Report No.: SHE23030025-02AE Date:

2023-03-27

Page 36 of 63

Spectrum Analy Swept SA	/zer 1	+					Frequency	· • 🛞
KEYSIGHT RL +++	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run	123456 MWWWWW PNNNNN	Center Frequency 1.515000000 GHz	Settings
1 Spectrum Scale/Div 10 d Log	B		Ref LvI Offset 0. Ref Level 25.00 (		Mkr1 2	.440 7 GHz -3.72 dBm	Span 2.97000000 GHz Swept Span Zero Span	
5.00 -5.00 -15.0 -25.0						DL1 -20.75 dBm	Full Span Start Freq 30.000000 MHz	
-35.0 -45.0 -55.0 -65.0		a galanda ang ang ang ang ang ang ang ang ang an	and some the state of equips of a state	under 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 -	and the second second	la, and a factor of a factor of a	Stop Freq 3.00000000 GHz	
Start 0.030 GH #Res BW 100 I 5 Marker Table			#Video BW 300	kHz		Stop 3.000 GHz 5 ms (1001 pts)	CF Step 297.000000 MHz Auto	
Mode 1 N 2 3 4 5	Trace Scale 1 f	X 2.440 7 GHz	Y -3.716 dBm	Function F	unction Width Fur	nction Value	Man Freq Offset 0 Hz X Axis Scale	
• •		Mar 22, 2023 3:58:24 PM					Log Lin Signal Track (Span Zoom)	
Spectrum Analy Swept SA	/zer 1	+					Frequency	· · · <del>  </del> *
KEYSIGHT RL +++	Input: RF Coupling: AC Align: Off	Input Z: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run	123456 MWWWWW PNNNNN	Center Frequency 13.500000000 GHz	Settings
1 Spectrum Scale/Div 10 d Log	B		Ref LvI Offset 0. Ref Level 25.00 (		Mkr1 2.4	140 70 GHz -1.40 dBm	Span 23.0000000 GHz Swept Span Zero Span	
5.00 - 1						DL1 -20.75 dBm	Full Span Start Freq	
-25.0 -35.0 -45.0 -55.0		and the first the spectrum of spectrum of some	يودو المراجع ويروي مريد	international additional and	Januar Mary, Constraint, Mary		2.000000000 GHz Stop Freq 25.000000000 GHz	
-65.0 Start 2.00 GHz #Res BW 100 I	kHz		#Video BW 300	kHz		Stop 25.00 GHz 22 s (4001 pts)	AUTO TUNE CF Step 2.30000000 GHz	
5 Marker Table Mode 1 N 2	Trace Scale	X 2.440 70 GHz	Y -1.397 dBm	Function F	unction Width Fur	nction Value	Auto Man Freq Offset	
2 3 4 5 6							0 Hz X Axis Scale Log	
<b>ま</b> り		Mar 22, 2023 3:58:55 PM					Lin Signal Track (Span Zoom)	

Report No.: SHE23030025-02AE

2023-03-27

Page 37 of 63

Figure 30: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2462MHz Carrier Level

Date:



### **Band Edge**

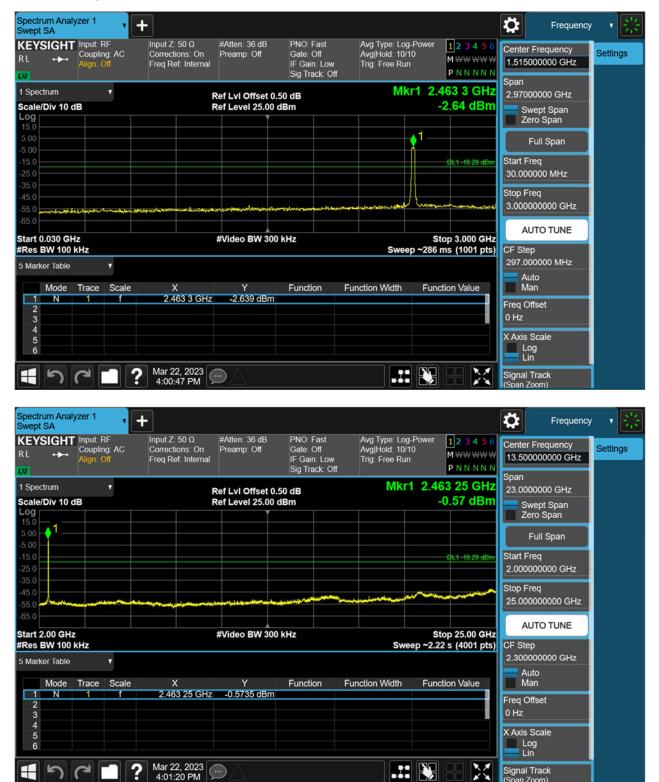
Spect Swep	rum Anal t SA	yzer 1	•	+							\$	Frequency	- * 😤
KEY RL	SIGHT • <b>→</b> •	Input: R Couplin Align: C	g: AC	Input Z: 50 Corrections Freq Ref: Ir	: On Preamp: C	off Gate	): Fast e: Off ain: Low Track: Off	Avg Type: Lo Avg Hold: 10 Trig: Free Ru	Ō/100	123456 MWWWWW PNNNNN	2.4835	Frequency 000000 GHz	Settings
1 Spe	ctrum		v		Ref LvI Off	set 0.50 dB		Mk		3 50 GHz	Span 50.000	0000 MHz	
Scale Log 15.0	/Div 10 c	iB			Ref Level 2	25.00 dBm			-4	9.11 dBm		vept Span ro Span	
5.00 -5.00	manilon	mmmel	honor	~~~~							F	ull Span	
-15.0 -25.0	U			- too too							Start Fr 2.4585	eq i00000 GHz	
-35.0 -45.0 -55.0				بسر	annanna lanan	and	magaad	mulichentrown	-Allandar	matrickalltan	Stop Fr 2.5085	eq 600000 GHz	
	er 2.4835				#Video B	N 300 kHz				an 50.00 MHz	-	JTO TUNE	
	BW 100 ker Table	kHz	•					Sv	veep 4.80	ms (601 pts)	CF Ste 5.0000	p 100 MHz	
5 Mai	Mode	Trace	Scale	X	Y	Fun	ction Fu	Inction Width	Funct	ion Value	Au Ma		
1 2 3	N	1	f	2.483 5	0 GHz -49.11	dBm					Freq O 0 Hz	lfset	
4 5 6											X Axis : Lo Lir	g	
	ょ	3		Mar 22, 2 4:01:41							Signal <sup>*</sup> (Span Z	Track pom)	

Report No.: SHE23030025-02AE Date: 2023-03-27

Page 38 of 63

#### Conducted spurious emissions 30MHz-25GHz

 $\blacksquare$ 



Signal Track

Report No.: SHE23030025-02AE

2023-03-27

Page 39 of 63

# Figure 31: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2412MHz Carrier Level

Date:



### Band Edge

Spectrum Anal Swept SA		+					Frequency	· · 宗
KEYSIGHT RL ++-	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Pe Avg Hold: 100/10 Trig: Free Run		Center Frequency 2.400000000 GHz	Settings
1 Spectrum Scale/Div 10 d	, ∎B		Ref LvI Offset 0.5 Ref Level 25.00 d		Mkr1	2.400 00 GHz -40.19 dBm	Span 50.0000000 MHz	
15.0							Swept Span Zero Span	
-5.00				man	yoraana		Full Span Start Freg	
-25.0			1	- <sup>2</sup>		- Volume - V	2.375000000 GHz	
00.0	an party in the	manhanhannyann	n Manun lat tar				Stop Freq 2.425000000 GHz	
-65.0 Center 2.4000	0 GHz		#Video BW 300 I	kHz		Span 50.00 MHz	AUTO TUNE	
#Res BW 100 5 Marker Table	kHz v				Swee	p 4.80 ms (601 pts)	CF Step 5.000000 MHz	
Mode 1 N 2	Trace Sca 1 f	le X 2.400 00 GHz	Y -40.19 dBm	Function Fu	Inction Width	Function Value	Auto Man Freq Offset	
3 4							0 Hz X Axis Scale	
5 6								
1	て	Mar 22, 2023 4:08:01 PM					Signal Track (Span Zoom)	

Report No.: SHE23030025-02AE Date:

2023-03-27

Page 40 of 63

Spectrum Analyzer 1 Swept SA	+					Freque	ncy 🔻 💥
KEYSIGHT Input: RF R L ↔ Align: Off		Preamp: Off Gat IF C		pe: Log-Power ld: 10/10 ree Run	123456 MWWWWW PNNNNN	Center Frequency 1.515000000 GHz	Settings
1 Spectrum V Scale/Div 10 dB Log		ef Lvi Offset 0.50 dB ef Level 25.00 dBm			07 0 GHz 5.18 dBm	Span 2.97000000 GHz Swept Span Zero Span	
5.00 -5.00 -15.0 -25.0				1	DL1-20.96 dBm	Full Span Start Freq 30.000000 MHz	
-35.0 -45.0 -55.0 -65.0	al an anna an a		and a start of the second start and the second start of the second	ganghad bayan private to	An mangers a lense	Stop Freq 3.000000000 GHz AUTO TUNE	
Start 0.030 GHz #Res BW 100 kHz 5 Marker Table		έVideo BW 300 kHz		Sweep ~286 n		CF Step 297.000000 MHz Auto	
Mode         Trace         Scal           1         N         1         f           2         3         3         3           4         4         4         4	e X 2.407 0 GHz	Y Fun -5.180 dBm	ction Function W	Vidth Funct	ion Value	Man Freq Offset 0 Hz X Axis Scale	
。 ま ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・	Mar 22, 2023 4:07:13 PM					Log Lin Signal Track (Span Zoom)	
Spectrum Analyzer 1 Swept SA	+					Freque	ncy 🔻 🔀
KEYSIGHT Input: RF R L ↔ Coupling: AC Align: Off	Input Z: 50 Ω Corrections: On Freq Ref: Internal	Preamp: Off Gat		pe: Log-Power ld: 10/10 ree Run	123456 MWWWWW PNNNNN	Center Frequency 13.500000000 GH: Span	Settings
1 Spectrum v Scale/Div 10 dB Log		ef LvI Offset 0.50 dB ef Level 25.00 dBm		Mkr1 2.40	6 95 GHz 4.77 dBm	23.0000000 GHz	
15.0 -5.00 -15.0					DL1 -20.96 dBm	Zero Span Full Span Start Freq	
-25.0 -35.0 -45.0 -55.0	Service Robert of State of State of State	مرزقيل طرور ومتر بالمتحد مرودتهم	And the second sec	window for the strength		2.000000000 GHz Stop Freq 25.000000000 GH:	
-65.0 Start 2.00 GHz #Res BW 100 kHz		∜Video BW 300 kHz			op 25.00 GHz s (4001 pts)	AUTO TUNE CF Step 2.30000000 GHz	
5 Marker Table   Mode Trace Scal			ction Function W	vidth Func	ion Value	Auto Man	
	2,406,95 GHz	-4.767 dBm				The second	
1 N 1 f 2 3 4 5 6	2.406 95 GHz	-4.767 dBm				Freq Offset 0 Hz X Axis Scale Log	

Report No.: SHE23030025-02AE Date:

2023-03-27

Page 41 of 63

Figure 32: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2437MHz Carrier Level



Spectrur Swept S		zer 1	•	+						\$	Frequency	- 7 🛞
KEYSI RL	GHT ·≁·	Input: R Coupling Align: O	g: AC	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Lov Sig Track: C		/10	123456 M <del>WWWWW</del> PNNNNN	1.515	r Frequency 5000000 GHz	Settings
1 Spectru	ım		v		Ref LvI Offset 0.	50 dB	М		438 2 GHz	Span 2.970	000000 GHz	
Scale/D	iv 10 d	B			Ref Level 25.00	dBm		-	4.47 dBm		Swept Span Zero Span	
15.0 5.00								•1—			Full Span	1
-5.00 -15.0 -25.0									DL1-21.41 dBm	Start 1 30.00	Freq 00000 MHz	
-35.0 -45.0 -55.0	مىل <del>ىغ</del> ۇم ئىلىد	Nort-Languerer		styran and many rap	and the second second	and the second states	untukaturagitituraantastaturagi	Armetrups	mahroomawh	Stop F 3.000	Freq 0000000 GHz	
-65.0	30 GH	7			#Video BW 300	kH7		5	op 3.000 GHz	A		
#Res BV	V 100 H		•				Swe		ms (1001 pts)	CF St 297.0	ер 000000 MHz	
5 Marker		Trace	Scale	x	Y	Function	Function Width	Func	tion Value	A	Auto Man	
1 2 3	N	1	f	2.438 2 GHz	-4.465 dBm					Freq ( 0 Hz	Dffset	
4 5 6										1 L	s Scale .og .in	
	5	2		Mar 22, 2023 4:09:53 PM	$\Box$						l Track Zoom)	

Report No.: SHE23030025-02AE

Date: 2023-03-27

Page 42 of 63



Figure 33: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT20), 2462MHz Carrier Level

Spectrum Analy Swept SA	vzer 1	+					Frequency	- 7 🛞
KEYSIGHT RL +>+	Input: RF Coupling: AC Align: Off	Input Z: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 100/100 Trig: Free Run	123456 MWWWWW PNNNNN	Center Frequency 2.462000000 GHz	Settings
1 Spectrum Scale/Div 10 d	T IB		Ref LvI Offset 0.5 Ref Level 25.00 d		Mkr1 2.4	454 50 GHz -1.36 dBm	Span 30.0000000 MHz	
Log 15.0							Swept Span Zero Span	
5.00			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	manna	mmmm		Full Span	
-15.0	America				- And - Market		Start Freq 2.447000000 GHz	
-35.0 -45.0	ANN WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW					www.	Stop Freq 2.477000000 GHz	
-65.0							AUTO TUNE	
Center 2.4620 #Res BW 100			#Video BW 300 I	KHZ		Span 30.00 MHz 88 ms (601 pts)	CF Step	
5 Marker Table	•	M	Y				3.000000 MHz	
Mode 1 N 2 3	Trace Scale 1 f	X 2.454 50 GHz	r -1.357 dBm	Function Fu	nction Width Fu	nction Value	Man Freq Offset 0 Hz	
4 5 6							X Axis Scale Log Lin	
15	C 1 2	Mar 22, 2023 4:11:53 PM					Signal Track (Span Zoom)	

Report No.: SHE23030025-02AE

Date:

2023-03-27

Page 43 of 63

#### **Band Edge**



Swept			•	+					*	Frequency	- * 迷
KEY RL	SIGHT .≁·	Input: R Coupling Align: O	g: AC	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Pov Avg Hold: 10/10 Trig: Free Run	ver 123456 MWWWWW PNNNNN	1.5150	Frequency 000000 GHz	Settings
1 Spe			•		Ref LvI Offset 0.		Mkr1	2.454 5 GHz	Span 2.9700	0000 GHz	
Scale Log 15.0	/Div 10 c	1B			Ref Level 25.00	dBm		-5.50 dBm		/ept Span ro Span	
5.00							<b></b> 1		F	ull Span	
-15.0 -25.0								DL1 -21.36 dBm	Start Fr 30.000	eq 1000 MHz	
-35.0 -45.0									Stop Fr	and the second second second second	
-55.0 -65.0	Mar Hardward	dudine_state	tere and the	anna tha ann an tarainn	nerest freezent starten met after	~~~~~	almoneners and the second	when a weather a second second		00000 GHz	
	0.030 GH BW 100				#Video BW 300	) kHz	Sween ~	Stop 3.000 GHz 286 ms (1001 pts)	CF Ste		
-	ker Table		v				Gildop .		297.00	0000 MHz	
	Mode N	Trace	Scale	X 2.454 5 GHz	Y -5.496 dBm	Function	Function Width	unction Value	Au Ma		
23	N			2.454 5 GHZ	-5.490 dBm				Freq Of 0 Hz	ffset	
4 5 6									X Axis S Lo Lir	g	
	ょ	3		? Mar 22, 2023 4:12:10 PM	$\Box$				Signal <sup>-</sup> (Span Zi		

Report No.: SHE23030025-02AE

Date: 2023

2023-03-27

Page 44 of 63



Figure 34: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2422MHz Carrier Level

Spectrum Analy Swept SA	yzer 1	F					*	Frequency	- ※
KEYSIGHT RL +>+	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 100/100 Trig: Free Run	123456 MWWWWW PNNNNN	Center Free 2.4220000		Settings
1 Spectrum Scale/Div 10 d	T		Ref LvI Offset 0.9 Ref Level 25.00 o		Mkr1 2.	.425 7 GHz -4.04 dBm	Span 60.000000		
Log 15.0						-4.04 abiii	Swept Zero S		
5.00		المرومية ال	Antonalian po	ntollaladerand	hopperlanger.			Span	
-15.0	5		Ų.				Start Freq 2.3920000	000 GHz	
-35.0 -45.0	andwoodens				March	nanger nandter Analy	Stop Freq 2.4520000	000 GHz	
-65.0 Center 2.4220	0 GHz		#Video BW 300	kHz	s	pan 60.00 MHz	AUTO	TUNE	
#Res BW 100	kHz T					6 ms (601 pts)	CF Step 6.000000 I	MHz	
Mode	Trace Scale	X	Y	Function Fu	Inction Width Fun	ction Value	Auto Man		
1 N 2 3	1 f	2.425 7 GHz	-4.038 dBm				Freq Offset 0 Hz		
4 5 6							X Axis Scal Log Lin	le	
5	C 1 ?	Mar 22, 2023 4:15:45 PM					Signal Trac	ж \	

Report No.: SHE23030025-02AE

Date:

2023-03-27

Page 45 of 63

#### **Band Edge**



Spectr Swept	rum Anal SA	yzer 1	•	+					Free	uency 🔹 🔛
KEY RL	SIGHT	Input: R Coupling Align: O	g: AC	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log- Avg Hold: 10/1 Trig: Free Run		Center Frequence 1.515000000 G	Setunus
1 Spec	ctrum /Div 10 c	IR.	•		Ref LvI Offset 0. Ref Level 25.00		Mk	r1 2.425 7 GHz -7.74 dBm	Span 2.97000000 GH	
Log 15.0									Swept Span Zero Span	
5.00 -5.00								1	Full Span	
-15.0								DL1 -24.04 dBm	Start Freq 30.000000 MHz	
-35.0 -45.0 -55.0			ato a subo	Charles and the grade of the second	and a start and a start and a start a	(	manning	Lag. 3411-44-6424 2-493-1	Stop Freq 3.000000000 Gi	Hz
-65.0 Start	0.030 GH				#Video BW 300	) kHz		Stop 3.000 GHz	AUTO TUN	E
#Res	BW 100		•				Swee	o ~286 ms (1001 pts)	CF Step 297.000000 MH	z
Jiviai	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value	Auto Man	
1 2 3	N	1	f	2.425 7 GHz	-7.742 dBm				Freq Offset 0 Hz	
4 5 6									X Axis Scale Log Lin	
	ょ	3		Mar 22, 2023 4:16:28 PM					Signal Track (Span Zoom)	

Report No.: SHE23030025-02AE

Date: 2023

2023-03-27

Page 46 of 63

Spectrum Analyzer 1 Swept SA ¢ + Frequency KEYSIGHT Input: RF Avg Type: Log-Power Avg|Hold: 10/10 Trig: Free Run Input Z: 50 Ω #Atten: 36 dB PNO: Fast **1 2 3 4 5** 6 Center Frequency Corrections: On Freq Ref: Internal Gate: Off IF Gain: Low Settings Preamp: Off •**•**• MWWWW 13.500000000 GHz PNNNN Sig Track: Off Span Mkr1 2.425 70 GHz 1 Spectrum 23.0000000 GHz Ref LvI Offset 0.50 dB -7.80 dBm Scale/Div 10 dB Ref Level 25.00 dBm Swept Span Zero Span Log 15.0 01 Full Span Start Freq DL1 -24.04 dB 2.000000000 GHz Stop Freq 25.000000000 GHz AUTO TUNE Start 2.00 GHz #Res BW 100 kHz Stop 25.00 GHz #Video BW 300 kHz Sweep ~2.22 s (4001 pts) CF Step 2.30000000 GHz 5 Marker Table ٧ Auto Man Mode Trace Scale Function Function Width Function Value Y X 2.425 70 GHz -7.797 dBm 12 Ν Freq Offset 0 Hz X Axis Scale Log ッつ ? Mar 22, 2023 4:16:57 PM X Signal Track (Span Zoom)

Figure 35: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2437MHz Carrier Level

Spectrum Analy Swept SA	/zer 1	t					*	Frequency	- * 詳
KEYSIGHT RL +>+	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 100/100 Trig: Free Run	123456 MWWWWW PNNNNN	Center Fre 2.437000		Settings
1 Spectrum Scale/Div 10 d	۲		Ref LvI Offset 0.5 Ref Level 25.00 d		Mkr1 2	.433 2 GHz -4.42 dBm	Span 60.00000		
Log 15.0		· ·					Zero	t Span Span	
5.00 -5.00			1 mature m	๛๛๛๚๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛	Artheorem 1			Span	
-15.0	500		4				Start Freq 2.407000	000 GHz	
-35.0 -45.0 -55.0	washaran					-le-up-northnorm	Stop Freq 2.467000	000 GHz	
-65.0 Center 2.4370	) GHz		#Video BW 300	kHz	s	Span 60.00 MHz	AUTO	TUNE	
#Res BW 100						76 ms (601 pts)	CF Step 6.000000	MHz	
Mode	Trace Scale	X	Y	Function Fu	nction Width Fu	nction Value	Auto Man		
1 N 2 3	1 f	2.433 2 GHz	-4.423 dBm				Freq Offse 0 Hz	t	
4 5 6							X Axis Sca Log Lin	ile	
15	C - ?	Mar 22, 2023 4:19:17 PM					Signal Tra	ck	

Report No.: SHE23030025-02AE Date:

2023-03-27

Page 47 of 63

Spectrum Analyzer 1 Swept SA	+					<b>‡</b>	Frequency	- * 😤
KEYSIGHT Input: RF RL ↔ Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run	123456 MWWWWW PNNNNN	Center Free 1.5150000		Settings
1 Spectrum v Scale/Div 10 dB Log 15.0		Ref LvI Offset 0. Ref Level 25.00		Mkr1 2	.433 2 GHz -8.10 dBm	Span 2.9700000 Swept Zero S	Span	
5.00 -5.00 -15.0 -25.0				1	DL1 -24.42 dBm	Full Start Freq 30.000000	Span MHz	
-35.0 -45.0 -55.0 -65.0	مرور میرور میرو میرو	egt from a grand for an	الاسلام مروط المراجع والمراجع معاول و مراجع مع		างการที่สารที่สารที่สาราวิทยาล	Stop Freq 3.0000000 AUTO	00 GHz TUNE	
Start 0.030 GHz #Res BW 100 kHz 5 Marker Table V		#Video BW 300		Sweep ~28	Stop 3.000 GHz 6 ms (1001 pts)	CF Step 297.00000 Auto	0 MHz	
Mode Trace Scale	e X 2.433 2 GHz	Y -8.101 dBm	Function		nction Value	Man Freq Offset 0 Hz X Axis Scal		
	<b>?</b> Mar 22, 2023 4:19:36 PM					Log Lin Signal Trac (Span Zoom	k	
Spectrum Analyzer 1 Swept SA	+					₽	Frequency	- * 器
KEYSIGHT Input: RF R L ↔ Coupling: AC Align: Off	Input Z: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run	123456 MWWWWW PNNNNN	Center Free 13.500000		Settings
1 Spectrum v Scale/Div 10 dB Log		Ref LvI Offset 0. Ref Level 25.00		Mkr1 2.4	433 20 GHz -8.20 dBm	Span 23.000000 Swept Zero S	Span	
15.0 5.00 -5.00 -15.0					DL1-24.42 dBm	Full Start Freq	Span	
-25.0 -35.0 -45.0 -55.0	والمان المراجع والمحروفة والمحالية والمحالية	يود الدوميني الدوم الم	and the family of the family o	an in a large strategy and the second se		2.0000000 Stop Freq 25.000000		
-65.0 Start 2.00 GHz #Res BW 100 kHz 5 Marker Table		#Video BW 300	) kHz		Stop 25.00 GHz .22 s (4001 pts)	AUTO CF Step 2.3000000	TUNE 00 GHz	
Mode Trace Scale	e X 2.433 20 GHz	Y -8.198 dBm	Function F	unction Width Fu	nction Value	Auto Man Freq Offset 0 Hz		
3 4 5 6						X Axis Scal Log Lin	e	
- n C	? Mar 22, 2023 4:20:04 PM			<b></b>		Signal Trac (Span Zoom)		

Report No.: SHE23030025-02AE

2023-03-27

Page 48 of 63

Figure 36: Conducted Spurious Emission & Authorized-band band-edge, 802.11n(HT40), 2452MHz Carrier Level

Date:



### Band Edge

Swep			•	+								\$	Frequency	- * 蒜
KEY RL	SIGHT .≁·	Input: R Couplin Align: C	g: AC	Input Z: 5 Correction Freq Ref:	ns: On	#Atten: 36 dB Preamp: Off			Avg Type: Lo Avg Hold: 10 Trig: Free Ro	0/100	123456 M <del>WWWW</del> PNNNNN		r Frequency 3500000 GHz	Settings
1 Spe Scale	ctrum //Div 10 c	lB	v			Ref LvI Offset Ref Level 25.00	0.50 dB		Mk		3 50 GHz 8.45 dBm		000000 MHz Swept Span	
Log 15.0 5.00													tero Span Full Span	
-15.0 -25.0 -35.0	งการสาร	******	roburg	Ny -			,					Start F 2.458	Freq 3500000 GHz	
-45.0 -55.0 -65.0				Jone of the second	nun	-T-Mannhanage	1 manthalan	dramature and the second se	๛ฦ๛๚ๅ๛๒๖๛๛๛	Porte the Carlana		Stop F 2.508	<sup>-</sup> req 3500000 GHz	
Cente	er 2.4835 BW 100					#Video BW 30	00 kHz		S		an 50.00 MHz ms (601 pts)	CF St	Electron and a second second	
5 Mar	ker Table Mode	Trace	▼ Scale	х		Y	Funct	ion Fu	unction Width	Func	tion Value	A	0000 MHz Nuto Man	
1 2 3	N	1	f	2.483	50 GHz	-48.45 dBn	n					Freq ( 0 Hz	Offset	
4 5 6												1 L	s Scale .og .in	
	ょ	3		Mar 22, 4:23:12		$\Box$						Signa (Span	l Track Zoom)	

Report No.: SHE23030025-02AE Date:

2023-03-27

Page 49 of 63

Spectrum Analy Swept SA	yzer 1	+					Frequency	/ - 1 😤
KEYSIGHT RL +++	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run	123456 MWWWWW PNNNNN	Center Frequency 1.515000000 GHz	Settings
1 Spectrum Scale/Div 10 d Log	T IB		Ref LvI Offset 0. Ref Level 25.00		Mkr1 2	.455 7 GHz -7.89 dBm	Span 2.97000000 GHz Swept Span Zero Span	
5.00 -5.00 -15.0 -25.0						DL1 -23.73 dBm	Full Span Start Freq 30.000000 MHz	
-35.0 -45.0 -55.0 -65.0	allawiphenikitatistiganjina	ىلىرىنىيە بىرىنىيە سىرىنىيەر يەرىپىرىيە. ئىلىرىنىيە بىرىنىيە سىرىنىيەر يەرىپىرىيە	us cer trisine think in esti	gratiatitation and an article		uner frequencies and a	Stop Freq 3.00000000 GHz	
Start 0.030 GH #Res BW 100 I 5 Marker Table			#Video BW 300	kHz		Stop 3.000 GHz 6 ms (1001 pts)	AUTO TUNE CF Step 297.000000 MHz	
Mode 1 N 2 3	Trace Scale 1 f	X 2.455 7 GHz	Y -7.890 dBm	Function F	unction Width Fu	nction Value	Auto Man Freq Offset 0 Hz	
4 5 6		Mar 22, 2023 🗸					X Axis Scale Log Lin Signal Track	
Spectrum Analy	vzer 1	4:22:27 PM					(Span Zoom)	
Swept SA KEYSIGHT RL +++		Hoput Z: 50 Ω Corrections: On Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run	<b>1</b> 23456 MWWWWW PNNNNN	Center Frequency 13.50000000 GHz	Settings
1 Spectrum Scale/Div 10 d	v IB		Ref LvI Offset 0. Ref Level 25.00		Mkr1 2.4	455 70 GHz -7.20 dBm	Span 23.0000000 GHz Swept Span Zero Span	
15.0 5.00 -5.00 -15.0							Full Span	
-25.0 -35.0 -45.0					and a second state of the second s	DL1 -23.73 dBm	2.000000000 GHz Stop Freq 25.00000000 GHz	
-55.0 -65.0 -65.0 -55.0			#Video BW 300			Stop 25.00 GHz 22 s (4001 pts)	AUTO TUNE	
5 Marker Table	¥				Sweep ~2	.22 S (4001 pts)	CF Step 2.300000000 GHz Auto	
Mode 1 N 2	Trace Scale 1 f	X 2.455 70 GHz	Y -7.196 dBm	Function F	unction Width Fu	nction Value	Man Freq Offset 0 Hz	
3 4 5 6							X Axis Scale Log Lin	
1	C [] [	Mar 22, 2023 4:22:55 PM				] == 🔀	Signal Track (Span Zoom)	

		TEST	Г	REPORT	
Report No.:	SHE23030025-02AE	D	ate:	2023-03-27	Page 50 of 63
4.1.6 Radia	ted Emission				
RESULT:					PASS
Test standard		:	FCC P	art 15.247(d), 15.205, 15.209	
Requirement		:		C63.10-2013, Clause 11.12	
				58074 D01 v05r02, Clause 8.6	
Kind of test site	•	:	3m Se	mi-Anechoic Chamber	
Test setup					
Test Channel		:	Low/M	iddle/High	
Operation Mod	e	:	A.1.a		
Ambient tempe	rature	:	24°C		

### Notes

Relative humidity

Test plots please refer to the annex document "SHE23030025-02AE DATA WIFI 2.4GHz-TX EXHIBIT A".

: 57%

1. For 9 kHz  $\sim$  30 MHz, the amplitude of spurious emissions that are attenuated by more than 20dB below the permissible. The value has no need to be reported.

2. The spurious above 18GHz is noise only and 20dB below the limit. The value has no need to be reported.

3. All test modes had been pre-tested, but only the 802.11b at low channel of below 1 GHz is the worst case and recorded in the report.

4. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement -X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

	TEST	REPORT	
Report No.: SHE230300	25-02AE Date	: 2023-03-27	Page 51 of 63
4.1.7 Band Edge (Res	ricted-band band-e	dge)	
RESULT:			PASS
Test standard	: F(	CC Part 15.247(d), 15.205, 1	5.209
Requirement	: A	NSI C63.10-2013, Clause 11	.13
	K	DB 558074 D01 v05r02, Clau	use 8.7
Kind of test site	: 31	n Semi-Anechoic Chamber	
Test setup			
Test Channel	: Lo	ow/Middle/High	
Operation Mode	: A	.1.a	
Ambient temperature	: 22	2.4°C	
Relative humidity	: 5	5%	

Notes:

1. Test plots please refer to the annex document "SHE23030025-02AE DATA WIFI 2.4GHz-TX EXHIBIT A".

2. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement -X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

**Report No.:** SHE23030025-02AE Date: 2

### 2023-03-27

### 4.2 Mains Emissions

### 4.2.1 Conducted Emission on AC Mains

### RESULT:

Test standard	:	FCC Part 15.207(a)
Requirement	:	ANSI C63.10-2013, Clause 6.2
Kind of test site	:	Shielded room

### Test setup

Input Voltage	:	AC 120V, 60Hz power
Operation Mode	:	A.1.a
Earthing	:	Disconnected to GND
Ambient temperature	:	21°C
Relative humidity	:	50%

For details refer to following test plot.

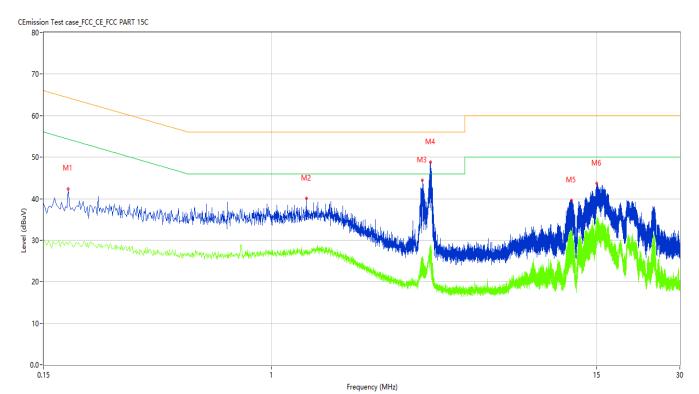
PASS

Report No.: SHE23030025-02AE Date: 2023-03-27

Page 53 of 63

Note: All test modes had been pre-tested, but only the 802.11b at low channel is the worst case and recorded in the report.

Figure 28: Conducted Emission on AC Mains, L Phase

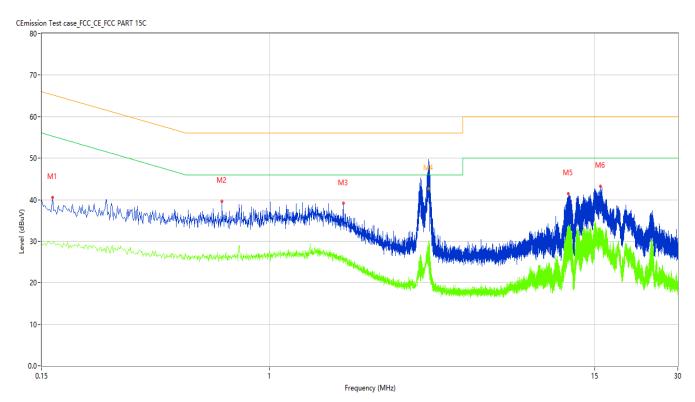


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.184	42.38	10.18	64.30	21.92	Peak	L	Pass
1**	0.184	28.93	10.18	54.30	25.37	AV	L	Pass
2	1.336	40.10	10.14	56.00	15.90	Peak	L	Pass
2**	1.336	27.64	10.14	46.00	18.36	AV	L	Pass
3	3.518	44.43	10.25	56.00	11.57	Peak	L	Pass
3**	3.518	25.93	10.25	46.00	20.07	AV	L	Pass
4	3.756	48.85	10.26	56.00	7.15	Peak	L	Pass
4**	3.756	28.89	10.26	46.00	17.11	AV	L	Pass
5	12.158	39.63	10.60	60.00	20.37	Peak	L	Pass
5**	12.158	32.18	10.60	50.00	17.82	AV	L	Pass
6	14.998	43.65	10.71	60.00	16.35	Peak	L	Pass
6**	14.998	35.51	10.71	50.00	14.49	AV	L	Pass

Report No.: SHE23030025-02AE Date: 2023-03-27

Page 54 of 63

### Figure 29: Conducted Emission on AC Mains, N Phase



No.	Frequency	Results (dBuV)	Factor	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
	(MHz)		(dB)					
1	0.164	40.60	10.29	65.26	24.66	Peak	Ν	Pass
1**	0.164	29.54	10.29	55.26	25.72	AV	N	Pass
2	0.674	39.70	10.35	56.00	16.30	Peak	N	Pass
2**	0.674	25.89	10.35	46.00	20.11	AV	N	Pass
3	1.852	39.16	10.19	56.00	16.84	Peak	N	Pass
3**	1.852	25.45	10.19	46.00	20.55	AV	N	Pass
4	3.770	51.15	10.21	56.00	4.85	Peak	N	Pass
4*	3.770	42.63	10.21	56.00	13.37	QP	N	Pass
4**	3.770	29.53	10.21	46.00	16.47	AV	N	Pass
5	12.038	41.48	10.44	60.00	18.52	Peak	N	Pass
5**	12.038	33.85	10.44	50.00	16.15	AV	N	Pass
6	15.752	43.31	10.56	60.00	16.69	Peak	Ν	Pass
6**	15.752	32.37	10.56	50.00	17.63	AV	Ν	Pass

Report No.: SHE23030025-02AE Date: 20

2023-03-27

Page 55 of 63

## 5 Appendixes

### 5.1 Photographs of the Sample



Front of the sample



Rear of the sample

Report No.: SHE23030025-02AE

Date: 202

2023-03-27

Page 56 of 63



### Left of the sample



Right of the sample

Report No.: SHE23030025-02AE Date:

2023-03-27

Page 57 of 63



### Top of the sample



Bottom of the sample

Report No.: SHE23030025-02AE

Date:

2023-03-27

Page 58 of 63



### Open photo-1 of the sample



Open photo-2 of the sample

## TEST F

REPORT

Report No.: SHE23030025-02AE

Date:

2023-03-27

Page 59 of 63



Open photo-3 of the sample



Open photo-4 of the sample

## TEST F

REPORT

Report No.: SHE23030025-02AE

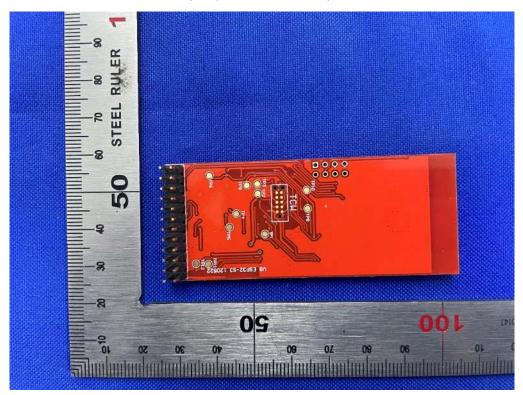
Date:

2023-03-27

Page 60 of 63



Open photo-5 of the sample



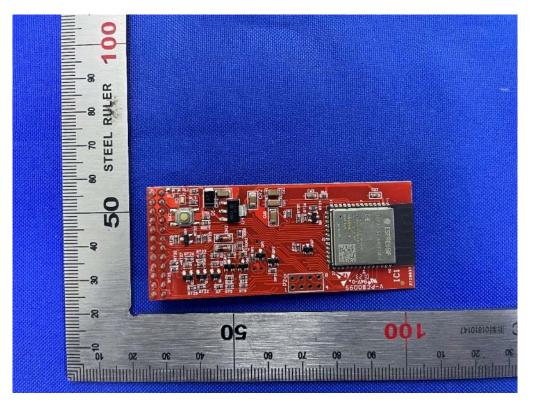
Internal photo-1 of the sample

Report No.: SHE23030025-02AE

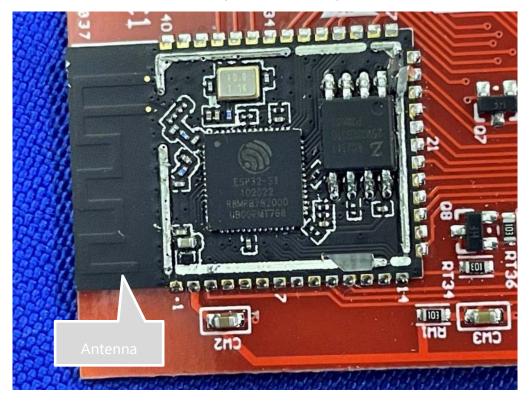
Date:

2023-03-27

Page 61 of 63



Internal photo-2 of the sample

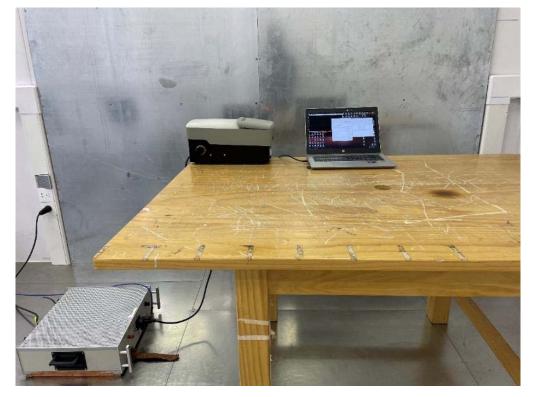


Remove Cover of the sample

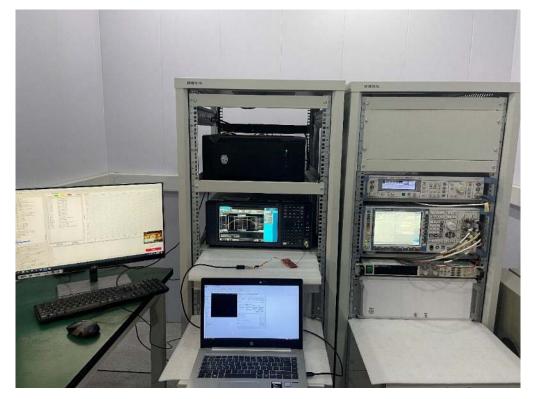
Report No.: SHE23030025-02AE Date: 2023-03-27

Page 62 of 63

## 5.2 Set-up for Conducted Emissions



5.3 Set-up for Conducted RF test at Antenna Port



Report No.: SHE23030025-02AE Date: 2023-03-27

## 5.4 Set-up for Spurious Emissions below 1GHz



5.5 Set-up for Spurious Emissions above 1GHz



\*\*\*End of the report\*\*\*