29.24	-	42.86	74.00	31.14
4 960.03 <sup>1)</sup>	V	72.18	33.98	-54.80	-	51.36	74.00	22.64
7 439.92 <sup>1)</sup>	V	72.61	35.40	-50.87	-	57.14	74.00	16.86
12 401.19 <sup>1)</sup>	V	66.79	39.08	-50.32	-	55.55	74.00	18.45
<b>Average Data</b>								
7 439.92 <sup>1)</sup>	V	72.61	35.40	-50.87	-22.50	34.64	54.00	19.36
12 401.19 <sup>1)</sup>	V	66.79	39.08	-50.32	-22.50	33.05	54.00	20.95

**Horizontal/Vertical for Band-edge**

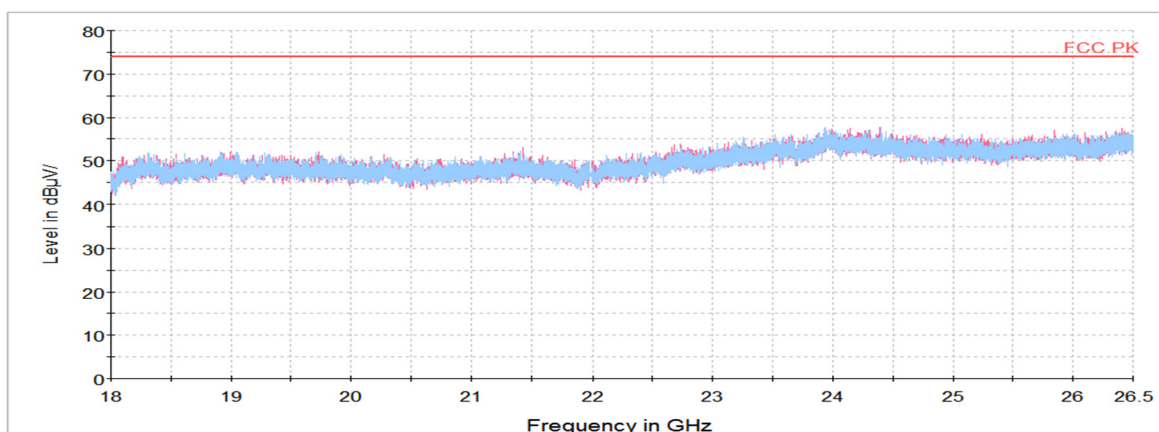
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



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



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





**KCTL Inc.**

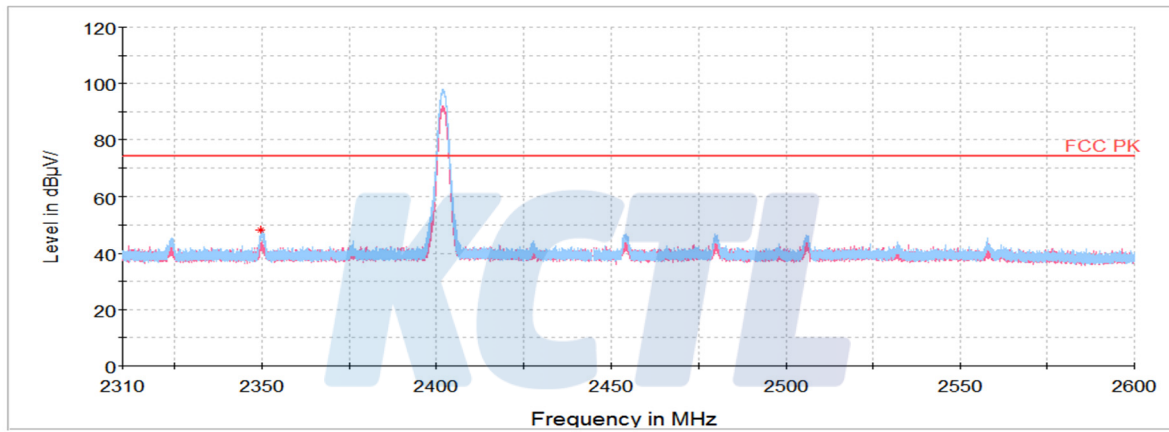
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**KCTL****8DPSK****Low Channel**

Frequency (MHz)	Pol. (V/H)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	DCCF (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Peak data</b>								
2 349.68 <sup>1)</sup>	H	45.60	31.80	-29.26	-	48.14	74.00	25.86
4 803.64 <sup>1)</sup>	V	63.89	33.92	-52.27	-	45.54	74.00	28.46
12 010.59 <sup>1)</sup>	V	63.91	38.61	-50.21	-	52.31	74.00	21.69
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**Horizontal/Vertical for Band-edge**

# KCTL Inc.

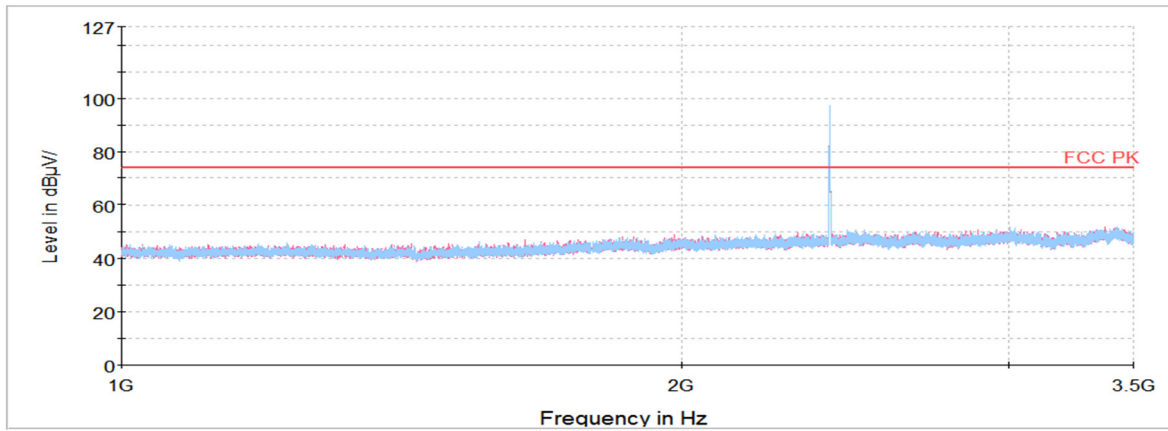
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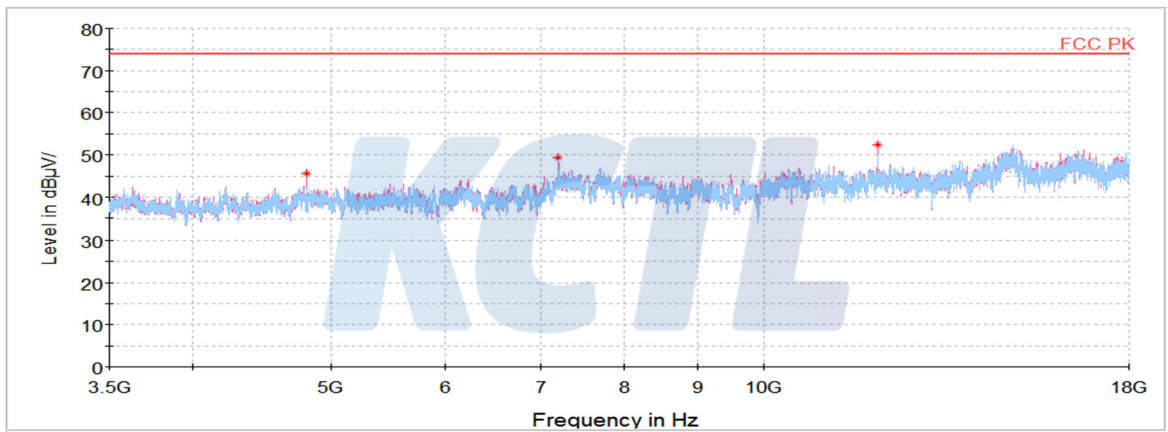
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# KCTL

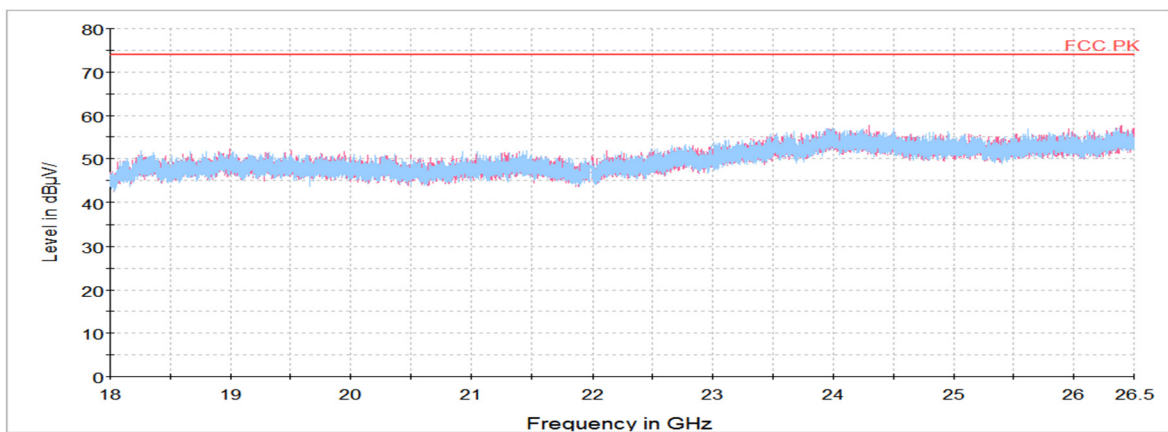
## Horizontal/Vertical for 1 GHz ~ 3.5 GHz



## Horizontal/Vertical for 3.5 GHz ~ 18 GHz



## Horizontal/Vertical for 18 GHz ~ 26.5 GHz



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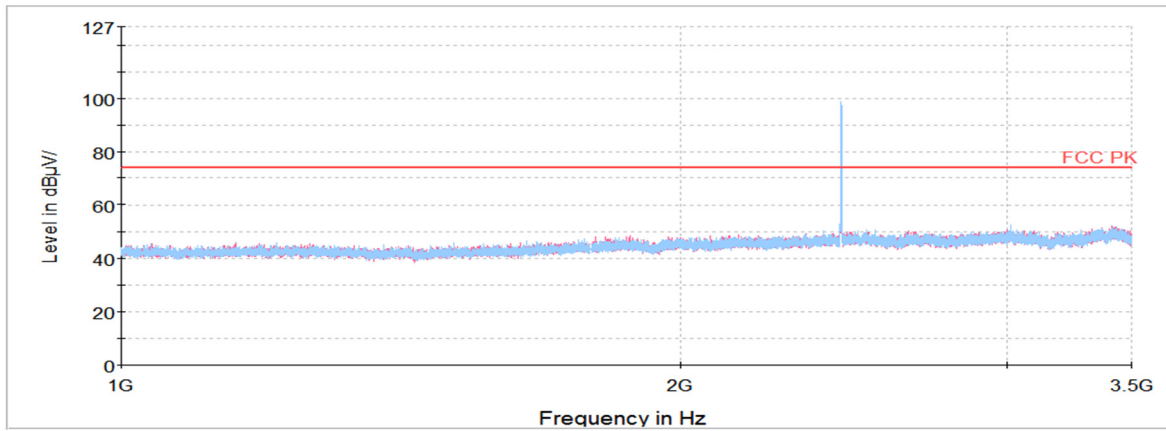
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**Middle Channel**

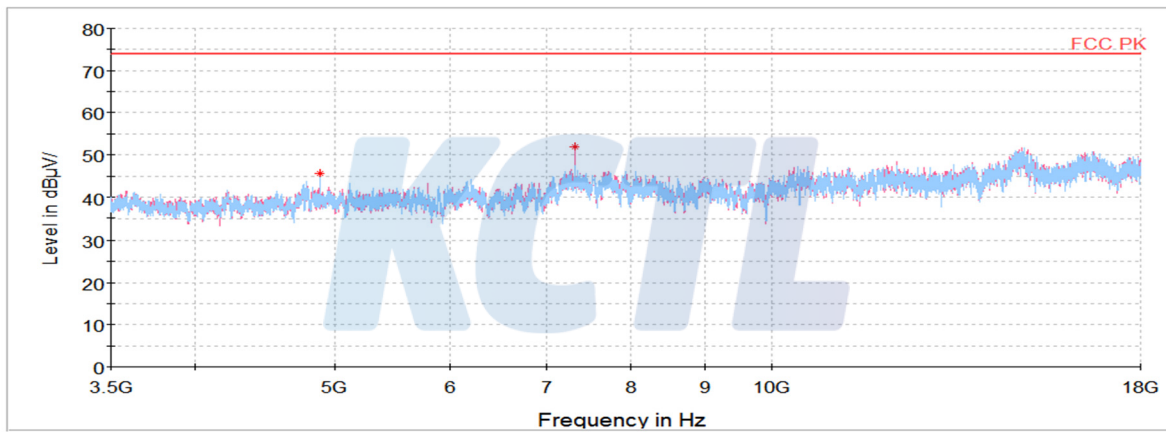
Frequency (MHz)	Pol. (V/H)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	DCCF (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Peak data</b>								
4 881.13 <sup>1)</sup>	V	66.18	33.95	-54.40	-	45.73	74.00	28.27
7 323.47 <sup>1)</sup>	V	71.93	35.40	-51.44	-	55.89	74.00	18.11
<b>Average Data</b>								
7 323.47 <sup>1)</sup>	V	71.93	35.40	-51.44	-22.50	33.39	54.00	20.61



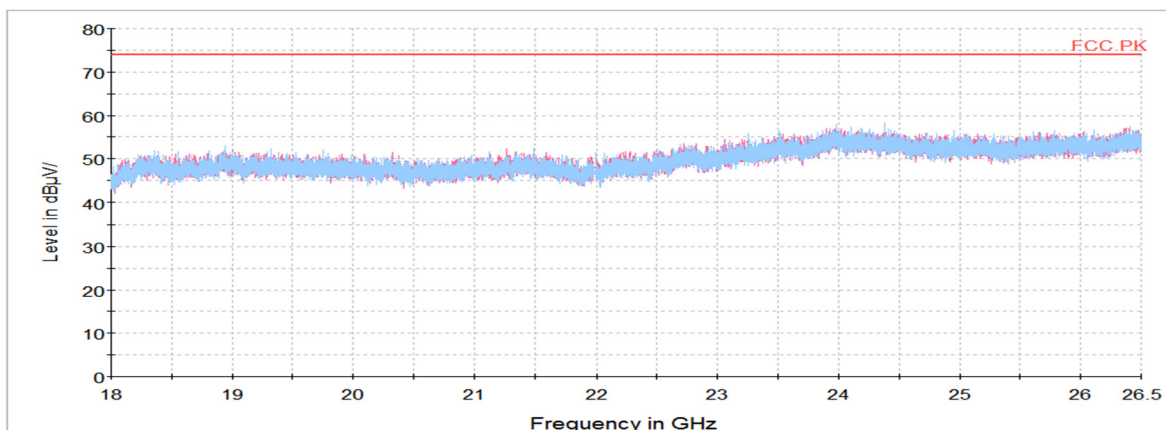
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



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



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



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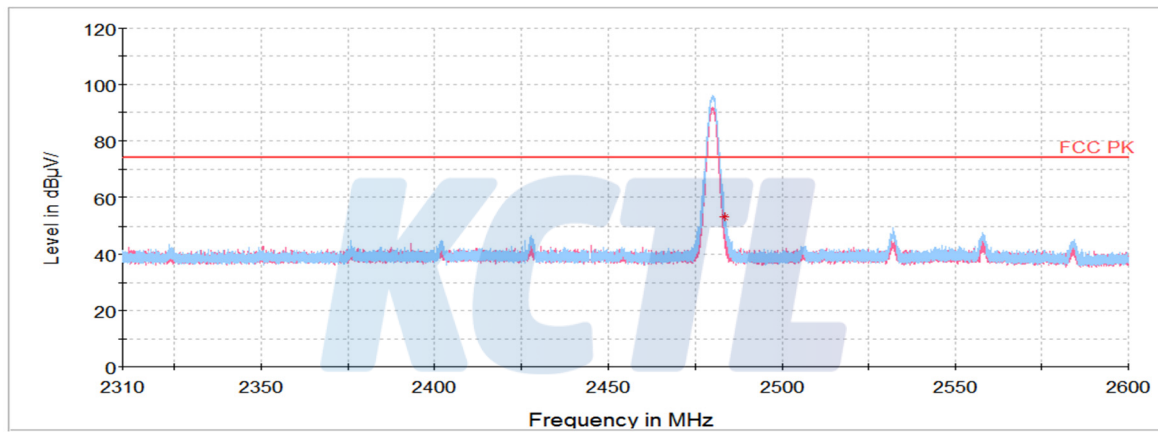
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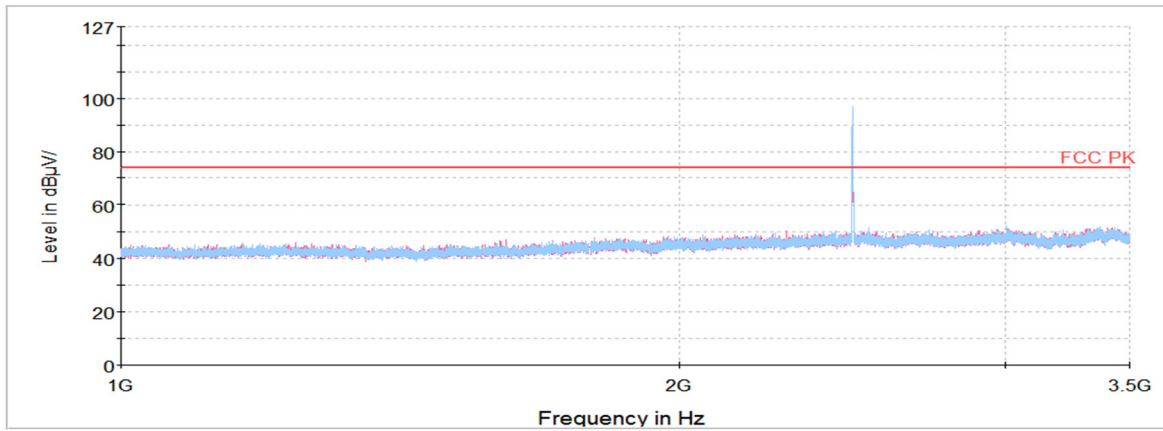
## High Channel

Frequency (MHz)	Pol. (V/H)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	DCCF (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Peak data</b>								
2 483.50 <sup>1)</sup>	H	50.07	32.07	-29.21	-	52.93	74.00	21.07
4 959.97 <sup>1)</sup>	V	69.84	33.98	-54.80	-	49.02	74.00	24.98
7 439.92 <sup>1)</sup>	V	67.80	35.40	-50.87	-	52.33	74.00	21.67
12 399.38 <sup>1)</sup>	V	60.82	39.08	-50.32	-	49.58	74.00	24.42
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

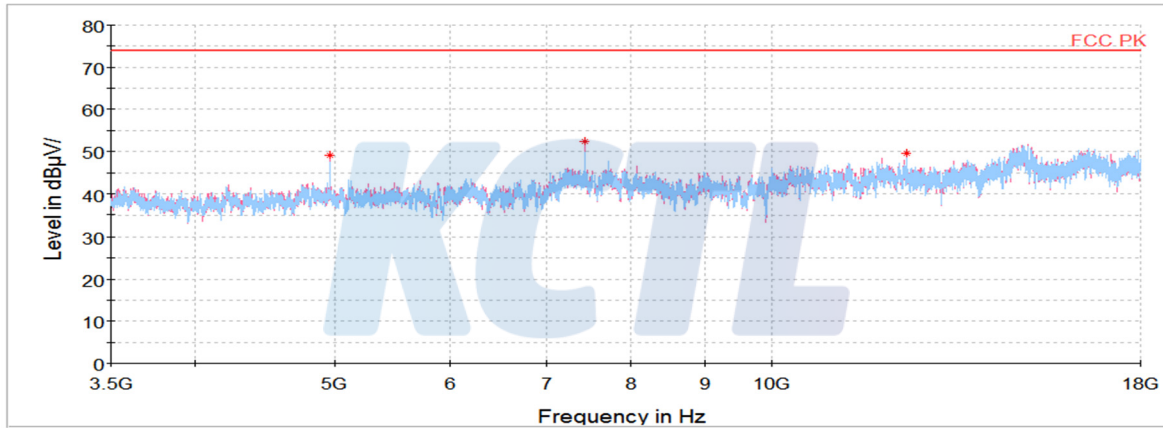
## Horizontal/Vertical for Band-edge



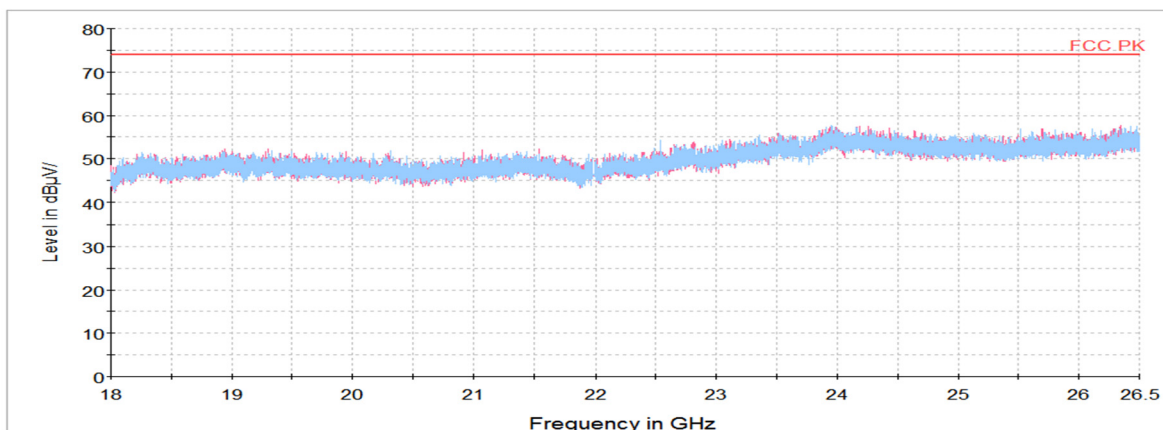
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**Horizontal/Vertical for 18 GHz ~ 26.5 GHz**



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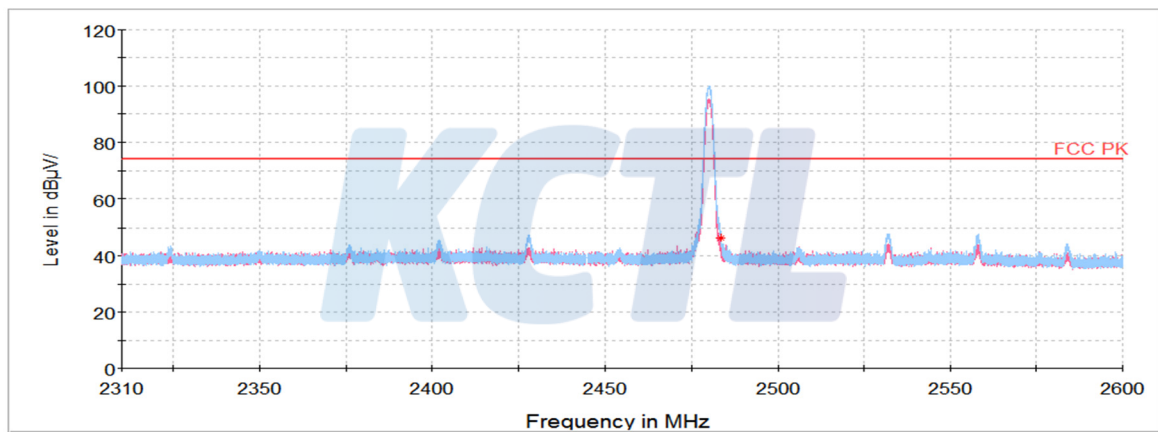
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## Simultaneous (Ant 1\_Bluetooth\_GFSK\_2480 MHz + Ant 2\_Bluetooth\_GFSK\_2480 MHz)

Frequency (MHz)	Pol. (V/H)	Reading (dB( $\mu$ V))	Antenna Factor (dB)	Amp. + Cable (dB)	DCCF (dB)	Result (dB( $\mu$ V/m))	Limit (dB( $\mu$ V/m))	Margin (dB)
<b>Peak data</b>								
2 483.53 <sup>1)</sup>	H	43.54	32.07	-29.21	-	46.40	74.00	27.60
4 959.97 <sup>1)</sup>	V	78.89	33.98	-54.80	-	58.07	74.00	15.93
7 440.04 <sup>1)</sup>	V	73.89	35.40	-50.87	-	58.42	74.00	15.58
12 400.04 <sup>1)</sup>	V	65.04	39.08	-50.32	-	53.80	74.00	20.20
<b>Average Data</b>								
4 959.97 <sup>1)</sup>	V	78.89	33.98	-54.80	-22.50	35.57	54.00	18.43
7 440.04 <sup>1)</sup>	V	73.89	35.40	-50.87	-22.50	35.92	54.00	18.08

### Horizontal/Vertical for Band-edge



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