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Figure 29: Conducted Spurious Emission & Authorized-band band-edge, 802.11g, 2437MHz Carrier Level

Spectro Swept	um Anal <u>y</u> SA	yzer 1	,	+						₽	Frequency	- 7 🛞
RL	SIGHT	Input: F Couplir Align: C	ng: AC	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Of		0/100 n	1 2 3 4 5 6 M WW WW W P N N N N N	2.437	r Frequency 7000000 GHz	Settings
1 Spec	trum		•		Ref LvI Offset 0.	50 dB	Mkr		4 45 GHz	Span _30.00	000000 MHz	
Log ┌	Div 10 c	B		I	Ref Level 25.00 o	dBm		1	.64 dBm		wept Span ero Span	
15.0 5.00 -5.00				An Marthan	manthe	᠕᠋ᡰ᠈ᡨ᠕᠕ᢧᡘᢥ᠕	1 Munhanlig				Full Span	
-15.0		mark	monord	<i>[</i>				www.	mann	Start F 2.422	Freq 2000000 GHz	
-35.0 -45.0 -55.0 -	᠕ᡔᠬᢧᡀᢇᠬ								- Markenne A	Stop F 2.452	Freq 2000000 GHz	
-65.0	2.4370				#Video BW 300			Sno	n 30.00 MHz	A		
	2.4370 3W 100				#VIGEO BAV 500	NH2	Sw		ns (601 pts)	CF St	Construction of the second	
5 Mark	er Table		•							(Contractory of the local division of the l	0000 MHz Juto	
	Mode	Trace	Scale	X	Y	Function	Function Width	Functio	on Value		lan	
1 2 3	N	1		2.444 45 GHz	1.640 dBm					Freq (0 Hz	Offset	
4 5 6										L	s Scale .og .in	
H	5	3		Jul 14, 2023 3:47:31 PM	DA					Signa (Span	l Track Zoom)	

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Spec Swep	trum Anal It SA	yzer 1	•	+					*	Frequency	- * 😤
KEY RL	′SIGHT -≁-	Input: F Couplir Align: (ng: AC	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-P Avg Hold: 10/10 Trig: Free Run	ower 123456 MWWWWW PNNNNN	Center Fr 1.515000 Span	requency 0000 GHz	Settings
	ectrum		V		Ref LvI Offset 0		Mkr1	2.444 5 GHz -1.35 dBm	2.97000		
Log 15.0	e/Div 10 o	38			Ref Level 25.00	авт		-1.35 ubiii		pt Span Span	
5.00							^1		Fu	ll Span	
-5.00 -15.0 -25.0 -35.0								DL1-18.36 dBm	Start Free 30.0000	2	
-45.0 -55.0		Vangeteran	shuar-ratu	and the second states and the second states of	มาการระบานการการการ	of the second	h	للمراجعين وروار والمراجع المراجع المراجع	Stop Free 3.00000	1 0000 GHz	
-65.0 Start	0.030 GI	łz			#Video BW 300) kHz		Stop 3.000 GHz	AUT	O TUNE	
	BW 100 ker Table	kHz	v				Sweep	~286 ms (1001 pts)	CF Step 297.000	000 MHz	
5 Ma	Mode	Trace	Scale	x	Y	Function	Function Width	Function Value	Auto Man		
	N	1	f	2.444 5 GHz		runcuon	r diledon width	r unction value	Freq Offs		
3									0 Hz		
5									X Axis So Log Lin	ale	
	ょ	3		? Jul 14, 2023 3:48:11 PM	\Box				Signal Tra (Span Zoo	ack m)	

Swep				E								Frequency	- * 😤
KEY RL	SIGHT	Input: F Couplir Align: (ng: AC	Input Z: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: F Gate: O IF Gain Sig Trac	off : Low	Avg Type: Lo Avg Hold: 10 Trig: Free Ro	/10	123456 MWWWWW PNNNNN	Center Fr 13.50000 Span	equency 00000 GHz	Settings
1 Spe			•		Ref Lvl Offset 0.			Mk		75 00 GHz	23.0000	000 GHz	
Log	/Div 10 c	B		F	Ref Level 25.00	dBm			-4	3.22 dBm		ot Span Span	
15.0 5.00	∲ 1										Fu	l Span	
-15.0 -25.0										DL1-18.36 dBm	Start Free 2.000000	l 0000 GHz	
-35.0 -45.0 -55.0			2	*******	man may we have a start of the	مىلىتىرىدىرىدىسىد	بارزرناموا ^{يدوالل} جازد	مربعها بال ^{عاري} ة والعارية	and the second second	المجروبة والمعاد والمعادية والمعادية	Stop Fred 25.0000) 00000 GHz	
-65.0 Start	2.00 GHz	:			#Video BW 300	kHz			St	op 25.00 GHz		O TUNE	
-	BW 100 ker Table	kHz	v					Sw	/eep ~2.2	2 s (4001 pts)		0000 GHz	
o man		T	Scale	x	Y	Functio	- 5	nction Width	5	tion Value	Auto Man		
1 2 3	Mode N N	Trace 1 1	f f	x 2.444 45 GHz 4.875 00 GHz	r 0.08332 dBm -43.22 dBm	Functio	n Fur		Func		Freq Offs 0 Hz	et	
4 5 6											X Axis Sc Log Lin	ale	
	ょ	で	2?	Jul 14, 2023 3:48:49 PM							Signal Tra (Span Zoo	ack m)	

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

Date:



Band Edge

Spectrur Swept S	A		•	+							\$	Frequency	- ※
KEYS RL	IGHT ↔	Input: R Couplin Align: C	g: AC	Input Z: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Bes Gate: Off IF Gain: L Sig Track	ow	Avg Type: Lo Avg Hold: 10 Trig: Free Ru	0/100	123456 MWWWWW PNNNNN	2.4835	Frequency 500000 GHz	Settings
1 Spectro Scale/D		iB	v		Ref LvI Offset 0. Ref Level 25.00			Mkr		500 GHz 1.49 dBm		00000 MHz	
Log 15.0												vept Span ro Span	
5.00												-ull Span	
-15.0											Start Fi 2.4785	req 600000 GHz	
-35.0 -45.0 -55.0 -65.0	h	~~~~	<u> </u>	m. Marine	n		Ann		mm	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Stop Fi 2.4885	eq 500000 GHz	
Center 2					#Video BW 300	kHz				an 10.00 MHz		JTO TUNE	
#Res BV 5 Marker		kHz	•					Sv	veep 1.00	ms (601 pts)	CF Ste 1.0000	p 000 MHz	
1	/lode N	Trace 1	Scale f	X 2.483 500 GHz	Y -51.49 dBm	Function	Fu	nction Width	Func	tion Value	Au Ma Freq O	an	
2 3 4											0 Hz	list	
4 5 6											X Axis Lo Lii	g	
	う	2		? Jul 14, 2023 3:52:04 PM	\mathbb{D}						Signal (Span Z		

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Spect Swep	rum Anal SA	yzer 1	•	F					Frequency	崇
KEY RL	SIGHT	Input: F Couplir Align: (ng: AC	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Of	Avg Type: Log- Avg Hold: 10/10 Trig: Free Run f		Center Frequency 1.515000000 GHz Span	Settings
1 Spe			•		Ref LvI Offset 0.		Mkr	1 2.454 5 GHz	2.97000000 GHz	
Log	/Div 10 c	B			Ref Level 25.00	dBm		1.91 dBm	Swept Span Zero Span	
15.0 5.00 -5.00								1	Full Span	
-5.00 -15.0 -25.0 -35.0								DL1 -18.06 dBm	Start Freq 30.000000 MHz	
-45.0 -55.0	whating and the	5 yan an a	Karag/Lassathan	charge-co-proversition	goorganitestanting in the statest	1.1742.0.1.1911.14	ware we are and the	general and an and an and an	Stop Freq 3.000000000 GHz	
	0.030 GH				#Video BW 300	kHz		Stop 3.000 GHz		
	BW 100 ker Table	KHZ	v				Sweep	o ~286 ms (1001 pts)	CF Step 297.000000 MHz	
	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value	Auto Man	
1 2 3	N	1	f	2.454 5 GHz	1.910 dBm				Freq Offset 0 Hz	
4 5 6									X Axis Scale Log Lin	
	ょ	3	- ?	Jul 14, 2023 3:51:13 PM	\Box				Signal Track (Span Zoom)	

Spectr Swept	um Anal SA	yzer 1	•	F						*	Frequency	- 米
KEY RL	SIGHT	Input: F Couplir Align: (ng: AC	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Lov Sig Track: C	Avg Hold: v Trig: Free		123456 MWWWWW PNNNNN	Center Fre 13.50000 Span	equency 0000 GHz	Settings
1 Spec	ctrum /Div 10 c	10	•		Ref LvI Offset 0.5 Ref Level 25.00 d		М		26 75 GHz I9.10 dBm	23.00000		
Log 15.0	4									Zero	t Span Span	
5.00										Full	Span	
-15.0 -25.0									DL1-18.06 dBm	Start Freq 2.000000	000 GHz	
-35.0 -45.0 -55.0	al marsha		2	unnessen and and an art of the second se	an fartig, touty this state from	فيتحصفه	Mangara ang Pangalan ng		National Constants	Stop Freq 25.00000	0000 GHz	
-65.0 Start	2.00 GHz	2			#Video BW 300	kHz		S	top 25.00 GHz	AUTO	DTUNE	
	BW 100	kHz	-				<u> </u>		2 s (4001 pts)	CF Step 2.300000	000 GHz	
5 Man	er Table		•			_				Auto		
1 2 3 4 5 6	Mode N N	Trace 1	Scale f	X 2.454 50 GHz 4.926 75 GHz	Y 1.331 dBm -49.10 dBm	Function	Function Wid	h Fund	tion Value	Man Freq Offse 0 Hz X Axis Sca Log Lin		
E	ょ	C	2	Jul 14, 2023 3:51:56 PM	$\Box \Delta$					Signal Tra (Span Zoon		

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



Band Edge

Spectrum Analy Swept SA	/zer 1	+					Frequency	· · 😤
KEYSIGHT	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-P Avg Hold: 100/10 Trig: Free Run		Center Frequency 2.40000000 GHz	Settings
1 Spectrum Scale/Div 10 d	₹ B		Ref LvI Offset 0.5 Ref Level 25.00 d		Mkr1	2.400 000 GHz -34.51 dBm	Span 10.0000000 MHz Swept Span	
Log 15.0 5.00							Zero Span	
-5.00						m	Full Span Start Freq	
-25.0	m						2.395000000 GHz Stop Freq	
-55.0							2.40500000 GHz	
Center 2.4000 #Res BW 100			#Video BW 300	kHz	Swee	Span 10.00 MHz p 1.00 ms (601 pts)	AUTO TUNE CF Step	
5 Marker Table	▼ Trees Orel	e X	Y	Function Fu	inction Width	Function Value	1.000000 MHz Auto Man	
1 N 2 3	Trace Scale	e X 2.400 000 GHz	r -34.51 dBm	Function		Function value	Freq Offset 0 Hz	
4 5 6							X Axis Scale Log Lin	
1	2	? Jul 14, 2023 4:02:23 PM	$\supset \triangle$				Signal Track (Span Zoom)	

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Spec Swep	trum Anal It SA	yzer 1	•	+					C Fre	equency v 🔛
KEN RL	′SIGH1 ·≁·	Input: I Couplii Align: (ng: AC	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Po Avg Hold: 10/10 Trig: Free Run	wer 123456 MWWWWW PNNNNN	Center Frequen 1.515000000 C Span	
	ectrum e/Div 10 (V		Ref LvI Offset 0. Ref Level 25.00		Mkr1	2.413 3 GHz 0.88 dBm	2.97000000 GI	
Log 15.0									Swept Spa Zero Span	
5.00 -5.00							` '`		Full Spar	
-15.0 -25.0								DL1-17.74 dBm	Start Freq 30.000000 MH	z
-35.0 -45.0								مارسهونيو استراح المراجع	Stop Freq 3.000000000 0	
-55.0 -65.0	lproduces,	www.en.y.s.d	through the start of the start	allalaannoon mittataanadaaannoo	sezuenal enantralitaria	alered of the other day is a set	entral giblion of a second dama and		AUTO TUN	
	0.030 GI BW 100				#Video BW 300	kHz	Sweep ~	Stop 3.000 GHz -286 ms (1001 pts)	CF Step	
5 Ma	ker Table		•						297.000000 MI	Hz
	Mode N	Trace	Scale	X 2.413 3 GHz	Y 0.8752 dBm	Function	Function Width	Function Value	Man 📃	
23				2.410 0 0112	0.0102 0.011				Freq Offset 0 Hz	
4 5 6									X Axis Scale Log Lin	
	ょ	2		? Jul 14, 2023 4:01:33 PM	\mathbb{D}				Signal Track (Span Zoom)	

Swep				+								Frequency	- * 尜
KEY RL	SIGHT	Input: F Couplir Align: (ng: AC	Input Z: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fas Gate: Off IF Gain: L Sig Track	.ow	Avg Type: Lo Avg Hold: 10/ Trig: Free Ru	10	123456 MWWWWW PNNNNN		Frequency 000000 GHz	Settings
1 Spe	ctrum		v	F	Ref LvI Offset 0.	50 dB		Mk		11 75 GHz		0000 GHz	
Log	/Div 10 c	B		F	Ref Level 25.00	dBm			-4	8.16 dBm		ept Span o Span	
15.0 5.00	∲ 1										F	ull Span	
-15.0 -25.0										DL1-17.74 dBm	Start Fre	eq 00000 GHz	
-35.0 -45.0 -55.0	and have and	name and a	2	anter a state and the second		مىلىغلو ، ت ېلىمىمىن	and the state of t	ter and the second s			Stop Fre 25.000	eq 000000 GHz	
-65.0 Start	2.00 GH				#Video BW 300				St	op 25.00 GHz	AU	TO TUNE	
	BW 100				#1000 811 500	κη ε		Sw		2 s (4001 pts)	CF Step	Construction of the second second	
5 Mar	ker Table		•								2.3000	00000 GHz o	
1	Mode N	Trace 1	Scale f	X 2.413 25 GHz	Y 0.5291 dBm	Function	Fur	nction Width	Func	tion Value	Ma Ma	n	
2	N	1	f	4.811 75 GHz	-48.16 dBm						Freq Off 0 Hz	set	
4 5 6											X Axis S Loç Lin	1	
Ð	ょ	で		Jul 14, 2023 4:02:17 PM	$\supset \triangle$						Signal T (Span Zo	rack om)	

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

Spec Swep	trum Anal ot SA	yzer 1	•	+							Frequency	- 7 🛞
KEY RL	′SIGH1 ·≁·	Input: F Couplir Align: (ng: AC	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Of		0/100 n	1 2 3 4 5 6 M WWWWW P N N N N N		r Frequency 7000000 GHz	Settings
1 C C	ectrum		•		Ref LvI Offset 0.		Mki		50 GHz		000000 MHz	
Log	e/Div 10 (dB		F	Ref Level 25.00 (dBm		1	.74 dBm		Swept Span Zero Span	
15.00 5.00				mohmhan	manna p	man	1 Montantun				Full Span	
-15.0		t all the	monord					www.wwwww	wy www.	Start 2.422	Freq 2000000 GHz	
-35.0 -45.0 -55.0	Working	40V ⁻							- WULWWW	Stop 1 2.45	Freq 2000000 GHz	
-65.0										-	UTO TUNE	
	er 2.4370 BW 100				#Video BW 300	kHz	Sv		n 30.00 MHz ns (601 pts)	CF St	ер	
5 Ma	rker Table		•							Constanting of the	0000 MHz	
	Mode	Trace	Scale	x	Y	Function	Function Width	Functio	n Value		luto Man	
		1	f	2.444 50 GHz	1.735 dBm					Freq	Offset	
3										0 Hz	Scale	
6											.og .in	
E	ょ	3		? Jul 14, 2023 4:04:07 PM	Δ					Signa (Span	l Track Zoom)	

Spectrum Swept SA		er 1	+							\$	Frequency	· · · 深
KEYSIC RL ·	N C	put: RF oupling: AC lign: Off	Corre	Z: 50 Ω ctions: Off Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Lov Sig Track: C		10 n	123456 MWWWWW PNNNNN	1.5150	Frequency 00000 GHz	Settings
1 Spectrum Scale/Div		v			Ref LvI Offset 0.5 Ref Level 25.00 d		Mk		44 5 GHz).64 dBm		0000 GHz rept Span	
15.0 5.00								•1		Ze	ro Span Sull Span	
-5.00 -15.0 -25.0									DL1-18-26-dBm-	Start Fr 30.000	eq 000 MHz	
-35.0 -45.0 -55.0	<u>የር ቀ</u> ማሌ ጎምም	programment pairs assess	a a la constante	herewite Verhaut Me	www.	م و روم مردوم م	and the state of the second states	lannenser	addaydaraan garaaraa	Stop Fr 3.0000	eq 00000 GHz	
-65.0 Start 0.03					#Video BW 300	kHz			p 3.000 GHz		ITO TUNE	
#Res BW 5 Marker T		z v					Swee	ep ~286 m	s (1001 pts)	CF Ster 297.00	0000 MHz	
Mo	ode Tr	ace Sca		X	Y	Function	Function Width	Functi	on Value	Au Ma		
2 3	N	<u>1 f</u>	2	.444 5 GHz	0.6393 dBm					Freq Of 0 Hz	fset	
4 5 6										X Axis S Lo Lir	g	
-	7 (14, 2023 4:42 PM	$\supset \triangle$					Signal		

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

Spectrum Analy Swept SA	/zer 1	+						*	Frequency	- 7 😤
KEYSIGHT RL +++	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log Avg Hold: 100 Trig: Free Rur	/100	123456 MWWWWW PNNNNN	Center Fr 2.462000 Span	equency 0000 GHz	Settings
1 Spectrum	•		Ref LvI Offset 0.5		Mkr		4 50 GHz	30.0000	000 MHz	
Scale/Div 10 d	IB		Ref Level 25.00 d	IBm			1.82 dBm		ot Span Span	
15.0 5.00 -5.00	,	1 Marchar	when my	magan	mmmm			Ful	l Span	
-15.0			V			Maria Maria	~~~	Start Free 2.447000	l 0000 GHz	
-35.0							a work was to	Stop Fred 2.477000	1 0000 GHz	
-65.0 Center 2.4620			#Video BW 300	kH7		Sn	an 30.00 MHz	AUT	O TUNE	
#Res BW 100			#VILLEO DIN 500	NH2	Sw		ms (601 pts)	CF Step 3.000000) MHz	
	Trace Scale	x	Y	Function F	unction Width	Func	ion Value	Auto Man	20.030.4035	
1 N 2 3	1 f	2.454 50 GHz	1.818 dBm					Freq Offs 0 Hz	et	
4 5 6								X Axis Sc Log Lin	ale	
1		Jul 14, 2023 4:07:03 PM	$\supset \triangle$					Signal Tra		

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Band Edge



Spectru Swept S		zer 1	•	+						\$	Frequency	- 7 🛞
RL	SIGHT	Input: F Couplir Align: C	ng: AC	Input Z: 50 Ω Corrections: Off Freq Ref: Interna	#Atten: 36 dB Preamp: Off I	PNO: Fast Gate: Off IF Gain: Lo Sig Track:	Avg Hold: 10/ ow Trig: Free Ru	10 M	<u> </u>	1.51	r Frequency 5000000 GHz	Settings
1 Spect	rum		•		Ref LvI Offset	0.50 dB	M	(r1 2.454	5 GHz	Span .2.970	000000 GHz	
Log 🗆	Div 10 d	B			Ref Level 25.00) dBm		1.6	9 dBm		wept Span Zero Span	
15.0 - 5.00 - -5.00 -								• 1			Full Span	
-15.0 -25.0								DL1	18-18-dBm-	Start 30.00	Freq 00000 MHz	
-35.0 -45.0 -55.0	,	age-weighter	and the second	ماروم مردم مردم مردم	and a stand of the		فلمساوحة والقراق والمراجع والمراجع	American	an marine	Stop I 3.000	Freq 0000000 GHz	
-65.0 Start 0.	030 GH	7			#Video BW 30	0 kHz		Stop 3	.000 GHz	4		
#Res B							Swee	ep ~286 ms (CF St	The second s	
5 Marke	er Table Mode	Trace	 Scale 	x	Y	Function	Function Width	Function	Value	A	000000 MHz Nuto Man	
1 2 3	N	1	f	2.454 5 GH	z 1.692 dBm	1				Freq (0 Hz	Offset	
4 5 6										1	s Scale .og .in	
	う	2		? Jul 14, 2023 4:07:41 PM	\square				\mathbf{X}	Signa (Span	l Track Zoom)	

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

Spectrum Analy Swept SA	/zer 1	+					Frequency	- 7 景
KEYSIGHT	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: Off 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 M WWWW PNNNNN	Center Frequency 2.422000000 GHz	Settings
1 Spectrum Scale/Div 10 d	T B		Ref Lvi Offset 0.5 Ref Level 25.00 di			13 2 GHz 0.84 dBm	Span 60.0000000 MHz Swept Span	
Log 15.0 5.00		1 0. 1. 6. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.					Zero Span Full Span	
-5.00 -15.0 -25.0		ىر 10مىر 10مىرىدەر 10مىرلىكى 10مىرلىكى 1	refreiserbedieren jann	h Intertant			Start Freq 2.392000000 GHz	
-35.0 -45.0 -55.0	Marria					าใหญ่สิ่งใหญ่การการรู	Stop Freq 2.452000000 GHz	
-65.0 Center 2.42200 #Res BW 100 J			#Video BW 300 H	(Hz		an 60.00 MHz ms (601 pts)	AUTO TUNE CF Step	
5 Marker Table	v					1110 (001 ptb)	6.000000 MHz	
Mode 1 N	Trace Scale	e X 2.413 2 GHz	Y -0.8391 dBm	Function Fu	Inction Width Func	tion Value	Auto Man	
2 3 4							Freq Offset 0 Hz	
5 6							X Axis Scale Log Lin	
キ	2	? Jul 14, 2023 4:19:52 PM	\Box				Signal Track (Span Zoom)	

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Band Edge



Spectr Swept	um Anal <u>y</u> SA	yzer 1	•	+								\$	Frequency	- 7 🛞
KEY: RL	SIGHT	Input: R Couplin Align: C	ig: AC		:: 50 Ω tions: Off ef: Internal	#Atten: 36 dB Preamp: Off	PNO: I Gate: I IF Gail Sig Tra	Off	Avg Type: Lo Avg Hold: 10 Trig: Free R	0/10	123456 MWWWWW PNNNNN	1.515	r Frequency 6000000 GHz	Settings
1 Spec			T			Ref Lvl Offset (Μ		13 2 GHz	Span 2.970	000000 GHz	
Log 🛛	Div 10 c	IB				Ref Level 25.00) dBm			-	3.12 dBm		wept Span ero Span	
15.0 5.00 -5.00										1			Full Span	
-15.0 -25.0											DL1-20.84 dBm	Start F 30.00	Freq 00000 MHz	
	ywyn saedy	ang to ft a get of the second	×		-	an and a star branch	والقدومتها رمواسيه سراون	bdonan-mh	aglaashmbar	human	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Stop F 3.000	Freq 1000000 GHz	
-65.0 Start (.030 GH	7				#Video BW 30	0 kHz			St	op 3.000 GHz	A		
#Res I	3W 100					#Mideo Bir So			Swe		ns (1001 pts)	CF St	ер 100000 MHz	
5 Mark	er Table Mode	Trace	Scale		x	Y	Functi	on Fu	Inction Width	Func	tion Value	A	uto lan	
1 2 3	N	1	f	2.4	413 2 GHz	-3.119 dBm						Freq (0 Hz	Offset	
4 5 6													: Scale og in	
H	5	2		? Jul 14 4:20:	4, 2023 22 PM							Signa (Span	Track	

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

Spectrum Analy Swept SA	yzer 1	+					₽	Frequency	- 7 😤
KEYSIGHT RL +++	Input: RF Coupling: AC Align: Off	Input Ζ: 50 Ω Corrections: Off 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 M\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		equency 0000 GHz	Settings
1 Spectrum	•		Ref LvI Offset 0.50	0 dB		452 0 GHz	Span 60.00000	000 MHz	
Scale/Div 10 d	B	, I	Ref Level 25.00 dl	Bm	-	0.56 dBm		ot Span Span	
15.0 5.00 -5.00		plant when and a fait		a a che dana ha wal	1			l Span	
-15.0	normand	1 m m m m m m m m m m m m m m m m m m m	here a frage and a frage				Start Free 2.407000	1 0000 GHz	
-35.0 -45.0 -55.0	anuanan					who may a	Stop Fred 2.467000) 0000 GHz	
-65.0 Center 2.4370	0 GH7		#Video BW 300 k	:H7	Sn	an 60.00 MHz	AUT	O TUNE	
#Res BW 100						ms (601 pts)	CF Step		
5 Marker Table Mode	Trace Scale		Y	Function Fur	nction Width Fund	tion Value	6.000000 Auto Man	ALL	
1 N 2 3	1 f	2.452 0 GHz	-0.5644 dBm				Freq Offs 0 Hz	et	
4 5 6							X Axis Sc Log Lin	ale	
1	2	? Jul 14, 2023 4:23:30 PM	$\supset \triangle$				Signal Tra		

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Spec Swep	rum Ana t SA	lyzer 1	•	+					*	Frequency	- · 🛞
KEY RL	′SIGH1 ·≁·	Dinput: I Couplii Align: (ng: AC	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Lo Sig Track:				Frequency 00000 GHz	Settings
1 Spe	ctrum e/Div 10	dD	•		Ref LvI Offset 0. Ref Level 25.00		Mk	r1 2.452 0 GHz -3.52 dBm	2.9700	0000 GHz	
Log 15.0		и в						-0.02 ubiii	3	ept Span ro Span	
5.00 -5.00							^	1	F	ull Span	
-15.0 -25.0								DL1 -20.56 dBm	Start Fre 30.000	eq 000 MHz	
-35.0 -45.0							where programmer and where	-	Stop Fre	eq 00000 GHz	
-55.0 -65.0	gaalysta way of	enseether	all far as days	Japanan ang kanang Print	and a sub-sub-sub-sub-sub-sub-sub-sub-sub-sub-	angen den og ferdenen er fall for ble					
	0.030 GI BW 100				#Video BW 300) kHz	Swee	Stop 3.000 GHz p ~286 ms (1001 pts)	CF Step	>	
5 Ma	ker Table		•						Aut		
	Mode	Trace	Scale	X 2.452 0 GHz	Y -3.515 dBm	Function	Function Width	Function Value	Ma	22	
23									Freq Off 0 Hz	iset	
4 5 6									X Axis S Log Lin	9	
	ょ	3		? Jul 14, 2023 4:24:01 PM	\square				Signal T (Span Zo	rack xom)	

Swep				F							₽	Frequency	- * 😤
KEY RL	SIGHT ++-	Input: F Couplir Align: (ng: AC	Input Z: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fas Gate: Off IF Gain: L Sig Track	.ow	Avg Type: Lo Avg Hold: 10/ Trig: Free Ru	10	123456 MWWWWW PNNNNN	Center Fr 13.50000 Span	equency 00000 GHz	Settings
1 Spe	ctrum		×	F	Ref LvI Offset 0.	50 dB		Mkr		75 00 GHz	23.00000	000 GHz	
Scale Log 15.0	e/Div 10 c	B		F	Ref Level 25.00 o	dBm			-4	8.15 dBm		ot Span Span	
5.00 -5.00	_ ∂ 1										Ful	l Span	
-15.0 -25.0										DL1 -20.56 dBm	Start Free 2.000000	 0000 GHz	
-35.0 -45.0 -55.0			2 	Aliana Anna and Antonio			within a set with	مىرىنى مەرسىيىتىنى ئىرىنى مەرسىيى مەرسىيىتىنى مەرسىيىتىنى مەرسىيىتىنى مەرسىيىتىنى مەرسىيىتىنى مەرسىيىتىنى مەرسى	Los Marten	a and a state of the	Stop Freq 25.00000	00000 GHz	
-65.0 Start	2.00 GH2	2			#Video BW 300	kHz			SI	top 25.00 GHz	AUT	O TUNE	
_	BW 100	kHz						Sw	eep ~2.2	2 s (4001 pts)	CF Step	0000 GHz	
5 Mar	ker Table		V								Auto	NUU GHZ	
1	Mode N	Trace	Scale f	X 2.452 00 GHz	Y -0.8454 dBm	Function	Fur	nction Width	Fund	tion Value	Man		
2	N	1	f	4.875 00 GHz	-48.15 dBm						Freq Offs 0 Hz	et	
4 5 6											X Axis Sc Log Lin	ale	
E	ょ	3	2	Jul 14, 2023 4:24:49 PM							Signal Tra (Span Zoor	nck m)	

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Band Edge



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

Swe	pt SA			•	+								Frequency	- 湯
KE RL		GHT ≁	Input: R Couplin Align: O	g: AC	Input Z: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Lo Sig Track:	Avg w Trig	Type: Log Hold: 100/): Free Run	100	123456 MWWWWW PNNNNN		Frequency 000000 GHz	Settings
	ectrur			•		Ref LvI Offset 0.5			Mk		54 5 GHz		00000 MHz	
Sca Log 15.	1	/ 10 d	B			Ref Level 25.00 d	IBm			-2	2.00 dBm		wept Span ero Span	
5.0 -5.0	0					a halan a	1	and the start of t					Full Span	
-15.	0			}	ᡁᡁᠺᡒᠺᢎᡘᡆᠰᠬᢢᡒᠬᠬ᠍ᠲᠰ		on nonconta sola l	4, main - Alab Post		1		Start F	req 000000 GHz	
25		AAL M	and a	Normalt						han	North Color	Stop F		
-55.	0										VF	2.482	000000 GHz	
		45200) GHz			#Video BW 300	kHz			Spa	n 60.00 MHz	A	UTO TUNE	
		100	Hz						Swe		ms (601 pts)	CF Ste	ер 000 MHz	
5 M	arker 1	able		•								Construction of the	uto	
	1000	ode N	Trace	Scale	X 2.454 5 GHz	Y -2.003 dBm	Function	Function	n Width	Functi	on Value	M	an	
	2 3			_	2.404 0 0112	-2.003 0.011						Freq C 0 Hz	Offset	
	4 5 6												Scale og in	
E	1	3	2		Jul 14, 2023 4:26:57 PM							Signal (Span 2	Track Zoom)	

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Spec Swe	trum Ana ot SA	lyzer 1	۲	+					*	Frequency	- * ※
KE' RL	/SIGH1 ·►·	Dinput: I Couplii Align: (ng: AC	Input Ζ: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-f Avg Hold: 10/10 Trig: Free Run		Center Free 1.5150000 Span		Settings
	ectrum e/Div 10	dD	•		Ref LvI Offset 0. Ref Level 25.00		Mkr	1 2.454 5 GHz -5.87 dBm	2.9700000		
Log 15.0					Rei Level 25.00			-0.07 0.011	Swept Zero S		
5.00 -5.00								1		Span	
-15.0 -25.0								DL1 -22.00 dBm	Start Freq 30.000000	MHz	
-35.0								Landa - participation - barriero 10	Stop Freq 3.0000000	00 GHz	
-65.0			ar frank an	ayan karan selan kina tahun 1995 yang kina sebagai sebagai sebagai sebagai sebagai sebagai sebagai sebagai seba						TUNE	
	0.030 GI BW 100				#Video BW 300	kHz	Sweep	Stop 3.000 GHz ~286 ms (1001 pts)	CF Step		
5 Ma	rker Table		•			_	_	_	297.00000 Auto	0 MHz	
	Mode N	Trace 1	Scale f	X 2.454 5 GHz	Y -5.874 dBm	Function	Function Width	Function Value	Man Freq Offset		
	3								0 Hz		
	5								X Axis Scal Log Lin	e	
E	ょ	3		? Jul 14, 2023 4:27:20 PM					Signal Trac (Span Zoom	* }	

Spect Swep	rum Anal t SA	yzer 1	•	-								Frequency	- * 詳
KEY RL	SIGHT	Input: F Couplir Align: (ng: AC	Input Z: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 36 dB Preamp: Off	PNO: Fas Gate: Off IF Gain: L Sig Track:	ow	Avg Type: Lo Avg Hold: 10 Trig: Free Ru	/10	123456 MWWWWW PNNNNN	******	Frequency 000000 GHz	Settings
1 Spe	ctrum		v		Ref LvI Offset 0.	50 dB		Mk		15 25 GHz		0000 GHz	
Scale Log 15.0	/Div 10 c	B			Ref Level 25.00	dBm			-5	1.71 dBm		ept Span o Span	
5.00 -5.00	- ∂ 1										F	ull Span	
-15.0 -25.0										DL1-22.00 dBm	Start Fre 2.0000	eq 00000 GHz	
-35.0 -45.0 -55.0			2	an and the second second	and the second statement	الميتنعه بالمعاجم والمحاج	البيماني <mark>ا</mark> فالألب	والمرور والمسارين والمروان	و ماندو ^{مان} تشرین		Stop Fre 25.000	eq 000000 GHz	
-65.0	2.00 GHz				#Video BW 300				6	op 25.00 GHz	AU	TO TUNE	
	BW 100				#VIGEO BAA 200			Sw		2 s (4001 pts)	CF Step	Construction in the second second	
5 Mar	ker Table		•								2.3000	00000 GHz 0	
1	Mode N	Trace	Scale	X 2.454 50 GHz	Y -2.389 dBm	Function	Fu	nction Width	Func	tion Value	Ma	n	
2	N	i	f	4.915 25 GHz							Freq Off 0 Hz	íset	
3 4 5 6											X Axis S Log		
E	ょ	2	- ?	Jul 14, 2023 4:28:22 PM	$\rightarrow \triangle$						Signal T (Span Zo	rack om)	

		TEST	-	REPORT	
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4.1.6 Radia	ted Emission				
RESULT:					PASS
Test standard		:	FCC P	Part 15.247(d), 15.205, 15.209	
Requirement		:		C63.10-2013, Clause 11.12 58074 D01 v05r02, Clause 8.6	
Kind of test site	•	:		mi-Anechoic Chamber	
Test setup					
Test Channel		:	Low/M	liddle/High	
Operation Mod	е	:	A.1.a		
Ambient tempe	rature	:	24°C		

Notes

Relative humidity

Test plots please refer to the annex document "SHE23060104-02BE 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.

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4.1.7 Band Edge (Restricted-band ba	nd	-edge)	
RESULT:				PASS
Test standard		:	FCC Part 15.247(d), 15.205, 15.209	
Requirement		:	ANSI C63.10-2013, Clause 11.13	
			KDB 558074 D01 v05r02, Clause 8.7	
Kind of test site		:	3m Semi-Anechoic Chamber	
Test setup				
Test Channel		:	Low/Middle/High	
Operation Mode		:	A.1.a	
Ambient temperature		:	22.4°C	
Relative humidity		:	55%	

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Notes:

1. Test plots please refer to the annex document "SHE23060104-02BE 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.

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4.2 Mains Emissions

4.2.1 Conducted Emission on AC Mains

RESULT:

PASS

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

:	which received AC 120V, 60Hz Power
:	A.1.a
:	Disconnected to GND
:	21°C
:	50%
	::

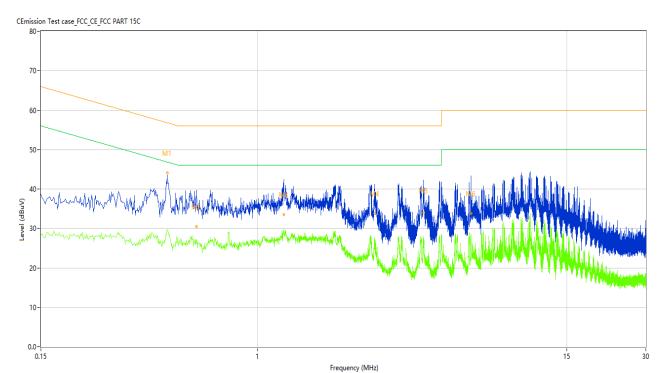
For details refer to following test plot.

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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

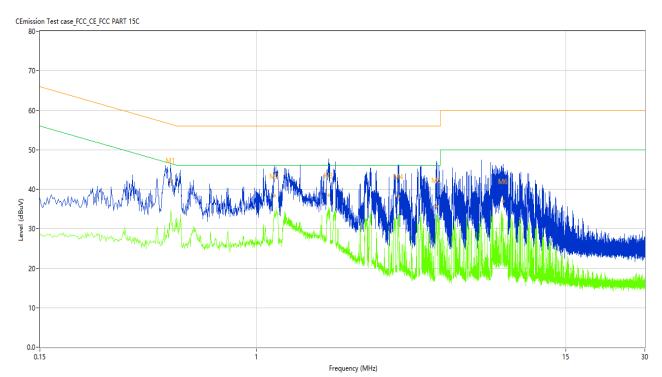


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.454	50.68	9.96	56.80	6.12	Peak	L	Pass
1*	0.454	44.09	9.96	56.80	12.71	QP	L	Pass
1**	0.454	29.81	9.96	46.80	16.99	AV	L	Pass
2	0.586	37.84	9.97	56.00	18.16	Peak	L	Pass
2*	0.586	30.50	9.97	56.00	25.50	QP	L	Pass
2**	0.586	27.19	9.97	46.00	18.81	AV	L	Pass
3	1.258	40.73	9.84	56.00	15.27	Peak	L	Pass
3*	1.258	33.50	9.84	56.00	22.50	QP	L	Pass
3**	1.258	29.84	9.84	46.00	16.16	AV	L	Pass
4	2.792	42.08	9.84	56.00	13.92	Peak	L	Pass
4*	2.792	33.87	9.84	56.00	22.13	QP	L	Pass
4**	2.792	26.24	9.84	46.00	19.76	AV	L	Pass
5	4.276	42.30	9.82	56.00	13.70	Peak	L	Pass
5*	4.276	33.97	9.82	56.00	22.03	QP	L	Pass
5**	4.276	27.93	9.82	46.00	18.07	AV	L	Pass
6	6.488	42.95	9.79	60.00	17.05	Peak	L	Pass
6*	6.488	33.82	9.79	60.00	26.18	QP	L	Pass
6**	6.488	27.79	9.79	50.00	22.21	AV	L	Pass

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Figure 29: Conducted Emission on AC Mains, N Phase



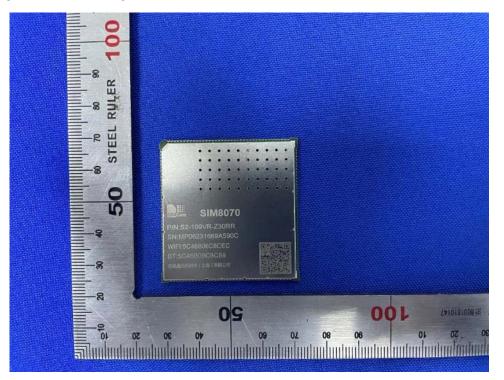
No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.472	49.52	10.07	56.48	6.96	Peak	Ν	Pass
1*	0.472	42.10	10.07	56.48	14.38	QP	Ν	Pass
1**	0.472	34.70	10.07	46.48	11.78	AV	Ν	Pass
2	1.170	45.71	9.95	56.00	10.29	Peak	Ν	Pass
2*	1.170	38.38	9.95	56.00	17.62	QP	Ν	Pass
2**	1.170	34.50	9.95	46.00	11.50	AV	Ν	Pass
3	1.882	46.21	9.94	56.00	9.79	Peak	Ν	Pass
3*	1.882	38.43	9.94	56.00	17.57	QP	Ν	Pass
3**	1.882	34.71	9.94	46.00	11.29	AV	Ν	Pass
4	3.486	45.13	9.90	56.00	10.87	Peak	Ν	Pass
4*	3.486	38.22	9.90	56.00	17.78	QP	Ν	Pass
4**	3.486	32.81	9.90	46.00	13.19	AV	Ν	Pass
5	4.838	46.26	9.75	56.00	9.74	Peak	Ν	Pass
5*	4.838	35.56	9.75	56.00	20.44	QP	N	Pass
5**	4.838	33.38	9.75	46.00	12.62	AV	Ν	Pass
6	8.666	46.16	9.80	60.00	13.84	Peak	Ν	Pass
6*	8.666	36.94	9.80	60.00	23.06	QP	Ν	Pass
6**	8.666	32.00	9.80	50.00	18.00	AV	Ν	Pass

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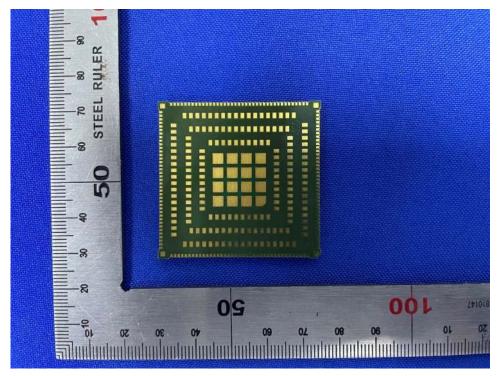
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5 Appendixes

5.1 Photographs of the Sample



Front of the sample

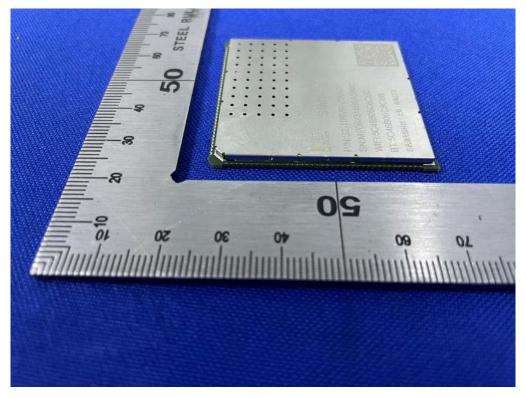


Rear of the sample

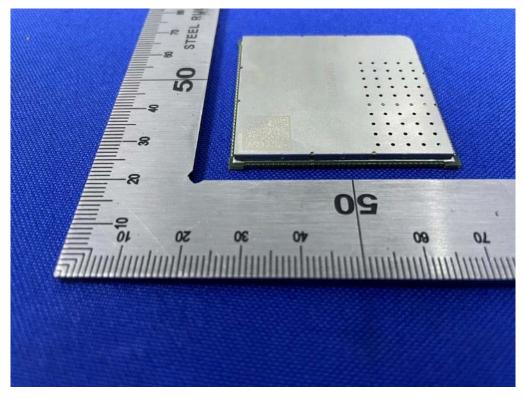
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Left of the sample



Right of the sample

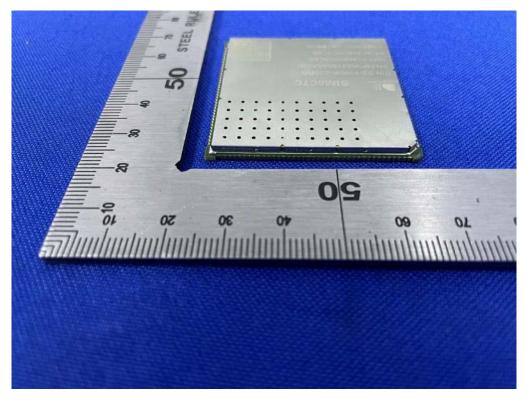
Date:

Report No.: SHE23060104-02BE

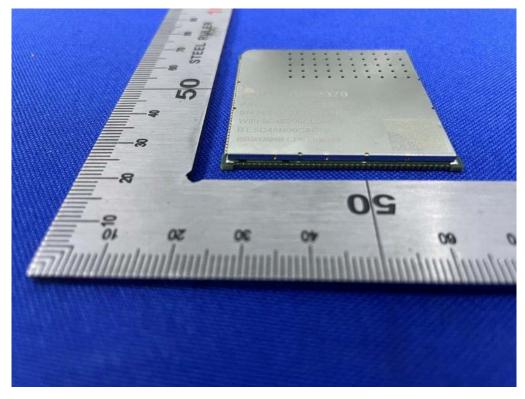
D2BE

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Top of the sample



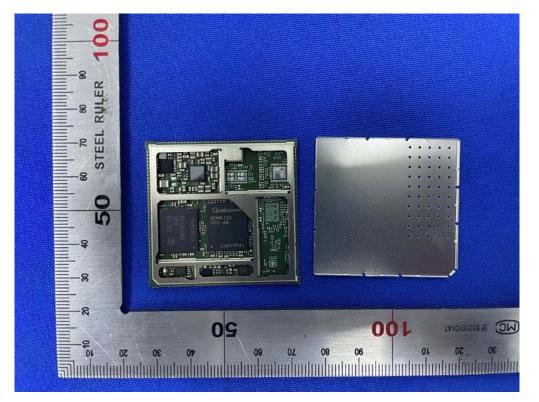
Bottom of the sample

Report No.: SHE23060104-02BE

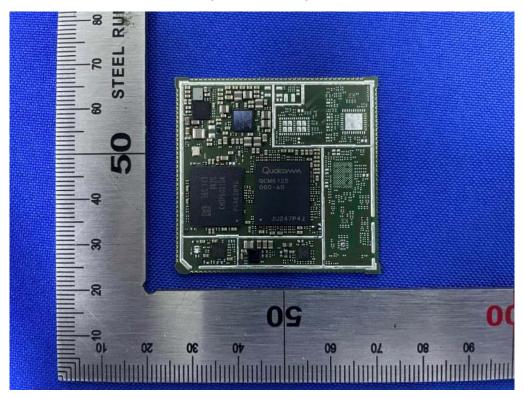
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Open of the sample



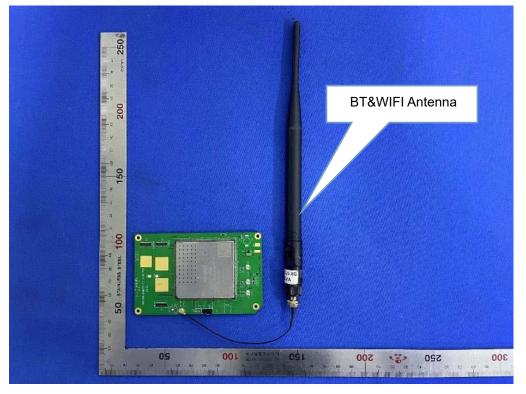
Internal-1 of the sample

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Antenna Position

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5.2 Set-up for Conducted Emissions



5.3 Set-up for Conducted RF test at Antenna Port

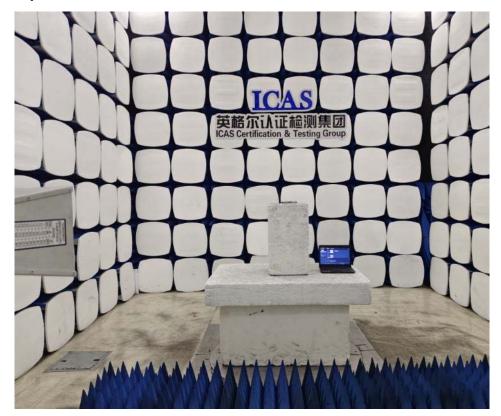


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5.4 Set-up for Spurious Emissions below 1GHz



5.5 Set-up for Spurious Emissions above 1GHz



End of the report