

5. POWER SPECTRAL DENSITY

5.1 LIMIT

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

5.2 TEST PROCEDURE

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Set the spectrum analyzer as follows:

Center frequency	DTS Channel center frequency
RBW:	3 kHz ≤ RBW ≤ 100 kHz
VBW:	≥ 3RBW
Span	1.5 times the DTS bandwidth
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude level within the RBW

(4) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 TEST SETUP



Spectrum Analyzer

EUT



5.4 TEST RESULTS

TestMode	Channel (MHz)	Result (dBm/3KHz)	Limit (dBm/3KHz)	Verdict
802.11b	2412MHz	-8.39	8	Pass
802.11b	2437MHz	-9.68	8	Pass
802.11b	2462MHz	-7.76	8	Pass
802.11g	2412MHz	-17.67	8	Pass
802.11g	2437MHz	-19.37	8	Pass
802.11g	2462MHz	-17.51	8	Pass
802.11n 20	2412MHz	-17.51	8	Pass
802.11n 20	2437MHz	-18.36	8	Pass
802.11n 20	2462MHz	-16.84	8	Pass

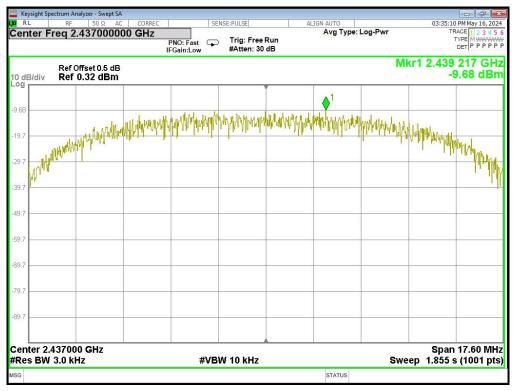


5.5 original test data



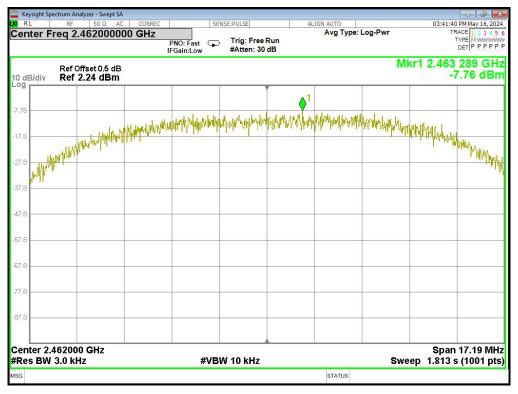
802.11b-2412MHz

802.11b-2437MHz

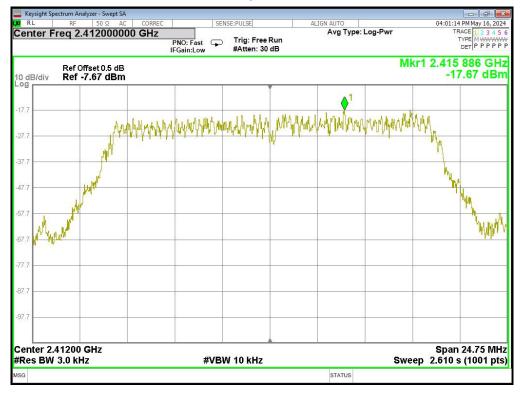




802.11b-2462MHz

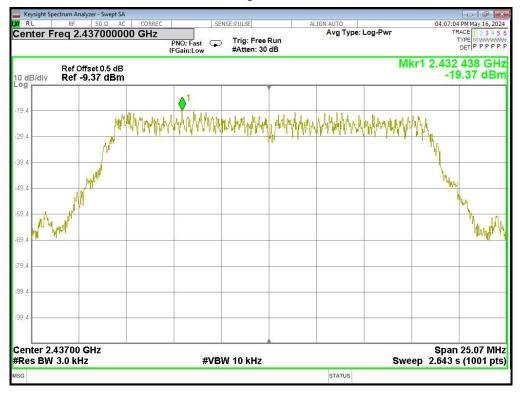


802.11g-2412MHz

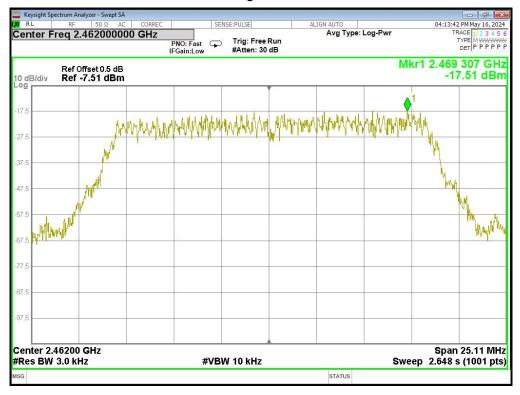




802.11g-2437MHz

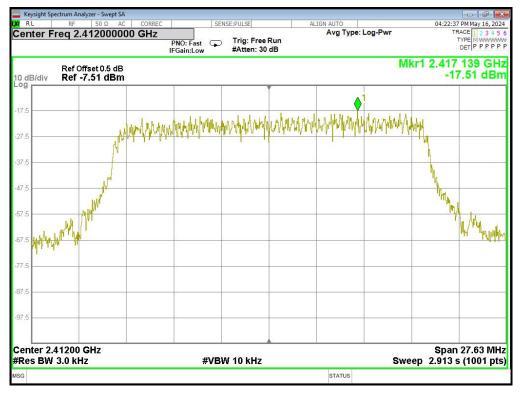


802.11g-2462MHz

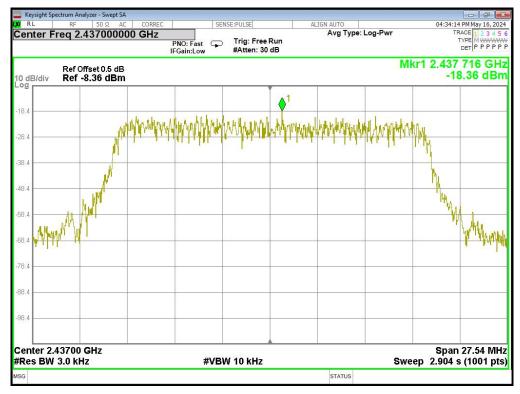




802.11n 20-2412MHz

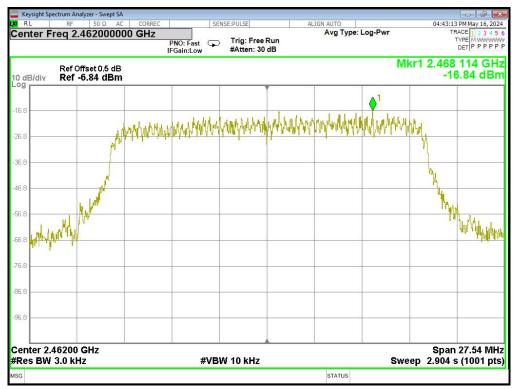


802.11n 20-2437MHz





802.11n 20-2462MHz





6. Band edge and spurious(conducted)

6.1 LIMIT

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 30dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

6.2 TEST PROCEDURE

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Establish a reference level by using the following procedure:

Center frequency	DTS Channel center
	frequency
RBW:	100kHz
VBW:	300kHz
Span	1.5times the DTS bandwidth
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

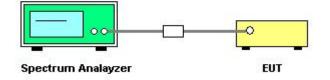
(3) Establish Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.

(4) Set the spectrum analyzer as follows:

RBW:	100kHz
VBW:	300kHz
Span	Encompass frequency range to be
	measured
Number of measurement points	≥span/RBW
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

6.3 TEST SETUP



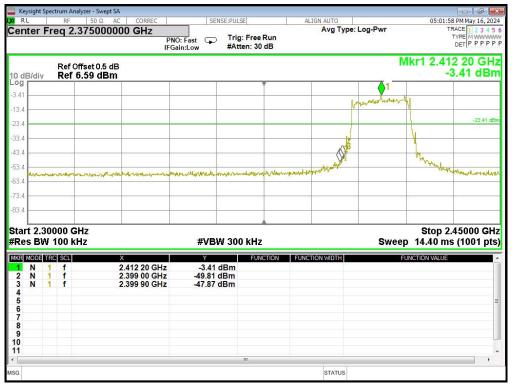


6.5 TEST RESULTS

Eut set mode	CH or Frequency	Result
802.11b	CH1	Pass
	CH11	Pass
802.11g	CH1	Pass
	CH11	Pass
802.11n 20	CH1	Pass
	CH11	Pass

6.5 Original test data

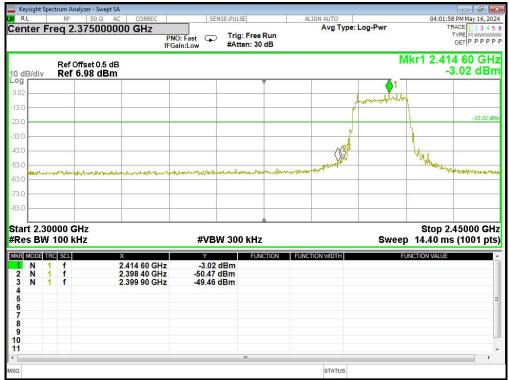
802.11b Low CH



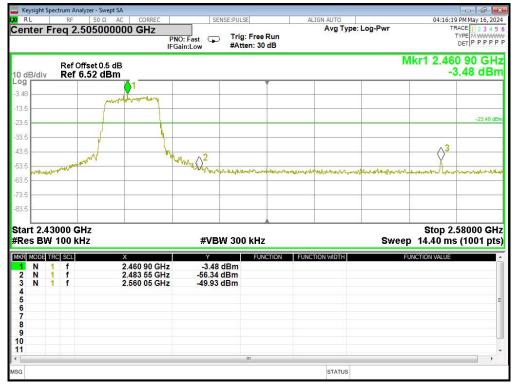
802.11b High CH



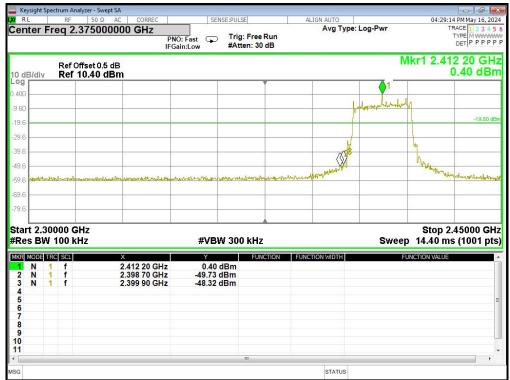
802.11g Low CH



802.11g High CH



802.11n20 Low CH





Page 30 of 50

802.11n20 High CH

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art 2.4; Res BW R MODE II N 2 N	/ 100 k		X 2.462 10 GH 2.483 55 GH 2.484 30 GH	lz	#VBW -1.79 dl -56.36 dl -49.71 dl	Bm Bm	-	FUNCTIO	N WIDTH	Sw	eep 1		
art 2.4: tes BW	/ 100 k RC SCL 1 f 1 f		2.462 10 GH 2.483 55 GH	lz	-1.79 dl -56.36 dl	Bm Bm	-	FUNCTIO	N WIDTH	Sw	eep 1	4.40 ms	
art 2.4: Res BW	/ 100 k RC SCL 1 f 1 f		2.462 10 GH 2.483 55 GH	lz	-1.79 dl -56.36 dl	Bm Bm	-	FUNCTIO	N WIDTH	Sw	eep 1	4.40 ms	
Res BW Res BW R Mode 1 1 N 2 N 3 N 4 4 4 5 6 6 7 8 9 9	/ 100 k RC SCL 1 f 1 f		2.462 10 GH 2.483 55 GH	lz	-1.79 dl -56.36 dl	Bm Bm	-	FUNCTIO	N WDTH	Sw	eep 1	4.40 ms	
art 2.4; Res BW R MODE 1 N 2 N	/ 100 k RC SCL 1 f 1 f		2.462 10 GH 2.483 55 GH	lz	-1.79 dl -56.36 dl	Bm Bm	-	FUNCTIO	N WDTH	Sw	eep 1	4.40 ms	



6.6 Spurious emissions

