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1001 pts

Spectrum

TDF 1Pk Viev

) dBm

-10 dBm

20 dBm

-30 dBm

40 dBr

-50 dBn , Նույների

-60 dBm -70 dBm

-80 dBn

-90 dBm

) dBm

-10 dBm

-30 dBm

40 dB -50 dBm

-60 dBm -70 dBm

80 dBm

-90 dBm-

CF 2.472 GH

CF 2.467 G

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Conducted spurious / 2 467 Mb Conducted band-edge / 2 467 Mb
 Ref Level 5.00 dbm
 Offset 0.50 db
 RBW 100 kHz

 Att
 15 db
 SWT
 265 ms
 VBW 300 kHz
 Mode Sweep

 Ref Level
 5.00 dBm
 Offset
 0.50 dB
 RBW
 100 kHz

 Att
 15 dB
 SWT
 1.5 ms
 VBW
 300 kHz
 Mode
 Sweep
TDF 1Pk Vie -0.12 dBn 2.465950 GH -49.28 dBn 2.485000 GH -0.32 dBn 2.468060 GH -42.46 dBn 4.93830 GH) dBm M 1] M2[1] 10 dBr 1 -20.12 20 dBi -20.3 30 dBm 10 de EO de Utomalin 60 dBm-70 dBm 80 dBi 90 dBi 1001 Span 150.0 MHz 32001 Stop 26.5 GHz Start 30. Conducted band-edge / 2 472 Mb Conducted spurious / 2 472 Mb
 Spectrum
 Ref Level 5.00 dBm
 Offset 0.50 dB (a) RBW 100 kHz

 Att
 15 dB
 SWT
 265 ms (a) VBW 300 kHz
 Mode Sweep
TDF 91Pk Vie -0.23 dB 2.473050 GF -45.94 dB 2.487000 GF -0.11 dBn 2.472190 GH: -42.55 dBn 4.943750 GH: M1[1] M1[1] 0 dBm M2[1] M2[1] -10 dBm -20.2 30 dBm 50 dBm Winne nonterflow

70 dBm

80 dBm

90 dBm

Start 30.0

Span 150.0 MHz

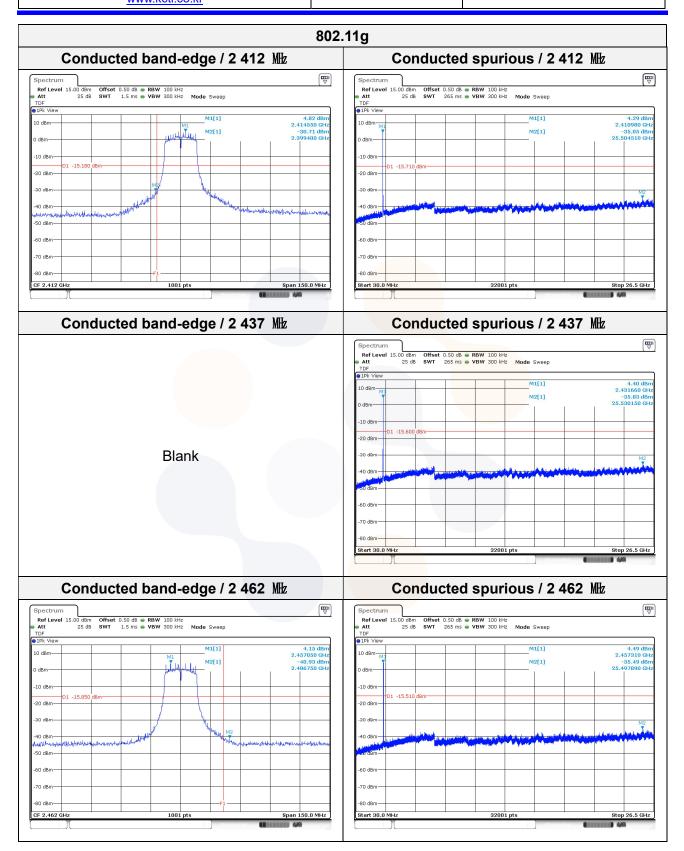
Stop 26.5 GHz

32001 pt

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KCTL

Conducted spurious / 2 467 Mb Conducted band-edge / 2 467 Mb Spectrum
 Ref Level
 5.00 dBm
 Offset
 0.50 dB
 RBW
 100 kHz

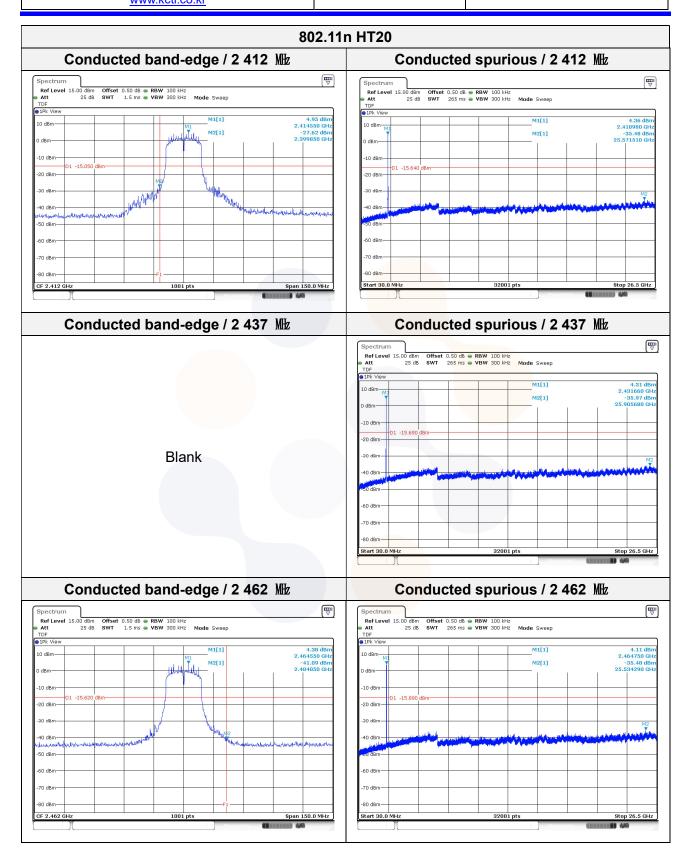
 Att
 15 dB
 SWT
 1.5 ms
 VBW
 300 kHz
 Mode
 Sweep
TDF 1Pk Viev -1.98 dBn 2.462050 GH -46.66 dBn 2.483500 GH -2.11 dBn 2.462270 GH: -45.21 dBn 25.894100 GH:) dBm 0 dBmmethodil M2[1] M2[1] -10 dBm -10 dBr -20 dBm-20 dBm -30 dBm 30 dBi 40 dBn -50 dBn 50 de 4.4 WARMAN -60 dBm où dBr -70 dBm 70 dBm -80 dBn -80 dBi -90 dBm 90 dBi Span 150.0 MHz CF 2.467 G 1001 32001 Stop 26.5 GHz Start 30.0 Conducted band-edge / 2 472 Mb Conducted spurious / 2 472 Mb Spectrum RefLevel 0.00 dBm Offset 0.50 dB ● RBW 100 kHz ● Att 10 dB SWT 1.5 ms ● VBW 300 kHz Mode Sweep ● IPk View
 Spectrum
 Ref Level 0.00 dBm
 Offset 0.50 dB
 RBW
 100 kHz

 Att
 10 dB
 SWT
 265 ms
 VBW
 300 kHz
 Mode
 Sweep
TDF 1Pk Vi -7.51 dBn 2.477160 GH: -49.91 dBn 25.490450 GH: -7.24 dBr 2.474550 GH -43.96 dBr 2.483550 GH M1[1] M1[1] teledent min M2[1] -10 dBm -10 dBm 2[1] -20 dBm 20 dBn -30 dBm 30 dBm 40 dBn 40 dBm -50 dBm 50 dBm A A HAMA d) d agh--70 dBr 70 dBm -80 dBn 80 dBm -90 dBm 90 dBm FÌ. CF 2.472 (Span 150.0 MHz 26.5 GHz 1001 Start 30.0 3200 Stop

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KCTL

Conducted spurious / 2 467 Mb Conducted band-edge / 2 467 Mb
 Applete diffi
 Offset
 0.50 dB
 RBW
 100 kHz

 a Att
 15 dB
 SWT
 265 ms
 VBW
 300 kHz
 Mode Sweep

 OFF

 <td Spectrum
 Ref Level
 5.00 dBm
 Offset
 0.50 dB
 RBW
 100 kHz

 Att
 15 dB
 SWT
 1.5 ms
 VBW
 300 kHz
 Mode
 Sweep
TDF 1Pk Viev -2.19 dBn 2.464450 GH -45.35 dBn 2.483500 GH -2.03 dBn 2.462270 GH: -45.08 dBn 25.582260 GH:) dBm M1 M1[1] 0 dBm-M2[1] -10 dBm -10 dBr -20 dBm--20 dBm -30 dBm 30 dBi 40 dBn 10 di -50 dBn eo di ul la Model standput -60 dBm 60 dBm--70 dBm 70 dBm -80 dBn -80 dBi -90 dBm 90 dBr Span 150.0 MHz CF 2.467 G 1001 32001 Stop 26.5 GHz Start 30.0 Conducted band-edge / 2 472 Mb Conducted spurious / 2 472 Mb Spectrum RefLevel 0.00 dBm Offset 0.50 dB ● RBW 100 kHz ● Att 10 dB SWT 1.5 ms ● VBW 300 kHz Mode Sweep ● IPk View
 Spectrum
 Ref Level 0.00 dBm
 Offset 0.50 dB
 RBW
 100 kHz

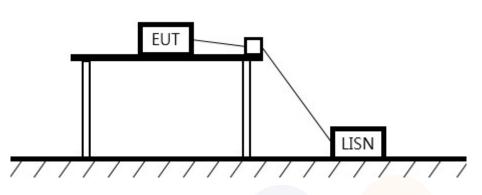
 Att
 10 dB
 SWT
 265 ms
 VBW
 300 kHz
 Mode
 Sweep
TDF 1Pk Vie -8.45 dBi 2.474550 GF -43.75 dBi 2.483850 GF -8.93 dBn 2.477160 GH -50.13 dBn 18.100590 GH M1[1] M1[1] Ilddauthala M2[1] -10 dBm -10 dBm 2[1] -20 dBm 20 dBn -30 dBm--30 dBm-40 dB 40 dB M -50 dBm 50 dBm -70 dB 70 dBm -80 dBn 80 dBm -90 dBm 90 dBm FÌ. Span 150.0 MHz CF 2.472 (26.5 GHz 100 Start 30.0 3200 Stop

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7.6. AC Conducted emission Test setup



<u>Limit</u>

According to 15.207(a),

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of Emission (Mb)	Conducted limit (dBµV/m)		
	Quasi-peak	Average	
0.15 – 0.50	66 - 5 <mark>6*</mark>	56 - 46*	
0.50 - 5.00	<mark>56</mark>	46	
5.00 - 30.0	60	50	

Measurement procedure

- 1. The EUT was placed on a wooden table of size, 1 m by 1.5 m, raised 80 cm in which is located 40 cm away from the vertical wall and 1.5m away from the side wall of the shielded room.
- 2. Each current-carrying conductor of the EUT power cord was individually connected through a $50\Omega/50\mu$ H LISN, which is an input transducer to a spectrum analyzer or an EMI/Field Intensity Meter, to the input power source.
- 3. Exploratory measurements were made to identify the frequency of the emission that had the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable position, and with a typical system equipment configuration and arrangement. Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that had produced the emission with the highest amplitude relative to the limit was selected for the final measurement.
- 4. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment is the system) was then performed over the frequency range of 0.15 Mb to 30 Mb.
- 5. The measurements were made with the detector set to peak amplitude within a bandwidth of 10 kHz or to quasi-peak and average within a bandwidth of 9 kHz. The EUT was in transmitting mode during the measurements.

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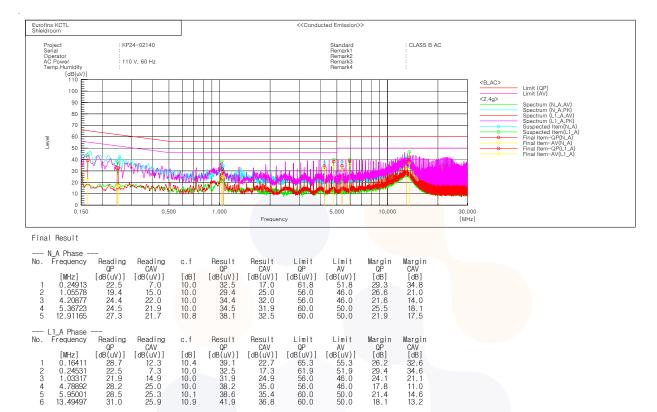
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Test results

Worst case: 802.11n HT20 / 2 437 Mb



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8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV30	100807	24.07.03
Signal Generator	R&S	SMB100A	176206	25.01.18
DC Power Supply	AGILENT	E3632A	MY40016393	24.07.04
Attenuator	API Inmet	40AH2W-10	10	24.07.04
Attenuator	HP	8491A	29738	24.10.12
Power Sensor	R&S	NRP-Z81	1137.9009.02- 106225-JM	24.04.25*
Spectrum Analyzer	R&S	FSVA40	101575	24.06.19
Spectrum Analyzer	R&S	FSV40	100988	24.07.03
PSA Spectrum Analyzer	Agilent	E44 <mark>40A</mark>	MY44303500	24.07.04
EMI TEST RECEIVER	R&S	E <mark>SCI3</mark>	101408	24.08.18
TWO-LINE V - NETWORK	R&S	ENV216	101358	24.09.27
Broadband PreAmplifier	SCHWARZBECK	BBV9718D	57	25.01.19
Low Noise Amplifier	TESTEK	TK-PA18H	220124-L	24.10.12
Low Noise Amplifier	TESTEK	TK-PA1840H	220133-L	24.10.17
Amplifier	SONOMA INSTRUMENT	310N	421910	24.10.12
Bilog Antenna	Teseq GmbH	CBL 6112D	61521	24.11.17
Loop Antenna	R&S	HFH2-Z2	100355	24.08.10
Horn Antenna	SCHWARZBECK	BBHA9120D	2763	24.10.18
Horn Antenna	SCHWARZBECK	BBHA9170	1267	24.10.16
High Pass Filter	Wainwright Instruments GmbH	WHKX12-2805-3000- 18000-40SS	SN58	24.10.16
High Pass Filter	QOTANA TECHNOLOGIES	DBHF <mark>0508004000</mark> A	23041800061	24.07.10

End of test report