





Gandini 21115514

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nput 1 A		On <b>Step</b> TD Scar On <mark>Notch</mark> Of				Frequen	cy 943.3500000 M
)S Input1 "FCC3mHIGH" Can							
dBµ∨/m					_		
dBµV/m							
dBµ∨/m							
VFCC PART 15 E FIELD 3M							paralle la
dBµ∨/m						- Anna	annearer ward to the former
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Y				Measuring			
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)[		FINA	AL RESU	ILT TABLE			
MAX PEAK		FINA	AL RESU				
MAX PEAK	Lev dBuV/m		AL RESU				
Freq Hz		Margin dB	AL RESU				
Freq Hz 333510000	+19,31	Margin dB -27,69	AL RESU				
Freq Hz 333510000 376260000	+19,31 +19,83	Margin dB -27,69 -27,17	AL RESU				
Freq Hz 333510000 376260000 398070000	+19,31 +19,83 +21,81	Margin dB -27,69 -27,17 -25,19	AL RESU				
Freq Hz 333510000 376260000 398070000 482370000	+19,31 +19,83 +21,81 +22,62	Margin dB -27,69 -27,17 -25,19 -24,38	AL RESU				
Freq Hz 333510000 376260000 398070000 482370000 535410000	+19,31 +19,83 +21,81 +22,62 +23,55	Margin dB -27,69 -27,17 -25,19 -24,38 -23,45	AL RESU				
Freq Hz 333510000 376260000 398070000 482370000 535410000 611280000	+19,31 +19,83 +21,81 +22,62 +23,55 +25,38	Margin dB -27,69 -27,17 -25,19 -24,38 -23,45 -21,62	AL RESU				
Freq Hz 333510000 376260000 398070000 482370000 535410000	+19,31 +19,83 +21,81 +22,62 +23,55	Margin dB -27,69 -27,17 -25,19 -24,38 -23,45	AL RESU				
Freq Hz 333510000 376260000 398070000 482370000 535410000 611280000	+19,31 +19,83 +21,81 +22,62 +23,55 +25,38 +25,59	Margin dB -27,69 -27,17 -25,19 -24,38 -23,45 -21,62	AL RESU				
Freq Hz 333510000 376260000 398070000 482370000 535410000 611280000 622110000 767160000	+19,31 +19,83 +21,81 +22,62 +23,55 +25,38 +25,59 +25,85	Margin dB -27,69 -27,17 -25,19 -24,38 -23,45 -21,62 -21,41 -21,15	AL RESU				
Freq Hz 333510000 376260000 482370000 535410000 611280000 622110000 767160000 886080000	+19,31 +19,83 +21,81 +22,62 +23,55 +25,38 +25,59 +25,85 +28,67	Margin dB -27,69 -27,17 -25,19 -24,38 -23,45 -21,62 -21,41 -21,15 -18,33	AL RESU				
Freq Hz 333510000 376260000 482370000 535410000 611280000 622110000 767160000 886080000 906540000	+19,31 +19,83 +21,81 +22,62 +23,55 +25,38 +25,59 +25,85 +28,67 +36,21	Margin dB -27,69 -27,17 -25,19 -24,38 -23,45 -21,62 -21,41 -21,15 -18,33 -10,79	AL RESU				
Freq Hz 333510000 376260000 482370000 535410000 611280000 622110000 767160000 886080000	+19,31 +19,83 +21,81 +22,62 +23,55 +25,38 +25,59 +25,85 +28,67	Margin dB -27,69 -27,17 -25,19 -24,38 -23,45 -21,62 -21,41 -21,15 -18,33	AL RESU				

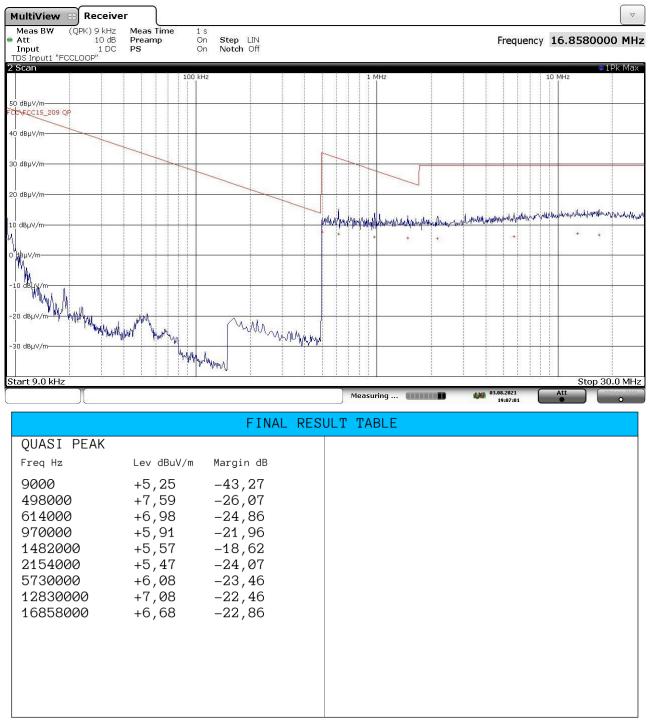
21115514\_2







Gandini 21115515



 $21115515_2$ 



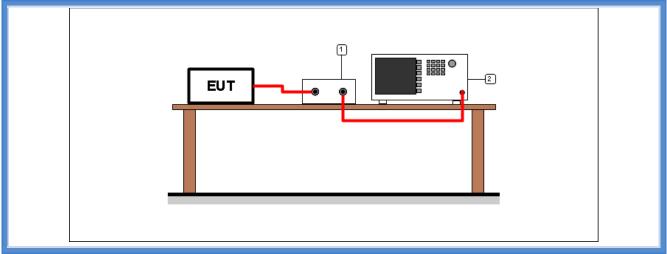




# 9.3 20 dB bandwidth

Tested by:	G. Gandini		
Test date:	08.10.2021		
Test location (stand):	Laboratory		
Reference standards:	FCC Rules and Regulation; Titles 47 Part. 15.215 (c) ANSI C63.10 cl. 7.8.7		
Supplementary test set-up description			
Supplementary information:			

## Test setup



	Test setup PR002_01						
Nr.	ld. Number	Manufacturer	Model	Description			
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz			
1				Cable + attenuator (calibrated			
				before the test)			

Result

Frequency (MHz)	Graphs	20 dB bandwidth (kHz)
915,05	G21115531	16,28
921,40	G21115542	16,69
927,80	G21115539	16,64







## Graphs

### Gandini 21115531



MultiView	Spectr	um							
		ffset 20.50 dB 🕚							
Att 1 Frequency S <sup>1</sup>		<b>₩T</b> 55.6 ms	VBW 1 kHz	Mode Sweep					●1Pk Max
1 Frequency S	weep	Ť	T	-		1	1	M1[1]	14.40 dBm
									.8000750 MHz
30 dBm	-					8		D2[1]	-20.87 dB
								and the second sec	-8.3710 kHz
20 dBm					41	2			
					5				
10 dBm	2	2		MA					
				min	mm	7			
0 dBm	-	5				1			
			1 mm			D3			
-10 dBm	-		Aver	</td <td></td> <td>Imon</td> <td>Α</td> <td></td> <td></td>		Imon	Α		
			1	V		V			
-20 dBm	8		J			8	Z	-	
10103 6120		A m					Mm	Λ	
-30 dBm	٨	1 mm						Y L	
-30 UBm 	mm							Whom	mmm
-40 dBm						8			
-50 dBm	-					-			
CF 927.8 MHz			200	)1 pts	L,	5.0 kHz/		L	Span 50.0 kHz
2 Marker Table	2		200	- m proof					span boro raiz
Type Ref		X-Valu		Y-Value		Function		Function Re	esult
M1	1	927.80007	5 MHz	14.40 dBm					
D2 M1 D3 M1	1	-8.37	'1 kHz '1 kHz	-20.87 dB -20.80 dB					
	1	-127				1			11.10.2021
							Aborted		18:59:56















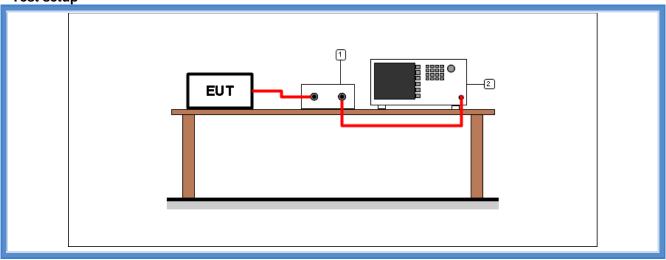
## 9.4 Channel separation

Tested by	G. Gandini
Test date:	08.10.2021
Test location (stand):	Laboratory
	FCC Rules and Regulation; Titles 47 Part. 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 cl. 9 b) ANSI C63.10 cl. 7.8.2
Supplementary test set-up description:	
Supplementary information:	

## **Acceptance limits**

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

### Test setup



	Test setup PR002_01						
Nr.	ld. Number	Manufacturer	Model	Description			
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz			
1				Cable + attenuator (calibrated			
				before the test)			







Result				
Frequency band (MHz)	Graphs	Channel separation (kHz)	Minimum channel separation required (kHz)	Results
902 – 928	G21115516 G21115517	99,9	25	Complies







# Graphs

### Gandini 21115516

MultiView	Spectrum								•
Ref Level 40.0 Att		t 20.50 dB • RB 1.02 ms VB		de Swoon					
I Frequency Sy		1.02 115 VD	WI JUKI Z WIU	ue Sweep		*			o1Pk Max
								M1[1]	16.21 dBm 1.453950 MHz
30 dBm		-						D2[1]	-0.01 dB
									-99.900 kHz
20 dBm		D2				N	NOT .		
			<u></u>			/		X	
10 dBm				(c	-	/		1	
0 dBm			$\mathbf{A}$			/		$\mathcal{A}$	
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-10 dBm				к.					
-20 dBm		-							
				~~~	$\sim$			L	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
-30 dBm					~	2			U
-40 dBm									
-50 dBm									
CF 921.4 MHz			1001 pts		<u> </u> סו	).0 kHz/		¢.	oan 200.0 kHz

MultiView	Spectrum								-
		t 20.50 dB 🖷 RB							
Att 1 Frequency S	20 dB SWT weep	20 ms VB	W 3 kHz Mod	e Sweep					●1Pk Max
30 dBm								M1[1] 92 D2[1]	14.71 dBm 1.449950 MHz -0.05 dB- -99.700 kHz
20 dBm		D2					M1		
10 dBm		M					m		
0 dBm		n h					m h	Ń	
-20 dBm									
-30 dBm	N		M			N'		M	
Aqodehn / /	www.		MM	MAAAA	AMM	www		VWM	mm
-50 dBm									
CF 921.4 MHz			1001 pt:	s	2	0.0 kHz/		S	oan 200.0 kHz







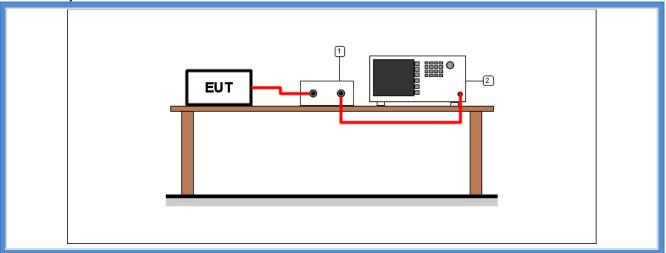
### 9.5 Number of hopping channels

Tested by:	G. Gandini
Test date:	08.10.2021
Test location (stand):	Laboratory
Reference standards:	FCC Rules and Regulation; Titles 47 Part. 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 cl. 9 b) ANSI C63.10 cl. 7.8.3
Supplementary test set-up description:	
Supplementary information:	

## **Acceptance limits**

For frequency hopping systems operating in the 902 – 928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

## Test setup



	Test setup PR002_01							
Nr.	ld. Number	Manufacturer	Model	Description				
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz				
1	1			Cable + attenuator (calibrated				
				before the test)				







## Result

Result				
Frequency band (MHz)	Graphs	Number of hopping channels	Minimum number of hopping channels required	Results
902 – 928	G21115518 G21115519 G21115520 G21115521	128	50	Complies
	G21115522			

**Remarks:** for laboratory tests at CMC, a special programming is provided; anyway we deem it representative of any real world hopping sequence that can be programmed into the devices. First, special programming allows fixed frequency measurements at min, med and max operating frequency; this is not available for series production units, but is required for testing.

Then two evenly spaced hopping sequences of 64 channels are provided, one including the minimum frequency channel at 915,05 MHz, the other including the maximum frequency channel at 927,80 MHz. Although they are not available for series production units, both these hopping sequences are suitable for valid measurements of FH timing parameters. In fact, FH Timing parameters measurements is not dependent on channel positioning.

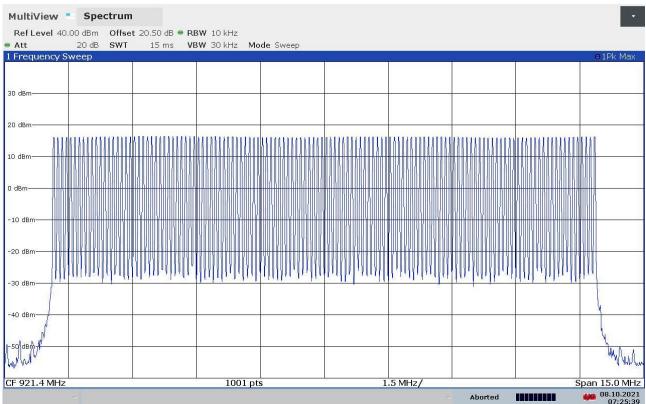


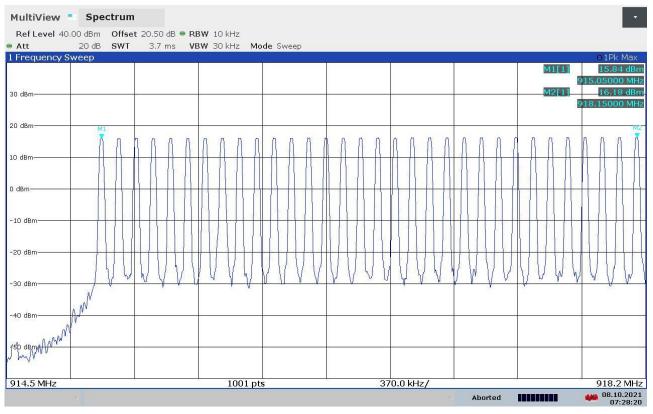




# Graphs

## Gandini 21115518











#### Gandini 21115520

#### MultiView 📑 Spectrum Ref Level 40.00 dBm Offset 20.50 dB • RBW 10 kHz 20 dB SWT 3.2 ms VBW 30 kHz Mode Sweep 🖷 Att 1 Frequency Sweep o1Pk Ma M1[1] 15.86 dBm 918.25000 MHz 2[1] 16.13 dBm 30 dBm-921.35000 MHz 20 dBm 10 dBr dB -20 dB W -30 dBm -40 dBm--50 dBm-918.2 MHz 1001 pts 320.0 kHz/ 921.4 MHz Aborted 08.10.2021 07:30:18

requeries o	weep	(i)							o1Pk Max
dBm								M2[1]	15.85 dB 921.45000 M 16.08 dB 924.55000 M
dBm									Ν
	AAA	n n n i	плп	ΛΛΛ	ΛΛΑ	AAA	A A A A		
im -									
dBm									
dBm									
Yem V V	VVV	V W V	W W W	V V V			Y V V	W V W	A A M
dBm									
dBm		+							+







#### Gandini 21115522

#### MultiView Spectrum Ref Level 40.00 dBm Offset 20.50 dB • RBW 10 kHz 20 dB SWT 3.4 ms VBW 30 kHz Mode Sweep 🖷 Att 1 Frequency Sweep D1Pk Max M1[1] 15.68 dBm 924.65000 MHz 42[1] \_16.01 dBm 30 dBm-927.75000 MHz 201dBm 10 dBr dE 20 dBm 30 dBm -40 dBm-M<sub>n,</sub> -50 dBm-924.6 MHz 1001 pts 340.0 kHz/ 928.0 MHz Measuring... 08.10.2021 07:32:34







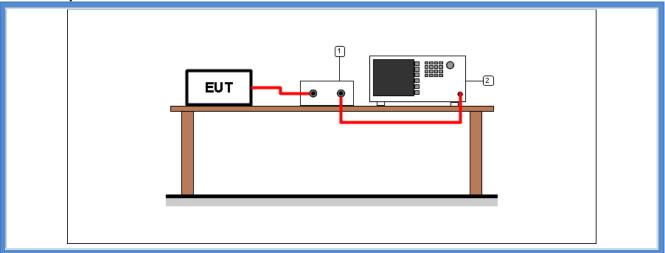
### 9.6 Time of occupancy

Tested by:	G. Gandini
Test date:	08.10.2021
Test location (stand):	Laboratory
	FCC Rules and Regulation; Titles 47 Part. 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 cl. 9 b) ANSI C63.10 cl. 7.8.4
Supplementary test set-up description:	
Supplementary information:	

## **Acceptance limits**

For frequency hopping systems operating in the 902 – 928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

### Test setup



	Test setup PR002_01							
Nr.	Nr. Id. Number Manufacturer Model			Description				
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz				
1	1			Cable + attenuator (calibrated				
				before the test)				







## Result

Frequency (MHz)	Graphs	Dwell time (ms)
927,25	G21115523	23,90

Frequency (MHz)	Graphs	Number of transmissions	Period
921,425	G21115524	4	20 s

**Remarks:** only the highest peaks have been considered. The lowest peaks are due to the auxiliary receiver unit

Time of occupancy (Dwell time x Nr. transmissions)	Maximum allowed time of occupancy	Results
95,60 ms	400 ms	Complies



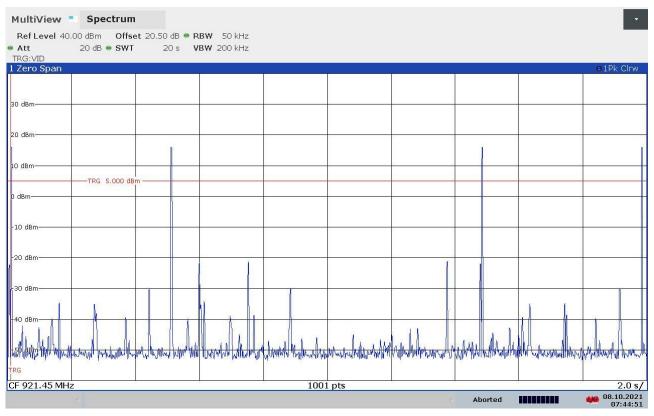




## Graphs

### Gandini 21115523

MultiView 📒	Spectrum						-
	) dBm Offset 20.50 dB ● RBV						SGL
Att TRG:VID	20 dB 🖷 SWT 50 ms VBV	V 200 KHZ					
1 Zero Span	* *						o1Pk Max
						M1[1	
						Territoria de	0.0000000 s
30 dBm					1	D2[1	
							23.9000 ms
20 dBm							
MI							
10 dBm							
0 dBm							
-10 dBm			E2				
-10 0811			Ť.	0			
-20 dBm			1	-			
-30 dBm							
-40 dBm		1		8	X:		
-50 dBm			· · · · ·				
WWWWWWW TRG			- William	A rahar Make	MARMAN	Man Mar Auto	MAR MARAMAN
CF 927.25 MHz	10	1001	pts				5.0 ms/
~					Ready		08.10.2021 07:38:08









## 9.7 Band edge

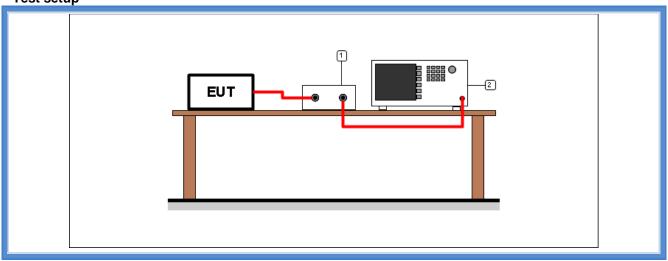
Tested by	G. Gandini
Test date:	08.10.2021
Test location (stand):	Laboratory
Reference standards:	FCC Rules and Regulation; Titles 47 Part. 15.247 ANSI C63.10 cl. 7.8.6
Supplementary test set-up description	
Supplementary information:	

## **Acceptance limits**

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 § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Operation within the band 902 - 928 MHz.

### Test setup



	Test setup PR002_01							
Nr.	ld. Number	Manufacturer	Model	Description				
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz				
1	1			Cable + attenuator (calibrated				
				before the test)				







# Result

Nesan						
Frequency (MHz)	Bandwidth	Graph(s) – Hopping	Results			
915,05	100 kHz	G21115527 G21115528	F <sub>L</sub> : 914,9101 MHz	Complies		
927,80	100 kHz	G21115529 G21115530	F <sub>H</sub> : 927,9421 MHz	Complies		

Frequency (MHz)	Bandwidth	Graph(s) – No hopping	Results	
915,05	100 kHz	G21115534 G21115535	F∟: 914,9080 MHz	Complies
927,80	100 kHz	G21115536 G21115537	F <sub>H</sub> : 927,9385 MHz	Complies







# Graphs

## Gandini 21115527

MultiView Spectrum					-
Ref Level 40.00 dBm Offset					
	1.01 ms VBW 300 kHz Mode Sweep	)			
Frequency Sweep			1	M1[1]	0 1Pk Max 16.08 dBr
					15.04600 MH
30 dBm				D2[1]	-21.27 d
a dann					-135.90 kH
Shart to se					
20 dBm		M1		1	
				$\sim$	$\sim$
10 dBm	1			3	
) dBm					
, abii	DE		0		
	<u> </u>				
-10 dBm					
-20 dBm				-	
-30 dBm	5				
	- Ar				
-40 dBm	mmmmm				
mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	Man had and				
-50 dBm				1	
CF 915.0 MHz	1001 pts	200.0 kHz	/		Span 2.0 MH
			<ul> <li>Aborted</li> </ul>		08.10.202 07:51:0

Ref Level 40.00 dBm Off	<b>set</b> 20.50 dB 🖷 RBW 100 k	Hz				
Att 20 dB SW	<b>/T</b> 1.09 ms <b>VBW</b> 300 k	Hz Mode Sweep				
Frequency Sweep					01Pk	( Мах
30 dBm						
20 dBm						
		****	heaviling the shire shi	and trought and the address of the address		unnnuhn
10 dBm						
0 dBm			6			
-10 dBm						
-20 dBm						
-30 dBm						
-40 dBm						
50 dBm	mmmmmmmmm	mann				
902.0 MHz	10	001 pts	2.6 MHz/	18	928.	0 MH







#### Gandini 21115529

MultiView	Spectrum								-
Ref Level 40.0	0 dBm Offse	t 20.50 dB 🖷 R	<b>BW</b> 100 kHz						
🖷 Att		1.02 ms V	BW 300 kHz M	ode Sweep					
1 Frequency Sw	veep				T				●1Pk Max
								M1[1]	15.88 dBm
								DOLL	927.8000 MHz
30 dBm		7						D2[1]	-21.08 dB 140.0 kHz
									140.0 KHZ
20 dBm		-		M1					
		000000000000000000000000000000000000000							
and a second second second									
10 dBm			-			8			
0 dBm									
				C	8				
10.10									
-10 dBm									
				8					
-20 dBm		6			3				
-30 dBm									
30 0011									
-40 dBm					4				
					Indrasan	Λ	0		
-50 dBm-					a hear a contraction	w Normanna	mmmmm	munham	manna
CF 928.0 MHz			1001 pt	S	2	.0 MHz/		5	Span 20.0 MHz
	~					~	Aborted		08.10.2021 07:56:30

Att 20 dB SW Frequency Sweep	/T 1.01 ms V	DI SUURIZ IN	India Oweep					O1Pk Ma
Tequency Sweep					1	1	M1[1]	15.87 d
								927.80000 M
dBm				-			D2[1]	-22.64
								142.10
dBm								
			1					
$\sim \sim \sim$	$\neg \checkmark$	$\sim$						
dBm		-						
			<b>\</b>					
3m								
			42					
I dBm					5			
dBm				6	2			
			4					
I dBm								
uBm-				М				
				4 0 0				
dBm-			1	WWALL				
				a wy	mound	mon		
dBm					~1	mm	and a co Aurora	harmon M
928.0 MHz	10	1001 pts	s	20	0.0 kHz/	1		Span 2.0 M







#### Gandini 21115534

T T	ľ	r -	r	â		o 1Pk Max
						16.04 dB 915.04795 MH
						-21.58 (
						-139.90 kl
		M1	N.			
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	/		8			
	and parts		by			
1 . Marina V			m	mm		
man more thank	6			- winding	White	monom

	fset 20.50 dB ● RBW 100 kHz /T 1.09 ms VBW 300 kHz Moo	de Sween			
Frequency Sweep	T 1.09 MS VEW 500 KHZ MO	de Sweep			o 1Pk Max
0 dBm					
0 dBm					
0 dBm					
10		11			
dBm			8) - S		
10 dBm			3 8		
20 dBm					
30 dBm					
40 dBm					
		Aman m	Maria a		
mounder	monument	10.14 - 0	and marken when the	hannan	mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm
50 dBm-	terrand Merindan (2000) 1997 2018 No.				the summer of the state of the
02.0 MHz			2.6 MHz/		928.0 MH







#### Gandini 21115536

lultiView 🎫 Spectro	um							-
Ref Level 40.00 dBm Of								
Att 20 dB SV	NT 2.01 ms VB	<b>W</b> 300 kHz N	lode Sweep					
Frequency Sweep	- <u>r</u>	-	T		Ê	1	M1[1]	01Pk Max 15.10 dBn
							MIT[I]	927.7560 MH
) dBm							D2[1]	-31.24 d
Subm <del>a</del>							- Carlal	222.0 kH
05.000								
) dBm	M1							
	Ţ							
dBm			ŧ.		12		2	
dBm					2			
.0 dBm				×	8			
U UBM	02							
	4							
0 dBm								-
0 dBm		-			<i>v</i>			
0 dBm								
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0 dBm-								
02.0 MHz		2001 pt	s	9	1.8 MHz/		1	1.0 GHz
-						Measuring		08.10.2021 13:07:02

Ref Level 40.00 dE									
- UNIVERSITY		2.01 ms V	BW 300 kHz N	ode Sweep					
Frequency Sweep	)	2	Ť	ľ		r -	1	M1[1]	1Pk Max 15.83 dBi
									27.804100 MI
) dBm								D2[1]	-20.93
abin						-			134.440 kl
I dBm			41						
) dBm				1	-	8.			
		/							
dBm	/			1					
	/			22					
				4					
LO dBm	1			1		5			
1				1					
20 dBm		5		1					
and a				Y					
30 dBm					Why.	<i>.</i>			
Win With Mark					"My maller	-			
					Miner Marine	anno mangala a			
+0 dBm-						11.00	and another property when when	manmon	money to me of a
							Alph on the house of the	81 AU	State Cherry Cherry
0 dBm		<u>,</u>							
				2					0 1 0 1
928.0 MHz			2001 pt	S	1(	00.0 kHz/			Span 1.0 MH 08.10.202 13:08:1







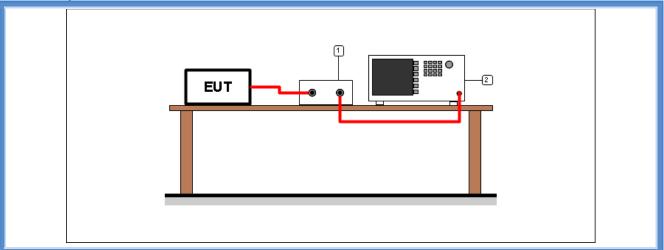
## 9.8 Peak Output Power

Tested by	G. Gandini
Test date:	08.10.2021
Test location (stand):	Laboratory
Reference standards:	FCC Rules and Regulation; Titles 47 Part. 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 cl. 2.2 ANSI C63.10 cl. 7.8.5
Supplementary test set-up description:	
Supplementary information:	

## **Acceptance limits**

For frequency hopping systems operating in the 902–928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0,25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels.

## Test setup



			Test setup PR002_01	
Nr.	ld. Number	Manufacturer	Model	Description
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43 GHz
1				Cable + attenuator (calibrated
				before the test)







# Result

Nesun				
Frequency (MHz)	Graphs	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (mW)
915,05	G21115533	16,06	40,36	1000
921,40	G21115543	15,97	39,08	1000
927,80	G21115538	15,82	38,19	1000







# Graphs

## Gandini 21115533

Ref Level 4	0.00 dBm Offse	et 20.50 dB 🖷 I	RBW 30 kHz					
Att		1.01 ms	<b>/BW</b> 100 kHz M	ode Sweep				
Frequency	Sweep	Ť	T		T	Ê.	Harver ways	o1Pk Max
							M1[1]	16.06 dBi .0459041 MH
0 dBm							91.	0439041 MI
J UDINE		- 12						
0 dBm				MI		5-		
0 dBm	-		-			D	 ă	
		1						
dBm				12		2		
10 dBm				8	8			
10 0.00								
20 dBm								
30 dBm						20		
40 dBm		-						
50 d0m								
50 dBm								
F 915.05 MH	17	1		S	1	0.0 kHz/	S	pan 100.0 k⊦

<b>Frequency Sweep</b>					O1Pk Max
				M1[1]	15.82 dBr 7.7962020 MH
0 dBm				92	7.7962020 MF
0 dBm		M1			
) dBm					
1 GBW					
dBm					
10 dBm					~~~~
20 dBm					
30 dBm			 _		
40 dBm			_		
50 dBm					







MultiView	Spectrum								-
Ref Level 40.00									
		1.01 ms	<b>/BW</b> 100 kHz M	ode Sweep					
1 Frequency Swee	ep	r	Ť	ľ		r		M1[1]	01Pk Max 15.97 dBm
									.4021000 MHz
30 dBm			-						
20 dBm					MI	la series			
10 dBm			100	8	2	р			
0 dBm				.2		2			
-10 dBm									~
10 dbm									
-20 dBm		2							
-30 dBm			- 52		-	2 <u></u>			
-40 dBm		-							
1000									
00 W/									
-50 dBm		1							
CF 921.4 MHz				S	10	0.0 kHz/		S	ban 100.0 kHz
-				warming up	10.85		Aborted		<pre>## 15.11.2021     12:18:51</pre>







# Attachment 1

### Instruments list

ld. number	Manufacturer	Model	Description	Serial number	Last calibration	Due date calibration
CMC S010	Rohde & Schwarz	ESH3-Z2	Impulses Limiting Device		January '21	January '22
CMC S108	EMCO	3115	Horn Antenna	9811-5622	June '19	June '22
CMC S127	Schaffner	HLA6120	Loop Antenna	1191	November '18	November '23
CMC S200	Schwarzbeck	NSLK 8128	V-LISN	8128-273	January '21	January '22
CMC S206	Rohde & Schwarz	ESCI 7	EMC Receiver 9KHz-7GHz	100781	January '21	January '22
CMC S260	СМС	Wfr_N	Shielded Cable	Wfr_ant10-1	November '21	November '22
CMC S261	СМС	Wfr_N	Shielded Cable	Wfr_ant20-1	November '21	November '22
CMC S262	СМС	Wfr_N_fix	Shielded Cable	Wfr_fix32-1	November '21	November '22
CMC S263	СМС	Wfr_N_fix	Shielded Cable	Wfr_fix31-1	November '21	November '22
CMC S264	СМС	Wfr_N	Shielded Cable	Wfr_ext03-1	November '21	November '22
CMC S271	Schwarzbeck	BBA 9106 + VHBB 9124	Biconical Antenna (30- 300MHz)	831	June '19	June '22
CMC S287	Schwarzbeck	VUSLP 9111B	Log-periodic Antenna (200 MHz-3Ghz)	9111B-203	June '19	June '22
CMC S288	СМС	W_sma_white	Joint Shielded Cable	W_001	November '21	November '22
CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz	104059	November '19	November '22
CMC S353	Rohde & Schwarz	ESW26	Emi Test Receiver 1 Hz - 26.5 GHz	101492	September '20	September '22







# Attachment 1

Measurement uncertainty

Test	Test Setup	Expanded uncertainty	Note
Conducted emission CISPR 16 LISN 50uH 0,009-0,0150 MHz	PE001_01	3,4 dB	1
Conducted emission CISPR 16 LISN 50uH 0,150-30,0 MHz	PE001_01	3,0 dB	1
Conducted emission CISPR 16 Voltage Probe 0,15-30 MHz	PE001_02	2,3 dB	1
Conducted emission CISPR 16 Current Probe 0,15-30 MHz	PE001_03	2,6 dB	1
Conducted emission CISPR 16 ISN 0,15-30 MHz	PE001_04	4,7 dB	1
Clic CISPR 16 LISN 50uH 0,150-30,0 MHz	PE001_05	2,9 dB	1
Radiated Emission CDNE 30-300 MHz	PE001_06	3,3 dB	1
Disturbance Power 30-300 MHz	PE002_01	3,8 dB	1
Radiated Emission LAS 0,15-30 MHz	PE003_01	2,0 dB	1
Radiated Emission CISPR 16 Loop Ant. 0,15-30 MHz	PE004_01	4,2 dB	1
Radiated Emission CISPR 16 Bicon. Ant. 30-300 MHz	PE004_02	4,1 dB	1
Radiated Emission CISPR 16 LogP. Ant. 300-1000 MHz	PE004_03	3,9 dB	1
Radiated Emission CISPR 16 Horn Ant. 1-18 GHz	PE004_04	4,1 dB	1
Human Exposure to electromagnetic fields	PE005_01	16,7 %	1
Harmonics	PE006_01	10 mA + 2,9 %	1
Flicker	PE007_01	4,36 %	1
Radiated Immunity 80 MHz - 6 GHz	PE102_XX	2,20 dB 0,87 V/m a 3V/m	1
Conducted Immunity 0,15 - 230 MHz	PE105_XX	1,20 dB 0,44 V a 3V	1
AC Magnetic field	PE106_01	1,55 % 0,15 A/m a 10A/m	1
Pulse Magnetic field	PE107_01	6,23 % 18,7 A/m a 300A/m	1
Dumped Magnetic field	PE108_01	6,23 % 1,87 A/m a 30A/m	1
Common mode conducted immunity	PE112_01	2,16 % 0,22 V a 10V	1







## Attachment 1

Test	Test Setup	Expanded uncertainty	Note
Power/Spurious 9kHz-30MHz	PR001_01	4,2 dB	1
Power/Spurious ERP 30-1000MHz  d=10m	PR001_02+03	4,7 dB	1
Misura della potenza EiRP 1-18GHz d=3m	PR001_04+05	4,7 dB	1
Misura della potenza EiRP 18-40GHz d=3m	PR001_06	5,4 dB	1
Frequency error	PR002_01+02	< 1x10-7	1
Timing zero span (1001pts.)	PR002_01+02	0,2 % SWT	1
Modulation bandwidth	PR002_01+02	< 1x10-7	1
Conducted RF power and spurious emission	PR002_01+02	1,1 dB	1
Adjacent channel power	PR002_01+02	1,1 dB	1
Blocking	PR002_01+02	1,1 dB	1

Test	Test Setup	Expanded uncertainty	Note
Electrostatic discharge immunity test	PE101_0X		2
Electrical fast transients / burst immunity test	PE103_0X		2
Surge immunity test	PE104_0X		2
Short interruption immunity test	PE109_01		2
Ring Wave immunity test	PE110_01		2
Low frequency immunity test	PE111_01		2
Dumped Oscillotary immunity test	PE113_01		2

Rev\_21\_01 date 23/02/2021

#### Note 1:

The expanded uncertainty reported according to the document EA-4-02 is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of p=95%

#### Note 2:

It has been demonstrated that the used test equipment meets the specified requirements in the standard with at least a 95% confidence, covering factor k=2

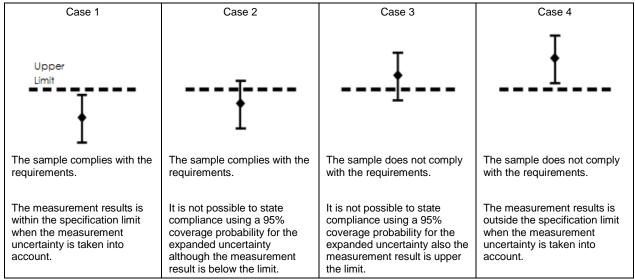






# Attachment 1

#### Judgement of compliance



In agreement with ILAC-G8:09/2019 cl.4.2.1 Guidelines on Decision Rules and Statements of Conformity

#### Quality manual references - Internal procedure

l	Internal Procedure PM001 rev. 3.1 (Quality Manual)	Measure procedure
	Internal Procedure INC_M rev. 9.5 (Quality Manual)	Measurement uncertainty calculation