

3701, 40, Simin-daero 365beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14057, Korea Tel: +82-31-425-6200 / Fax: +82-31-424-0450 www.kes.co.kr Report No.: KES-RF1-22T0059 Page (36) of (71)

Test results (Above 1 000 M拉)						
Mode:	LE 1 Mbps(Left Unit)					
Distance of measurement:	3 meter					
Channel:	00					

- Spurious

Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 330.47	48.81	Peak	Н	-7.48	-	41.33	74.00	32.67
1 033.70	44.77	Peak	V	-9.25	-	35.52	74.00	38.48
4 803.60	41.54	Peak	Н	7.10	-	48.64	74.00	25.36

- Band edge

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 376.38	41.51	Peak	Н	-0.84	-	40.67	74.00	33.33
2 345.68	41.53	Peak	V	-0.87	-	40.66	74.00	33.34

Restrict	ted band // Horizontal	// Peak	Res	tricted band // Vertica	l // Peak
Spectrum Spectrum	2 Spectrum 3 Spectrum 4	₩	Spectrum Spect	rum 2 🛞 Spectrum 3 🔳 Spectrur	n4 🛞
Ref Level 100.00 dBµV	🖷 RBW 1 MHz		Ref Level 100.00 dBµV	🖷 RBW 1 MHz	
Att 10 dB SWT	15.3 µs 🖷 VBW 3 MHz Mode Auto FFT		Att 10 dB	SWT 15.3 µs 🖷 VBW 3 MHz Mode Auto FFT	
AFA mida	M2[1]	41.51 dBuV	ALP HIGO	M2[1]	41.53 dBi
		2.3763750 GHz			2.3456760
90 dBµV-	-M1[1]	93.69 dBuV 2.4021290 GHz	90 dBµV-		92.10 d8 2.4021600 G
			00.40.41		
80 dBµV-			80 dBµV-		
70 dBµV-			70 dBµV-		
50 dBµV-			60 dBµV-		
50 dBµV	M	>	50 dBµV	M2	
eadered marting and	mannon	homomore	40 dBuy	mun man man	mmmmmm
30 dBµV	· · · · · · · · · · · · · · · · · · ·	V	30 dBµV	V	0 4 40.0 1000
20 dBµV			20 dBµV-		
LO dBµV		F2	10 dBµV-		F2
F1			F1		
Start 2.3 GHz	10001 pts	Stop 2.405 GHz	Start 2.3 GHz	10001 pts	Stop 2.405 GH
	Measuring	· 💶 ANNANAD 🦇 🎢		Measi	uring 📲 KANANAN 🦇

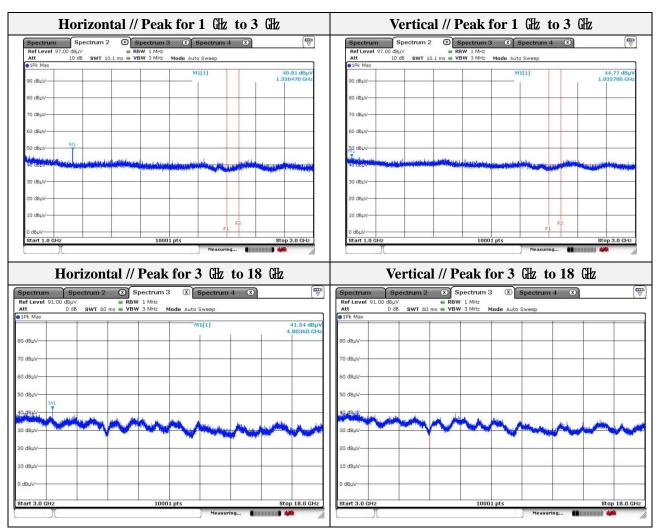


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Note.

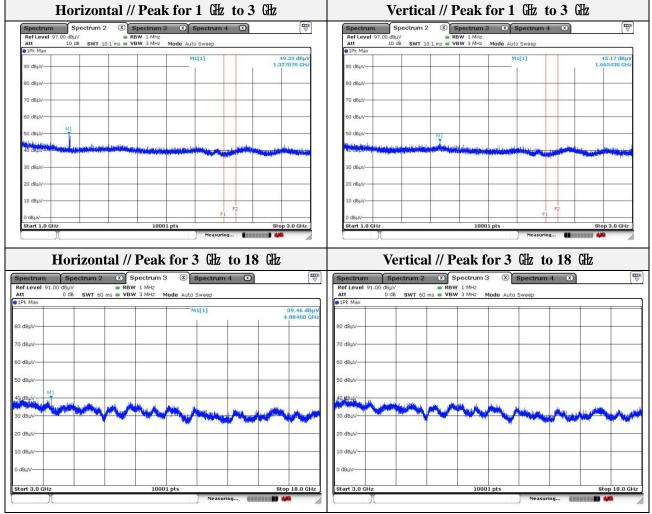


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Mode:	LE 1 Mbps(Left Unit)
Distance of measurement:	3 meter
Channel:	20

- Spurious

Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 327.07	49.33	Peak	Н	-7.50	-	41.83	74.00	32.17
1 665.43	45.17	Peak	V	-4.83	-	40.34	74.00	33.66
4 884.60	39.46	Peak	Н	7.72	-	47.18	74.00	26.82



Note.

1. Average test would be performed if the peak result were greater than the average limit.



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Mode:	LE 1 Mbps(Left Unit)
Distance of measurement:	3 meter
Channel:	39

- Spurious

Frequency (Mz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 330.07	49.07	Peak	Н	-7.48	-	41.59	74.00	32.41
1 332.07	45.23	Peak	V	-7.47	-	37.76	74.00	36.24
4 961.10	38.16	Peak	Н	8.31	-	46.47	74.00	27.53

- Band edge

Frequency (MLz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 483.57	43.70	Peak	Н	-0.77	-	42.93	74.00	31.07
2 483.57	45.08	Peak	V	-0.77	-	44.31	74.00	29.69

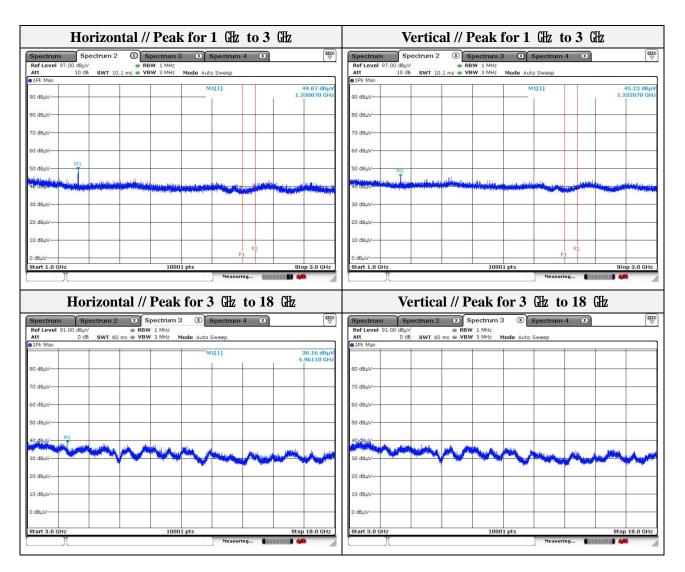
Restricted	d band // Horizontal	// Peak	Restric	ted band // Vertical	// Peak
	Spectrum 3 Spectrum 4 RBW 1 MHz ps VBW 3 MHz Mode Auto FFT	R		Spectrum 3 Spectrum RBW 1 MHz T µs ● VBW 3 MHz Mode Auto FFT	n 4 🕲 🕅
90 /BLIV 00 /BLIV 00 /BLIV 00 /BLIV 00 /BLIV	M2[1] 	43.70 dBµV 2.48356000 GHz 97.29 dByV 2.48017100 GHz 7	IPK Max IPK Max <td< th=""><th>M2[1] </th><th>45.00 dbg 2,48356900 G 97.30 dbg 2,48017100 G</th></td<>	M2[1] 	45.00 dbg 2,48356900 G 97.30 dbg 2,48017100 G
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	40	) dBµV ) dBµV ) dBµV ) dBµV	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
10 dBµV F1 Start 2.478 GHz	10001 pts Neasuring	Stop 2.51 GHz	D dBµV F1	10001 pts	2 Stop 2.51 GHz



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Note.



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Test results (18 GHz to 30	(壯) – Worst case		
Mode:	LE 1 Mbps(Left Unit)		
Distance of measurement:	3 meter		
Channel:	00 (Worst case)		

Horizontal Peak	Vertical Peak
Spectrum         Spectrum 2         Spectrum 3         Spectrum 4         (𝔅)         (𝔅)           Ref Level 91.00 dBµV         ■ RBW 1 MH2         ■ RBW 1 MH2         ■ 𝔅         🐨         🐨         🐨         🐨           Att         0 dB         SWT 48 ms         VBW 3 MH2         Mode Auto Sweep         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■         ■	Spectrum         Spectrum 2         Spectrum 3         Spectrum 4         Tmp           Ref Level 91.00 dBµV <ul></ul>
B0 dBµV-     Image: Sector Secto	B0 dBµV-
Start 10.0 GHz         10001 pts         Stop 30.0 GHz	Start 18.0 GHz 10001 pts Stop 30.0 GHz

Note.

No spurious emission were detected above 18 GHz.



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Test results (Above 1 000	MHz)
Mode:	LE 2 Mbps (Left Unit)
Distance of measurement:	3 meter

00

Channel:

### - Spurious

Frequency (MHz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµN/m)	Limit (dBµN/m)	Margin (dB)
1 329.87	48.76	Peak	Н	-7.48	-	41.28	74.00	32.72
1 096.09	44.53	Peak	V	-8.89	-	35.64	74.00	38.36
4 805.10	41.58	Peak	Н	7.11	-	48.69	74.00	25.31

### - Band edge

Frequency (Mz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 344.85	41.47	Peak	Н	-0.87	-	40.60	74.00	33.40
2 346.70	41.63	Peak	V	-0.87	_	40.76	74.00	33.24

Restricte	d band // Horizontal	// Peak	Re	stricted band // \	/ertical // P	eak
Spectrum 2	Spectrum 3 Spectrum 4	₩	Spectrum Spe	ctrum 2 🛞 Spectrum 3	Spectrum 4 0	
Ref Level 100.00 dBµ∨	RBW 1 MHz		Ref Level 100.00 dBµ∨		a 26 - 10.00 Merry	<b>-</b>
Att 10 dB SWT 15. 1Pk Max	3 µs 🖷 VBW 3 MHz Mode Auto FFT		Att 10 dB	SWT 15.3 µs - VBW 3 MHz Mod	e Auto FFT	
APK mds	M2[1]	41.47 dBµV	APK mds		M2[1]	41.63 dB
		2.3448460 GHz				2.3467046 G
0 dBµV	-M1[1]	88.11 dBuv 2.4025270 GMz	90 dBµV-		M1[1]	86.83 dB 2.4025170 8
	1 I	2.4025270 582			I I	2.4025170
0 dBµV-			80 dBµV-			
1000000			0.000/02/02/07			
0 dBµV-			70 dBµV-			
0 dBµV-			60 dBµV-			
0 dBµV-	M2		50 dBµV-	M2		
o dout a			An dr. A . A . A		mon	a an ind
2 det month	martine and martine	mon man	WG deployment	when my and make	and have been a server	at when have
0 dBuV			30 dBµV-			
Jupp			oo dopv			
0 dBuV			20 dBuV-			
0 dBµV-			10 dBµV-			
F1		F2	F1			F2
tart 2.3 GHz	10001 pts	Stop 2.405 GHz	Start 2.3 GHz	10001 pts		Stop 2.405 G
Y	Measuring		Cotore 210 Gill	10001 p(3	Measuring	

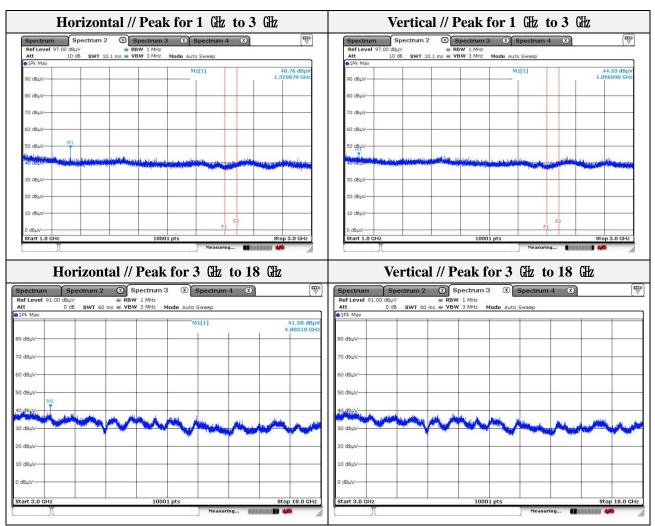


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Note.

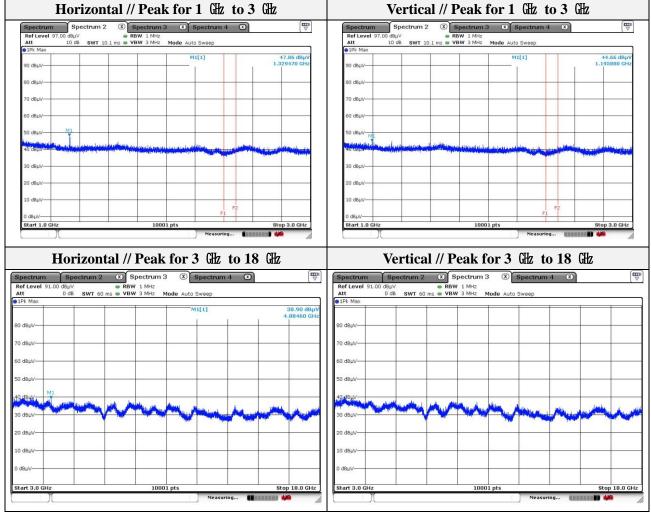


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Mode:	LE 2 Mbps (Left Unit)				
Distance of measurement:	3 meter				
Channel:	20				

#### - Spurious

Frequency (Mz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 329.47	47.86	Peak	Н	-7.49	-	40.37	74.00	33.63
1 195.88	44.66	Peak	V	-8.31	-	36.35	74.00	37.65
4 884.60	38.90	Peak	Н	7.72	_	46.62	74.00	27.38



#### Note.

1. Average test would be performed if the peak result were greater than the average limit.



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Mode:	LE 2 Mbps (Left Unit)				
Distance of measurement:	3 meter				
Channel:	39				

### - Spurious

Frequency (MHz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 328.07	49.40	Peak	Н	-7.49	-	41.91	74.00	32.09
1 006.50	44.53	Peak	V	-9.40	-	35.13	74.00	38.87
4 961.10	38.07	Peak	Н	8.31	_	46.38	74.00	27.62

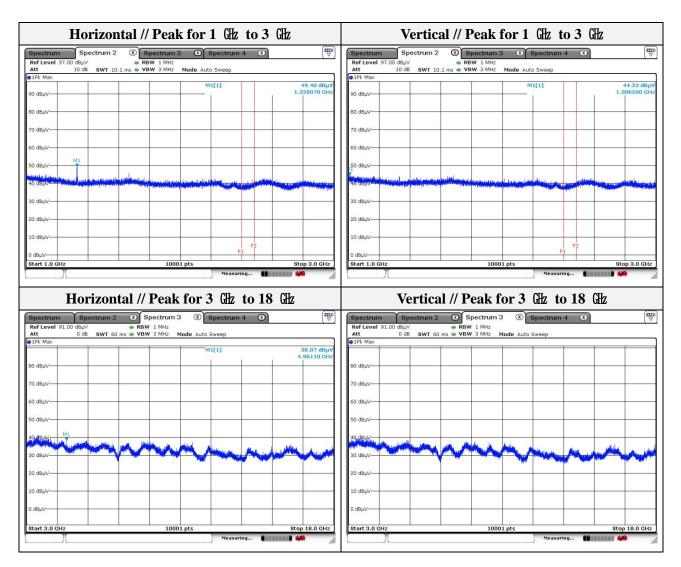
### - Band edge

Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 483.57	43.34	Peak	Н	-0.77	-	42.57	74.00	31.43
2 486.46	42.33	Peak	V	-0.77	-	41.56	74.00	32.44

Restricte	d band // Horizontal	// Peak	Restric	ted band // Vertical /	// Peak
Spectrum 2 Spectrum 2	(X) Spectrum 3 (X) Spectrum 4		Spectrum 2 Spectrum 2	(X) Spectrum 3 (X) Spectrum 4	• ®) ("
Ref Level         100.00 dBµV           Att         10 dB         SWT 5.7           P1Pk Max         10 dB         SWT 5.7	<ul> <li>RBW 1 MHz</li> <li>μs S VBW 3 MHz</li> <li>Mode Auto FFT</li> </ul>		Ref Level         100.00 dBµV           Att         10 dB         SWT 5.7           PIPk Max         10 dB         SWT 5.7	<ul> <li>RBW 1 MHz</li> <li>μs S VBW 3 MHz</li> <li>Mode Auto FFT</li> </ul>	
90 /BµV	M2[1] M1[1]	43.34 dBµV 2.48356900 GHz	90 dBuV	M2[1] M1[1]	42.33 dBµ 2.48646160 GH 84.61 dBµ 2.47948630 GH
80 dBμV 70 dBμV			10 dBhA		
60 dBµV 50 dBµV			60 d8µV		
40 dBµV		- dender	40 dBµV	Mar Martin	
20 dBµV			20 dBµV		
10 dBµV	F2		10 dBµV	F2	
Start 2.478 GHz	10001 pts Measuring.		Start 2.478 GHz	10001 pts Measurin	Stop 2.51 GHz g 🚺 🚧



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Test results (18 GHz to 30	(趾) – Worst case
Mode:	LE 2 Mbps (Left Unit)
Distance of measurement:	3 meter
Channel:	00 (Worst case)

Horizontal Peak					Vertical P	eak	
	Spectrum 3 (S) Spectrum 4 RBW 1 MHz VBW 3 MHz Mode Auto Sweep		Spectrum Ref Level 91.0 Att		RBW 1 MHz	Spectrum 4 🛞	
1Pk Max			1Pk Max				1
0 dBµV			80 dBµV				
0 dBµV			70 dBµV				
0 dBµV			60 dBµV				
0 dBµV			50 dBµV				
D dBµV			40 dBµV				
Alexand and a stand and a s	Alphiese Marine Marine and	Martin Carlo and	the second second	And the second	with the states	and the stand and the stand	and the second s
D dBµV			20 dBµV				
D dBµV			10 dBµV				
dBµV			0 dBµV				
tart 18.0 GHz	10001 pts	Stop 30.0 GHz	Start 18.0 GHz		10001 pts		Stop 30.0 GHz

Note.

No spurious emission were detected above 18 GHz.



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Mode:	LE 1 Mbps (Right Unit)
Distance of measurement:	3 meter
Channel:	00

### - Spurious

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 333.47	49.04	Peak	Н	-7.46	-	41.58	74.00	32.42
1 026.50	44.55	Peak	V	-9.29	-	35.26	74.00	38.74
4 803.60	40.38	Peak	Н	7.10	-	47.48	74.00	26.52

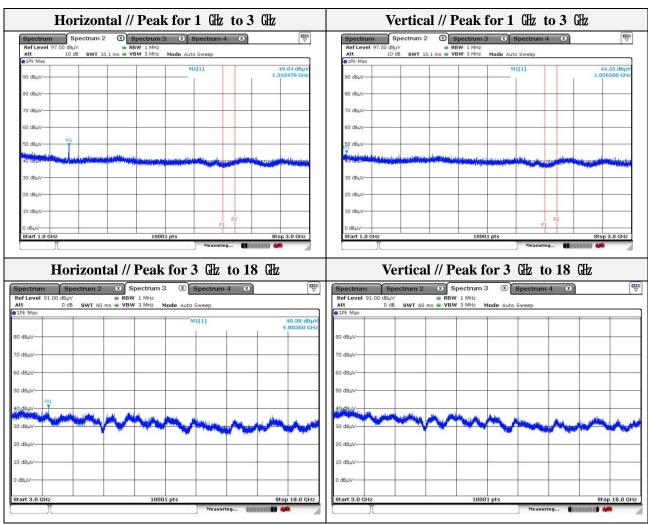
## - Band edge

Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 361.19	40.88	Peak	Н	-0.85	-	40.03	74.00	33.97
2 347.99	40.46	Peak	V	-0.87	-	39.59	74.00	34.41

pectrum Spectrum	2 (*) Spectrum 3 (*) Spectrum 4		Spectrum	ctrum 2 🛞 Spectrum 3	(X) Spectrum 4 (X)	٩ ٩
tef Level 100.00 dBuV	BBW 1 MHz		Ref Level 100.00 dBµV		O opecularity O	
	15.3 µs . VBW 3 MHz Mode Auto FFT			SWT 15.3 µs . VBW 3 MHz Mo	de Auto FFT	
1Pk Max			●1Pk Max		in the second	
	M2[1]	40.88 d∰⊉V			M2[1]	40.46 dB
	-M1[1]	2.3611930 OHz 93.71 dBuV	00.00.00		-M1[1]	2.3479850 G
) dBµV	MILLI	2.4021710 GHz	90 dBµV-			2.4021710
dBµV-			80 dBµV-			
supervise and the second se			0.000 (0.000)			
dBµV-			70 dBµV-			
Second Contraction						
dBµV-			60 dBµV-			
Sec						
dBµV-			50 dBµV-			
	M2			M2		
deur mon	month marken and marken and and and and and and and and and an	mont	AC ABAY Monor	manymour	monormon	mont
		2012/12/12 2012		Sector States and the second second	Contraction of the second s	20 1. T. I. C. I. C. I.
dBµV-			30 dBµV-			
Sec			- S			
dBµV-			20 dBµV-			
10.11						
I dBµV-		F2	10 dBµV-			F2
F1			F1			
art 2.3 GHz	10001 pts	Stop 2.405 GHz	Start 2.3 GHz	10001 pts		Stop 2.405 G



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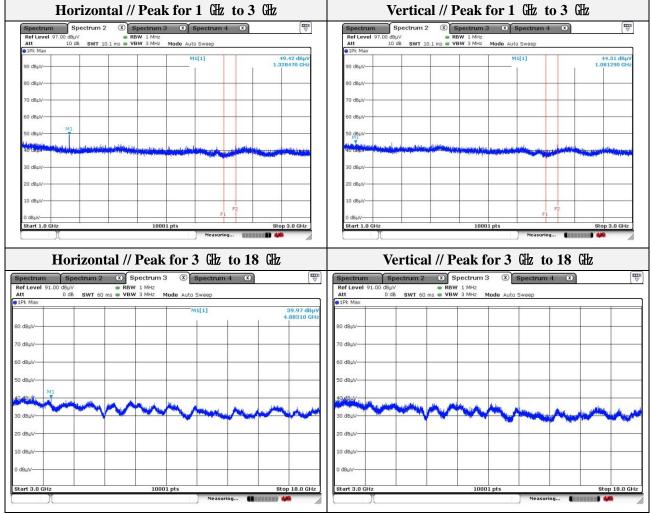


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Mode:	LE 1 Mbps (Right Unit)
Distance of measurement:	3 meter
Channel:	20

#### - Spurious

Frequency (Mz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 328.47	49.42	Peak	Н	-7.49	-	41.93	74.00	32.07
1 081.29	44.31	Peak	V	-8.97	-	35.34	74.00	38.66
4 883.10	39.97	Peak	Н	7.71	-	47.68	74.00	26.32



#### Note.

1. Average test would be performed if the peak result were greater than the average limit.



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Mode:	LE 1 Mbps (Right Unit)
Distance of measurement:	3 meter
Channel:	39

### - Spurious

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 329.27	48.59	Peak	Н	-7.49	-	41.10	74.00	32.90
1 332.07	45.74	Peak	V	-7.47	-	38.27	74.00	35.73
4 961.10	38.78	Peak	Н	8.31	-	47.09	74.00	26.91

### - Band edge

Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 483.57	43.79	Peak	Н	-0.77	-	43.02	74.00	30.98
2 489.21	41.37	Peak	V	-0.77	-	40.60	74.00	33.40

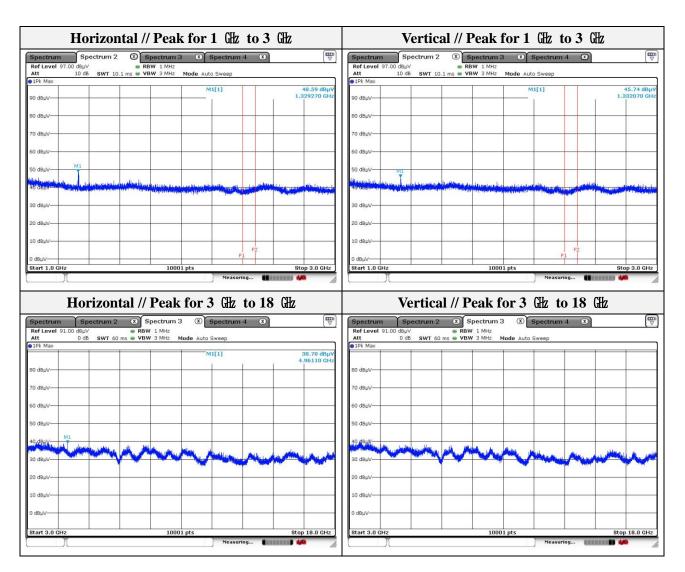
Restricted	d band // Horizontal	Restr	icted band // `	Vertical // P	eak	
Spectrum Spectrum 2 Ref Level 100.00 dBuV	Spectrum 3      Spectrum 4     RBW 1 MHz		Spectrum Spectrum	BBW 1 MHz	Spectrum 4 🛛	
Att 10 dB SWT 5.7	μs SW 3 MHz Mode Auto FFT		Att 10 dB SW	T 5.7 μs SW 3 MHz Mod	e Auto FFT	
90 /BL/V	M2[1] M1[1]	43.79 dBμV 2.48356900 GHz 97.30 dBμV	• 1Pk Max 90 d9p7		M2[1] —_M1[1]	41.37 dBµ 2.48920690 GH 90.68 dBµ
80 dBµV		2.48017100 GHz	80/dBµV			2.48017100 GH
10 dBµV			70 dBµV			
60 dBµV			50 dBµV			
50 dBµV		~	50 dBµV	M2		
30 d8µV			30 dвµv			
20 dBµV			20 dBµV			
10 dBµV-F1	F2		10 dBµV		F2	
Start 2.478 GHz	10001 pts	Stop 2.51 GHz	Start 2.478 GHz	10001 pts		Stop 2.51 GH:
	Measuring.	- •••••			Measuring 📗	NANANA 🧰 🦇



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Note.



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Test results (18 GHz to 30	(Hz) – Worst case
Mode:	LE 1 Mbps (Right Unit)
Distance of measurement:	3 meter
Channel:	00 (Worst case)

Horizontal Peak	Vertical Peak
Spectrum         Spectrum 2         Spectrum 3         Spectrum 4         (m)           Ref Level 91.00 dByV <ul></ul>	Spectrum         Spectrum 2         Spectrum 3         Spectrum 4         C         Image: Comparison of the system
80 dBµV	B0 dBµV-         Image: Constraint of the constraint
Start 18.0 GHz         10001 pts         Stop 30.0 GHz           Measuring         Measuring         Measuring	Start 18.0 GHz Stop 30.0 GHz Stop 30.0 GHz

Note.

No spurious emission were detected above 18 GHz.



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Test results (Above 1 000	MHz)
N / 1	

Mode:	LE 2 Mbps (Right Unit)
Distance of measurement:	3 meter
Channel:	00

#### - Spurious

Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 331.27	46.72	Peak	Н	-7.47	-	39.25	74.00	34.75
1 666.03	44.68	Peak	V	-4.82	-	39.86	74.00	34.14
4 803.60	40.40	Peak	Н	7.10	-	47.50	74.00	26.50

### - Band edge

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 347.26	41.80	Peak	Н	-0.87	-	40.93	74.00	33.07
2 322.95	40.88	Peak	V	-0.89	-	39.99	74.00	34.01

<b>Restricted band // Horizontal // Peak</b>				Restricted	band // Vertical //	Peak
Spectrum 2	Spectrum 3 Spectrum 4	8	Spectrum	Spectrum 2 🛛 🛞	Spectrum 3 🛞 Spectrum 4	8
Ref Level 100.00 dBµ∨	RBW 1 MHz		Ref Level 100.00		RBW 1 MHz	
Att 10 dB SWT 15. 1Pk Max	3 µs 🖷 VBW 3 MHz Mode Auto FFT		Att 1 1Pk Max	0 dB SWT 15.3 µs 🖷	VBW 3 MHz Mode Auto FFT	
APK mids	M2[1]	41.80 dBµV	APK mida		M2[1]	40.88 dB
	mark1	2.3472610 GHz				2.3229455 G
0 dBµV	-M1[1]	Vugb e0.88	90 dBµV		-M1[1]	86.81 dB
	I I	2.4014780 GHz				2.4025170
0 dBµV-			80 dBµV			
2012 March 191			0.000-000-000			
0 dBµV-			70 dBµV			
0 dBµV			60 dBµV			
			50 dBµV			
0 dBµV-	M2		20 gBhA-	101		
0.49:0/	T T		d0 d0 l/	M2		
newhar	www.www.www.www.	and manufactures and the second secon	man	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	and market market	mont
0 dBµV			30 dBµV			
0 d8µV-			20 dBµV			
0 dBµV		F2	10 dBµV-			F2
F1			F1			12
tart 2.3 GHz	10001 pts	Stop 2.405 GHz	Start 2.3 GHz		10001 pts	Stop 2.405 GF
T T	Measuring		Coldition and		Measuring.	

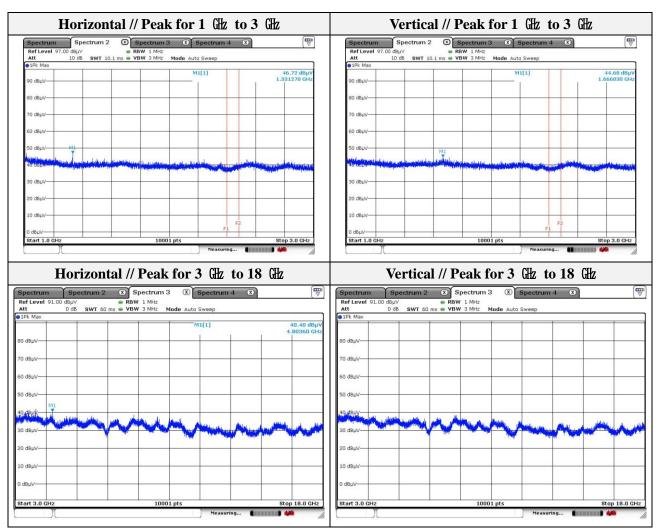


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Note.

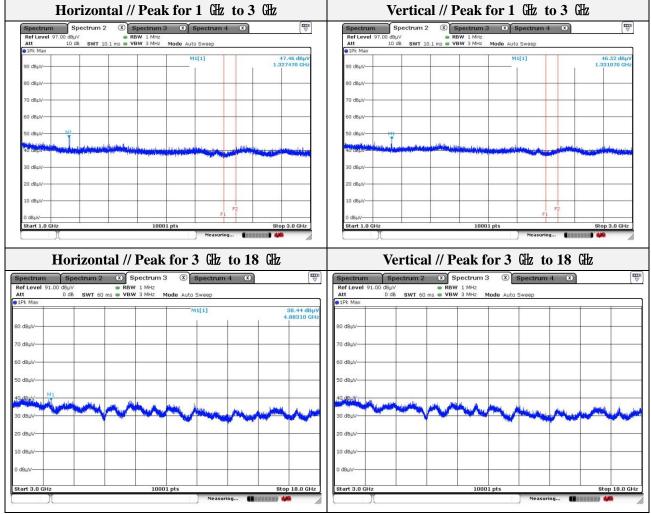


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Mode:	LE 2 Mbps (Right Unit)
Distance of measurement:	3 meter
Channel:	20

#### - Spurious

Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 327.47	47.46	Peak	Н	-7.50	-	39.96	74.00	34.04
1 331.07	46.52	Peak	V	-7.48	-	39.04	74.00	34.96
4 883.10	38.44	Peak	Н	7.71	-	46.15	74.00	27.85



#### Note.

1. Average test would be performed if the peak result were greater than the average limit.



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Mode:	LE 2 Mbps (Right Unit)
Distance of measurement:	3 meter
Channel:	39

### - Spurious

Frequency (Mbz)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
1 329.67	49.74	Peak	Н	-7.48	-	42.26	74.00	31.74
1 115.49	44.70	Peak	V	-8.77	-	35.93	74.00	38.07
4 961.10	37.63	Peak	Н	8.31	-	45.94	74.00	28.06

### - Band edge

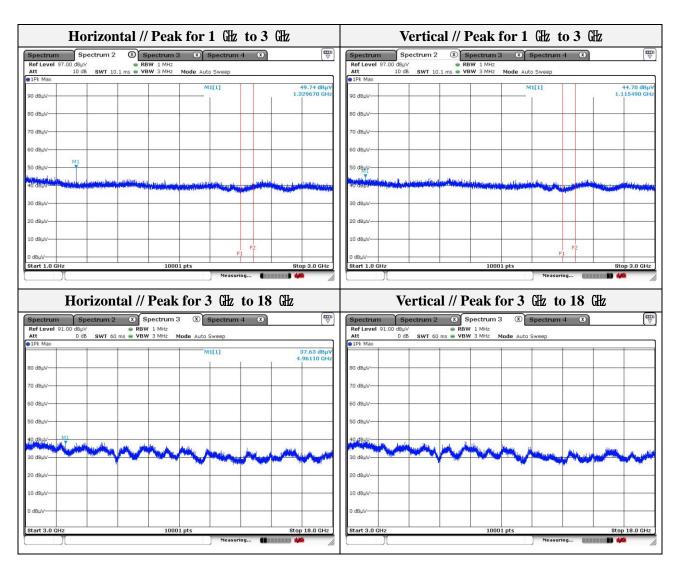
Frequency (Mb)	Level (dBµN)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBµV/m)	Limit (dBµN/m)	Margin (dB)
2 483.50	49.47	Peak	Н	-0.77	-	48.70	74.00	25.30
2 487.76	41.12	Peak	V	-0.77	-	40.35	74.00	33.65

Spectrum Spectrum	2 (8) Spectrum 3 (8) Spectrum 4	∞ 🖤	Spectrum	2 X Spectrum 3 X	Spectrum 4 🛞
Ref Level 100.00 dBµV	RBW 1 MHz	- [	Ref Level 100.00 dBµV	RBW 1 MHz	
	Г 5.7 µs 🖶 VBW 3 MHz 🛛 Mode Auto FFT			5.7 µs 🖷 VBW 3 MHz Mode Aut	to FFT
1Pk Max		49.47 dBµV	91Pk Max		
MI	M2[1]	2.48350000 GHz			M2[1] 41.12 dBj 2.48776060 G
90 øBpV	-M1[1]	91.20 dBµV	90 dBµY		M1[1] 84.61 dB
	1.1.1	2.48052290 GHz	mi l		2.48052290 G
во авих			80/dBµV		
70 dBµV			To dBuV		
i0 dBuV			60 dBuV-		
50 dBµV-			50 dBµV		
				N12	
40 dBµV		man m	40 dBµV	A man	
30 dBµV			30 dBµV		
20 dBµV			20 dBµV		
10 dBµV			10 dBµV		E2
F1	F2		F1		12
Start 2.478 GHz	10001 pts	Stop 2.51 GHz	Start 2.478 GHz	10001 pts	Stop 2.51 GH
Start 2.470 GHZ	10001 pts Measuring	and the second se	otart 2,470 GHZ	10001 pts	Measuring



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Note.



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Test results (18 GHz to 30	(Hz) – Worst case			
Mode:	LE 2 Mbps (Right Unit)			
Distance of measurement:	3 meter			
Channel:	00 (Worst case)			

Horizontal Peak	Vertical Peak           Spectrum 2 © Spectrum 3 © Spectrum 4 © ©           Ref Level 91.00 dbµV         RBW 1.MHz           Att         0 db         SWT 48 ms ● VBW 3 MHz         Mode Auto Sweep           @1Pk Max			
Spectrum         Spectrum 2         Spectrum 3         Spectrum 4         Imp           Ref Level 91.00 dBµV <ul> <li>Ref Level 91.00 dBµV</li> <li>RBW 1 MHz</li> <li>Att</li> <li>0 dB</li> <li>SWT 48 ms</li> <li>VBW 3 MHz</li> <li>Mode Auto Sweep</li> <li>DFM Max</li> </ul>				
	B0 dBµV			
0 dBµV Start 18.0 GHz 10001 pts Stop 30.0 GHz Measuring	0 dBµV Start 18.0 GHz 10001 pts Stop 30.0 GHz Measuring			

Note.

No spurious emission were detected above 18 GHz.



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# 3.6. Conducted spurious emissions & band edge





#### Test procedure Band edge

ANSI C63.10-2013 - Section 11.11

- 1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
- 2. Span was set large enough so as to capture all out of band emissions near the band edge
- 3. Set the RBW = 100 kHz
- 4. Set the VBW =  $[3 \times RBW]$ .
- 5. Detector = Peak
- 6. Sweep time = auto
- 7. Trace mode = max hold
- 8. Allow trace to fully stabilize.

### Out of band emissions

ANSI C63.10-2013 - Section 11.11

- 1. Start frequency was set to 30 MHz and stop frequency was set to 25 GHz for 2.4 GHz frequencies and 40 GHz for 5 GHz frequencies
- 2. Set the RBW = 100 kHz
- 3. Set the VBW =  $[3 \times RBW]$ .
- 4. Detector = Peak
- 5. Sweep time = auto
- 6. Trace mode = max hold
- 7. Allow trace to fully stabilize.

### Limit

According to 15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph(b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in section 15.209(a) is not required. In addition, radiated emission which in the restricted band, as define in section 15.205(a), must also comply the radiated emission limits specified in section 15.209(a) (see section 15.205(c))



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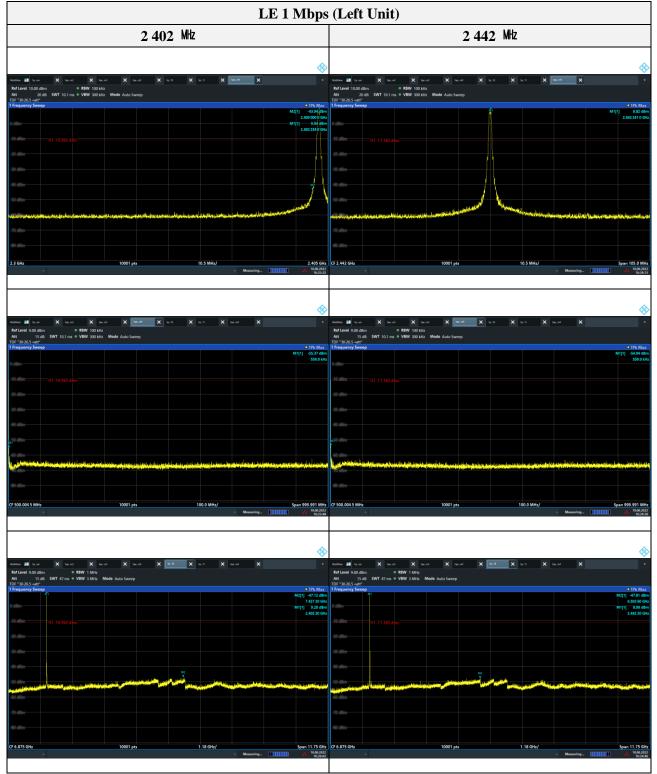
### Limit

According to RSS-247 5.5, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



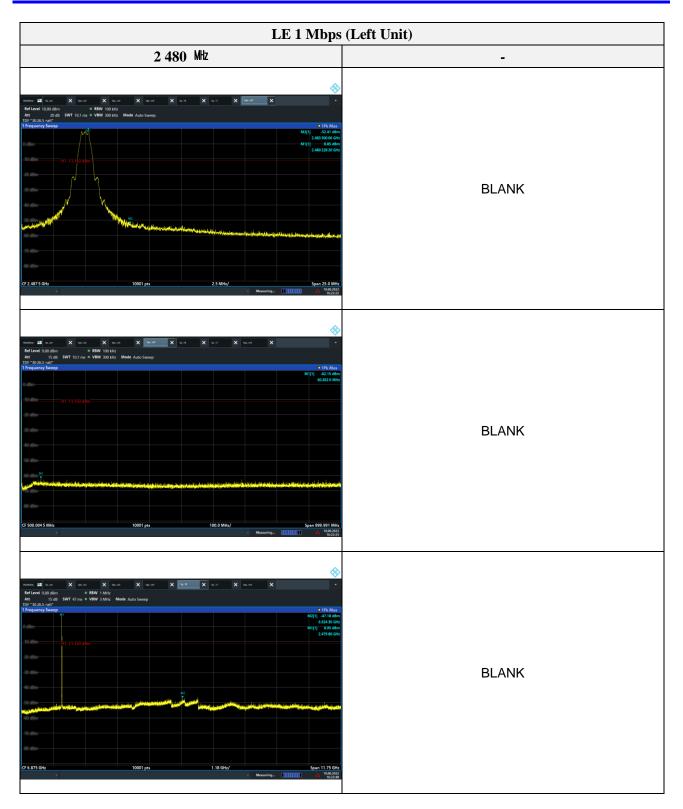
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### **Test results**



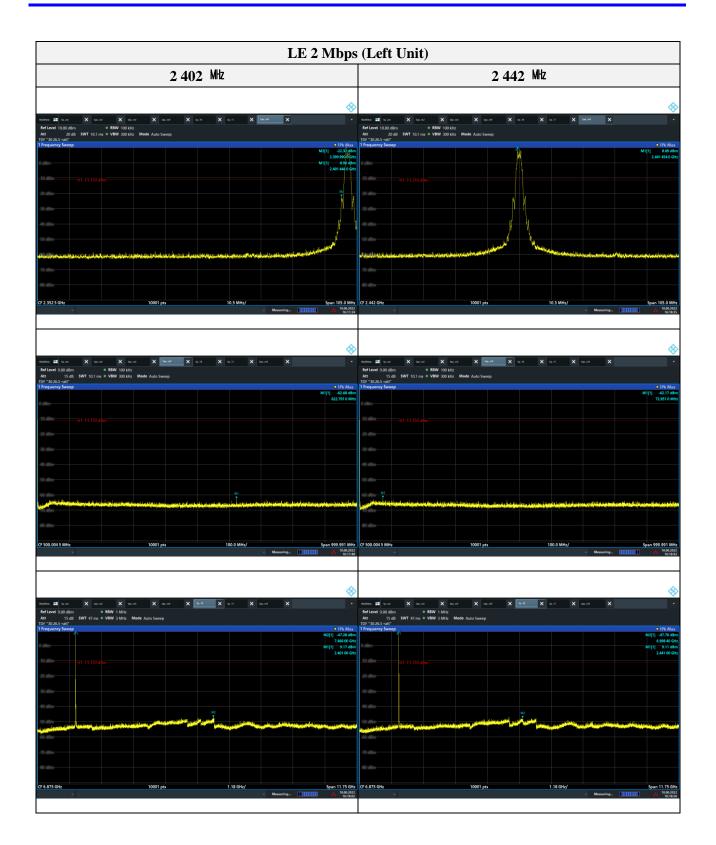


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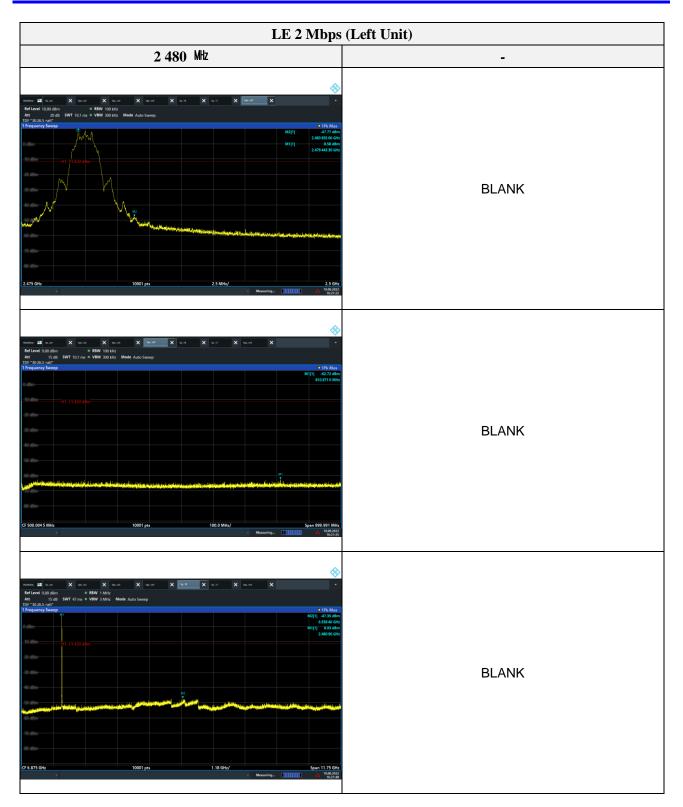


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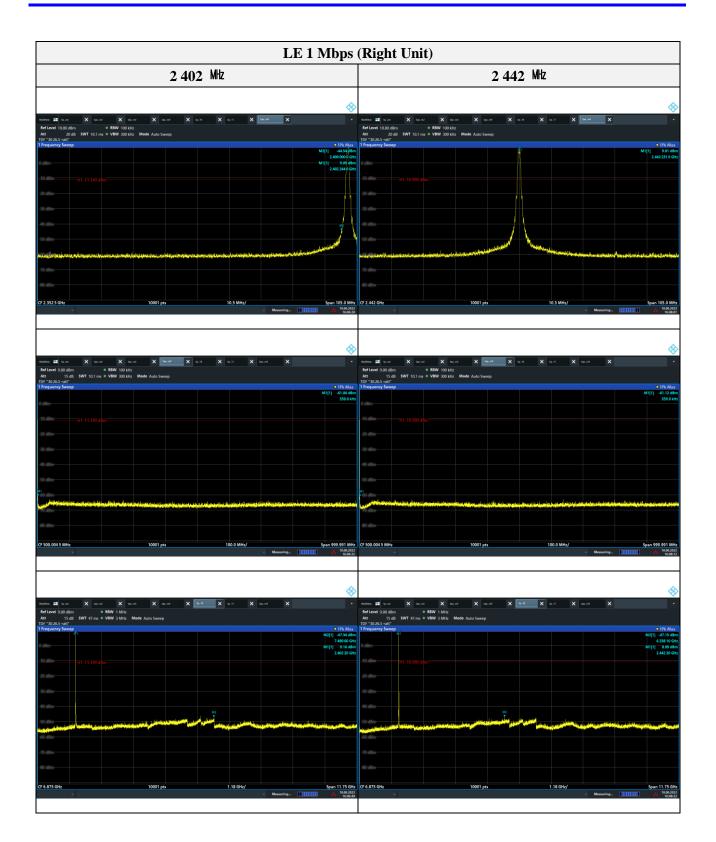


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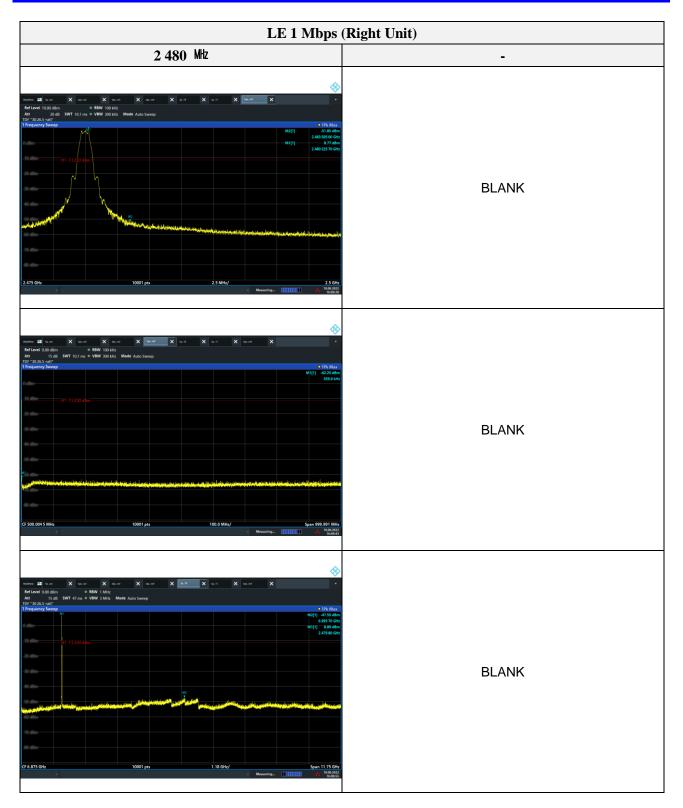


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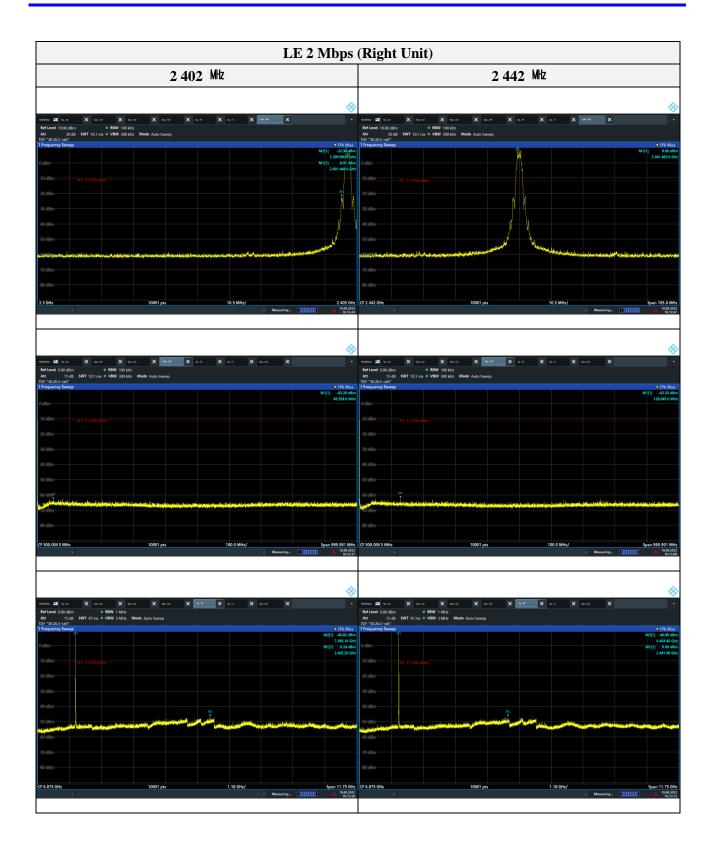


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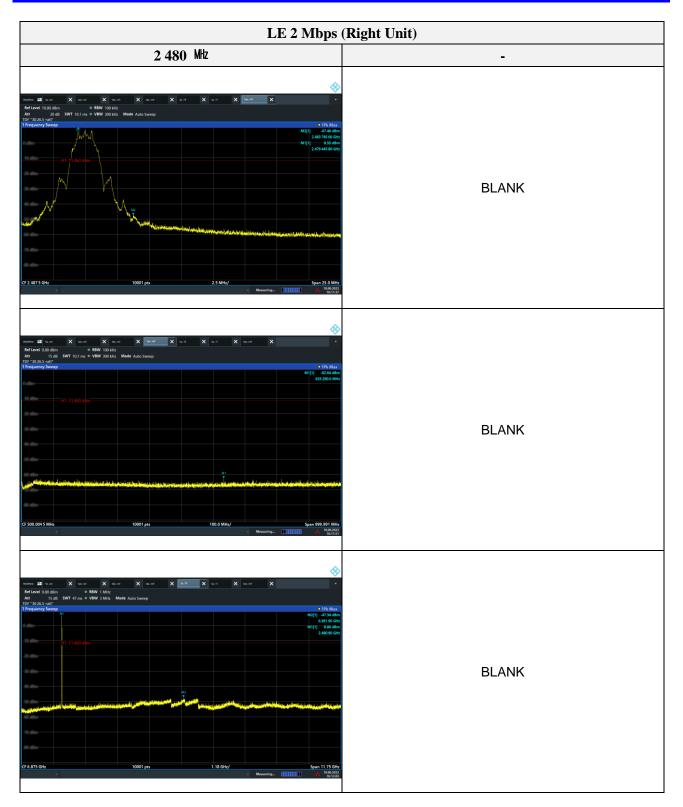


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Equipment	Manufacturer	Model	Serial No.	Calibration interval	Calibration due.
Spectrum analyzer	R&S	FSV3044	101272	1 year	2023.03.14
SIGNAL GENERATOR	KEYSIGHT	N5182B	MY59100115	1 year	2023.04.27
SIGNAL GENERATOR	Anritsu	68369B	002118	1 year	2023.05.13
Power Meter	Anritsu	ML2495A	2010001	1 year	2023.04.27
Pulse Power Sensor	Anritsu	MA2411B	1911111	1 year	2023.04.27
Attenuator	Mini-Circuits	BW-S10-2W263+	3	1 year	2023.01.17
Loop Antenna	Schwarzbeck	FMZB1513	225	2 years	2023.01.18
BILOG ANTENNA	Schwarzbeck	VULB 9168	9168-461	2 years	2022.12.22
Horn Antenna	A.H	SAS-571	414	1 year	2023.01.18
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA 9170550	1 year	2023.01.18
Amplifier	SONOMA INSTRUMENT	310N	401123	1 year	2023.06.02
PREAMPLIFIER	HP	8449B	3008A00538	1 year	2023.06.02
BROADBAND AMPLIFIER	SCHWARZBECK	BBV9721	PS9721-003	1 year	2023.01.17
Attenuator	HUBER+SHHNER	6806.17.A	NONE	1 year	2023.04.01
DC Power supply	Agilent	6632B	MY43004090	1 year	2022.06.21
EMI Test Receiver	R&S	ESU26	100552	1 year	2023.03.31

# Appendix A. Measurement equipment

### **Peripheral devices**

Device	Device Manufacturer Model No.		Serial No.	
Notebook computer	Notebook computer LG Electronics Inc.,		306QCZP560949	