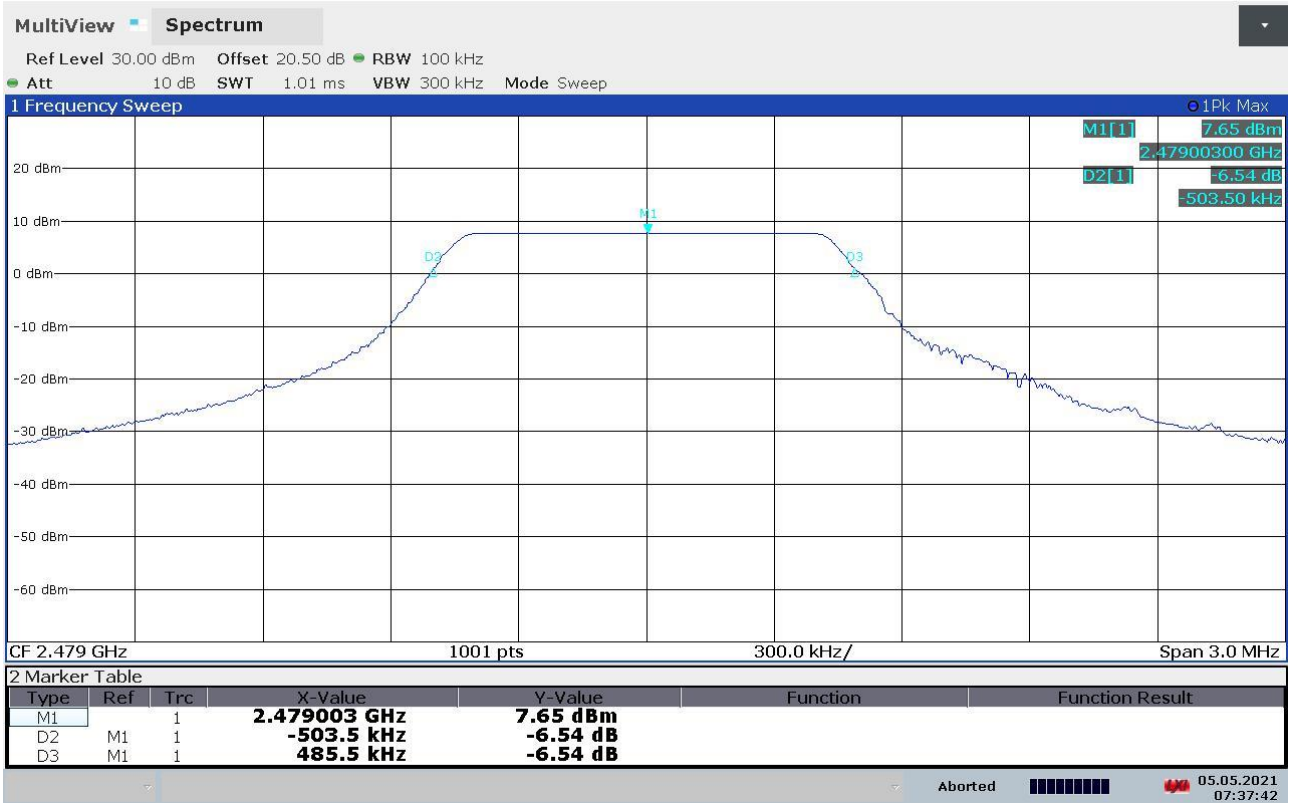
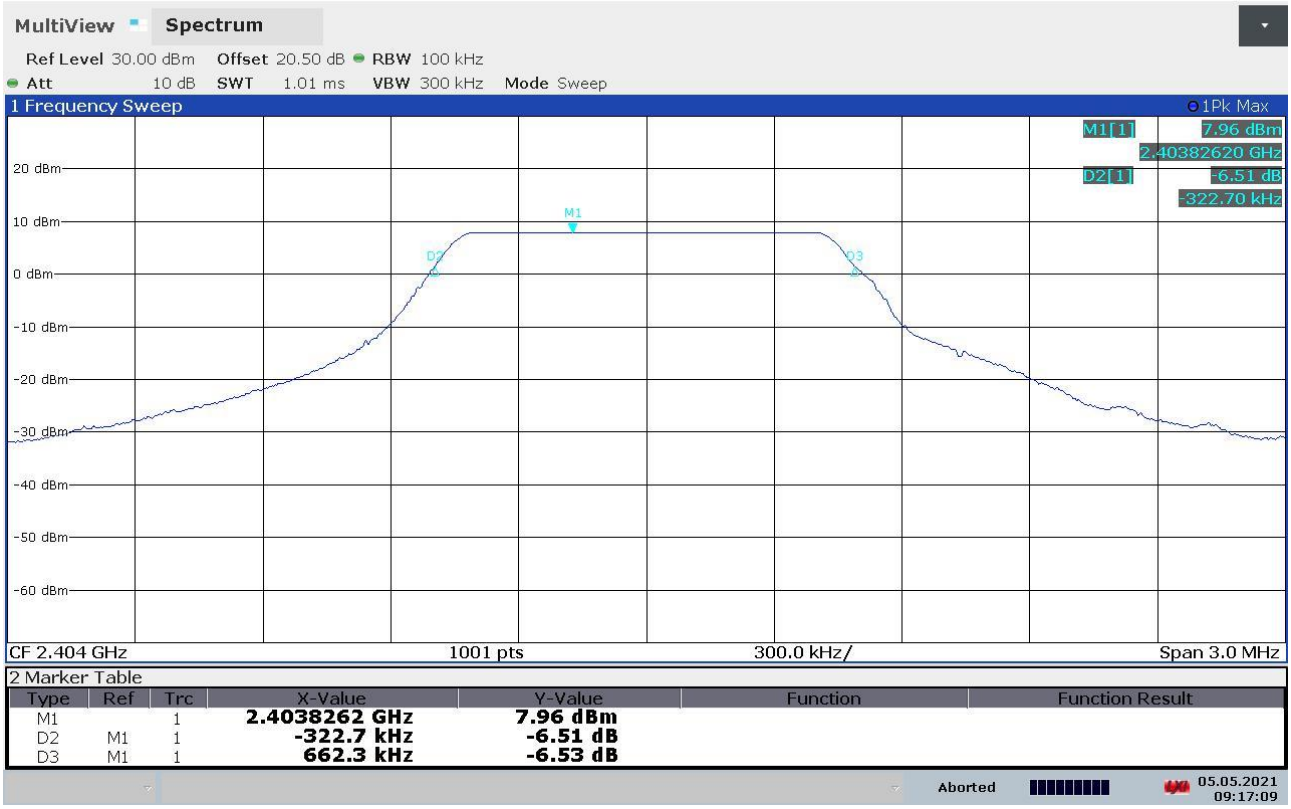
Gandini 21021031



Gandini 21021049



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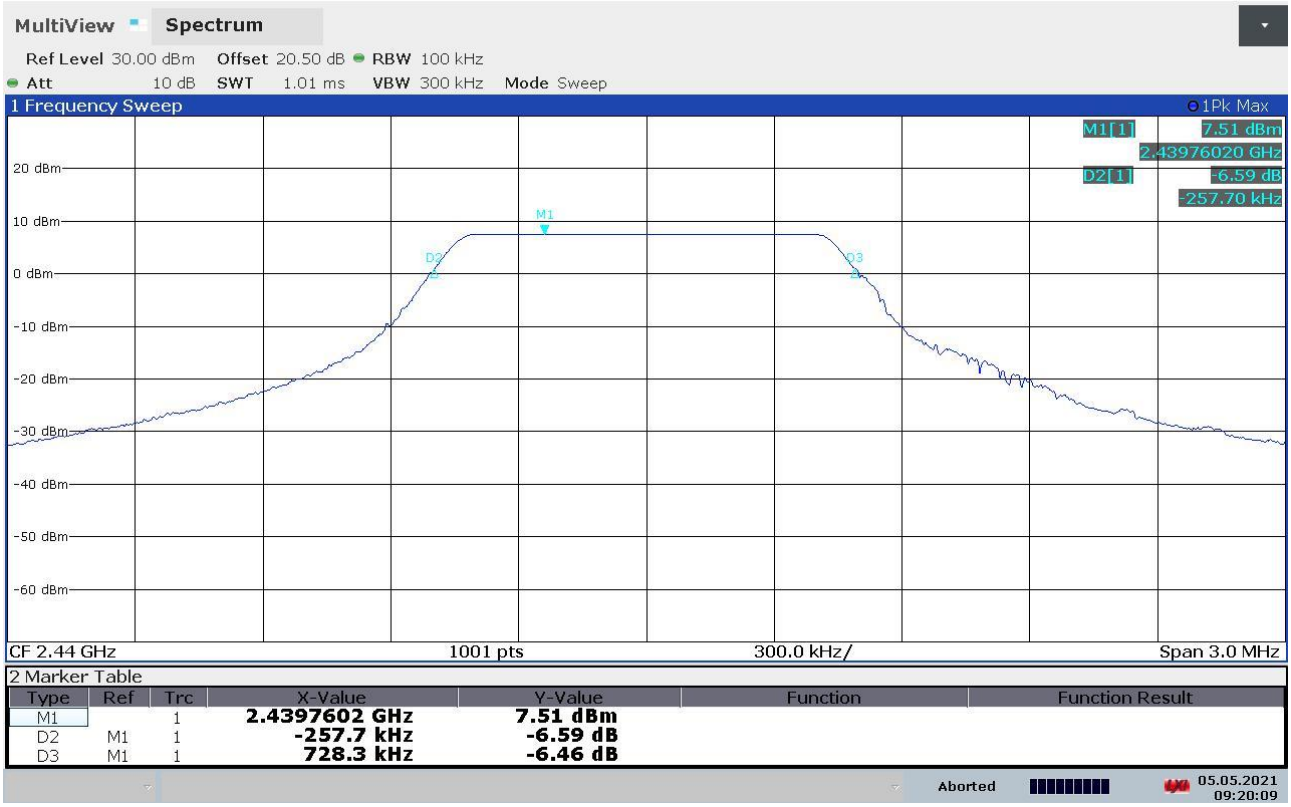
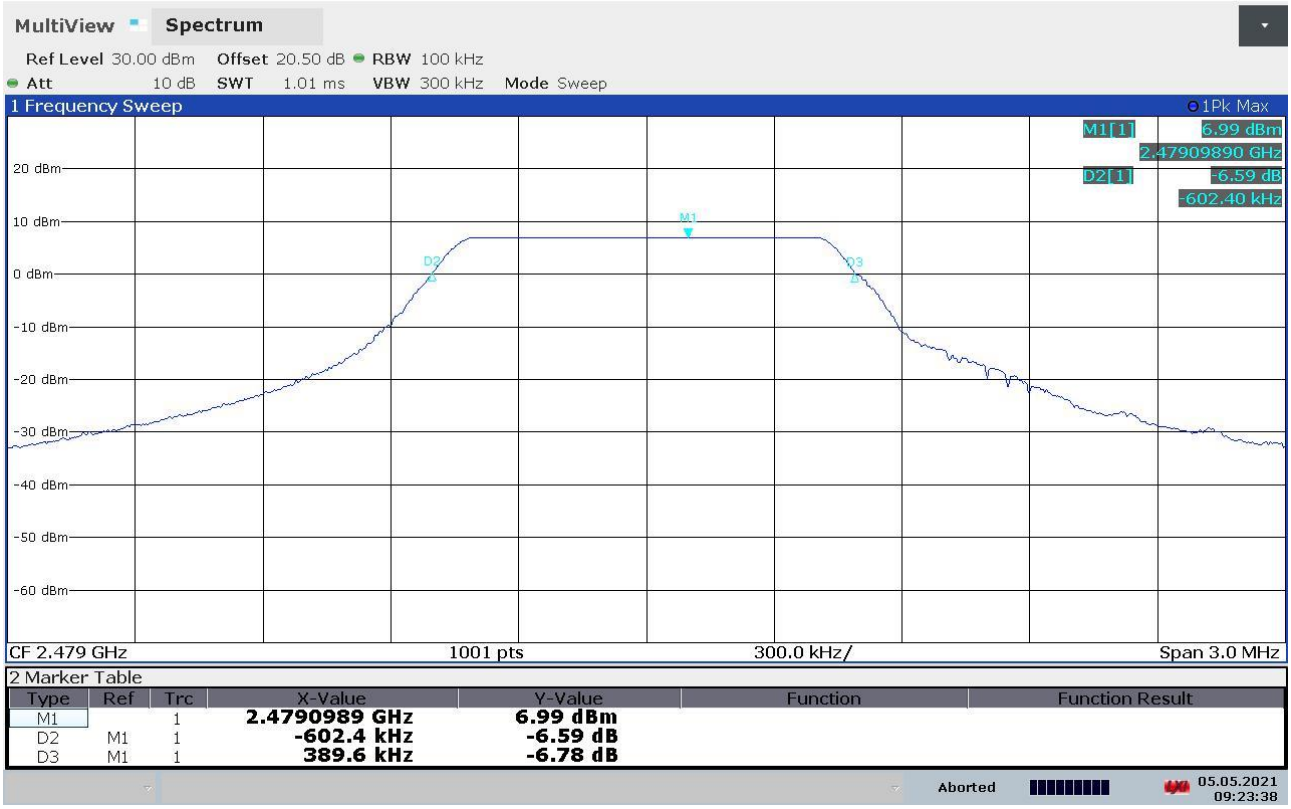
Gandini 21021050



Gandini 21021051



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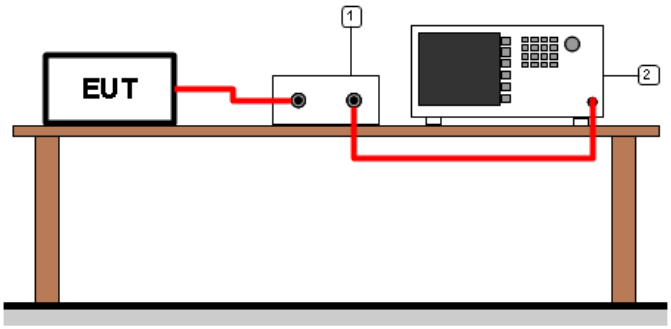
9.4 20 dB bandwidth

Tested by ..... :	G. Gandini
Test date ..... :	05.05.2021
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..... :	--

Acceptance limits
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated

Test setup



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

CMC Centro Misure Compatibilità S.r.l.

Result

Chip A

Frequency (MHz)	*Graphs*	*20 dB bandwidth (kHz)*	*Results*
2404	G21021035	944,10	Complies
2440	G21021036	941,10	Complies
2479	G21021037	929,10	Complies

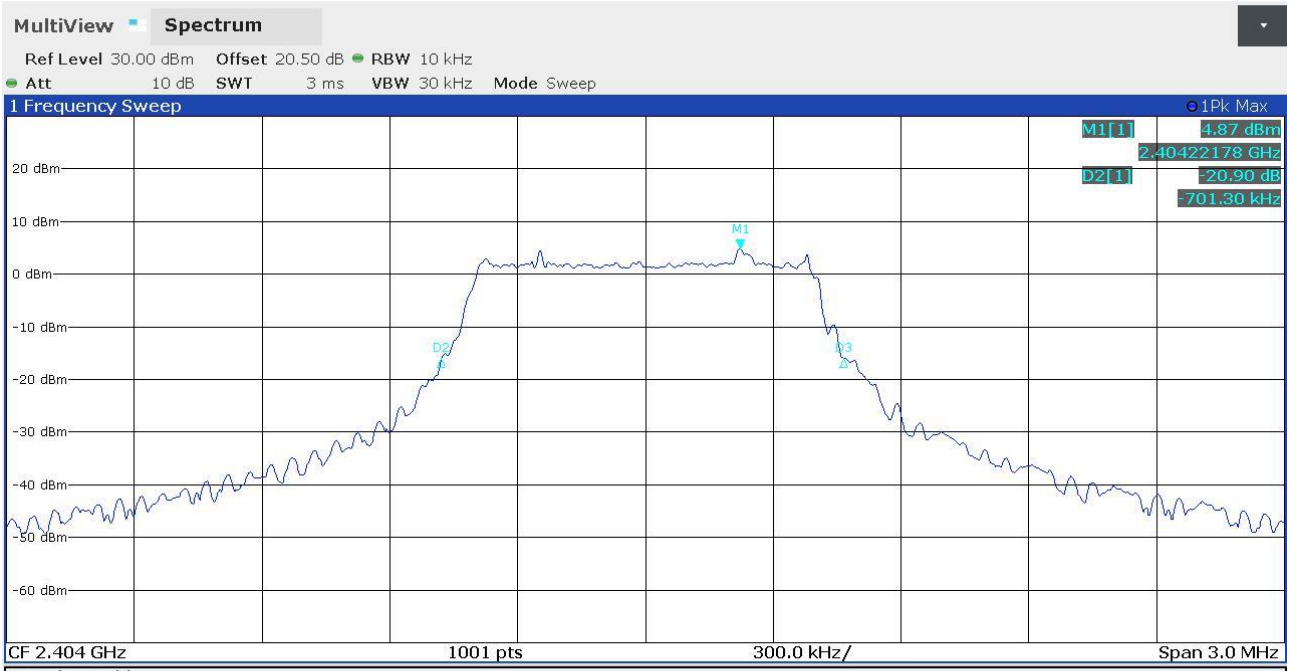
Chip B

Frequency (MHz)	*Graphs*	*20 dB bandwidth (kHz)*	*Results*
2404	G21021055	947,10	Complies
2440	G21021056	947,10	Complies
2479	G21021057	950,10	Complies

CMC Centro Misure Compatibilità S.r.l.

Graphs

Gandini 21021035

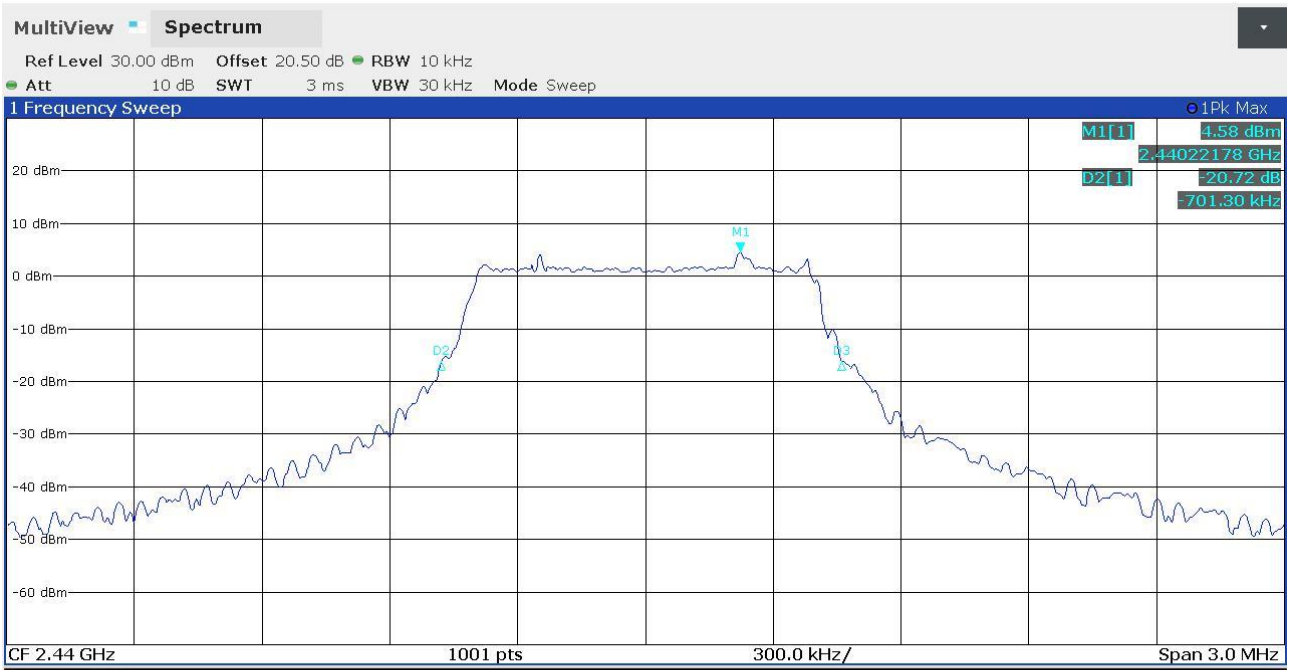


2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.40422178 GHz**	**4.87 dBm**		
D2	M1	1	**-701.3 kHz**	**-20.90 dB**		
D3	M1	1	**242.8 kHz**	**-20.78 dB**		

Aborted 05.05.2021 08:07:55

Gandini 21021036



2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.44022178 GHz**	**4.58 dBm**		
D2	M1	1	**-701.3 kHz**	**-20.72 dB**		
D3	M1	1	**239.8 kHz**	**-20.74 dB**		

Aborted 05.05.2021 08:12:10

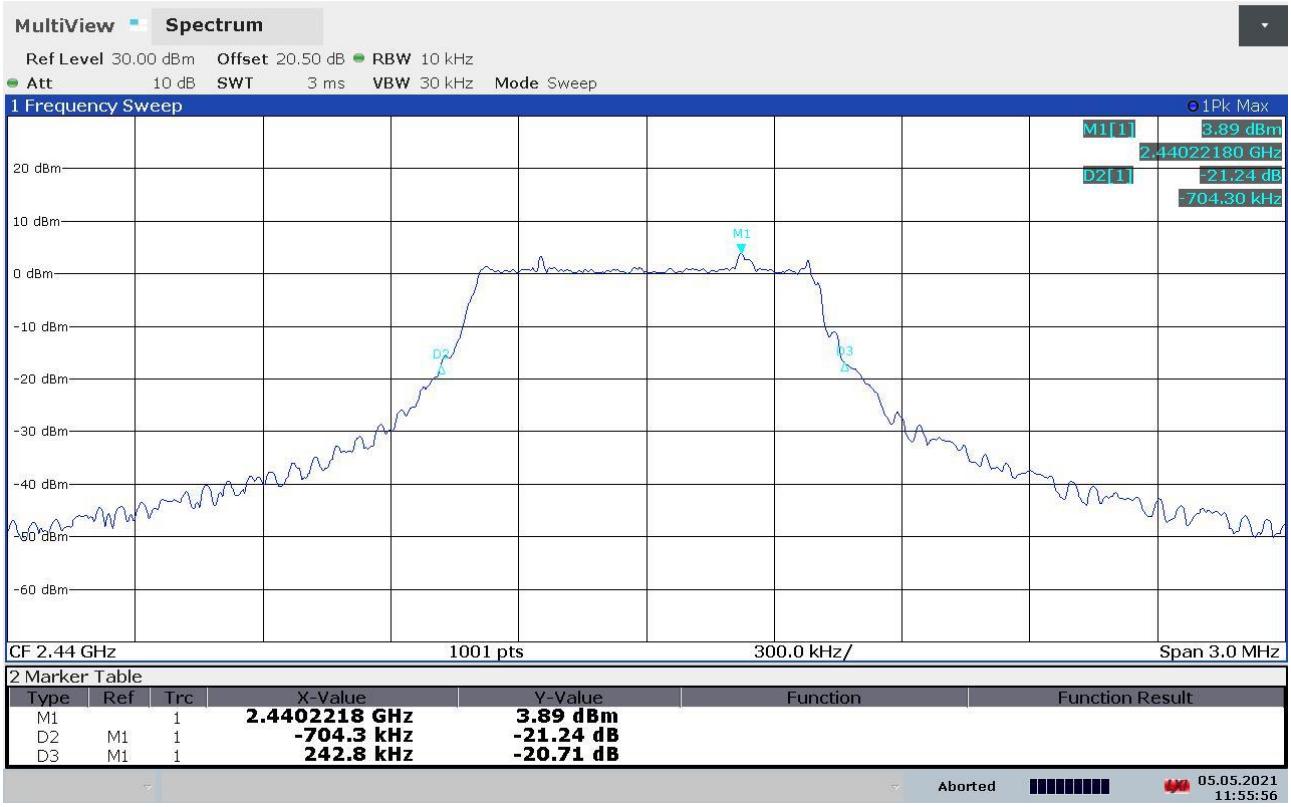
CMC Centro Misure Compatibilità S.r.l.

Gandini 21021037

Gandini 21021055

CMC Centro Misure Compatibilità S.r.l.

Gandini 21021056



Gandini 21021057

CMC Centro Misure Compatibilità S.r.l.

9.5 Band edge

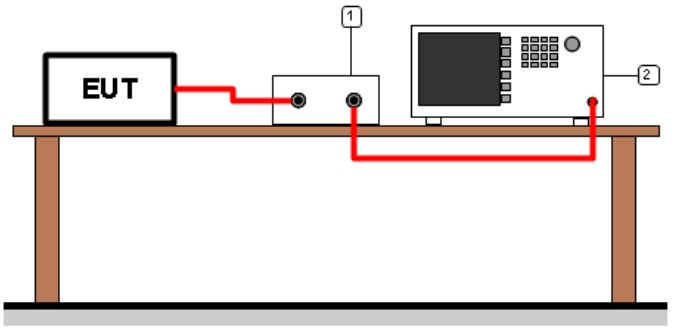
Tested by ..... :	G. Gandini
Test date ..... :	05.05.2021
Test location (stand) ..... :	Laboratory
Reference standards ..... :	FCC Rules and Regulation; Titles 47 Part 15.205, 15.209, 15.247 (d) ANSI C63.10 cl. 11.11.1 and 11.12.1 KDB 558074 D01 DTS Meas Guidance v05r02 cl. 8.7
Supplementary test set-up 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 2400 – 2483,5 MHz

Test setup



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

Result

Chip A

Frequency (MHz)	*Bandwidth*	*Graph(s)*	*Results*	
2404	1 MHz	G21021009	--	*
2404	100 kHz	G21021047	2403,151 MHz	Complies
2479	1 MHz	G21021007	2481,482 MHz	Complies
2479	1 MHz	G21021008	--	**

*: this graph shows the emissions in 2310 – 2390 MHz restricted band
**: this graph shows the emissions in 2483,5 – 2500 MHz restricted band

Chip B

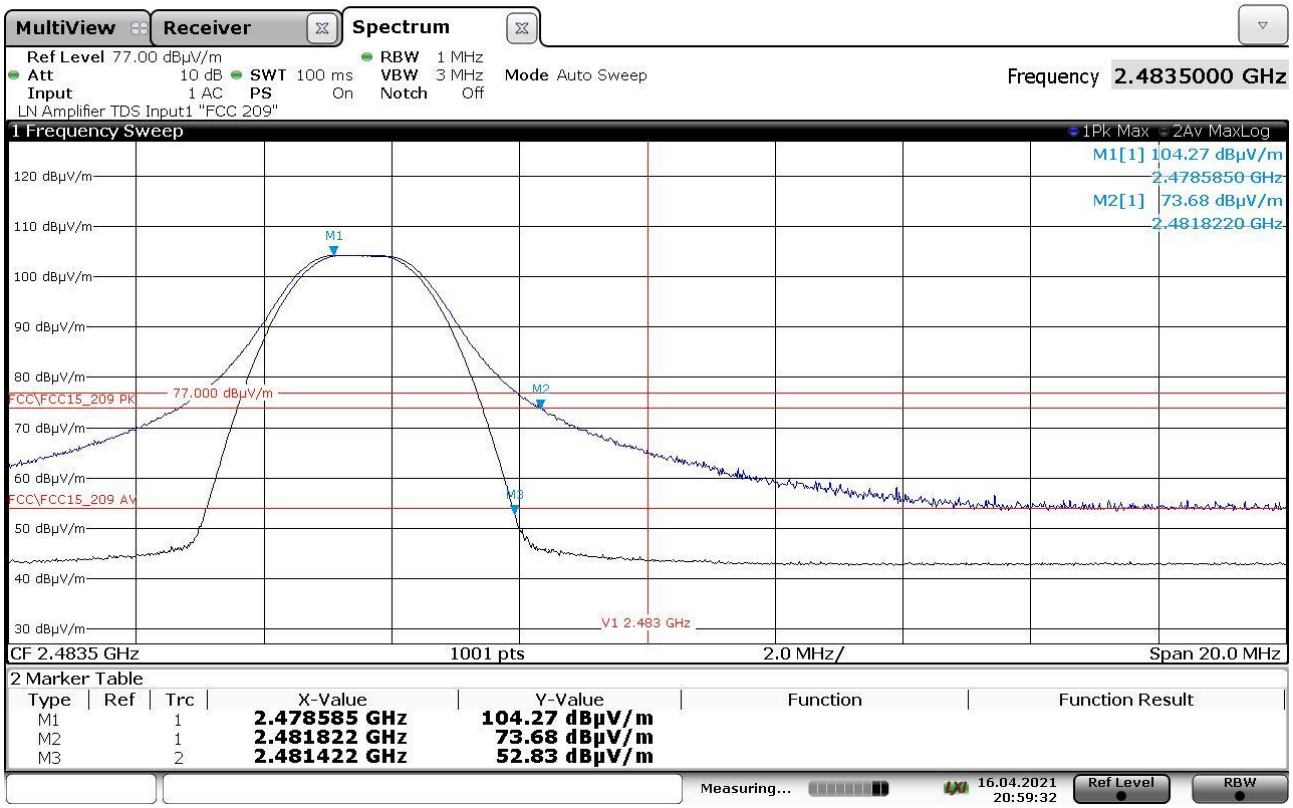
Frequency (MHz)	*Bandwidth*	*Graph(s)*	*Results*	
2404	1 MHz	G21021010	--	*
2404	100 kHz	G21021048	2403,131 MHz	Complies
2479	1 MHz	G21021011	2481,861 MHz	Complies
2479	1 MHz	G21021012	--	**

*: this graph shows the emissions in 2310 – 2390 MHz restricted band
**: this graph shows the emissions in 2483,5 – 2500 MHz restricted band

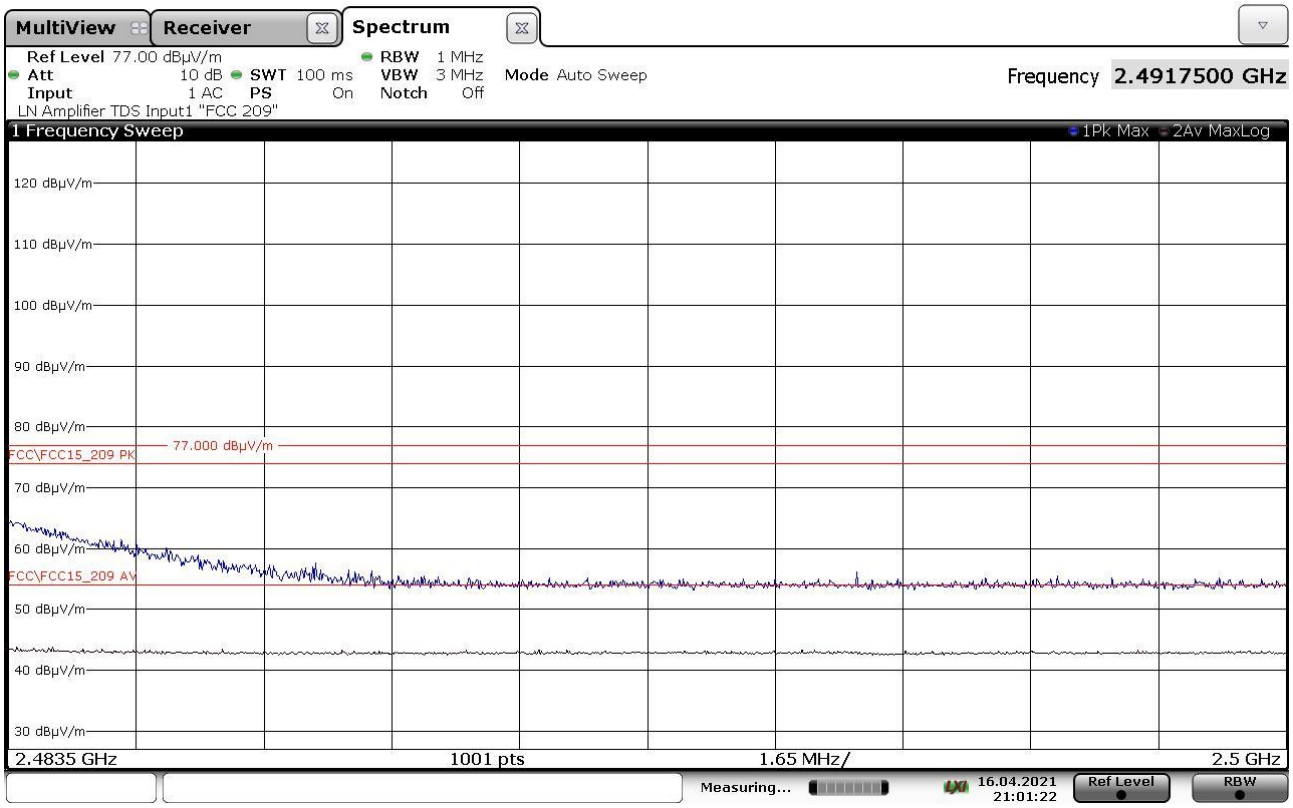
CMC Centro Misure Compatibilità S.r.l.

Graphs

Gandini 21021007

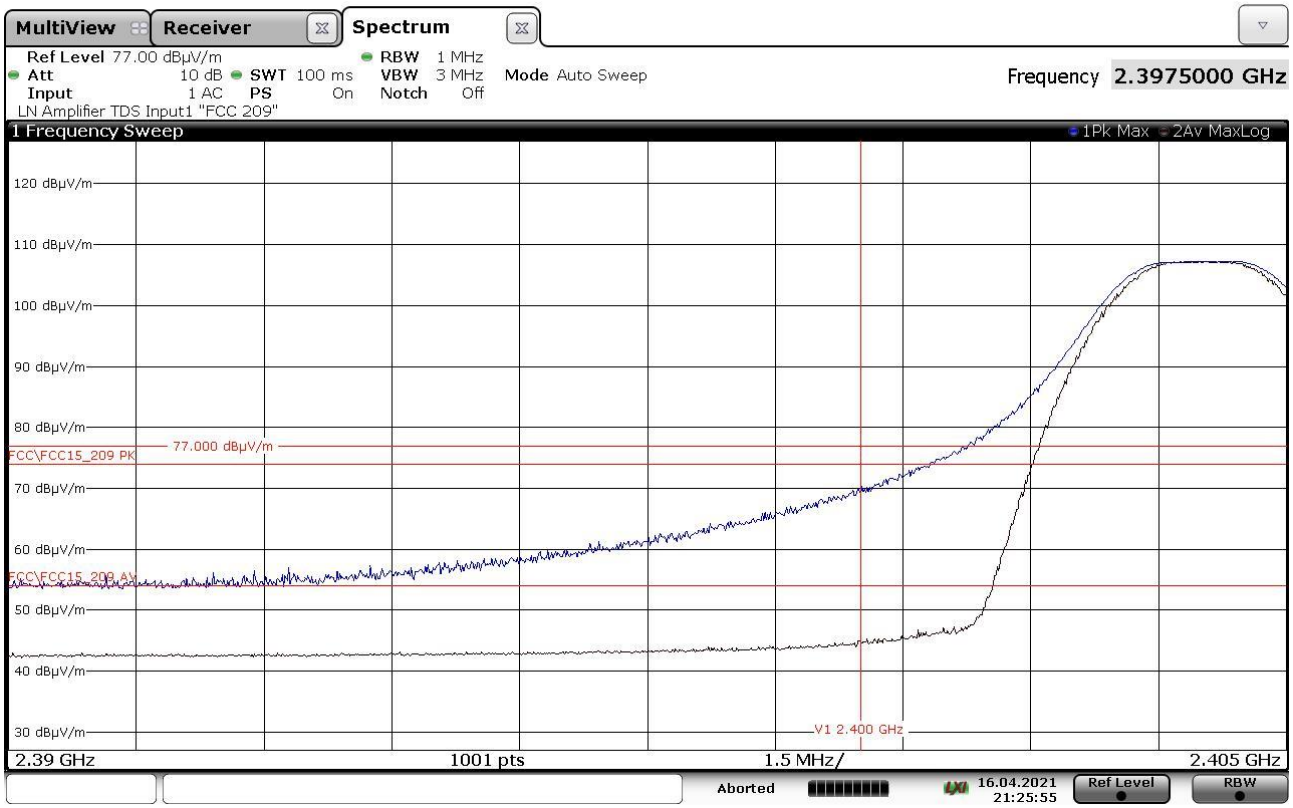


Gandini 21021008

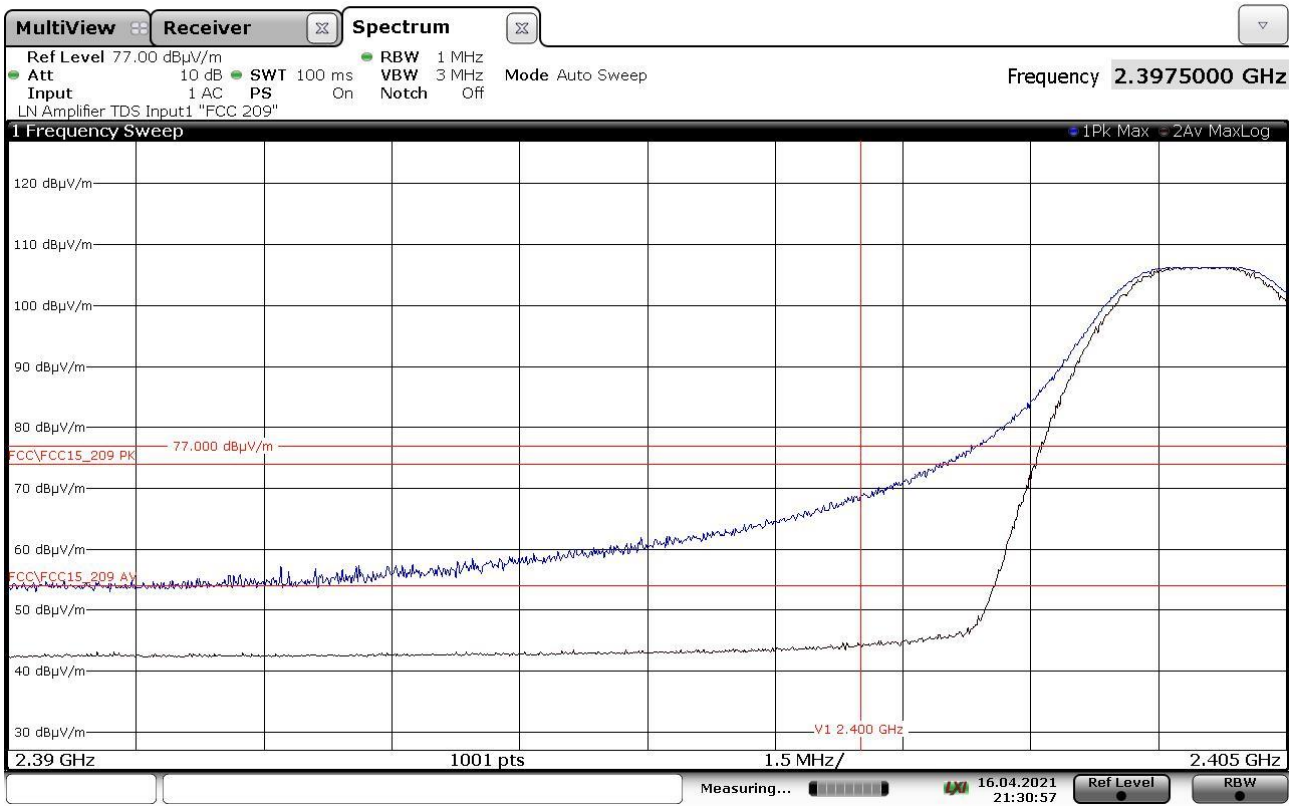


CMC Centro Misure Compatibilità S.r.l.

Gandini 21021009

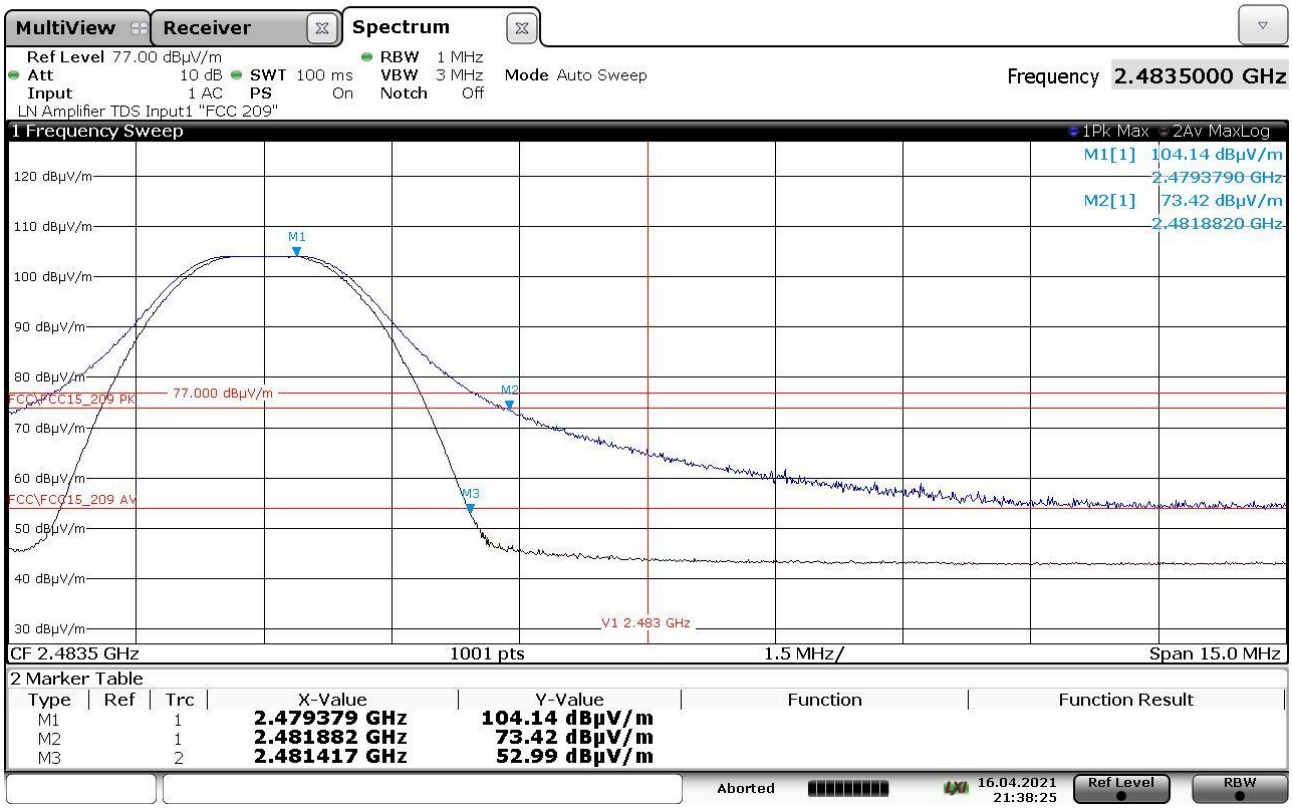


Gandini 21021010

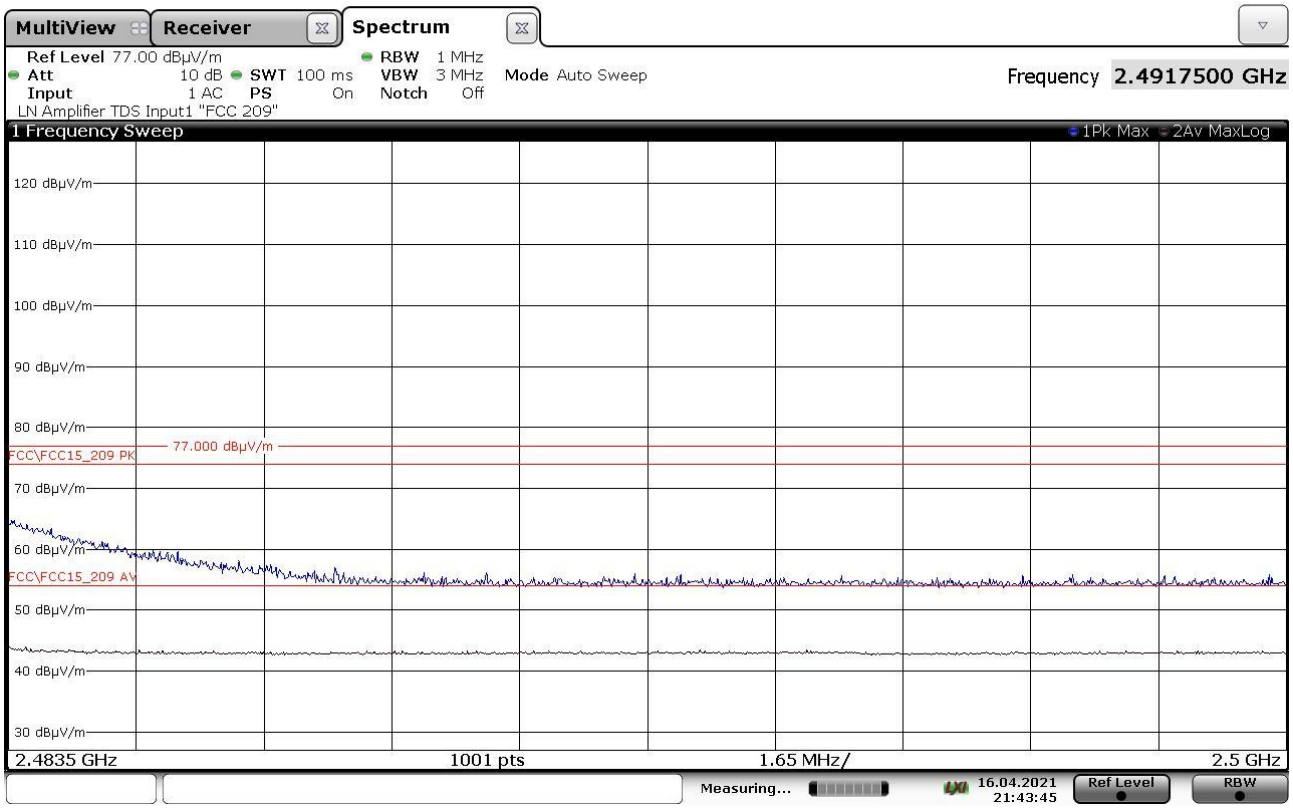


CMC Centro Misure Compatibilità S.r.l.

Gandini 21021011

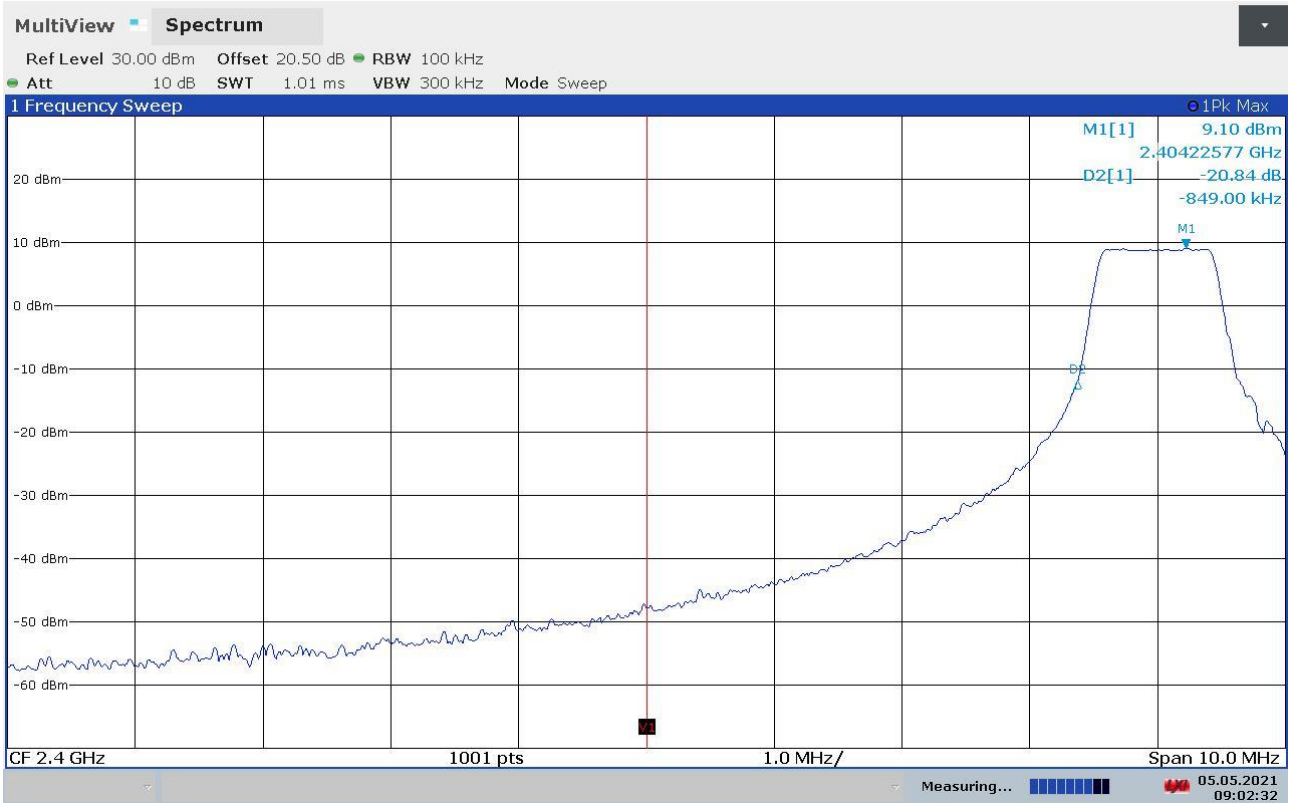


Gandini 21021012

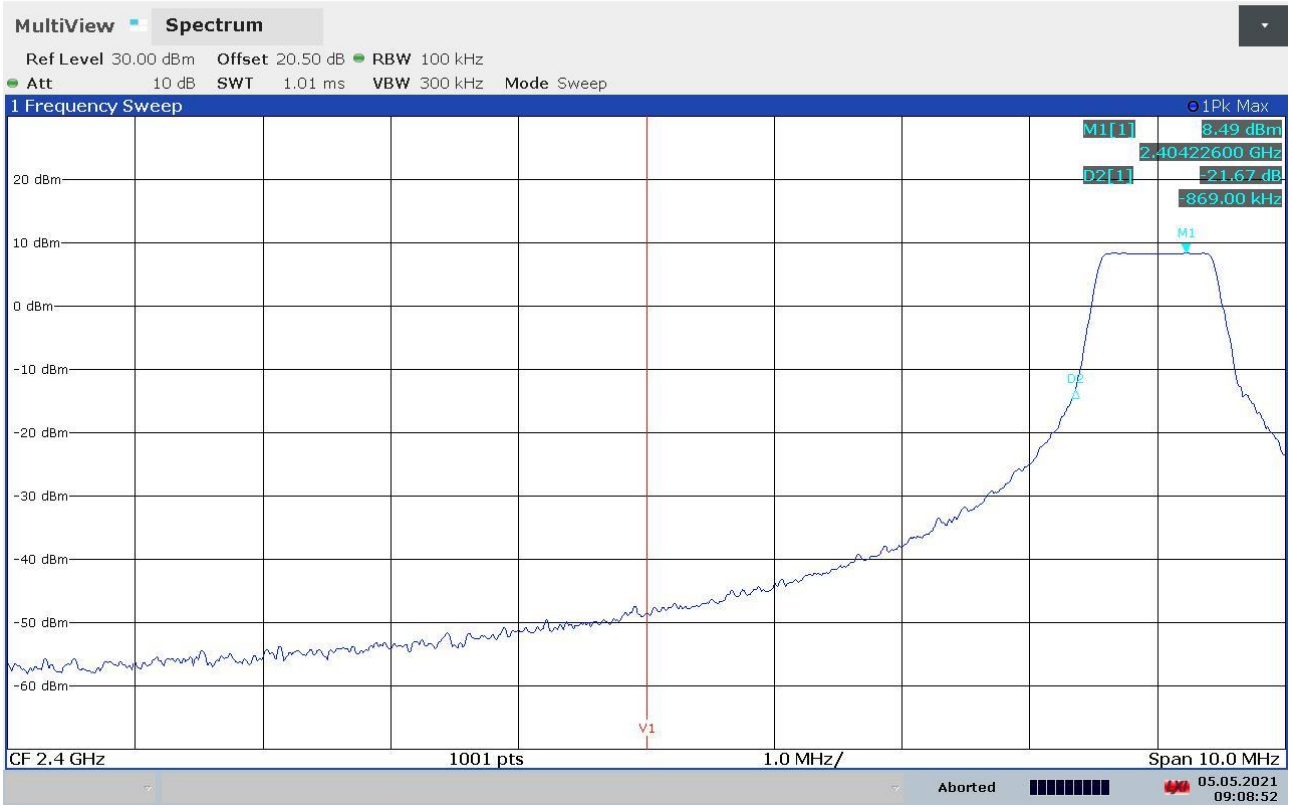


CMC Centro Misure Compatibilità S.r.l.

Gandini 21021047



Gandini 21021048



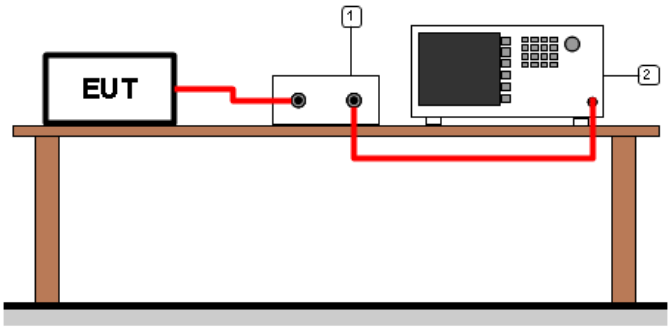
CMC Centro Misure Compatibilità S.r.l.

9.6 Fundamental emission output power

Tested by ..... :	G. Gandini
Test date ..... :	05.05.2021
Test location (stand) ..... :	Laboratory
Reference standards ..... :	FCC Rules and Regulation; Titles 47 Part 15.247 (b) (3) ANSI C63.10 cl. 11.9.1.1 KDB 558074 D01 DTS Meas Guidance v05r02 cl. 8.3.1.1
Supplementary test set-up description ..... :	--

Acceptance limits
For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt

Test setup



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

CMC Centro Misure Compatibilità S.r.l.

Result

Chip A

Frequency (MHz)	*Graphs*	*Peak Output Power (dBm)*	*Peak Output Power (mW)*	*Limit (mW)*
2404	G21021040	8,56	7,18	1000
2440	G21021039	8,06	6,40	1000
2479	G21021038	7,54	5,68	1000

Chip B

Frequency (MHz)	*Graphs*	*Peak Output Power (dBm)*	*Peak Output Power (mW)*	*Limit (mW)*
2404	G21021060	7,94	6,22	1000
2440	G21021059	7,44	5,55	1000
2479	G21021058	6,92	4,92	1000

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