

Conducted spurious emission measurements according to CFR 47 §24.238 and §27.53(h) / RSS-133 6.5, RSS-139 6.6

Date	Temperature	Humidity
2020-06-26	22 °C ± 3 °C	47 % ± 5 %
2020-06-29	22 °C ± 3 °C	43 % ± 5 %
2020-06-30	22 °C ± 3 °C	46 % ± 5 %
2020-08-10	23 °C ± 3 °C	61 % ± 5 %
2020-08-11	22 °C ± 3 °C	55 % ± 5 %
2020-08-12	23 °C ± 3 °C	50 % ± 5 %
2020-09-21	22 °C ± 3 °C	43 % ± 5 %
2020-09-22	22 °C ± 3 °C	36 % ± 5 %
2020-09-28	23 °C ± 3 °C	43 % ± 5 %

Test set-up and procedure

The measurements were made per definition in ANSI C63.26, 5.7.4. The output was connected to a spectrum analyzer with the RMS detector activated.

Before comparing the results to the limit, 6 dB [$10 \log_{10}(4)$] to cover 4x4 MIMO, should be added according to ANSI C63.26 6.4.4.1 c “measure and add $10 \log_{10}(N_{\text{ANT}})$ ”.

Measurement equipment	RISE number
R&S FSQ 40	504 143
Directional coupler	901 496
RF attenuator	902 282
High pass filter 3-27 GHz	901 502
Coaxial cable Megaphase	BX50191
Coaxial cable Sucoflex 102EA	BX50236
Coaxial cable Sucoflex 102EA	BX50237
Testo 635, temperature and humidity meter	504 203

Measurement uncertainty: 2.6 dB

Results NR

B25 max power configuration:

Single carrier NR-FR1-TM1.1

Diagram	Symbolic name	Tested Port
3.1 a-d	B_{5NR}	RF D
3.2 a-d	M_{5NR}	RF D
3.3 a-d	M_{10NR}	RF D
3.4 a-d	M_{15NR}	RF D
3.5 a-d	M_{20NR}	RF D
3.6 a-d	T_{5NR}	RF D

Multi carrier NR-FR1-TM1.1

Diagram	Symbolic name	Tested Port
3.7 a-e	B_{imNR}	RF D
3.8 a-e	T_{imNR}	RF D
3.9 a-e	M_{6NR}	RF D

B66 max power configuration:

Single carrier NR-FR1-TM1.1

Diagram	Symbolic name	Tested Port
3.10 a-d	B_{5NR}	RF A
3.11 a-d	M_{5NR}	RF A
3.12 a-d	M_{10NR}	RF A
3.13 a-d	M_{15NR}	RF A
3.14 a-d	M_{20NR}	RF A
3.15 a-d	T_{5NR}	RF A

Multi carrier NR-FR1-TM1.1

Diagram	Symbolic name	Tested Port
3.16 a-e	B_{imNR}	RF A
3.17 a-e	T_{imNR}	RF A
3.18 a-e	M_{6NR}	RF A

Results NR+LTE+GSM

B2 max power configuration:

Multi RAT: NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK

Diagram	Symbolic name	Tested Port
3.19 a-c	$B_{imNR+L+G}$	RF D
3.20 a-c	$T_{imNR+L+G}$	RF D
3.21 a-c	Max_{NR+L+G}	RF D

Results NR+LTE+NB IoT SA

B25 max power configuration:

Multi RAT: NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM

Diagram	Symbolic name	Tested Port
3.22 a-c	$B_{im_{NR+L+IoT}}$	RF D
3.23 a-c	$T_{im_{NR+L+IoT}}$	RF D
3.24 a-c	$Max_{NR+L+IoT}$	RF D

B66 max power configuration:

Multi RAT: NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM

Diagram	Symbolic name	Tested Port
3.25 a-c	$B_{im_{NR+L+IoT}}$	RF A
3.26 a-c	$T_{im_{NR+L+IoT}}$	RF A
3.27 a-c	$Max_{NR+L+IoT}$	RF A

Results NR+LTE+WCDMA

B25 max power configuration:

Multi RAT: NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1

Diagram	Symbolic name	Tested Port
3.28 a-c	$B_{im_{NR+L+W}}$	RF D
3.29 a-c	$T_{im_{NR+L+W}}$	RF D
3.30 a-c	Max_{NR+L+W}	RF D

B66 max power configuration:

Multi RAT: NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1

Diagram	Symbolic name	Tested Port
3.31 a-c	$B_{im_{NR+L+W}}$	RF A
3.32 a-c	$T_{im_{NR+L+W}}$	RF A
3.33 a-c	Max_{NR+L+W}	RF A

Remark

The emission at 9 kHz on the plots was not generated by the test object. A complementary measurement with a smaller RBW showed that it was related to the LO feed-through.

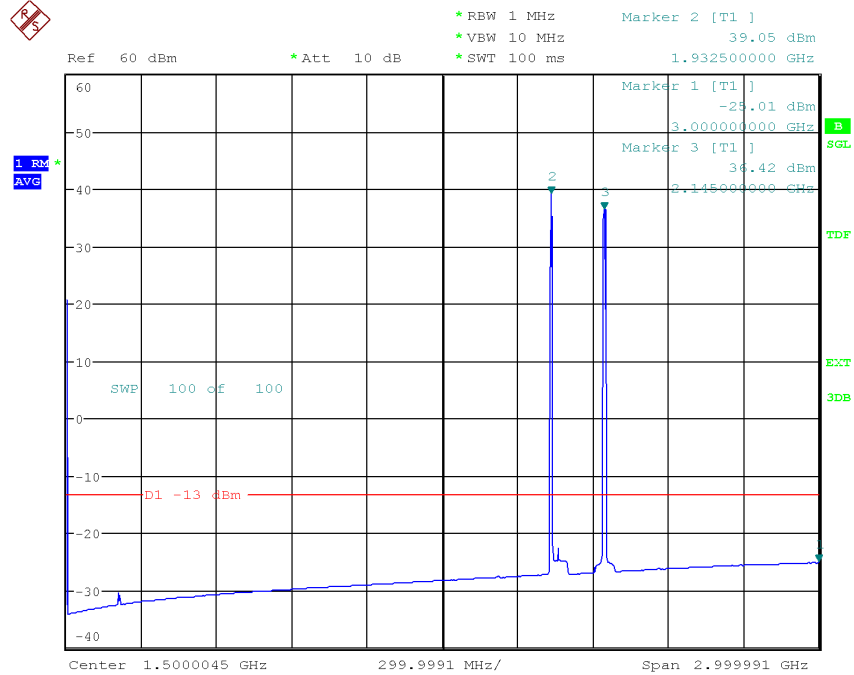
The highest fundamental frequency is 2180 MHz. The measurements were made up to 22 GHz (10x2180 MHz = 21.80 GHz).

Limits

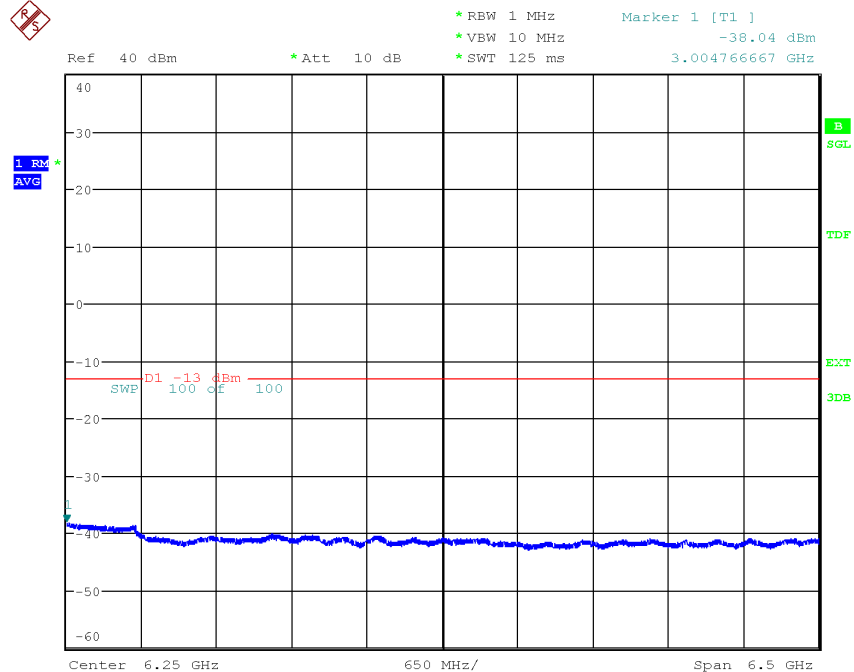
CFR 47 §24.238, §27.53(h) and RSS-133 6.5, RSS-139 6.6

- i. In the 1.0 MHz bands immediately outside and adjacent to the equipment's operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least $43 + 10 \log_{10} P(\text{watts})$.
- ii. After the first 1.0 MHz, the emission power in any 1 MHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least $43 + 10 \log_{10} P(\text{watts})$. If the measurement is performed using 1% of the emission bandwidth, power integration over 1.0 MHz is required.

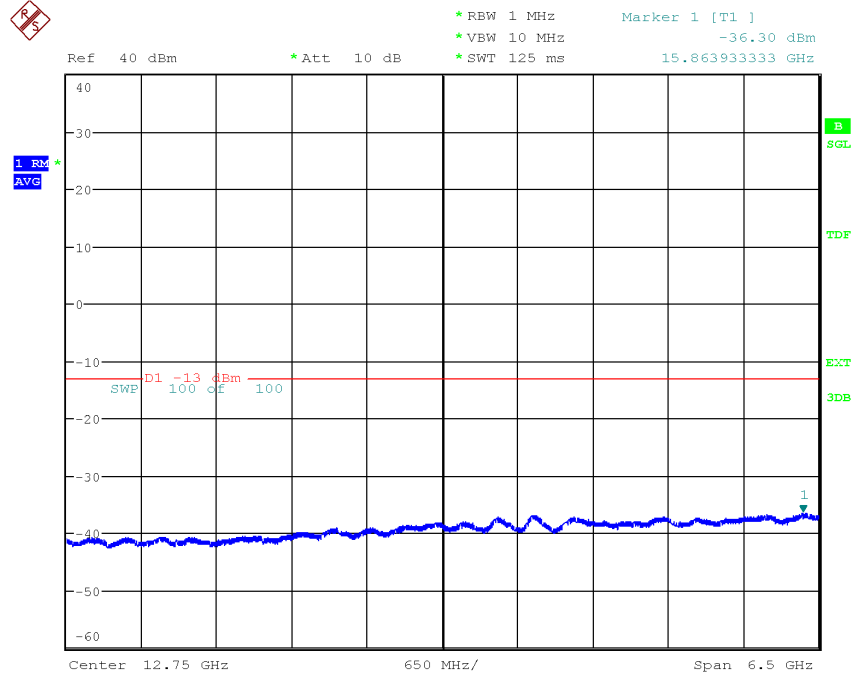
Complies?	Yes
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Diagram 3.1a, NR-FR1-TM1.1, B_{5NR} , 9 kHz – 3 GHz, Port D:

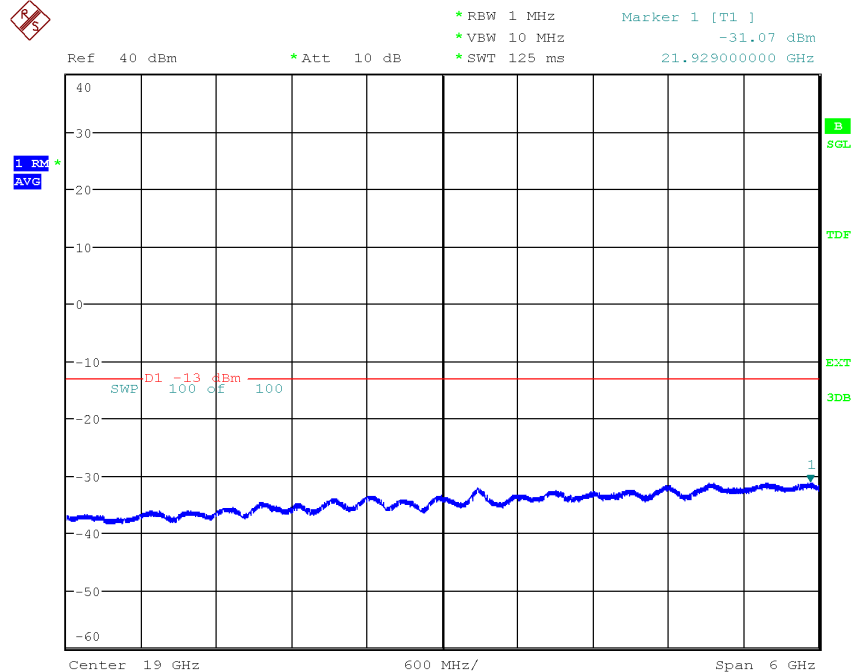
Date: 26.JUN.2020 15:02:27

Diagram 3.1b, NR-FR1-TM1.1, B_{5NR} , 3 GHz – 9.5 GHz, Port D:

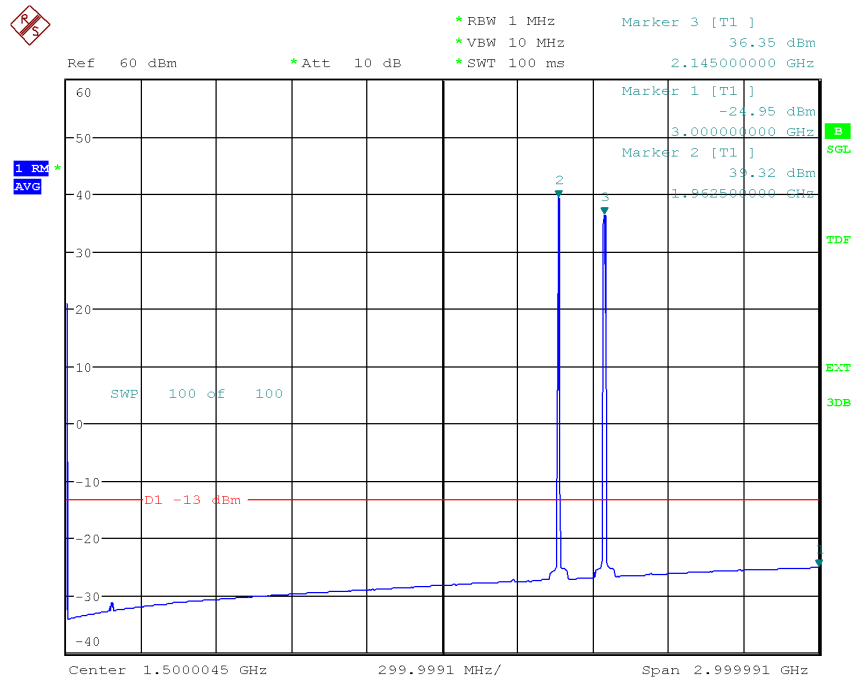
Date: 26.JUN.2020 15:05:39

Diagram 3.1c, NR-FR1-TM1.1, B_{5NR}, 9.5 GHz – 16 GHz, Port D:

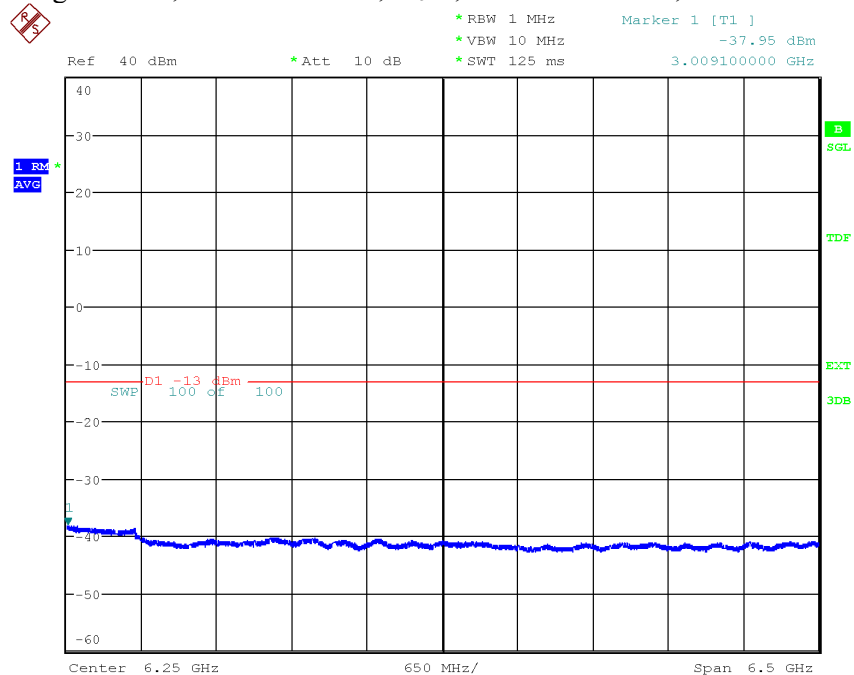
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Diagram 3.1d, NR-FR1-TM1.1, B_{5NR}, 16 GHz – 22 GHz, Port D:

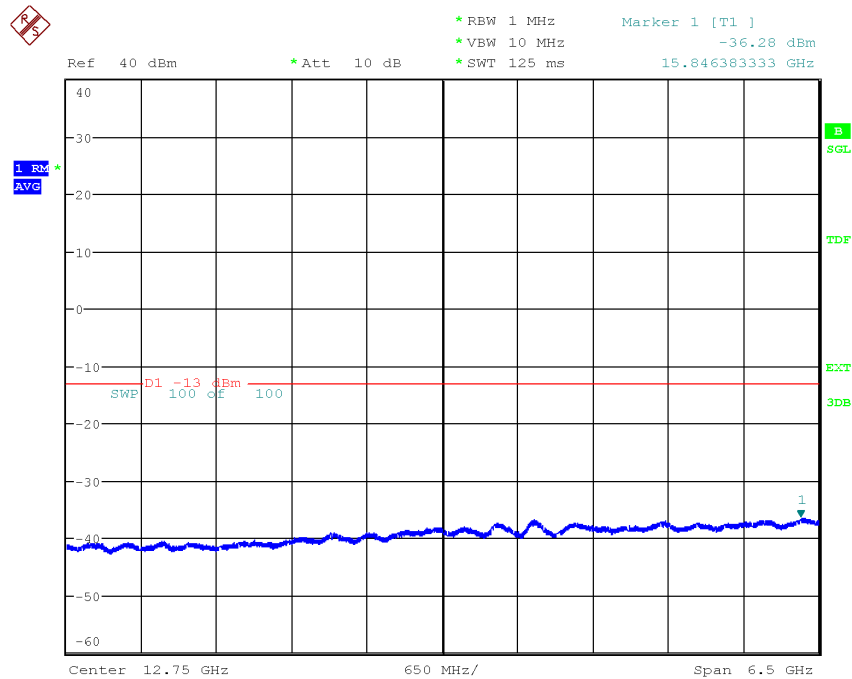
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Diagram 3.2a, NR-FR1-TM1.1, M_{5NR} , 9 kHz – 3 GHz, Port D:

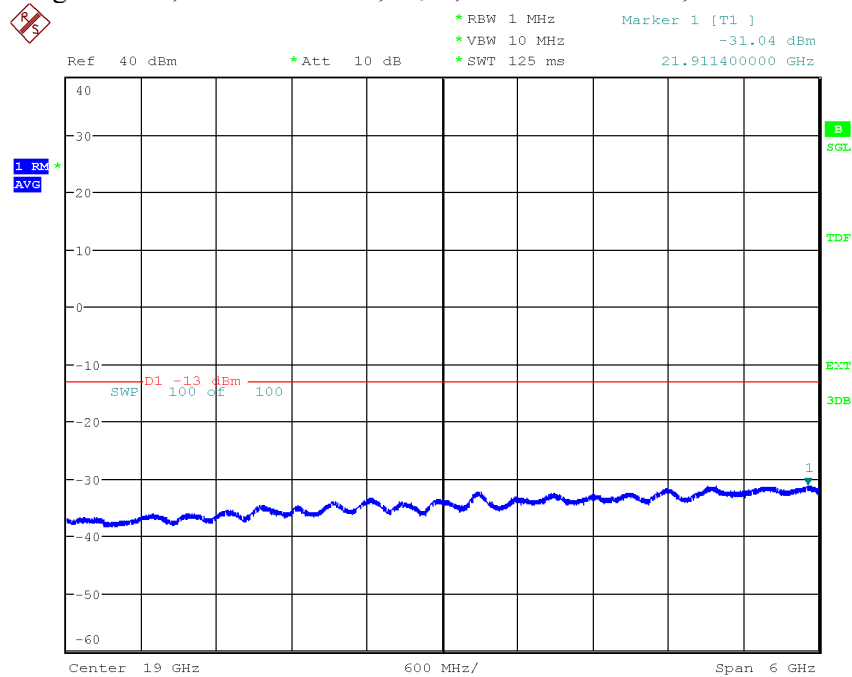
Date: 26.JUN.2020 14:50:39

Diagram 3.2b, NR-FR1-TM1.1, M_{5NR} , 3 GHz – 9.5 GHz, Port D:

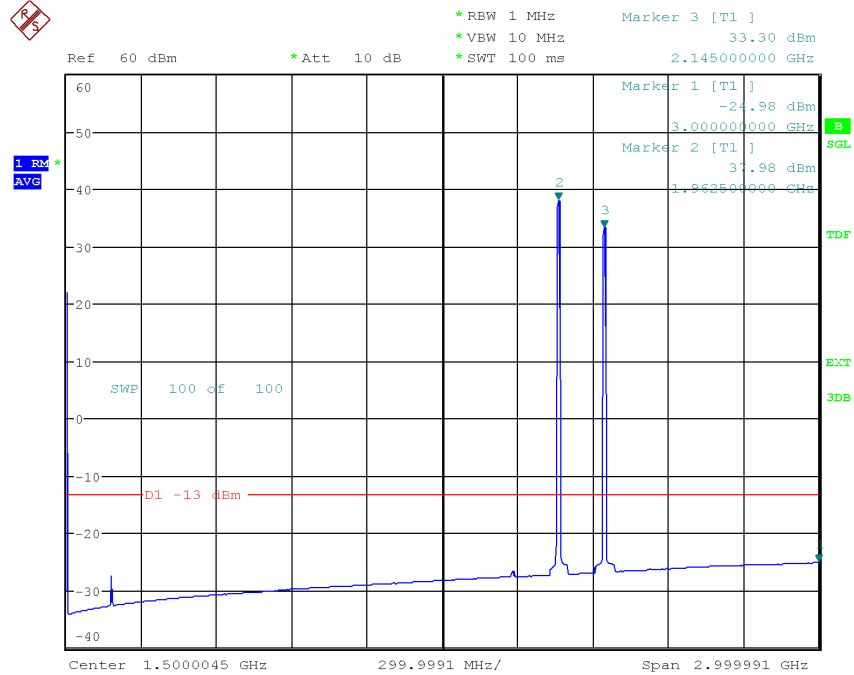
Date: 26.JUN.2020 14:52:51

Diagram 3.2c, NR-FR1-TM1.1, M_{5NR}, 9.5 GHz – 16 GHz, Port D:

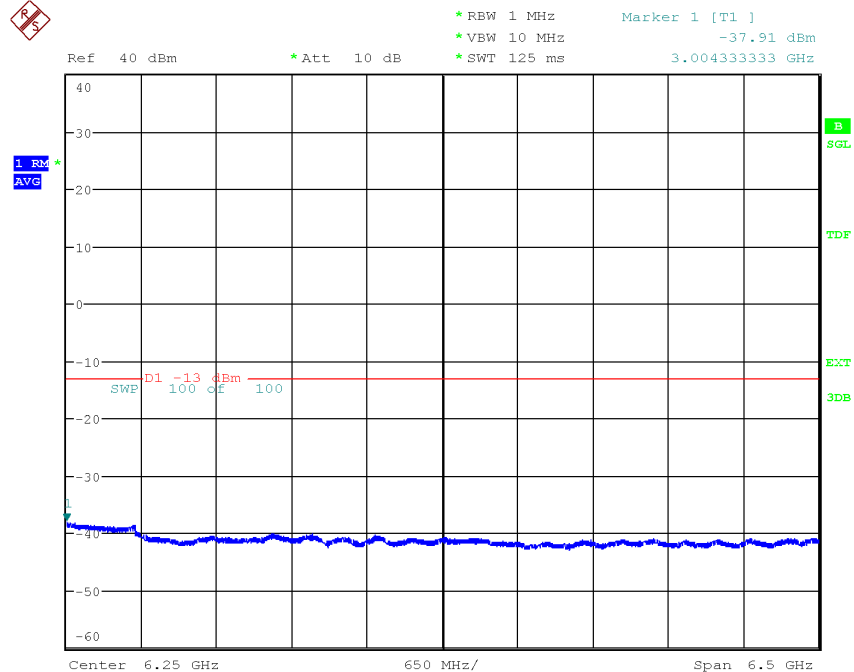
Date: 26.JUN.2020 14:55:23

Diagram 3.2d, NR-FR1-TM1.1, M_{5NR}, 16 GHz – 22 GHz, Port D:

Date: 26.JUN.2020 14:59:18

Diagram 3.3a, NR-FR1-TM1.1, M_{10NR} , 9 kHz – 3 GHz, Port D:

Date: 26.JUN.2020 15:38:12

Diagram 3.3b, NR-FR1-TM1.1, M_{10NR} , 3 GHz – 9.5 GHz, Port D:

Date: 26.JUN.2020 16:00:25

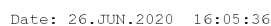
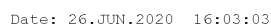
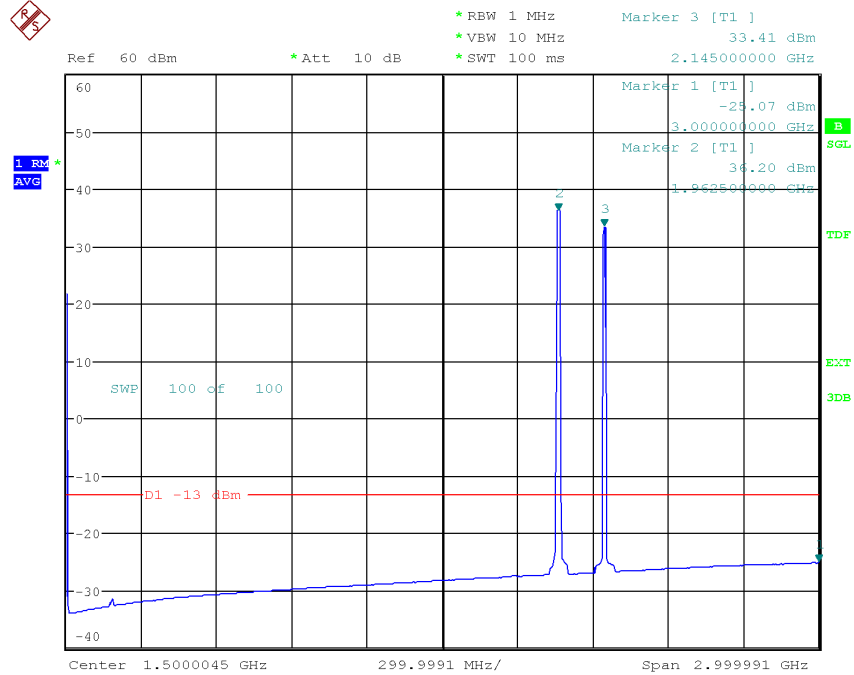
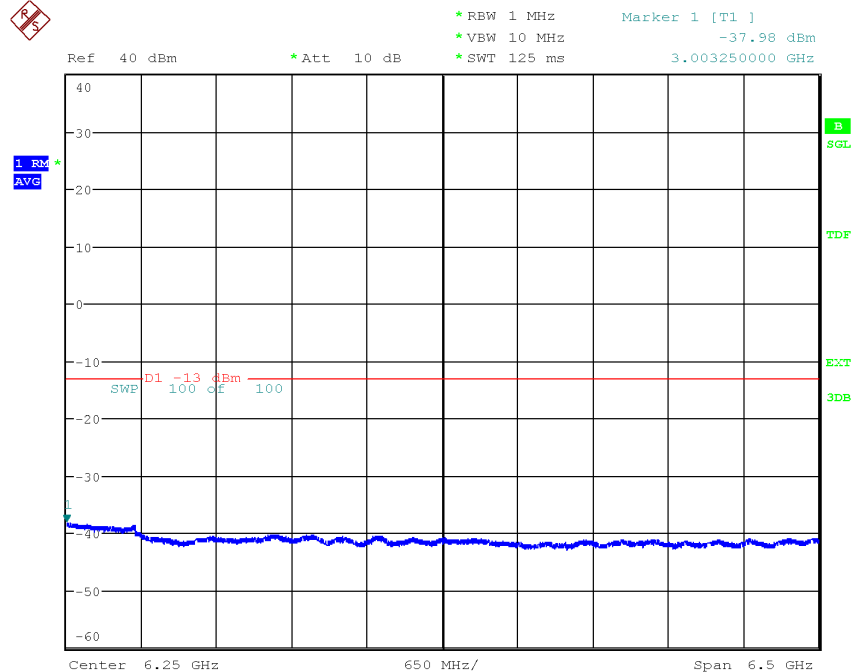
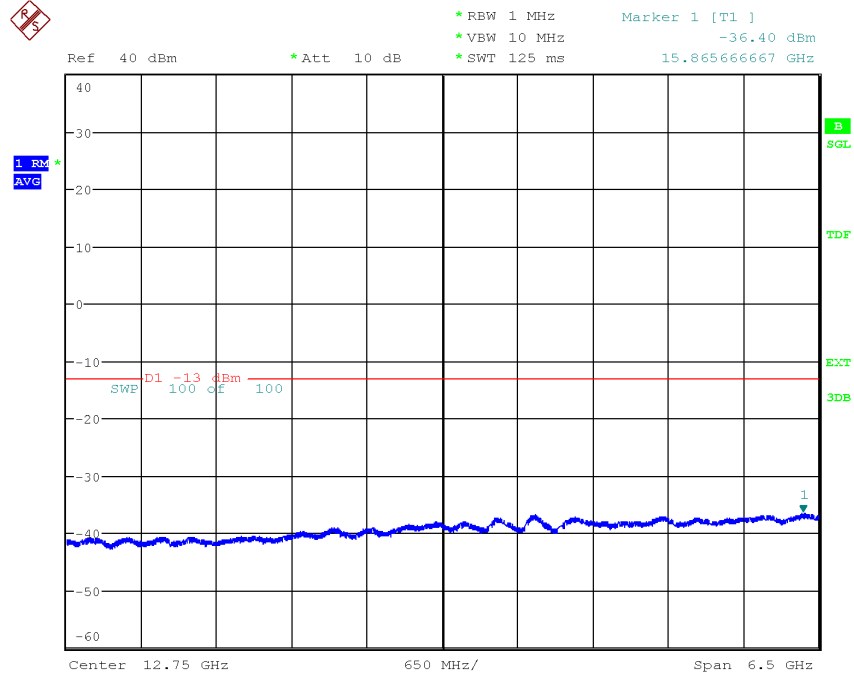


Diagram 3.4a, NR-FR1-TM1.1, M_{15NR}, 9 kHz – 3 GHz, Port D:

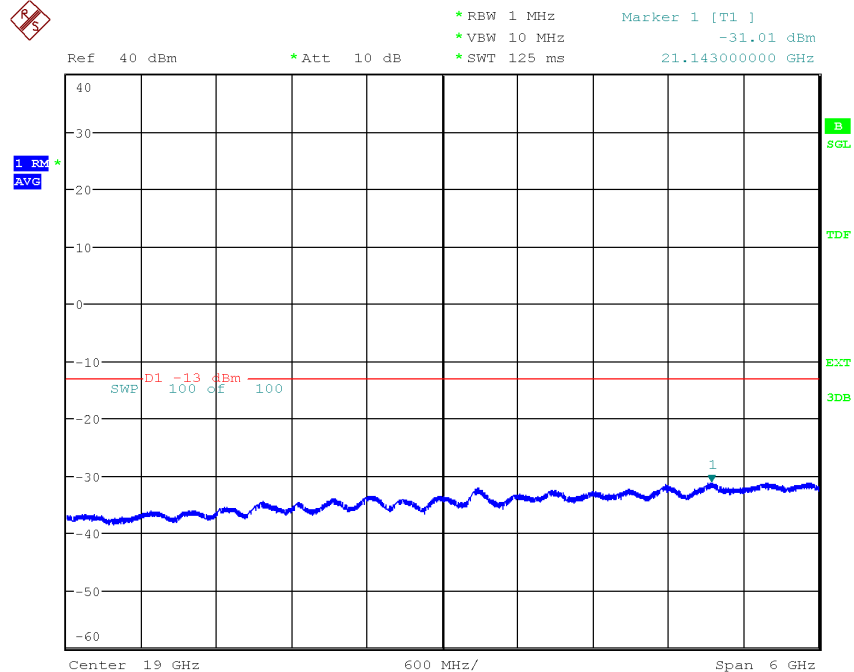
Date: 26.JUN.2020 15:39:58

Diagram 3.4b, NR-FR1-TM1.1, M_{15NR}, 3 GHz – 9.5 GHz, Port D:

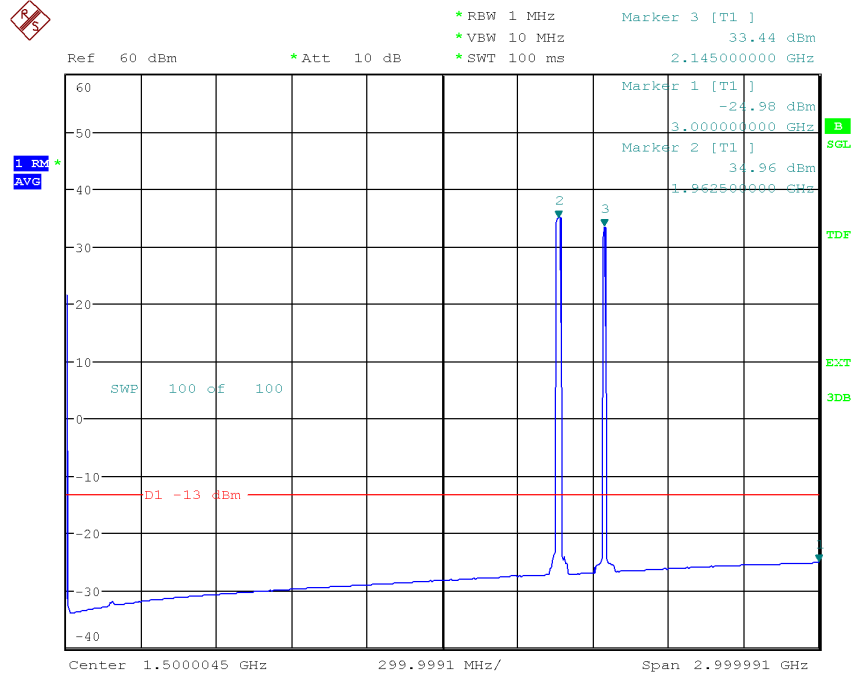
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Diagram 3.4c, NR-FR1-TM1.1, M_{15NR}, 9.5 GHz – 16 GHz, Port D:

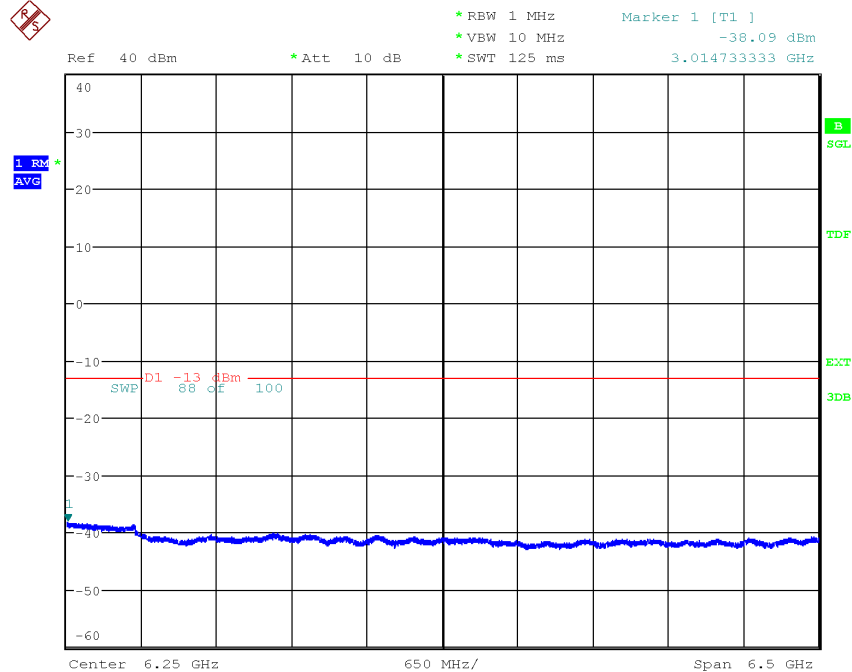
Date: 26.JUN.2020 15:55:14

Diagram 3.4d, NR-FR1-TM1.1, M_{15NR}, 16 GHz – 22 GHz, Port D:

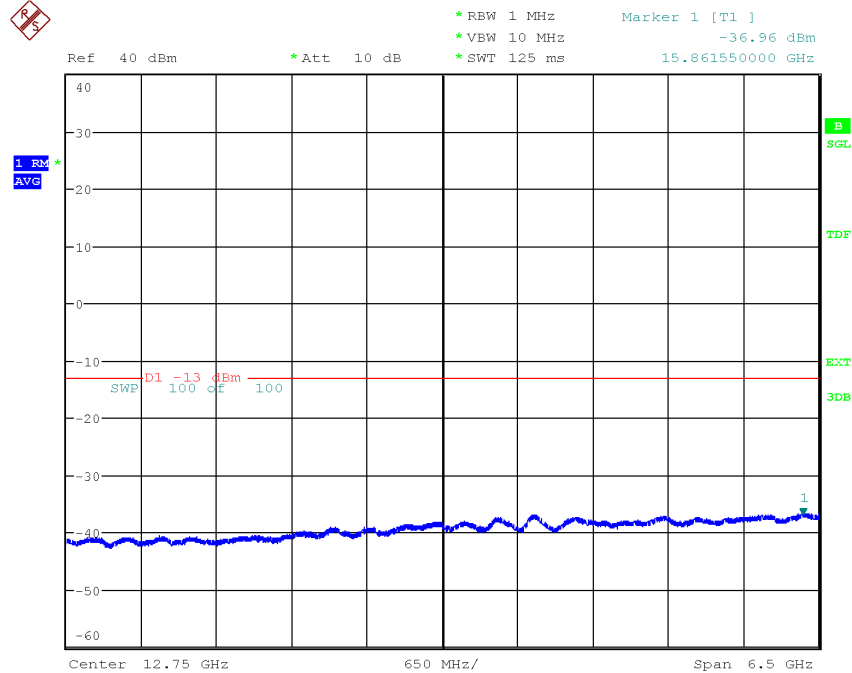
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Diagram 3.5a, NR-FR1-TM1.1, M_{20NR} , 9 kHz – 3 GHz, Port D:

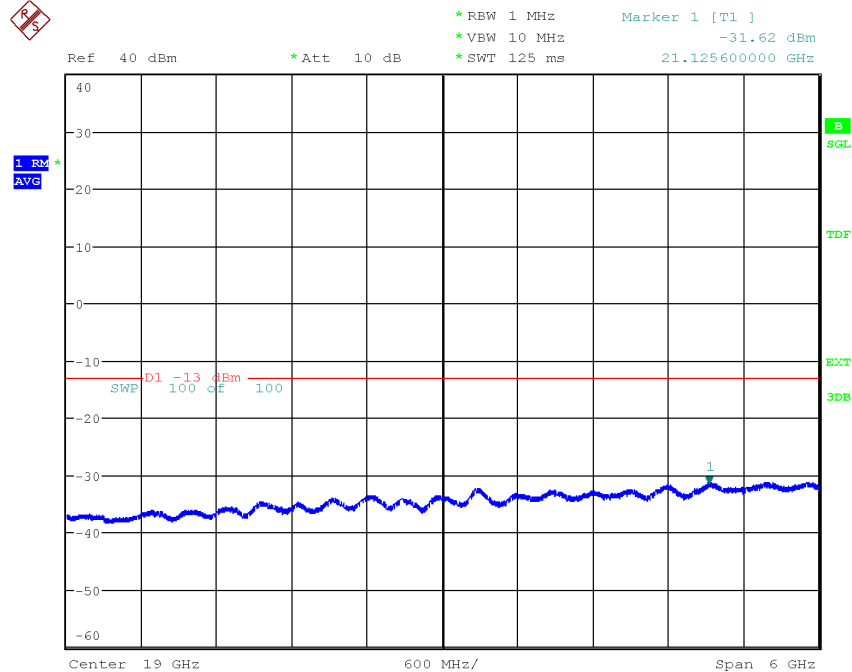
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Diagram 3.5b, NR-FR1-TM1.1, M_{20NR} , 3 GHz – 9.5 GHz, Port D:

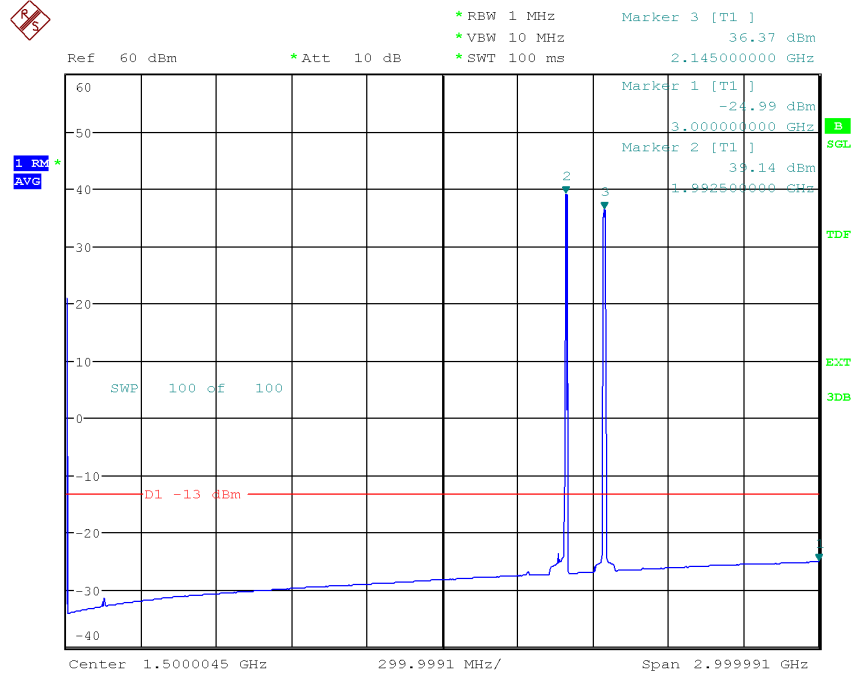
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Diagram 3.5c, NR-FR1-TM1.1, M_{20NR} , 9.5 GHz – 16 GHz, Port D:

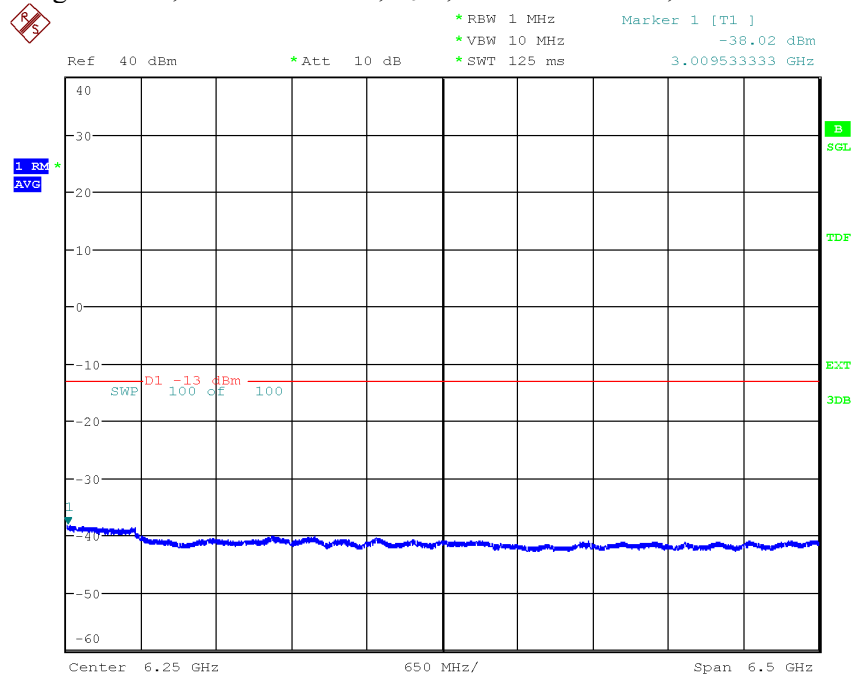
Date: 26.JUN.2020 15:47:14

Diagram 3.5d, NR-FR1-TM1.1, M_{20NR} , 16 GHz – 22 GHz, Port D:

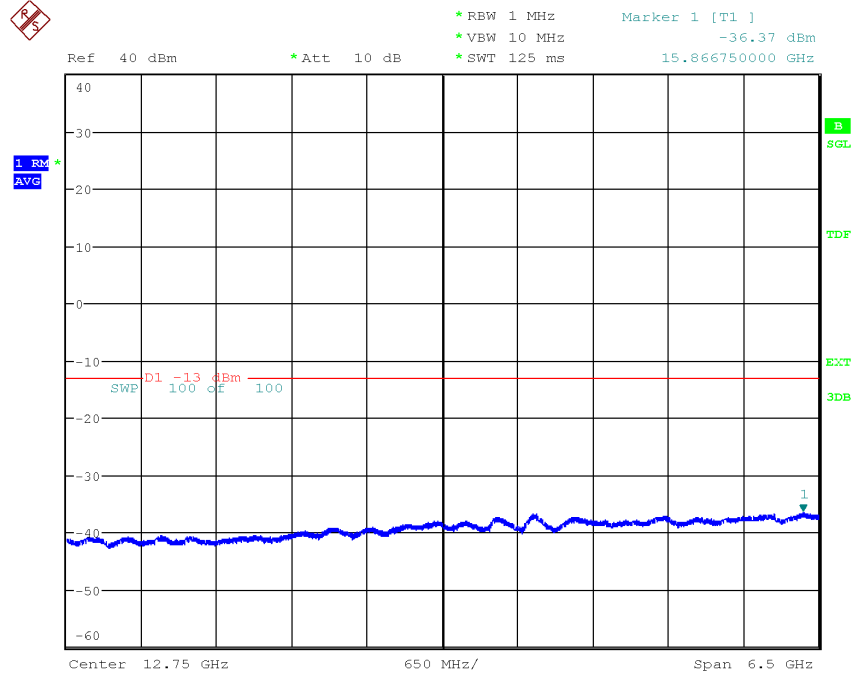
Date: 26.JUN.2020 15:50:35

Diagram 3.6a, NR-FR1-TM1.1, T_{5NR} , 9 kHz – 3 GHz, Port D:

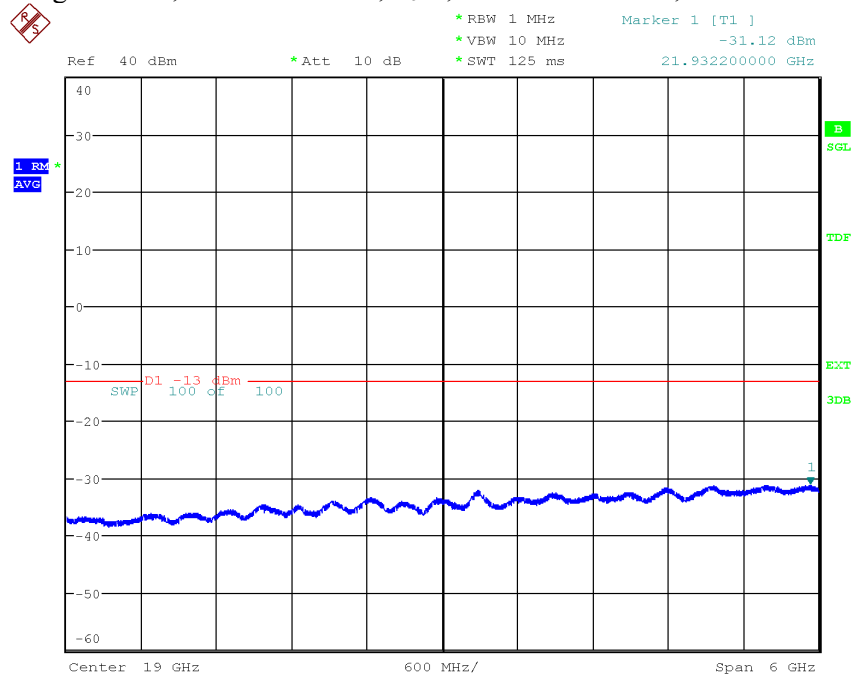
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Diagram 3.6b, NR-FR1-TM1.1, T_{5NR} , 3 GHz – 9.5 GHz, Port D:

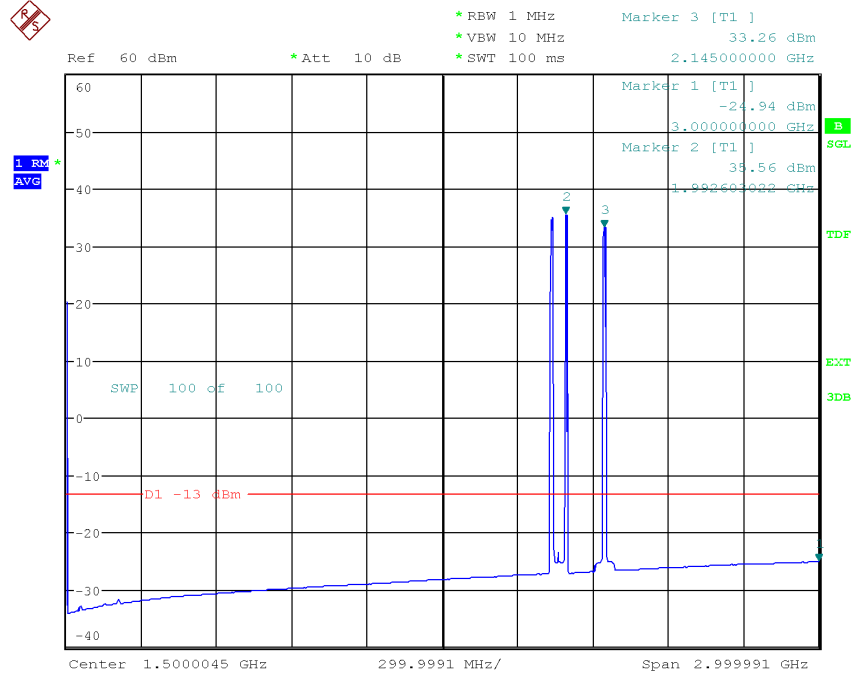
Date: 26.JUN.2020 15:21:20

Diagram 3.6c, NR-FR1-TM1.1, T_{5NR} , 9.5 GHz – 16 GHz, Port D:

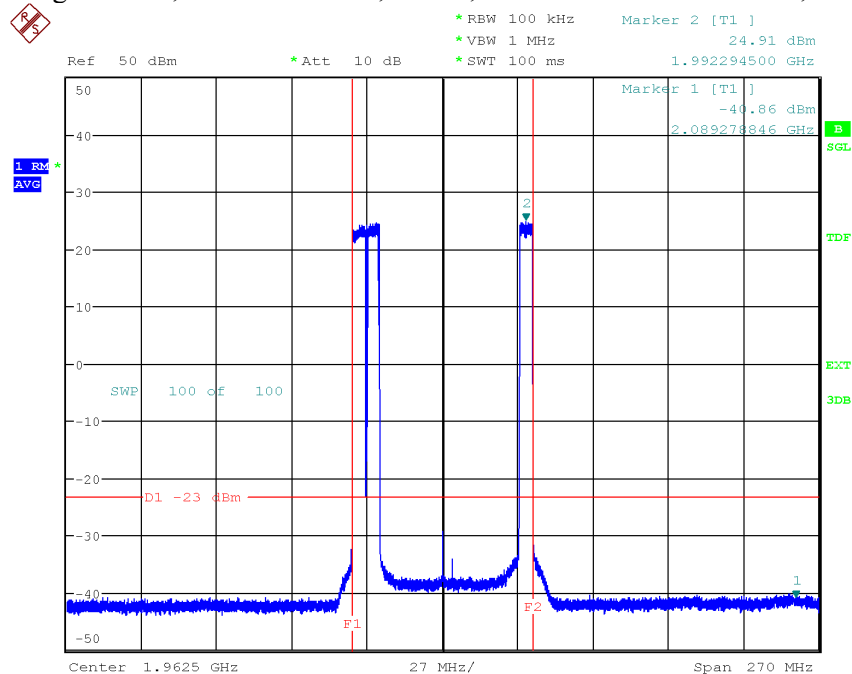
Date: 26.JUN.2020 15:18:50

Diagram 3.6d, NR-FR1-TM1.1, T_{5NR} , 16 GHz – 22 GHz, Port D:

Date: 26.JUN.2020 15:15:49

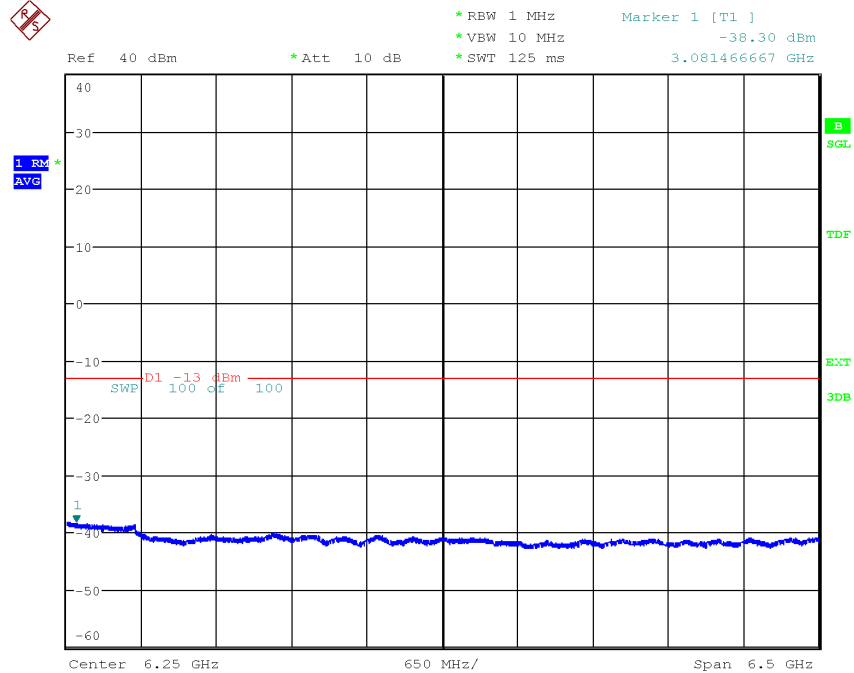
Diagram 3.7a, NR-FR1-TM1.1, Bim_{NR}, 9 kHz – 3 GHz, Port D:

Date: 29.JUN.2020 10:39:36

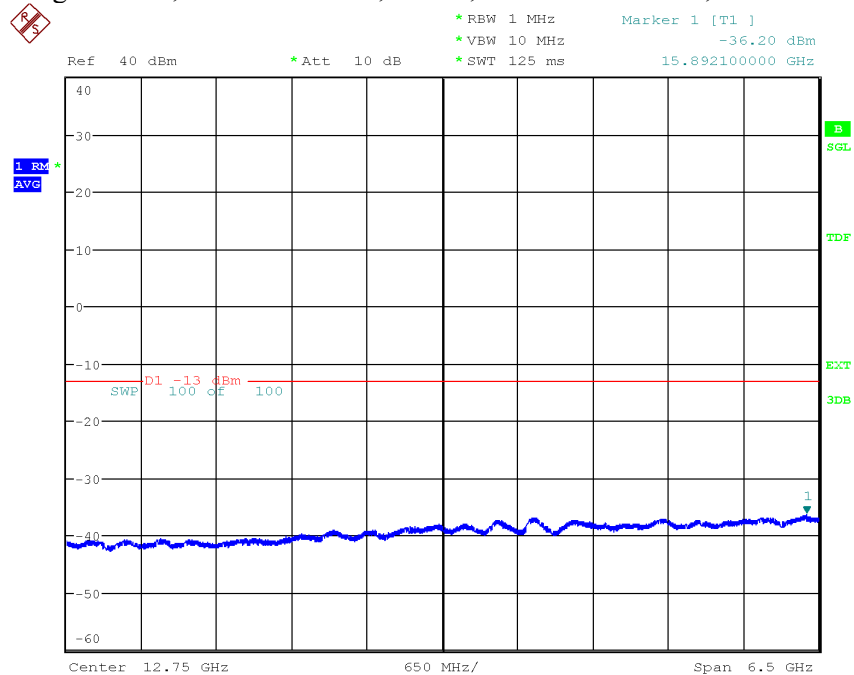
Diagram 3.7b, NR-FR1-TM1.1, Bim_{NR}, 1.8275 GHz – 2.0975 GHz, Port D:

Date: 29.JUN.2020 10:27:35

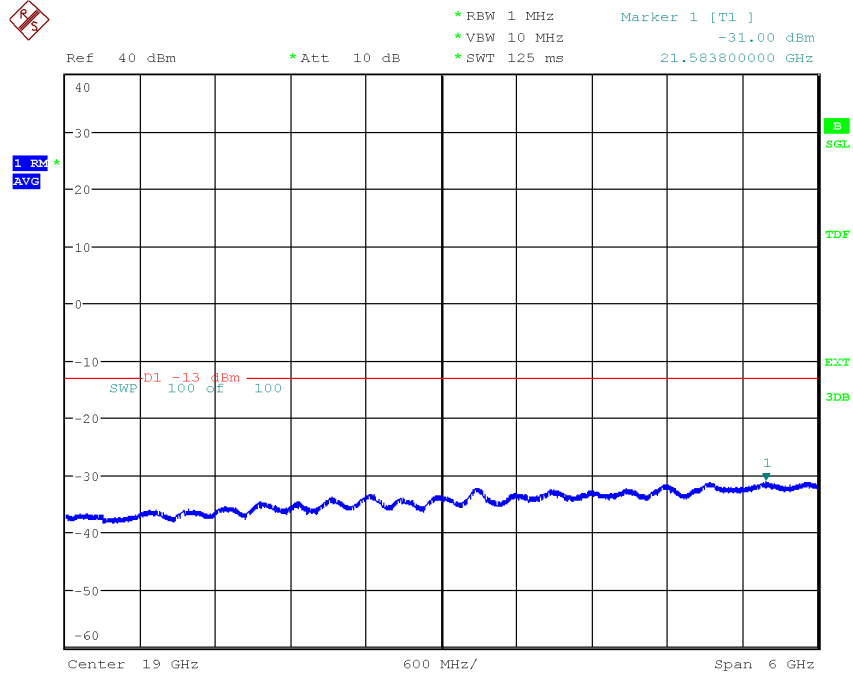
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.7c, NR-FR1-TM1.1, Bim_{NR}, 3 GHz – 9.5 GHz, Port D:

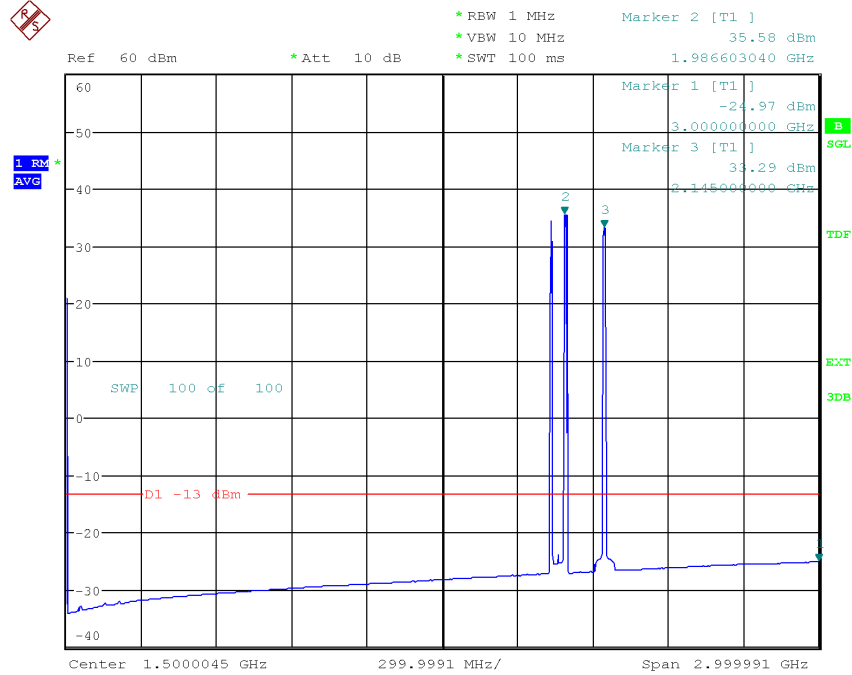
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Diagram 3.7d, NR-FR1-TM1.1, Bim_{NR}, 9.5 GHz – 16 GHz, Port D:

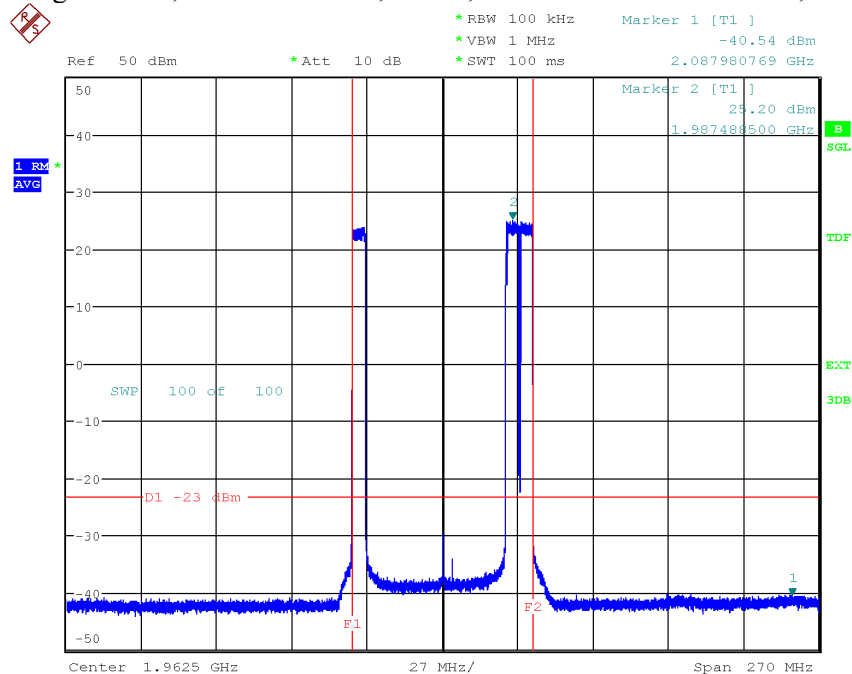
Date: 29.JUN.2020 10:49:35

Diagram 3.7e, NR-FR1-TM1.1, Bim_{NR}, 16 GHz – 22 GHz, Port D:

Date: 29.JUN.2020 11:04:45

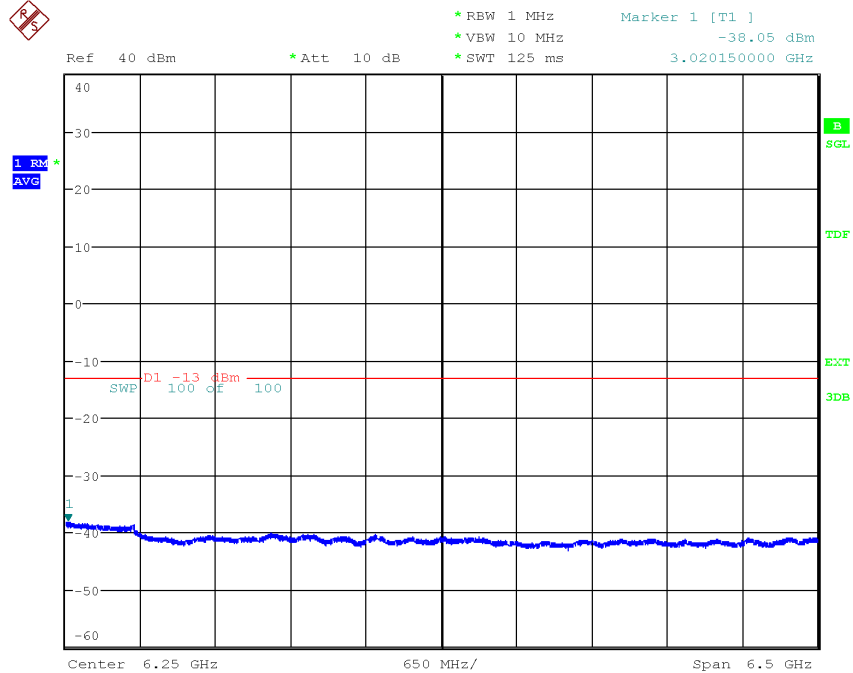
Diagram 3.8a, NR-FR1-TM1.1, Tim_{NR}, 9 kHz – 3 GHz, Port D:

Date: 29.JUN.2020 11:24:16

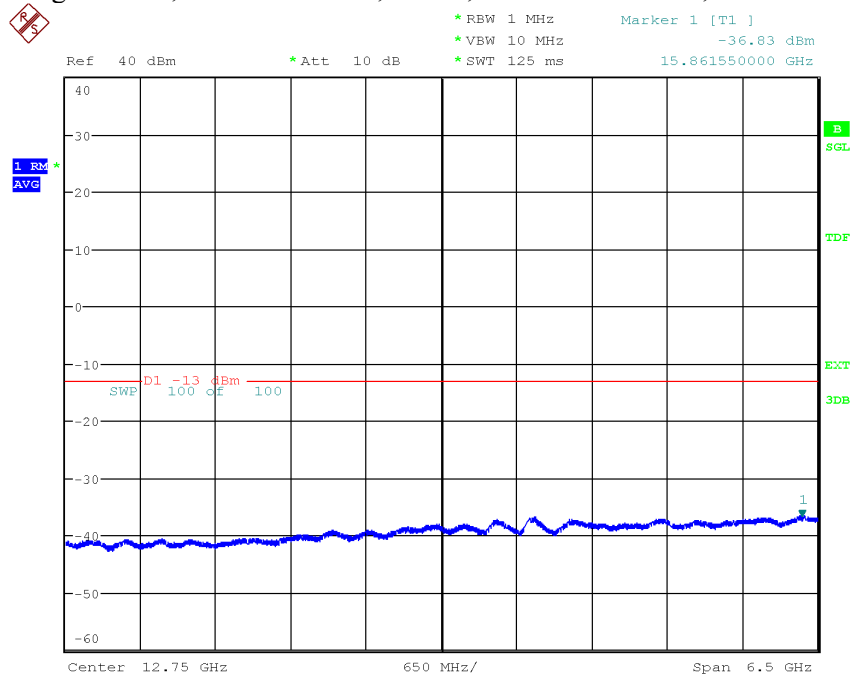
Diagram 3.8b, NR-FR1-TM1.1, Tim_{NR}, 1.8275 GHz – 2.0975 GHz, Port D:

Date: 29.JUN.2020 11:26:10

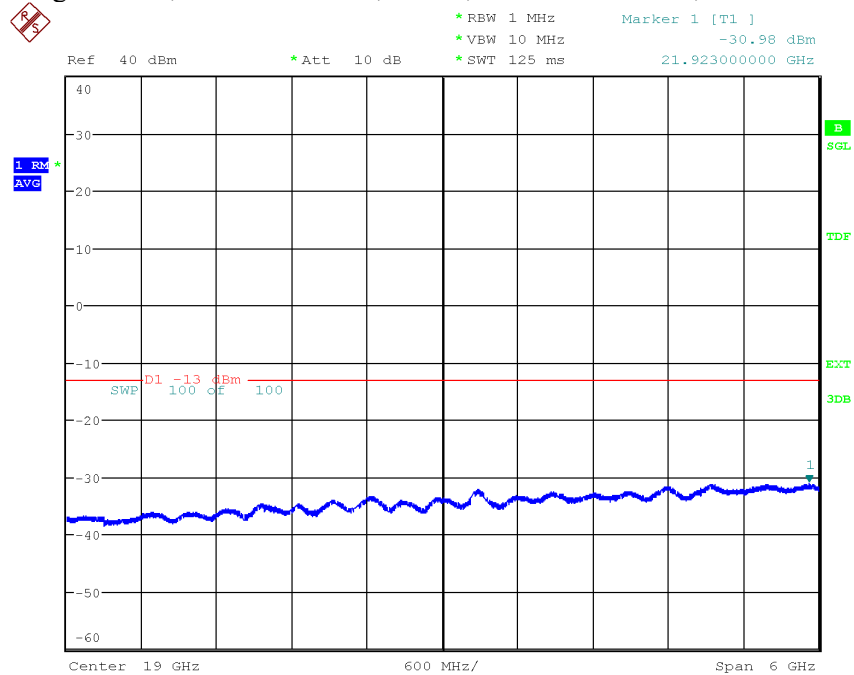
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.8c, NR-FR1-TM1.1, Tim_{NR} , 3 GHz – 9.5 GHz, Port D:

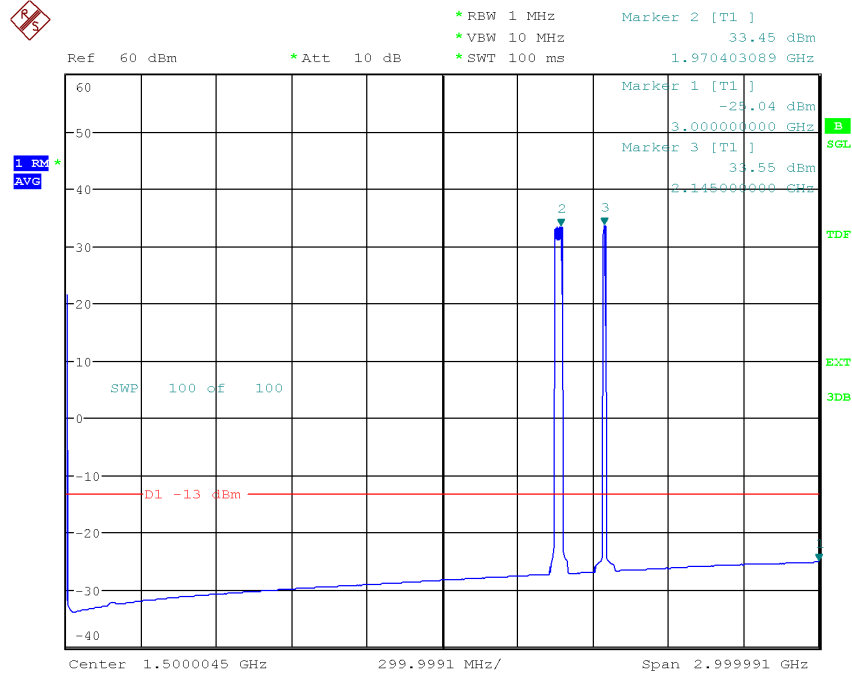
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Diagram 3.8d, NR-FR1-TM1.1, Tim_{NR} , 9.5 GHz – 16 GHz, Port D:

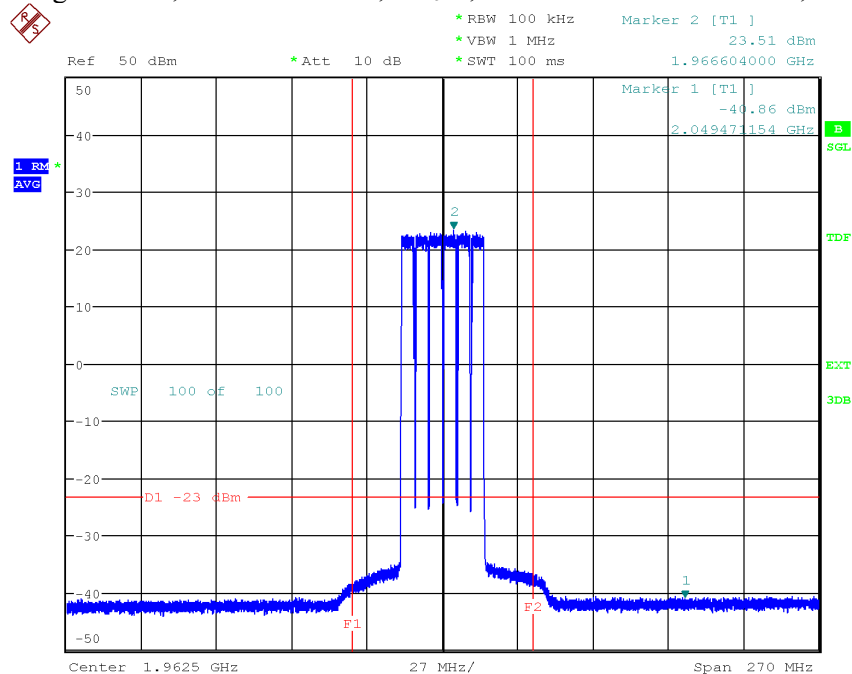
Date: 29.JUN.2020 11:13:51

Diagram 3.8e, NR-FR1-TM1.1, Tim_{NR} , 16 GHz – 22 GHz, Port D:

Date: 29.JUN.2020 11:11:08

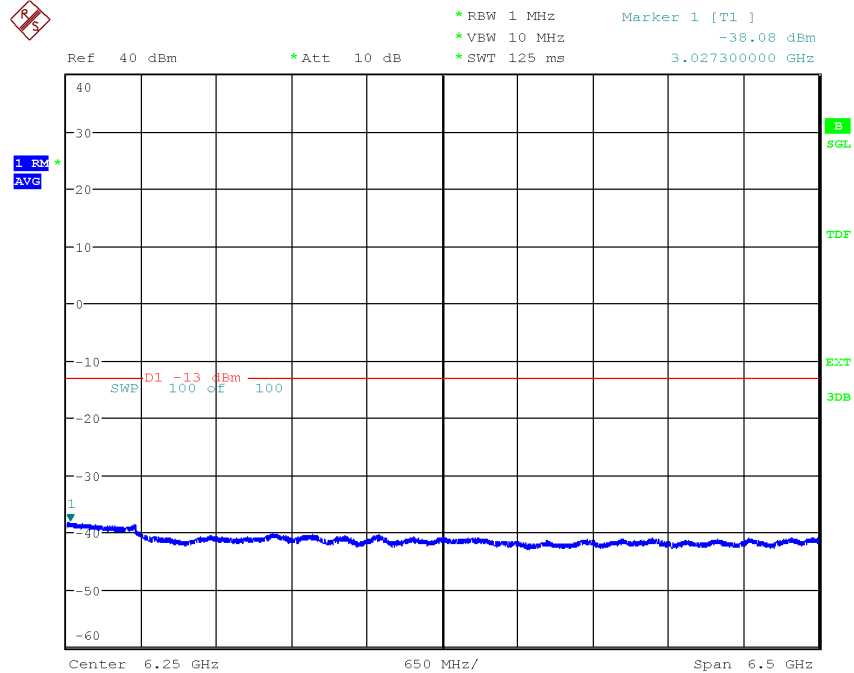
Diagram 3.9a, NR-FR1-TM1.1, M6_{5NR}, 9 kHz – 3 GHz, Port D:

Date: 29.JUN.2020 12:36:00

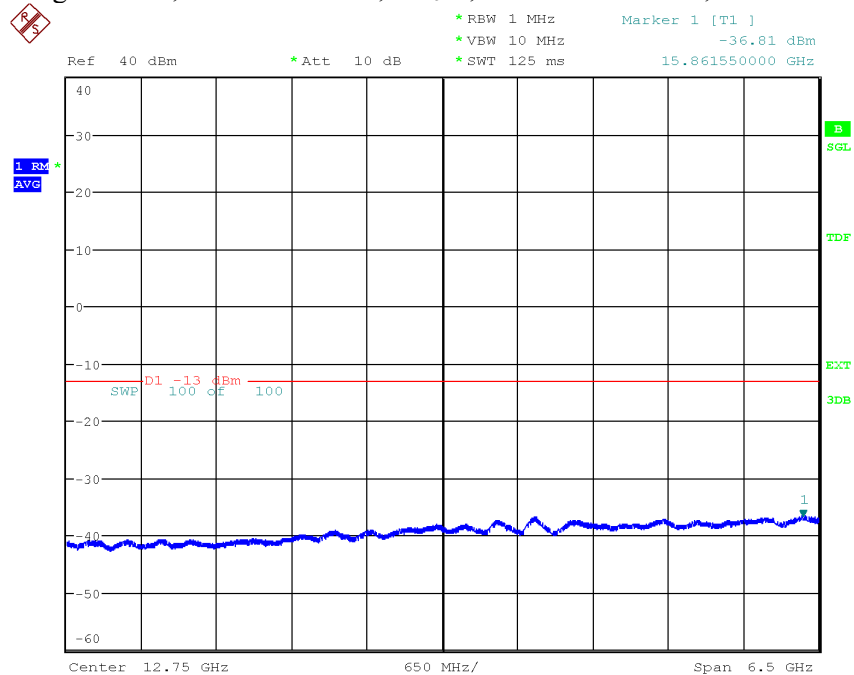
Diagram 3.9b, NR-FR1-TM1.1, M6_{5NR}, 1.8275 GHz – 2.0975 GHz, Port D:

Date: 29.JUN.2020 11:31:55

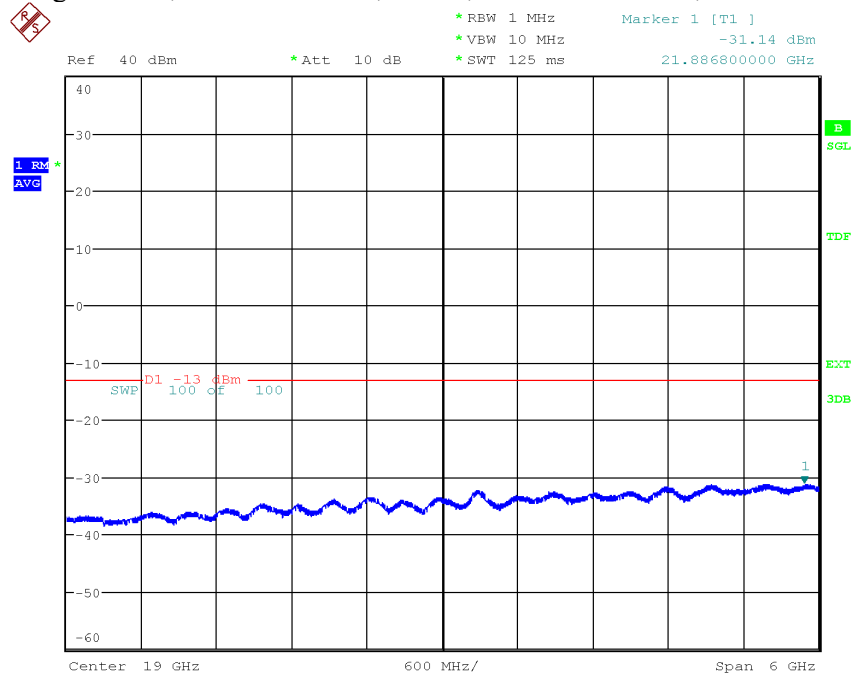
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.9c, NR-FR1-TM1.1, M6_{5NR}, 3 GHz – 9.5 GHz, Port D:

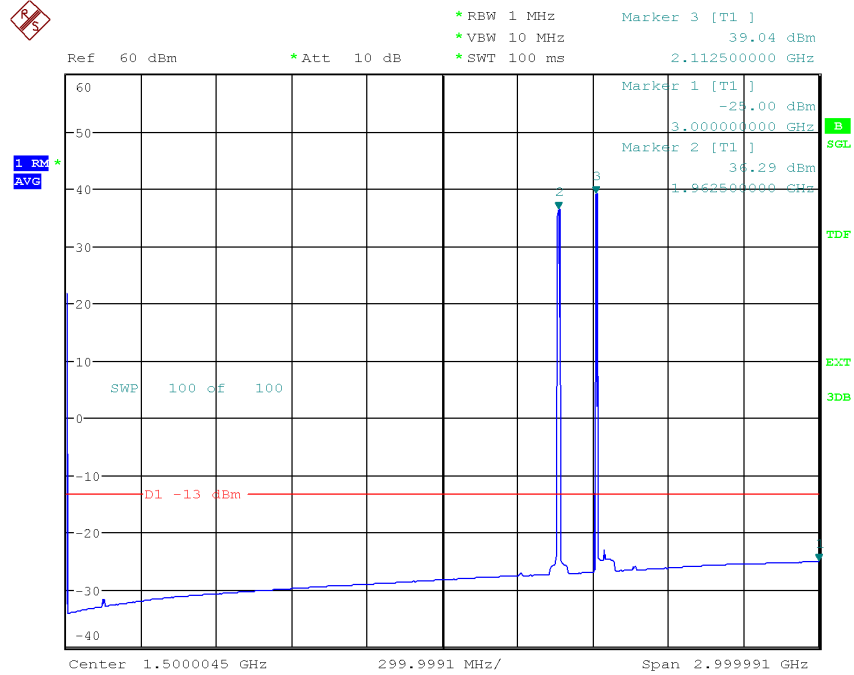
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Diagram 3.9d, NR-FR1-TM1.1, M6_{5NR}, 9.5 GHz – 16 GHz, Port D:

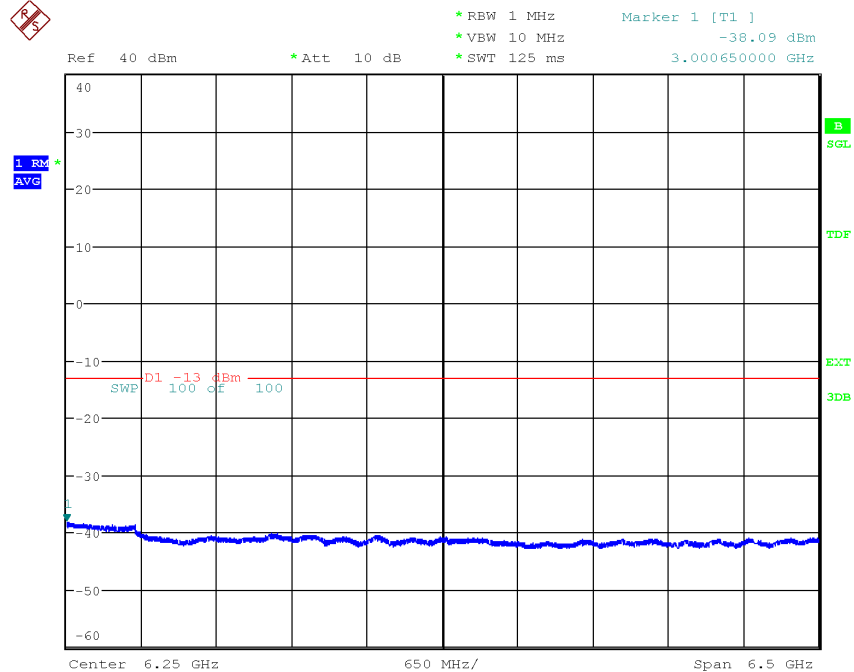
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Diagram 3.9e, NR-FR1-TM1.1, M6_{5NR}, 16 GHz – 22 GHz, Port D:

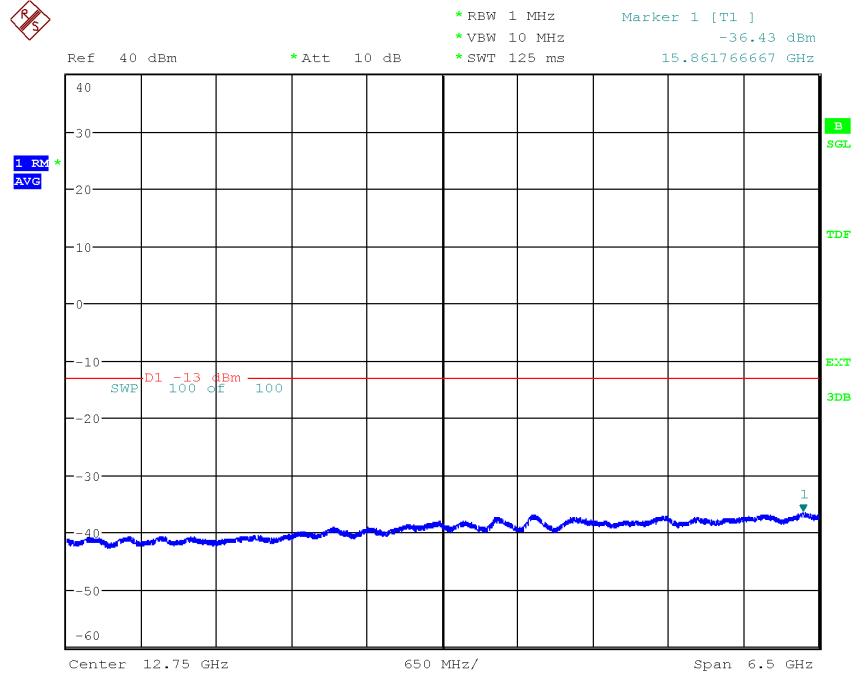
Date: 29.JUN.2020 12:54:35

Diagram 3.10a, NR-FR1-TM1.1, B_{5NR}, 9 kHz – 3 GHz, Port A:

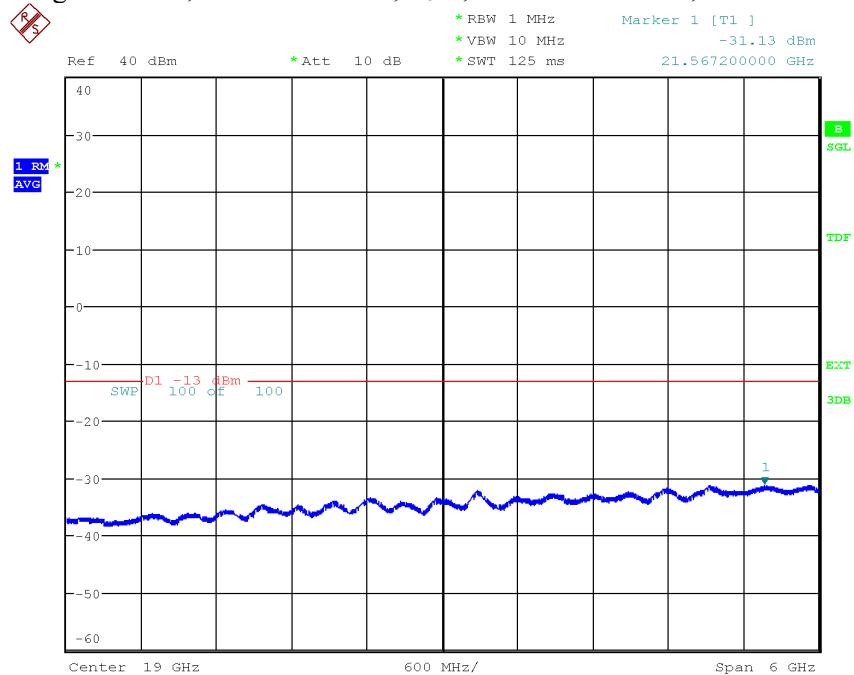
Date: 26.JUN.2020 12:35:42

Diagram 3.10b, NR-FR1-TM1.1, B_{5NR}, 3 GHz – 9.5 GHz, Port A:

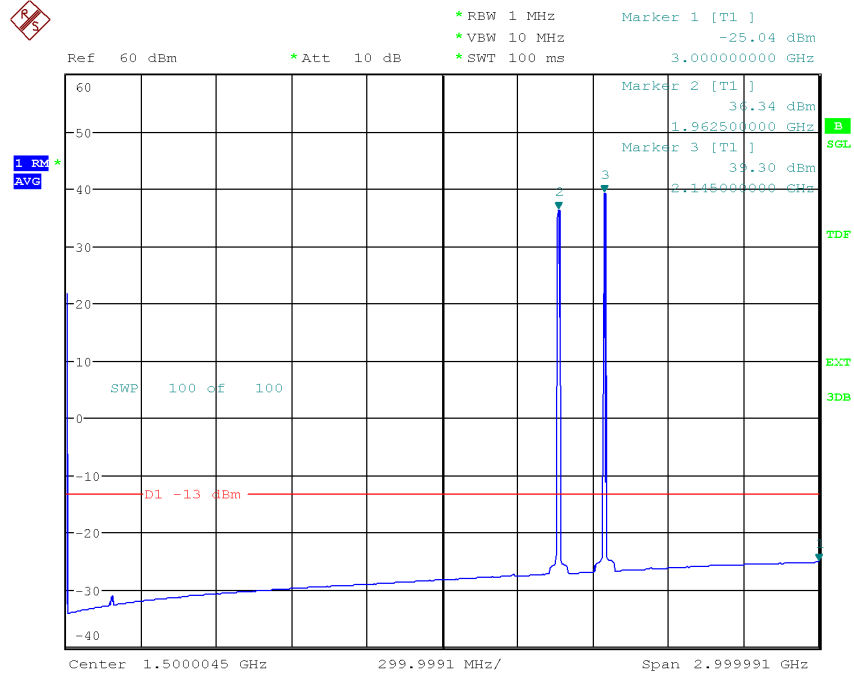
Date: 26.JUN.2020 12:39:58

Diagram 3.10c, NR-FR1-TM1.1, B_{5NR} , 9.5 GHz – 16 GHz, Port A:

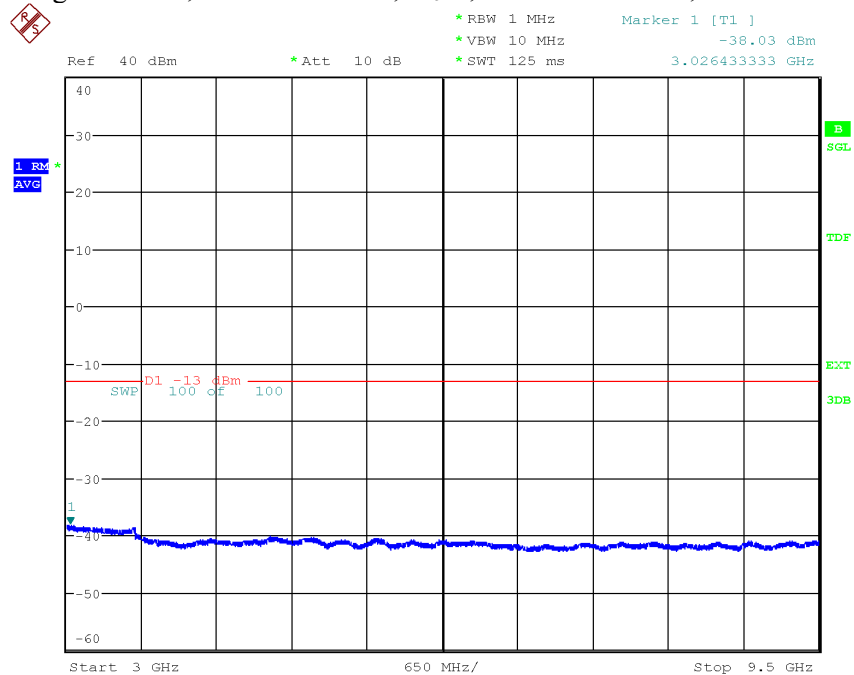
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Diagram 3.10d, NR-FR1-TM1.1, B_{5NR} , 16 GHz – 22 GHz, Port A:

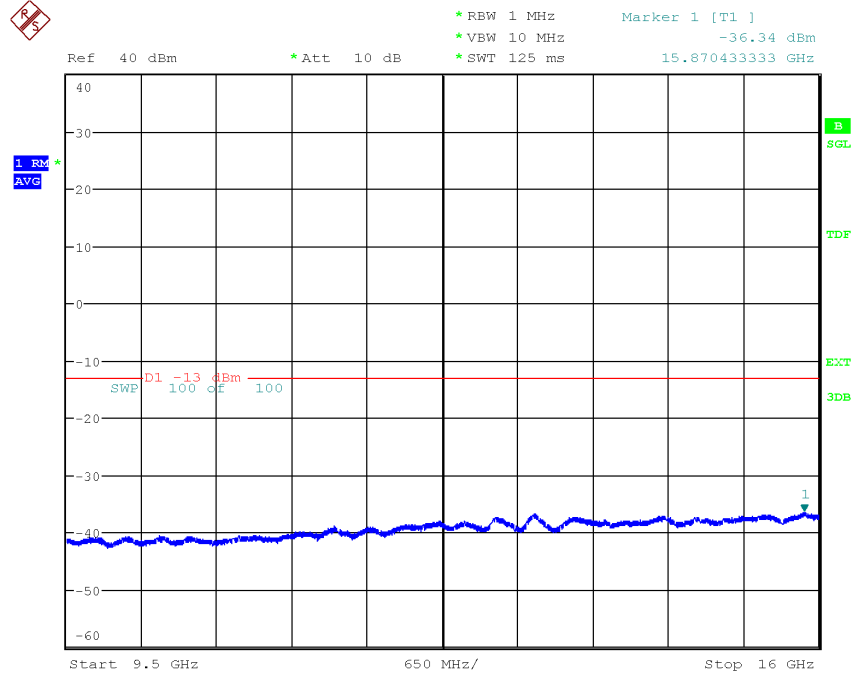
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Diagram 3.11a, NR-FR1-TM1.1, M_{5NR}, 9 kHz – 3 GHz, Port A:

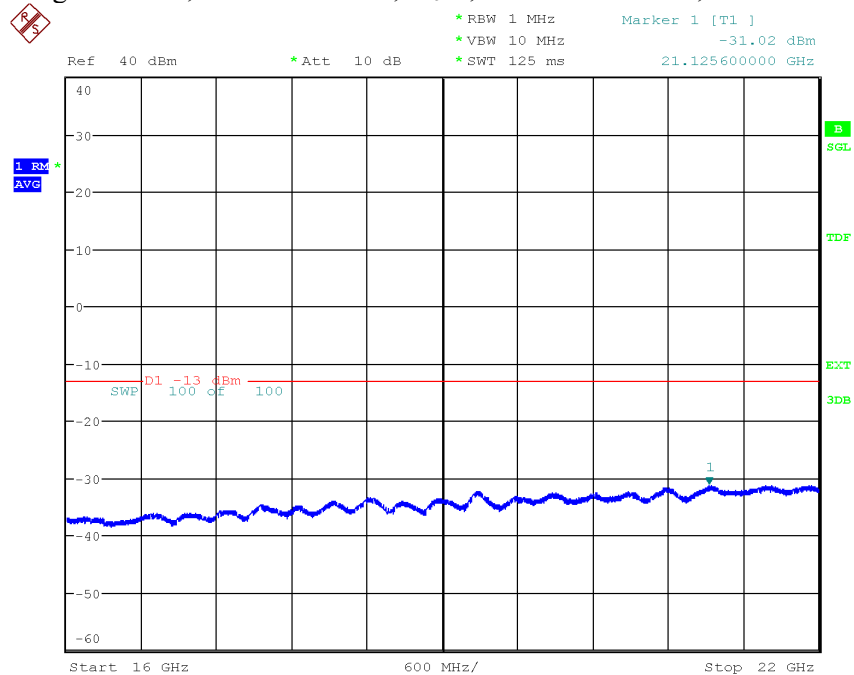
Date: 26.JUN.2020 12:33:04

Diagram 3.11b, NR-FR1-TM1.1, M_{5NR}, 3 GHz – 9.5 GHz, Port A:

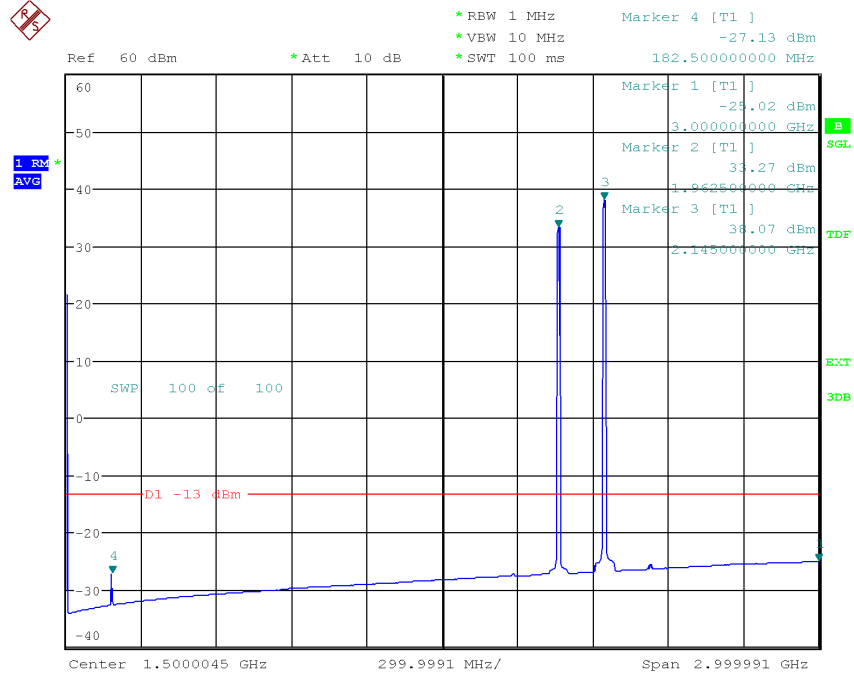
Date: 26.JUN.2020 10:24:31

Diagram 3.11c, NR-FR1-TM1.1, M_{5NR}, 9.5 GHz – 16 GHz, Port A:

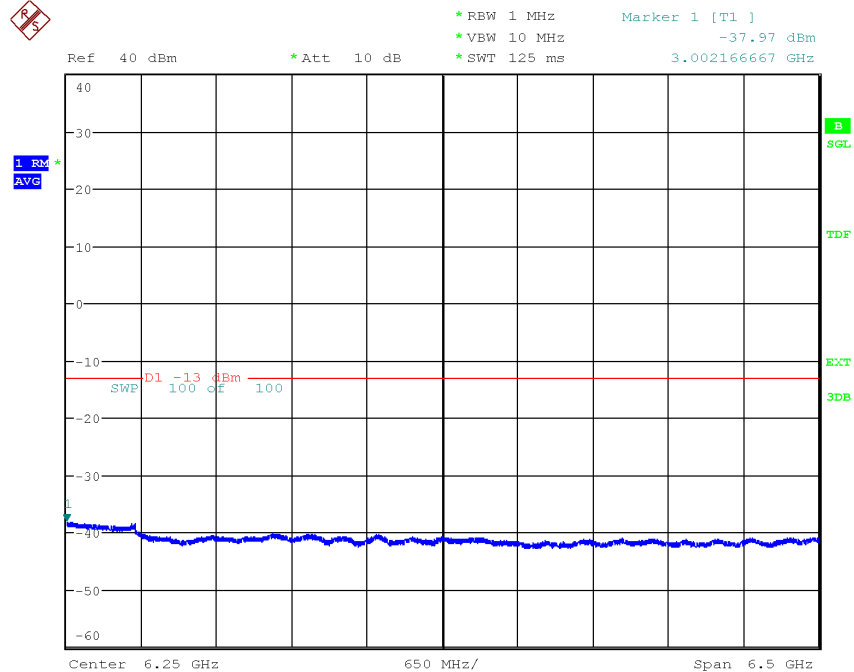
Date: 26.JUN.2020 10:28:18

Diagram 3.11d, NR-FR1-TM1.1, M_{5NR}, 16 GHz – 22 GHz, Port A:

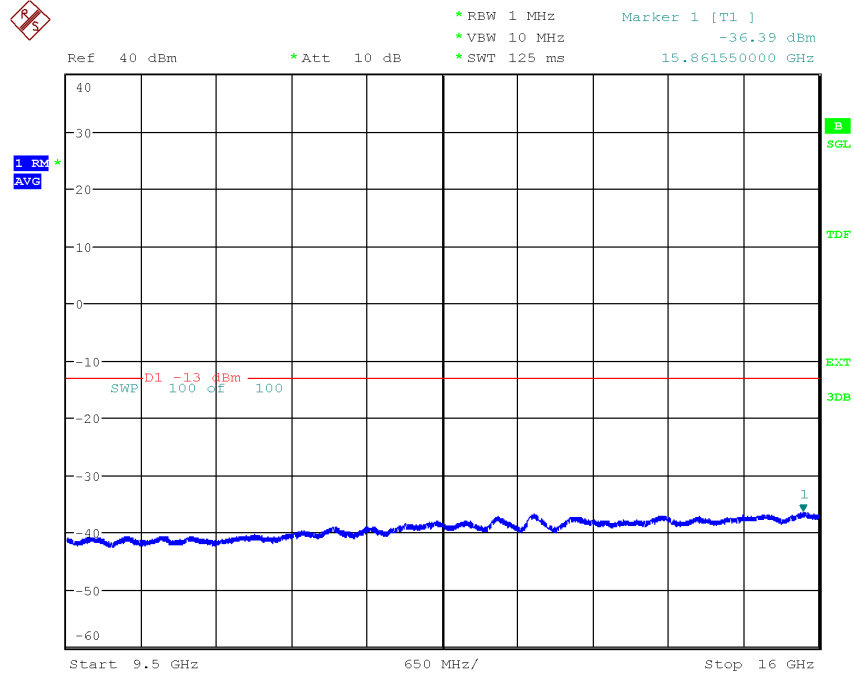
Date: 26.JUN.2020 10:32:23

Diagram 3.12a, NR-FR1-TM1.1, M_{10NR}, 9 kHz – 3 GHz, Port A:

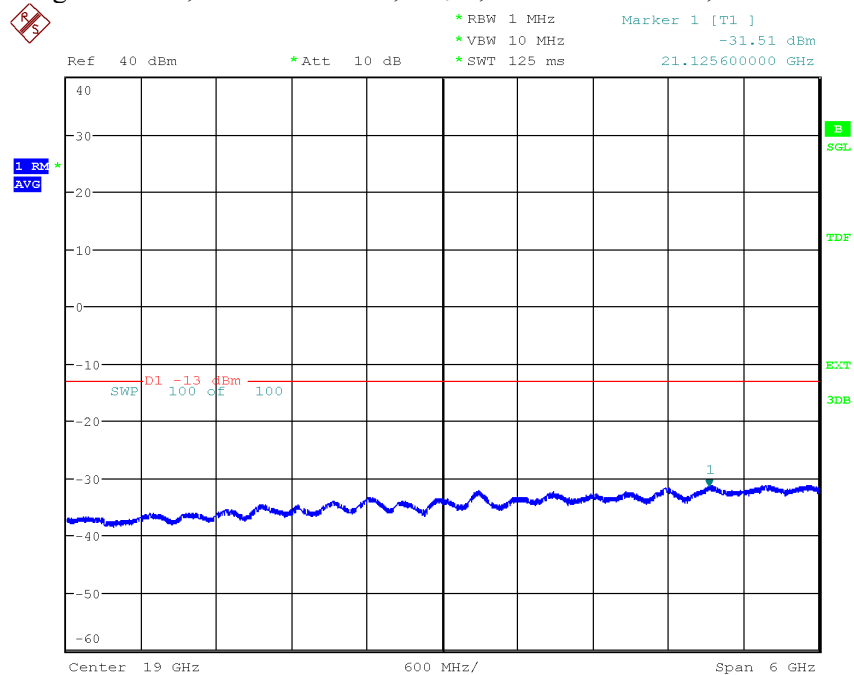
Date: 26.JUN.2020 12:30:18

Diagram 3.12b, NR-FR1-TM1.1, M_{10NR}, 3 GHz – 9.5 GHz, Port A:

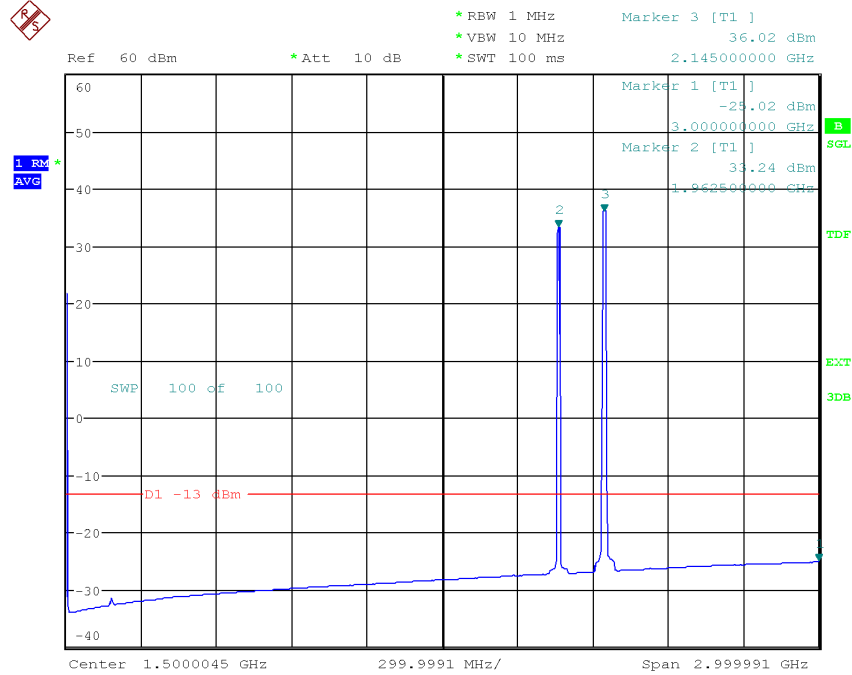
Date: 26.JUN.2020 10:52:08

Diagram 3.12c, NR-FR1-TM1.1, M_{10NR}, 9.5 GHz – 16 GHz, Port A:

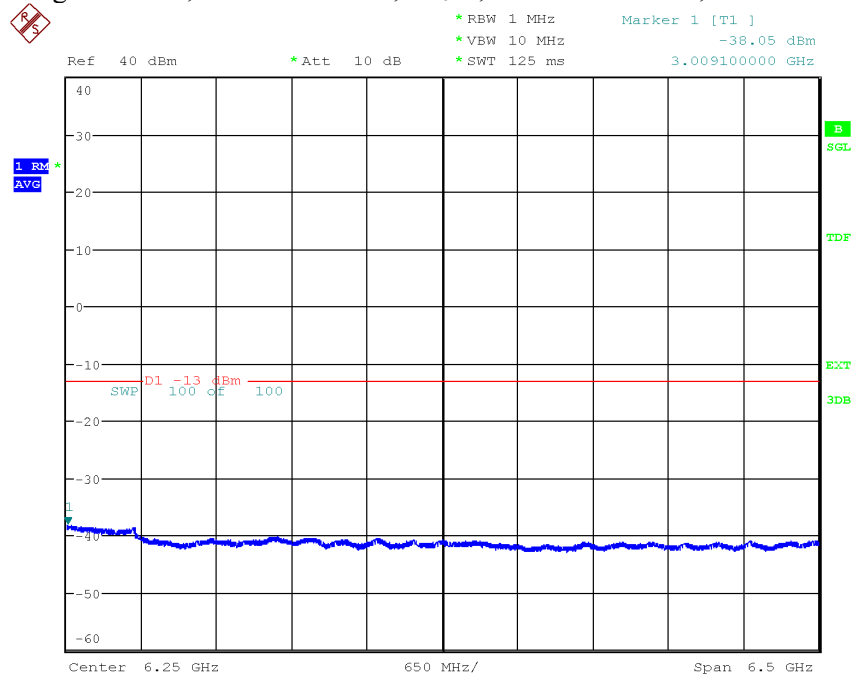
Date: 26.JUN.2020 10:44:42

Diagram 3.12d, NR-FR1-TM1.1, M_{10NR}, 16 GHz – 22 GHz, Port A:

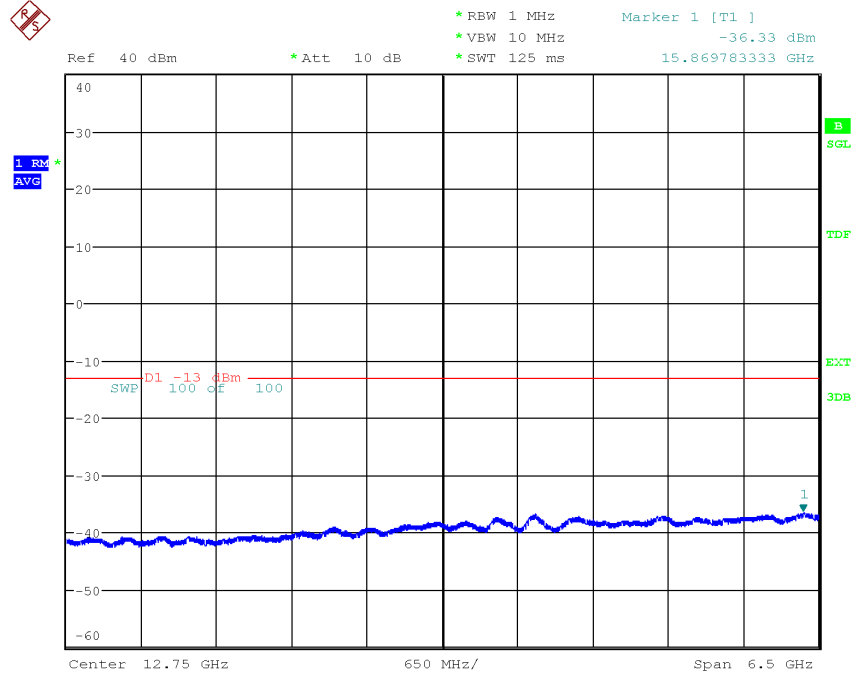
Date: 26.JUN.2020 10:40:26

Diagram 3.13a, NR-FR1-TM1.1, M_{15NR}, 9 kHz – 3 GHz, Port A:

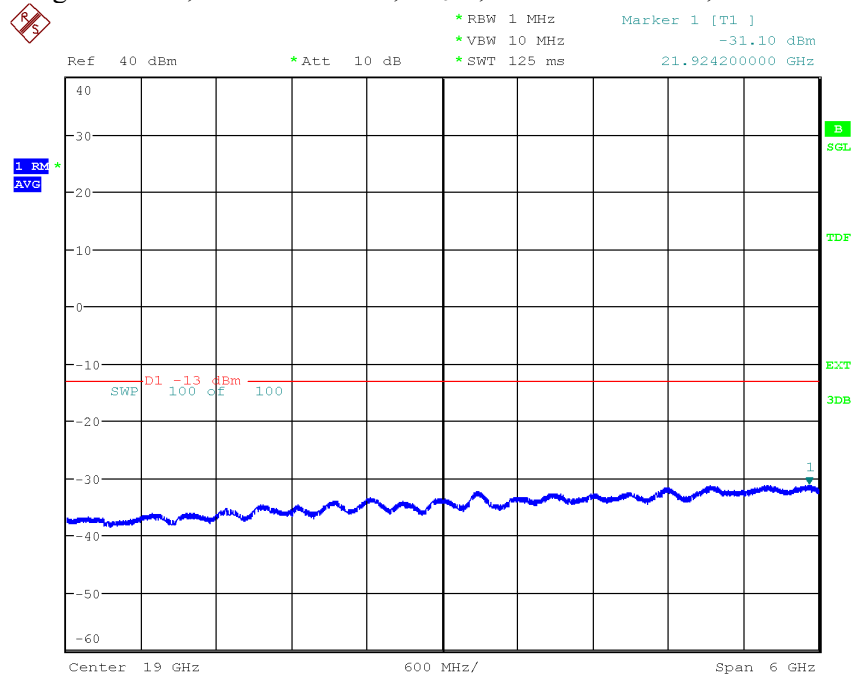
Date: 26.JUN.2020 12:27:28

Diagram 3.13b, NR-FR1-TM1.1, M_{15NR}, 3 GHz – 9.5 GHz, Port A:

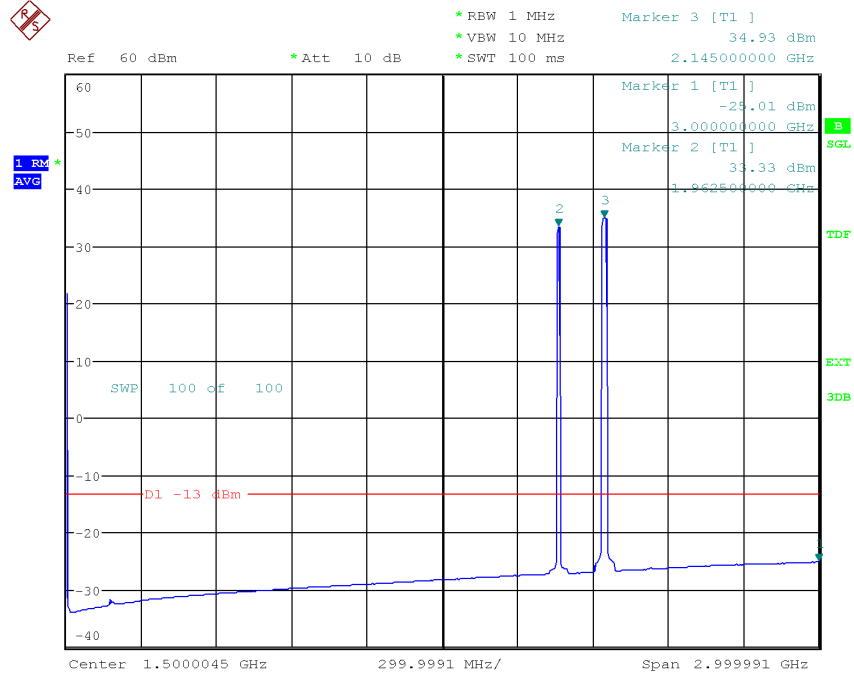
Date: 26.JUN.2020 12:08:34

Diagram 3.13c, NR-FR1-TM1.1, M₁₅NR, 9.5 GHz – 16 GHz, Port A:

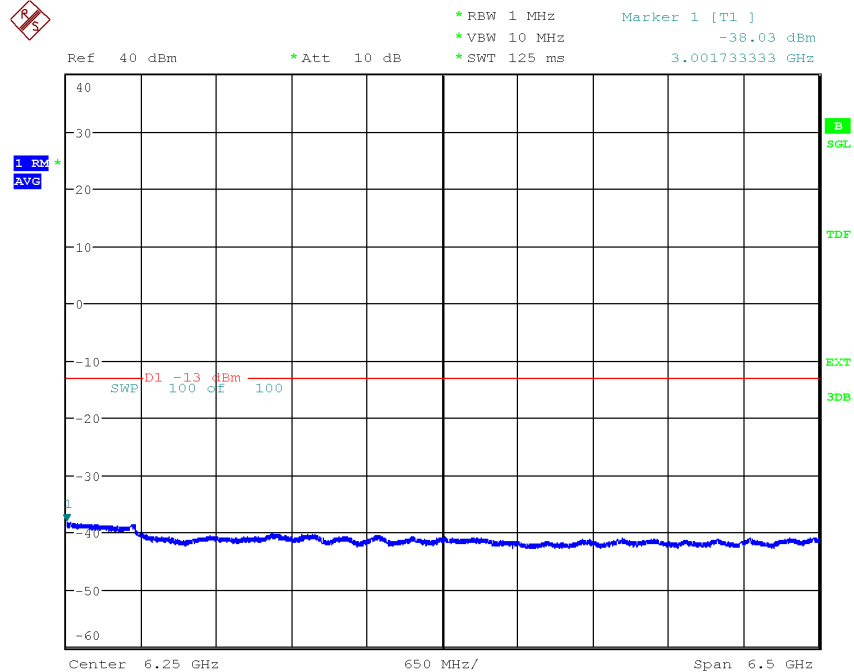
Date: 26.JUN.2020 12:10:55

Diagram 3.13d, NR-FR1-TM1.1, M₁₅NR, 16 GHz – 22 GHz, Port A:

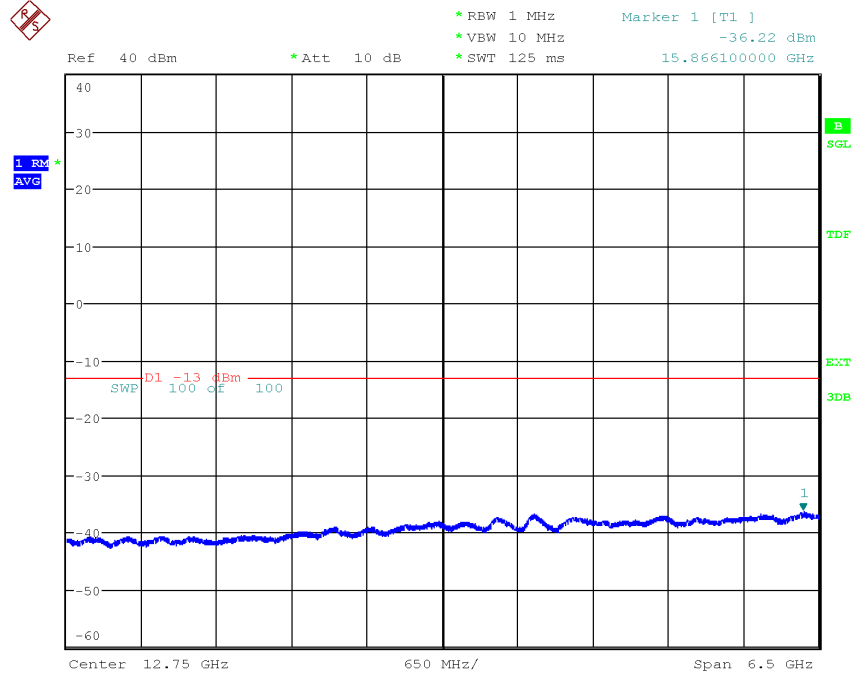
Date: 26.JUN.2020 12:15:24

Diagram 3.14a, NR-FR1-TM1.1, M_{20NR}, 9 kHz – 3 GHz, Port A:

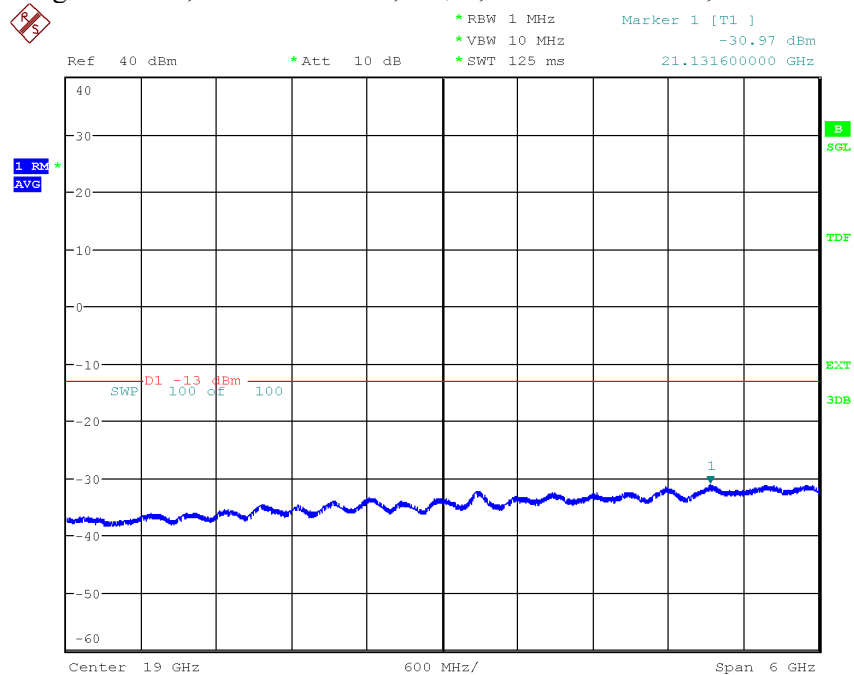
Date: 26.JUN.2020 12:25:26

Diagram 3.14b, NR-FR1-TM1.1, M_{20NR}, 3 GHz – 9.5 GHz, Port A:

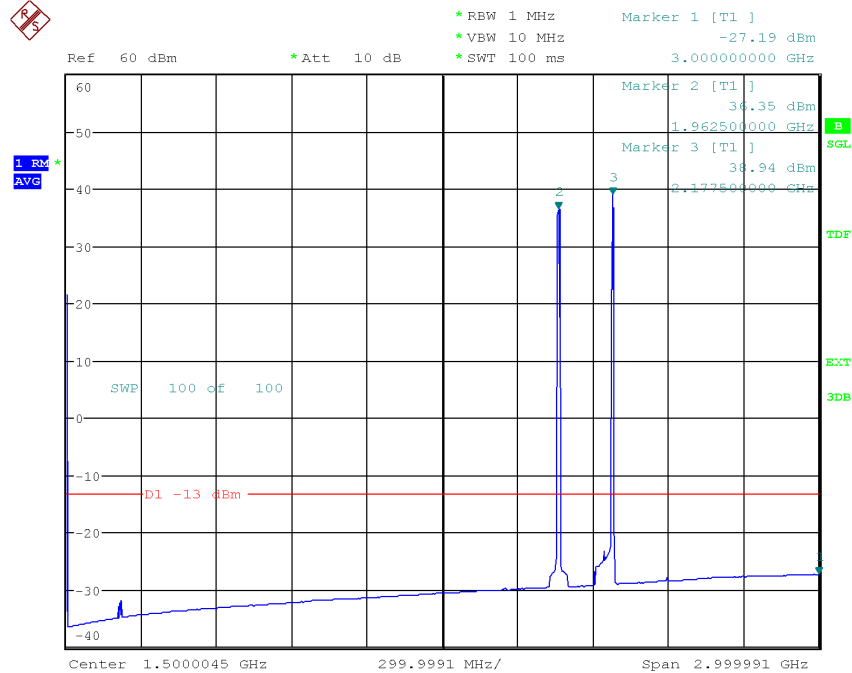
Date: 26.JUN.2020 12:23:14

Diagram 3.14c, NR-FR1-TM1.1, M_{20NR}, 9.5 GHz – 16 GHz, Port A:

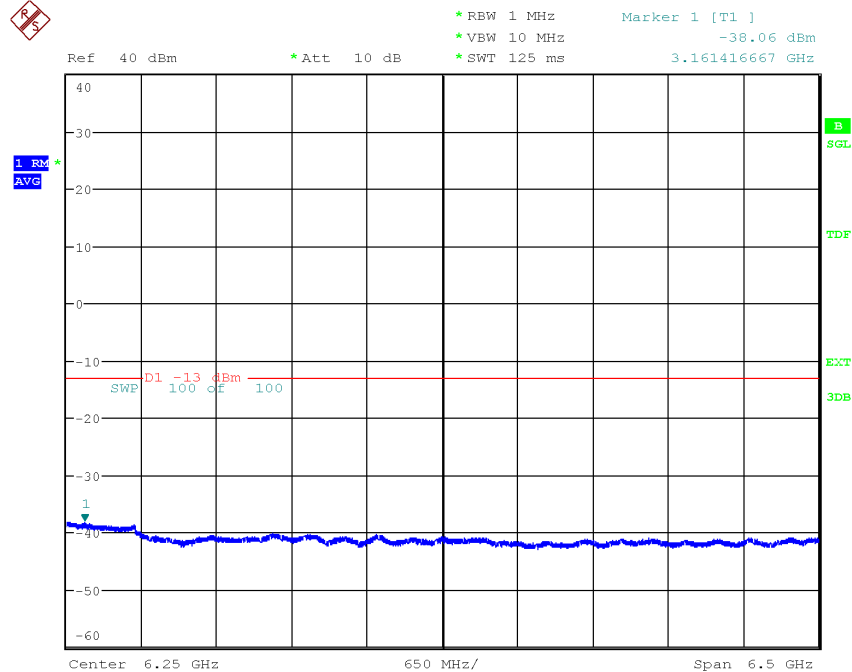
Date: 26.JUN.2020 12:20:53

Diagram 3.14d, NR-FR1-TM1.1, M_{20NR}, 16 GHz – 22 GHz, Port A:

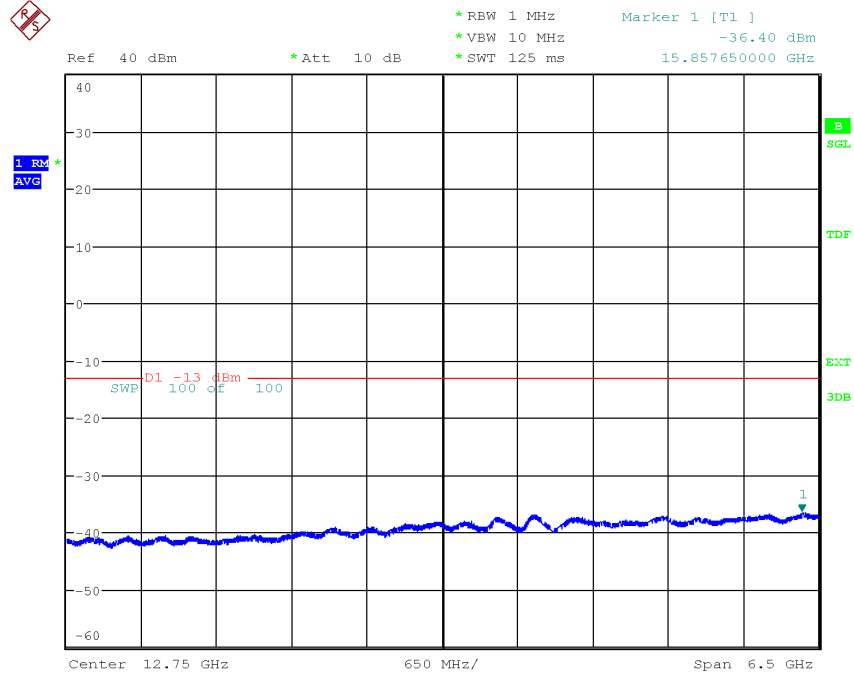
Date: 26.JUN.2020 12:18:47

Diagram 3.15a, NR-FR1-TM1.1, T_{5NR} , 9 kHz – 3 GHz, Port A:

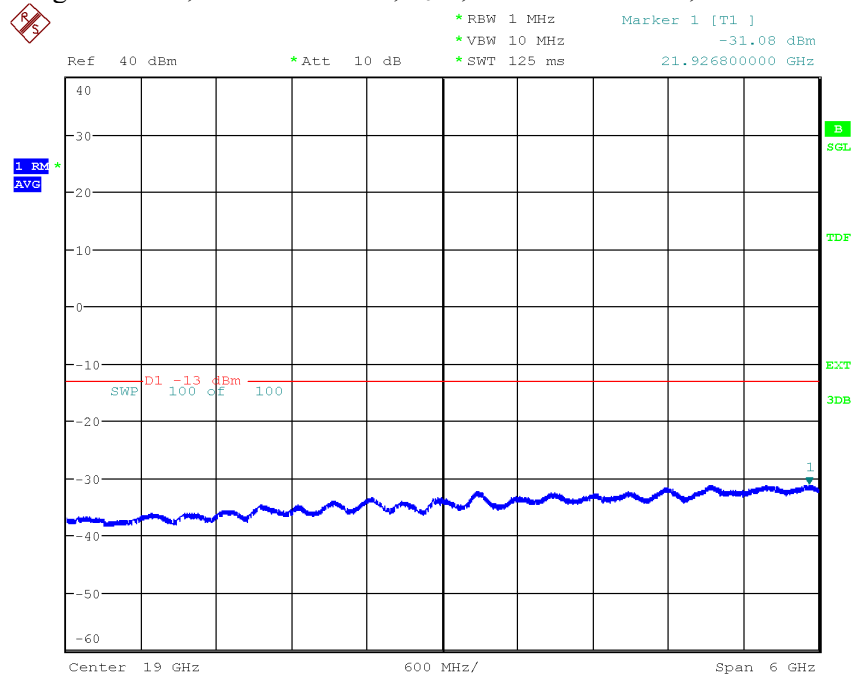
Date: 26.JUN.2020 12:59:28

Diagram 3.15b, NR-FR1-TM1.1, T_{5NR} , 3 GHz – 9.5 GHz, Port A:

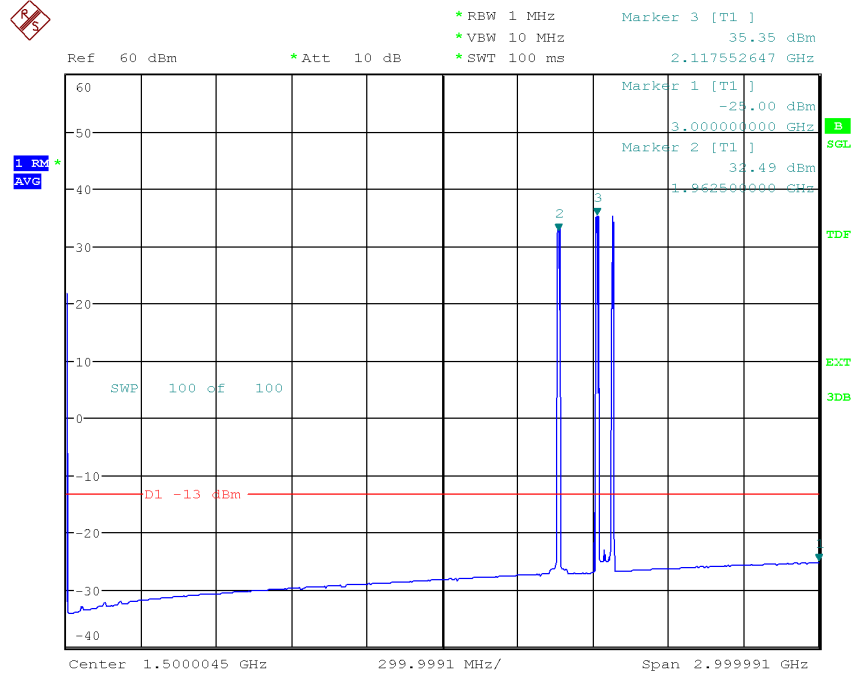
Date: 26.JUN.2020 12:57:08

Diagram 3.15c, NR-FR1-TM1.1, T_{5NR} , 9.5 GHz – 16 GHz, Port A:

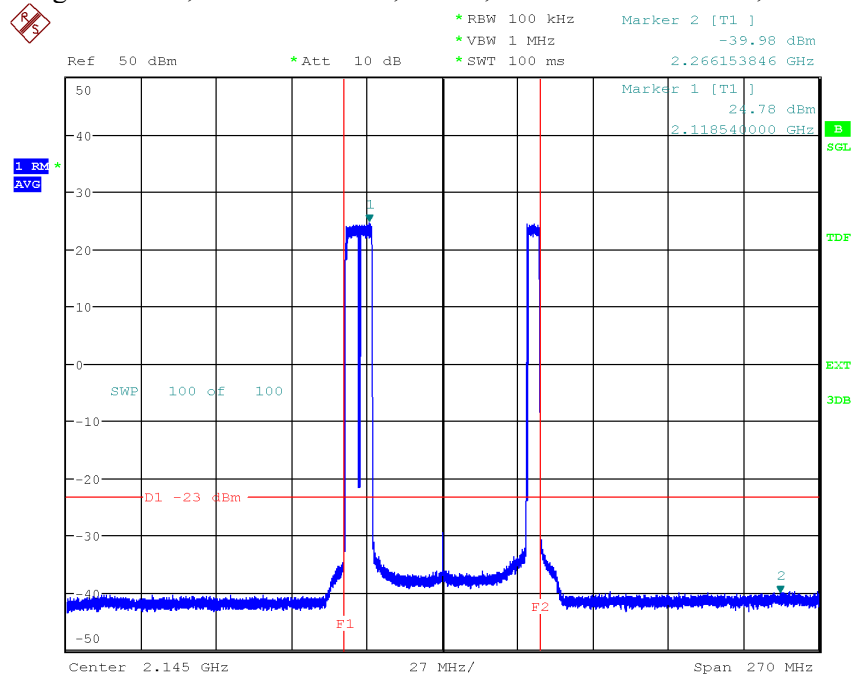
Date: 26.JUN.2020 12:53:32

Diagram 3.15d, NR-FR1-TM1.1, T_{5NR} , 16 GHz – 22 GHz, Port A:

Date: 26.JUN.2020 12:51:02

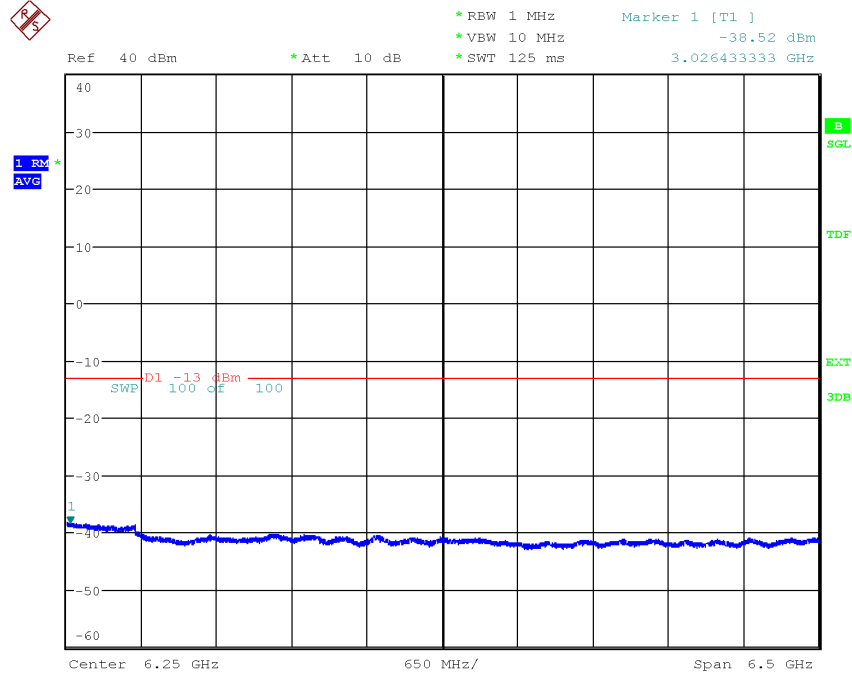
Diagram 3.16a, NR-FR1-TM1.1, Bim_{NR}, 9 kHz – 3 GHz, Port D:

Date: 26.JUN.2020 13:37:05

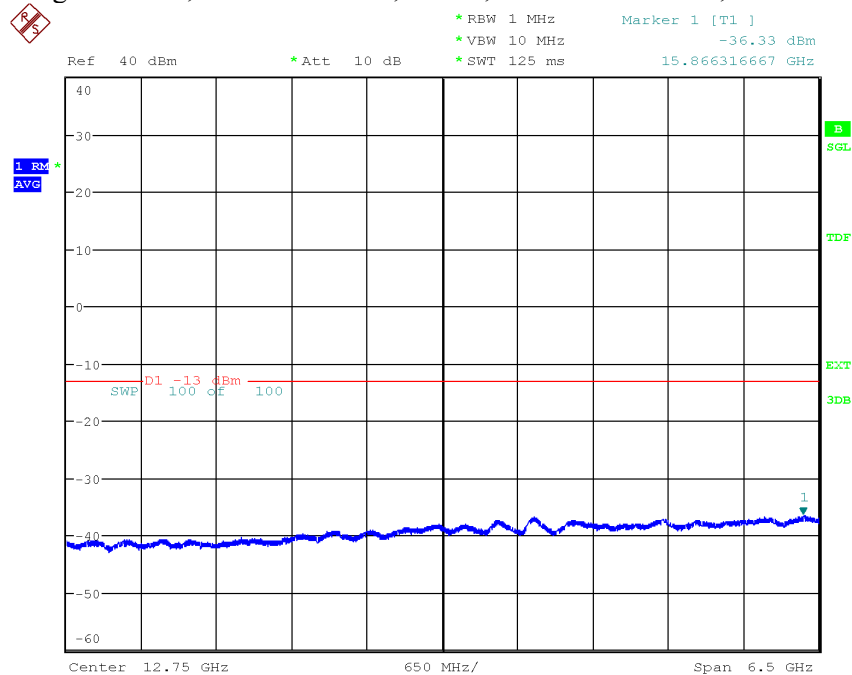
Diagram 3.16b, NR-FR1-TM1.1, Bim_{NR}, 2.01 GHz – 2.28 GHz, Port D:

Date: 26.JUN.2020 14:23:30

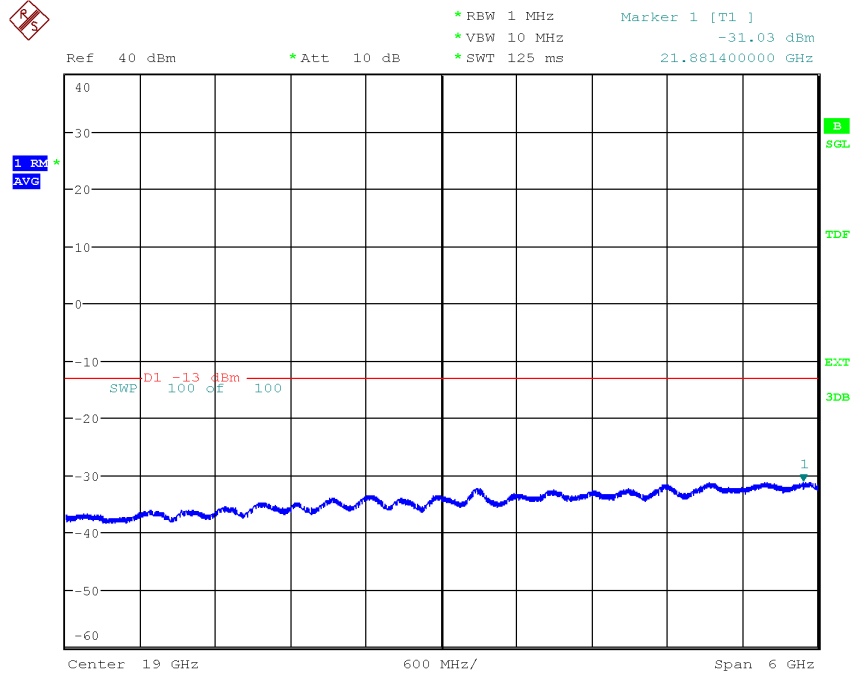
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.16c, NR-FR1-TM1.1, Bim_{NR}, 3 GHz – 9.5 GHz, Port D:

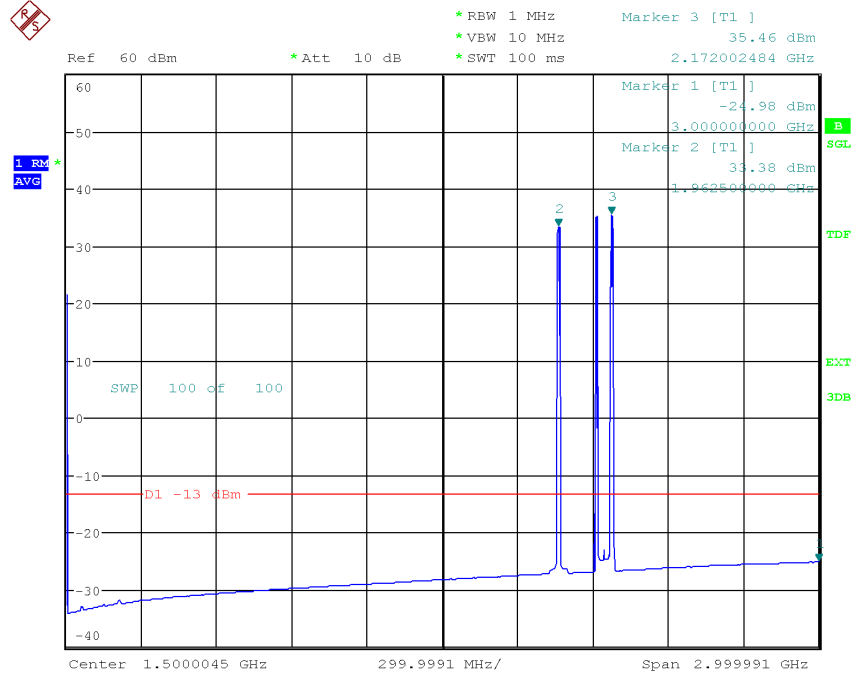
Date: 26.JUN.2020 13:51:40

Diagram 3.16d, NR-FR1-TM1.1, Bim_{NR}, 9.5 GHz – 16 GHz, Port D:

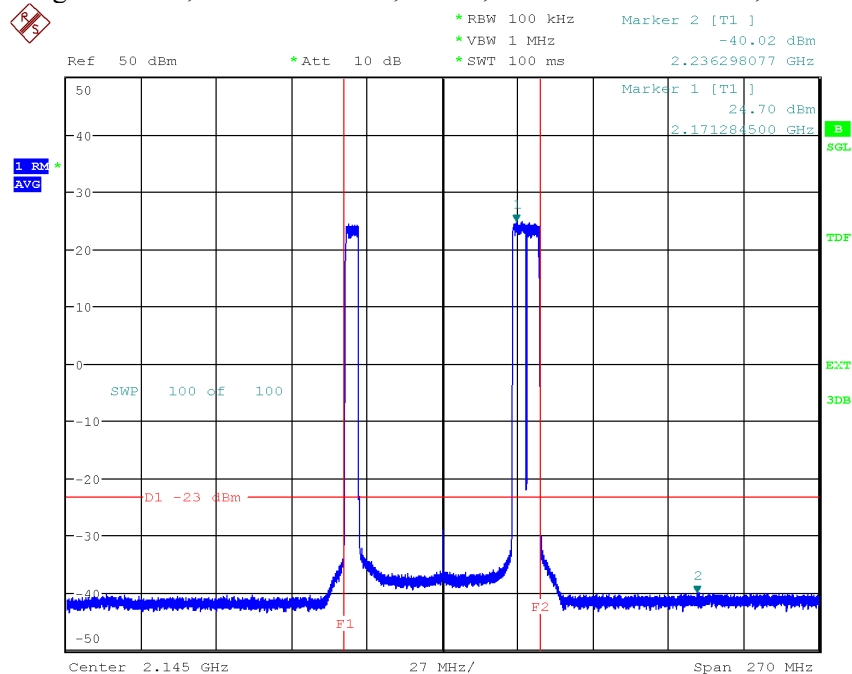
Date: 26.JUN.2020 13:54:09

Diagram 3.16e, NR-FR1-TM1.1, Bim_{NR}, 16 GHz – 22 GHz, Port D:

Date: 26.JUN.2020 14:09:44

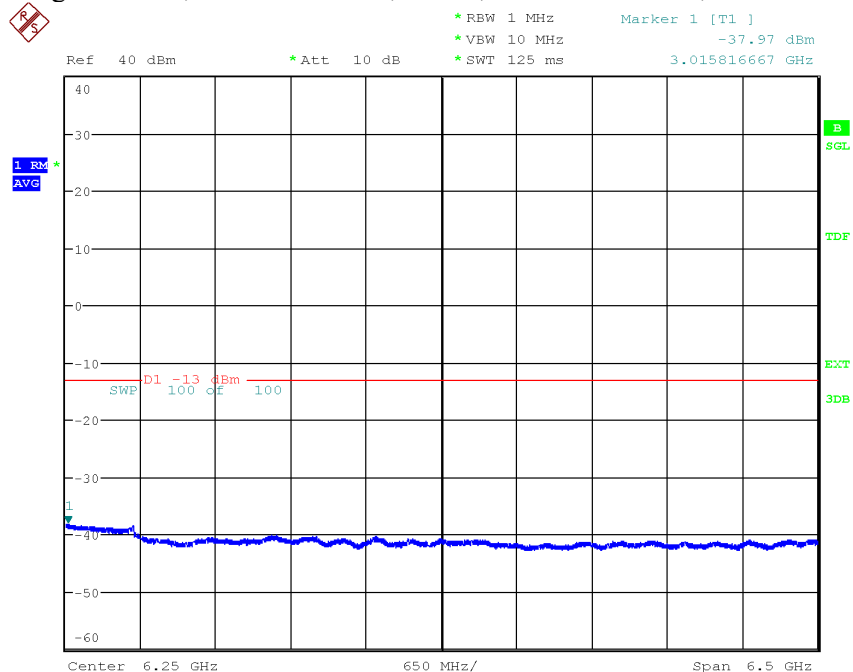
Diagram 3.17a, NR-FR1-TM1.1, Tim_{NR}, 9 kHz – 3 GHz, Port D:

Date: 26.JUN.2020 14:28:34

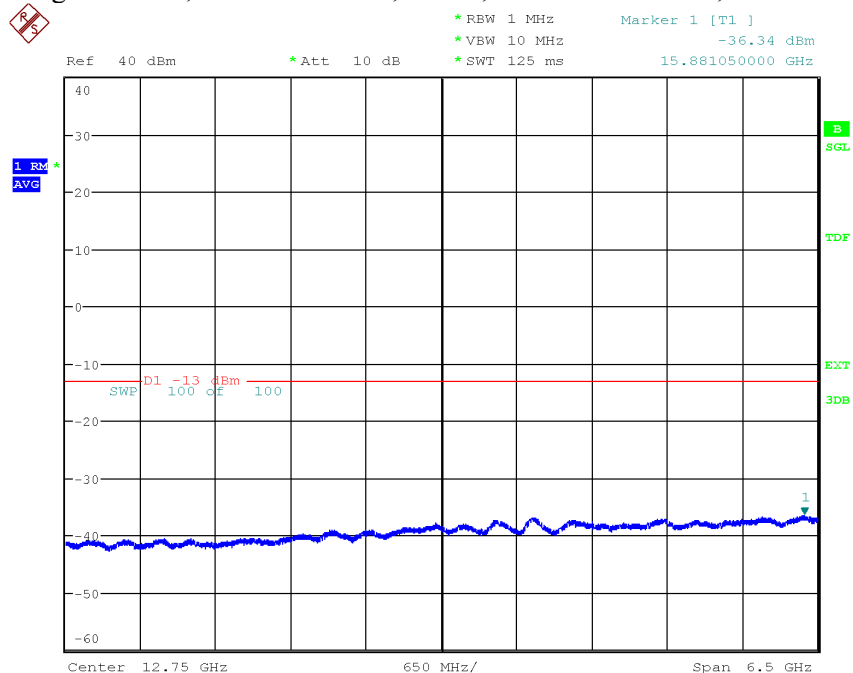
Diagram 3.17b, NR-FR1-TM1.1, Tim_{NR}, 2.01 GHz – 2.28 GHz, Port D:

Date: 26.JUN.2020 14:21:00

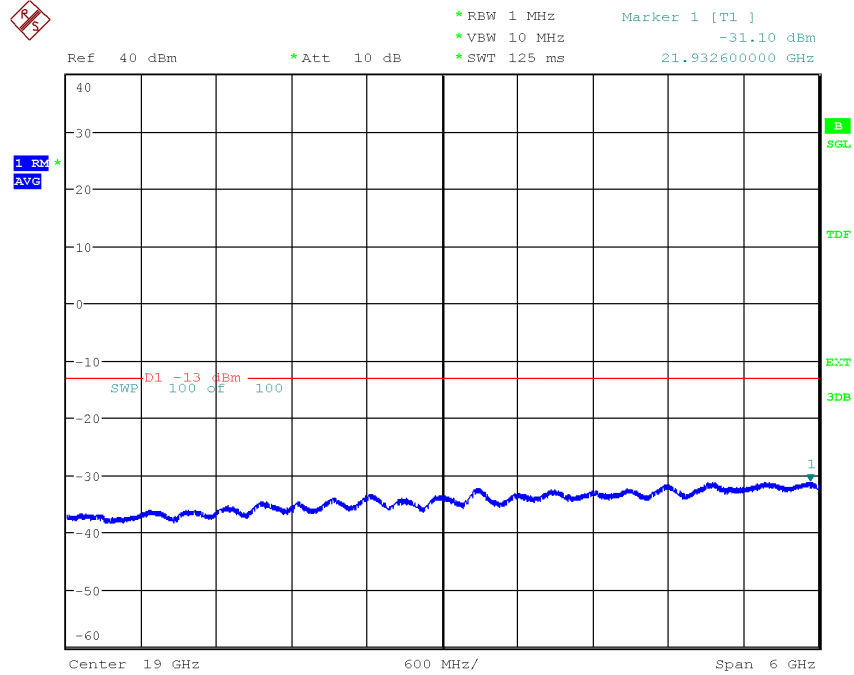
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.17c, NR-FR1-TM1.1, Tim_{NR}, 3 GHz – 9.5 GHz, Port D:

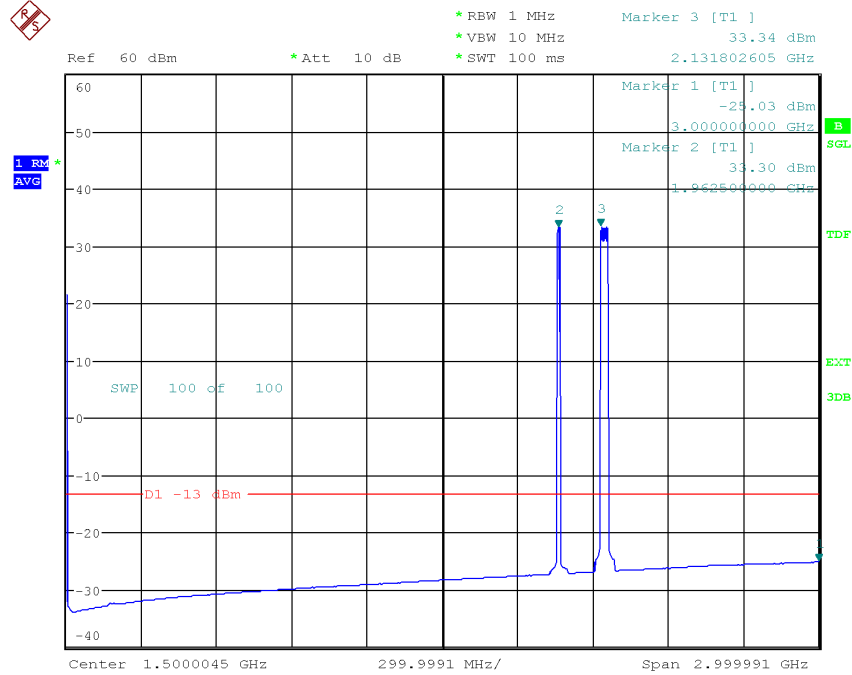
Date: 26.JUN.2020 14:16:59

Diagram 3.17d, NR-FR1-TM1.1, Tim_{NR}, 9.5 GHz – 16 GHz, Port D:

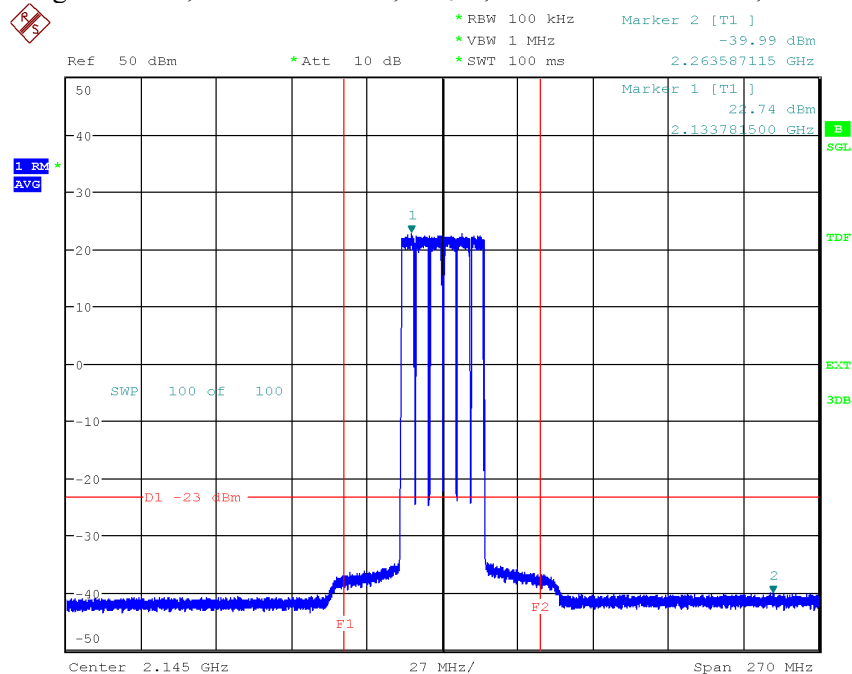
Date: 26.JUN.2020 14:14:43

Diagram 3.17e, NR-FR1-TM1.1, Tim_{NR}, 16 GHz – 22 GHz, Port D:

Date: 26.JUN.2020 14:12:26

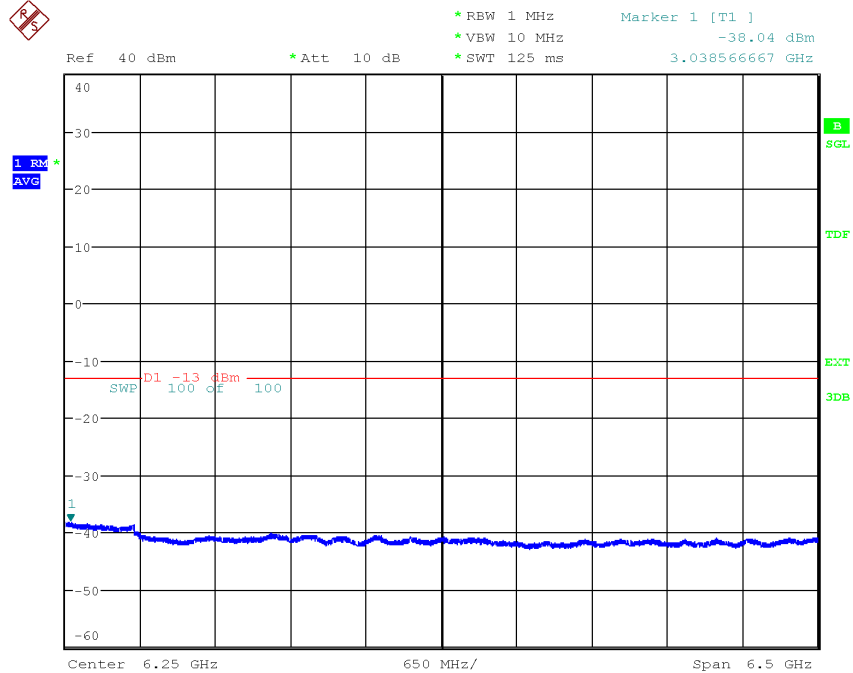
Diagram 3.18a, NR-FR1-TM1.1, M6_{5NR}, 9 kHz – 3 GHz, Port D:

Date: 26.JUN.2020 14:32:00

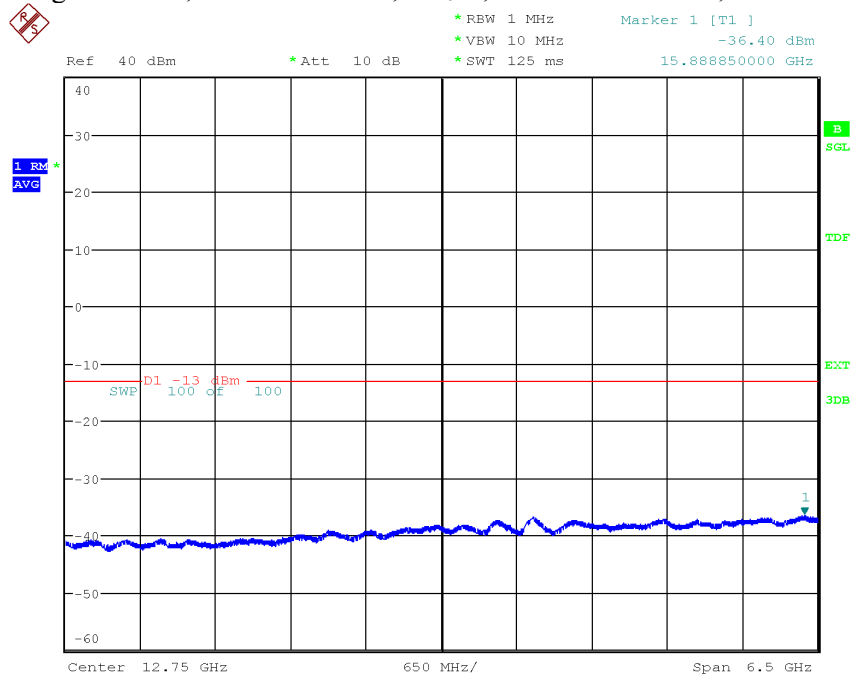
Diagram 3.18b, NR-FR1-TM1.1, M6_{5NR}, 2.01 GHz – 2.28 GHz, Port D:

Date: 26.JUN.2020 14:34:35

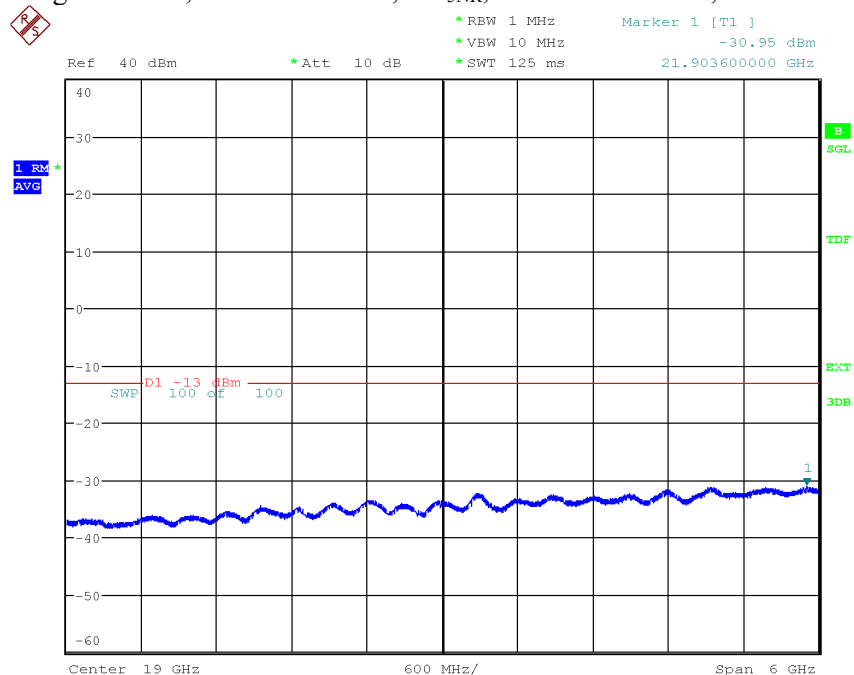
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.18c, NR-FR1-TM1.1, M6_{5NR}, 3 GHz – 9.5 GHz, Port D:

Date: 26.JUN.2020 14:37:39

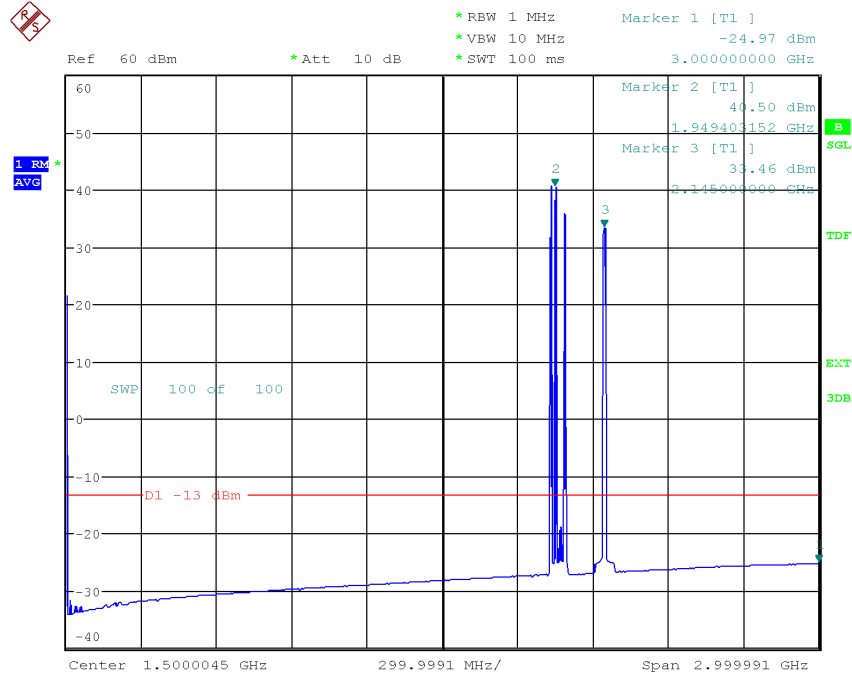
Diagram 3.18d, NR-FR1-TM1.1, M6_{5NR}, 9.5 GHz – 16 GHz, Port D:

Date: 26.JUN.2020 14:40:06

Diagram 3.18e, NR-FR1-TM1.1, M6_{5NR}, 16 GHz – 22 GHz, Port D:

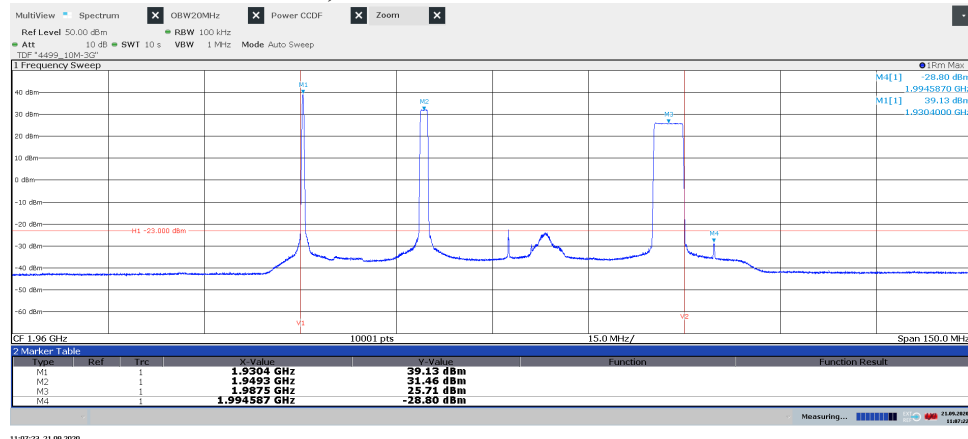
Date: 26.JUN.2020 14:42:52

Diagram 3.19a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Bim_{NR+L+G},
9 kHz – 3 GHz, Port D:



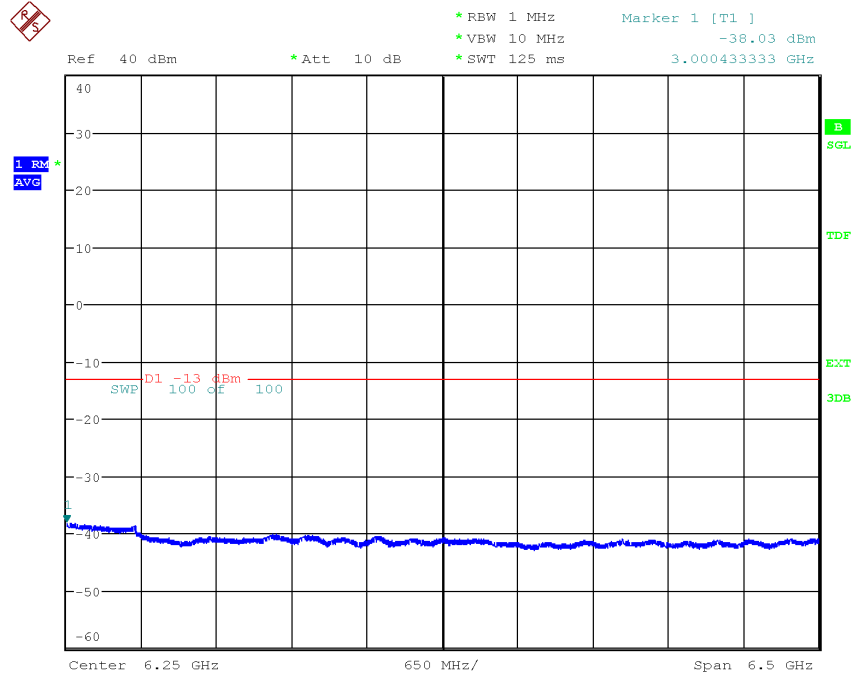
Date: 30.JUN.2020 09:23:42

Diagram 3.19b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Bim_{NR+L+G},
1.8275 GHz – 2.0975 GHz, Port D:



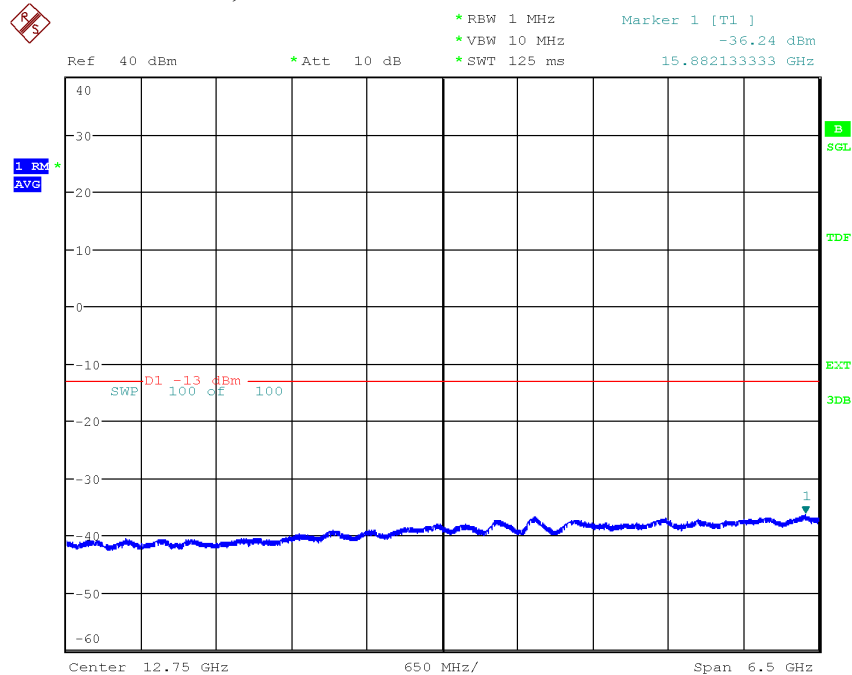
Note: The emission at 1994.587 MHz was -24.64 dBm when measured with the channel power method with 1 MHz channel bandwidth. The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.19c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Bim_{NR+L+G},
3 GHz – 9.5 GHz, Port D:



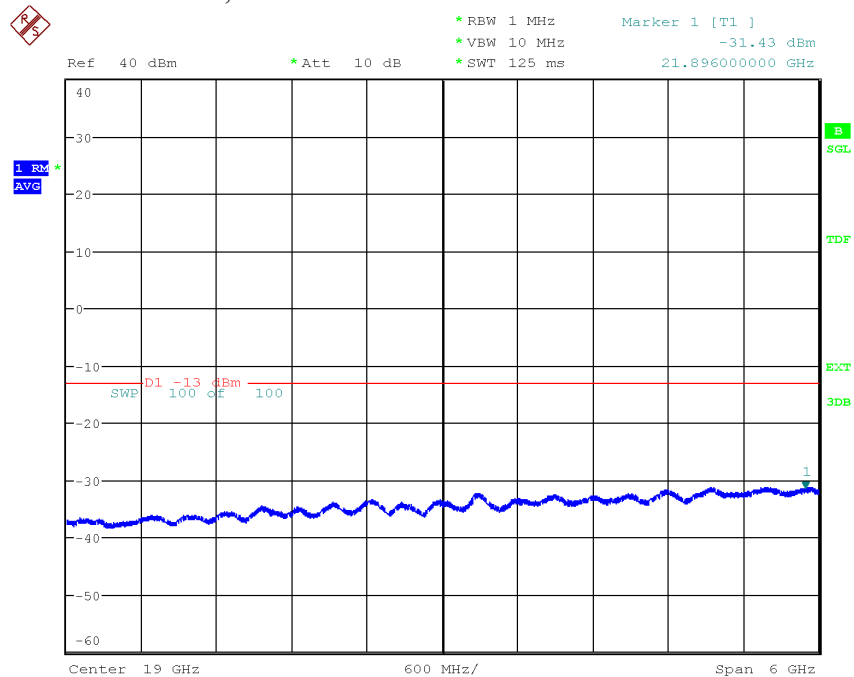
Date: 30.JUN.2020 10:04:54

Diagram 3.19d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Bim_{NR+L+G},
9.5 GHz – 16 GHz, Port D:



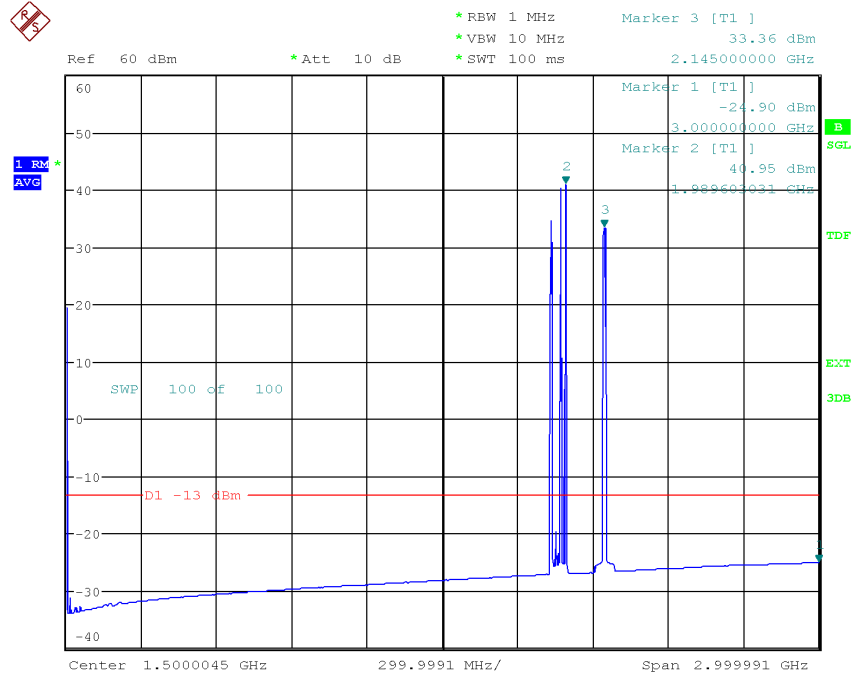
Date: 30.JUN.2020 10:07:44

Diagram 3.19e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Bim_{NR+L+G},
16 GHz – 22 GHz, Port D:



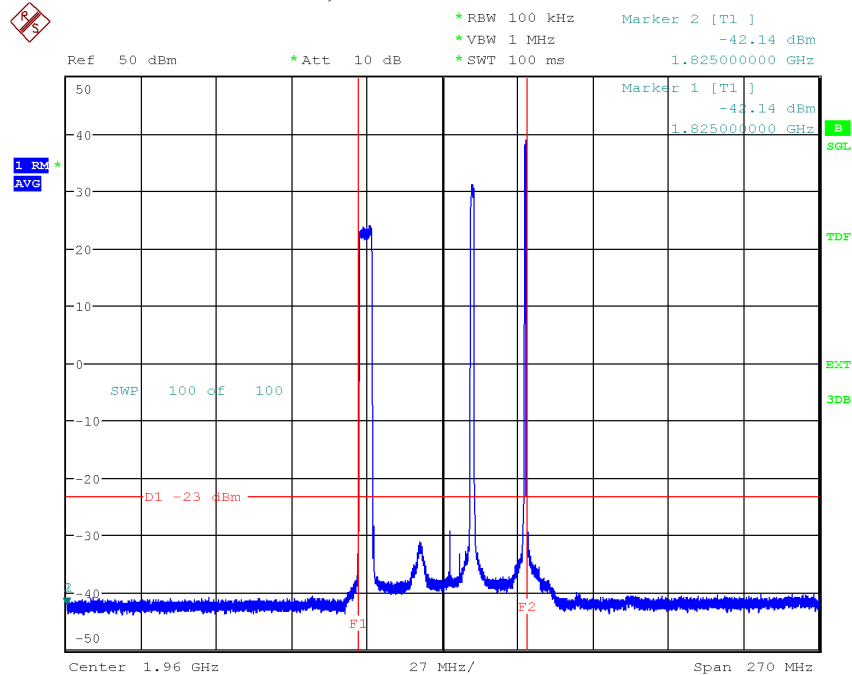
Date: 30.JUN.2020 10:23:40

Diagram 3.20a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, $\text{Tim}_{\text{NR}+\text{L}+\text{G}}$, 9 kHz – 3 GHz, Port D:



Date: 30.JUN.2020 10:39:22

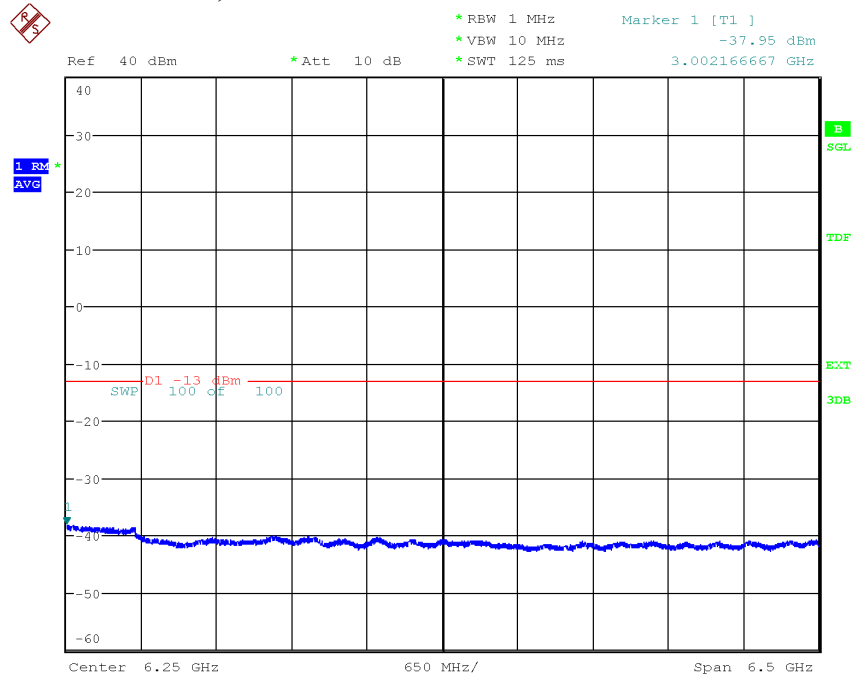
Diagram 3.20b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, $\text{Tim}_{\text{NR}+\text{L}+\text{G}}$, 1.8275 GHz – 2.0975 GHz, Port D:



Date: 30.JUN.2020 10:38:08

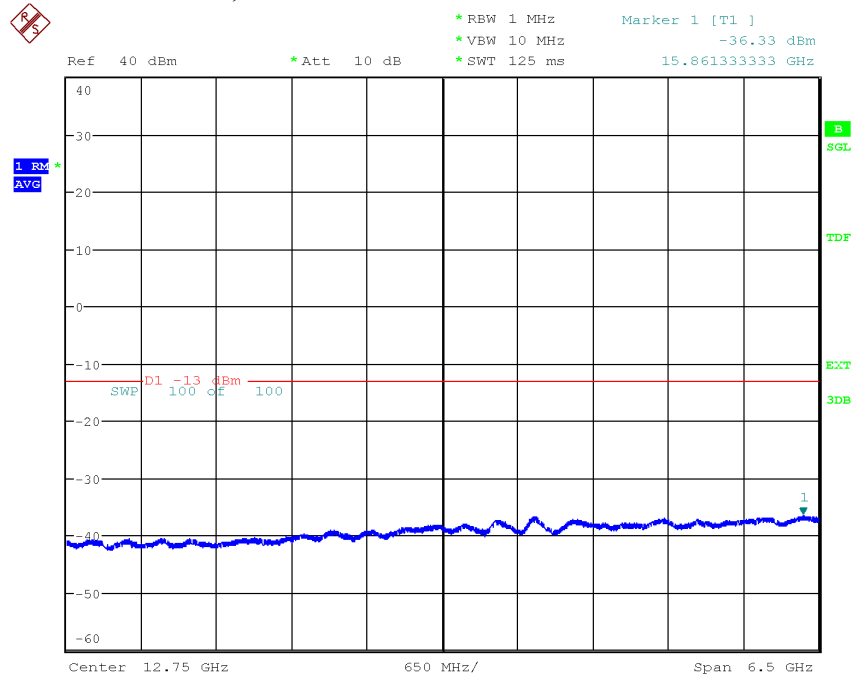
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.20c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, $\text{Tim}_{\text{NR}+\text{L}+\text{G}}$, 3 GHz – 9.5 GHz, Port D:



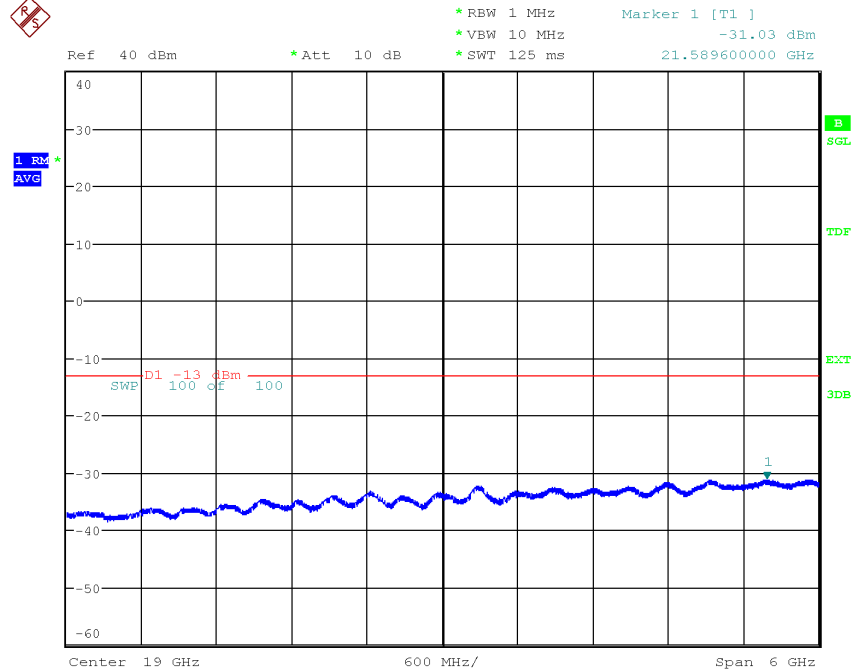
Date: 30.JUN.2020 10:35:13

Diagram 3.20d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, $\text{Tim}_{\text{NR}+\text{L}+\text{G}}$, 9.5 GHz – 16 GHz, Port D:



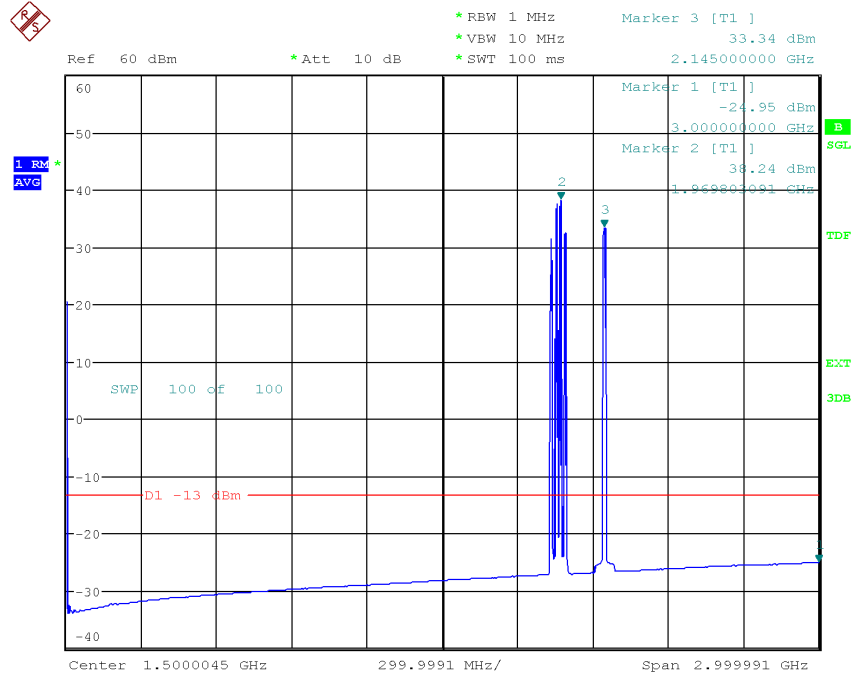
Date: 30.JUN.2020 10:33:09

Diagram 3.20e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, $\text{Tim}_{\text{NR}+\text{L}+\text{G}}$,
16 GHz – 22 GHz, Port D:



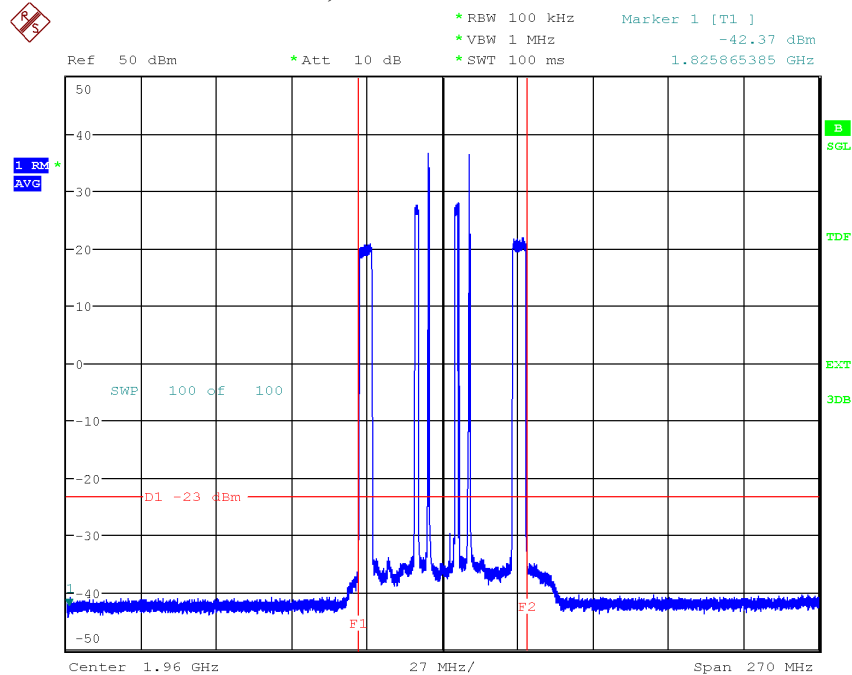
Date: 30.JUN.2020 10:28:19

Diagram 3.21a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Max_{NR+L+G},
9 kHz – 3 GHz, Port D:



Date: 30.JUN.2020 11:04:32

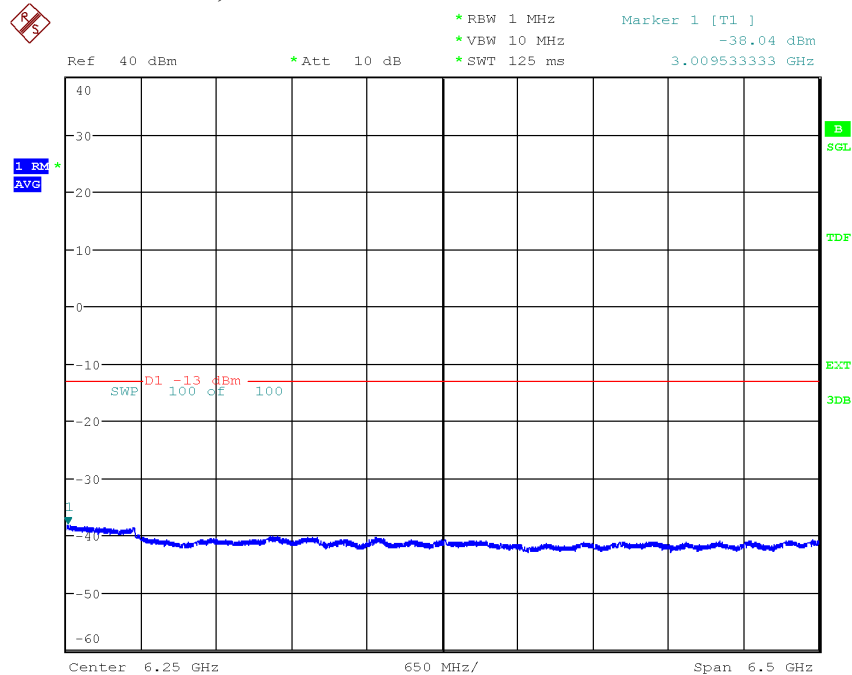
Diagram 3.21b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Max_{NR+L+G},
1.8275 GHz – 2.0975 GHz, Port D:



Date: 30.JUN.2020 11:02:31

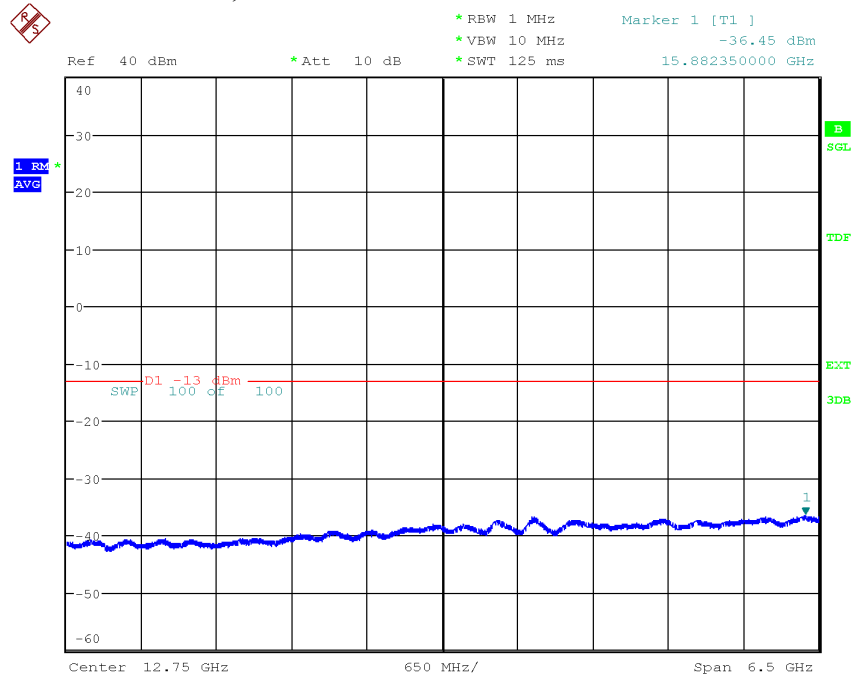
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.21c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Max_{NR+L+G},
3 GHz – 9.5 GHz, Port D:



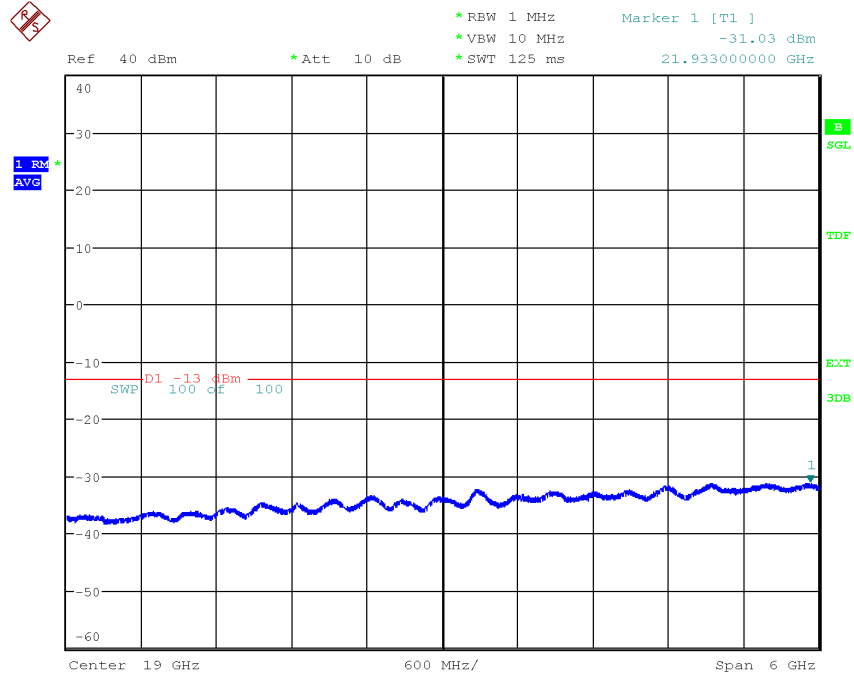
Date: 30.JUN.2020 11:09:16

Diagram 3.21d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Max_{NR+L+G},
9.5 GHz – 16 GHz, Port D:



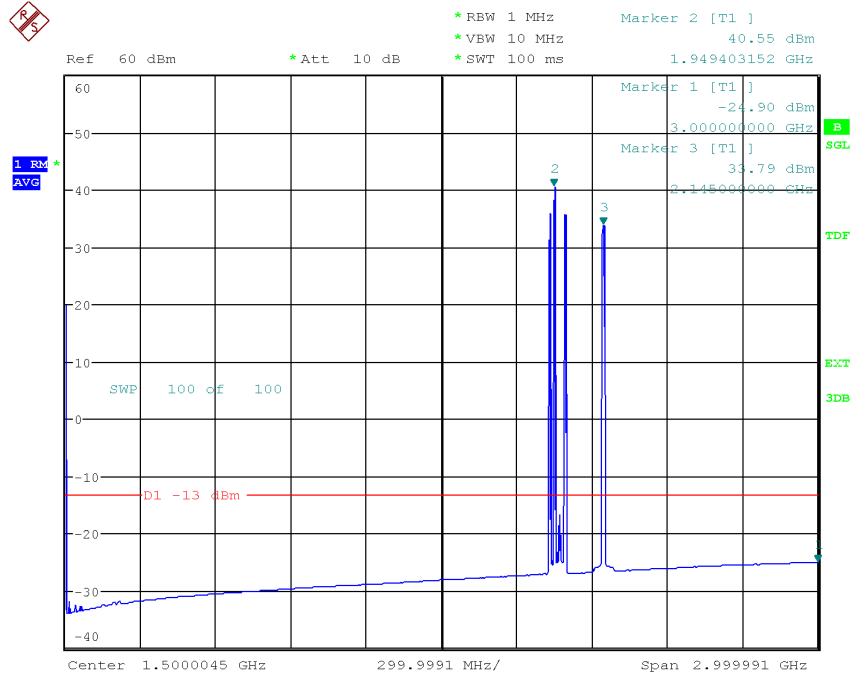
Date: 30.JUN.2020 11:11:14

Diagram 3.21e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, GSM: GMSK, Max_{NR+L+G},
16 GHz – 22 GHz, Port D:



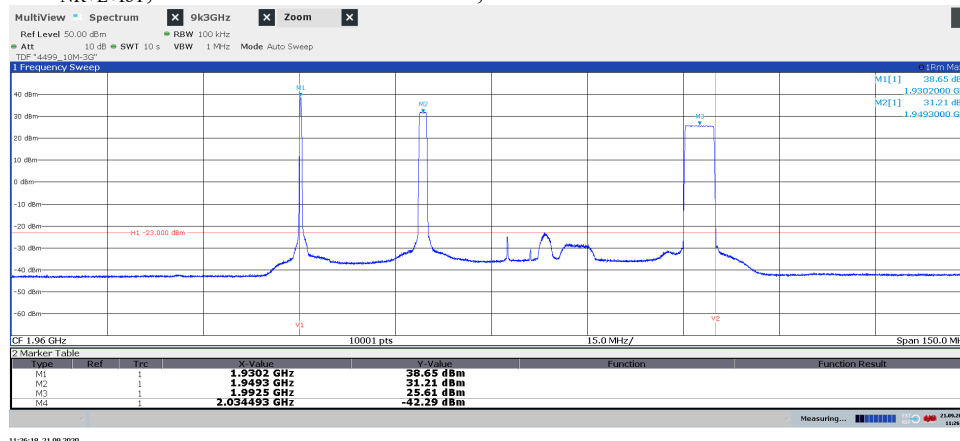
Date: 30.JUN.2020 12:16:22

Diagram 3.22a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 9 kHz – 3 GHz, Port D:



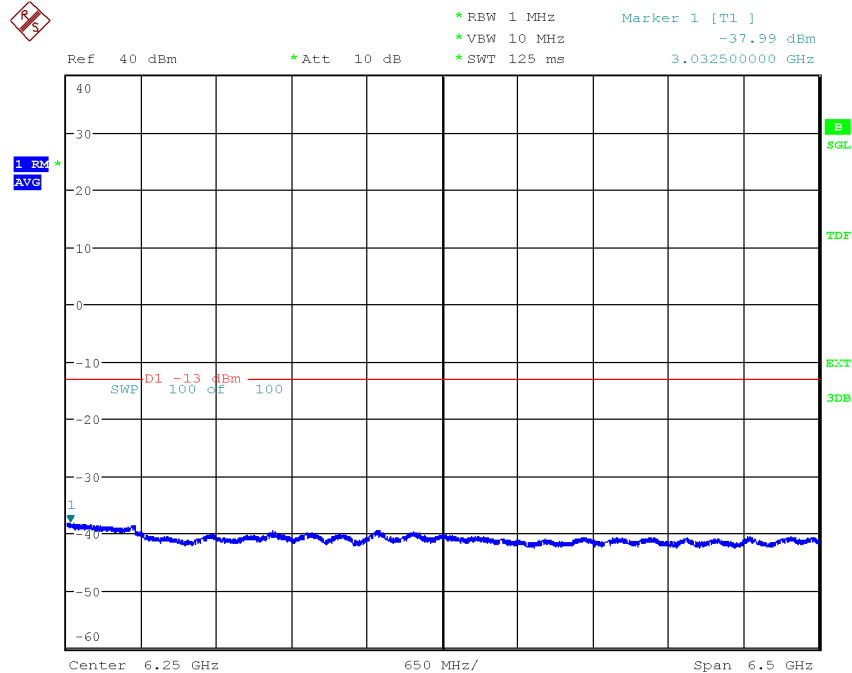
Date: 10.AUG.2020 16:02:03

Diagram 3.22b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 1.8275 GHz – 2.0975 GHz, Port D:



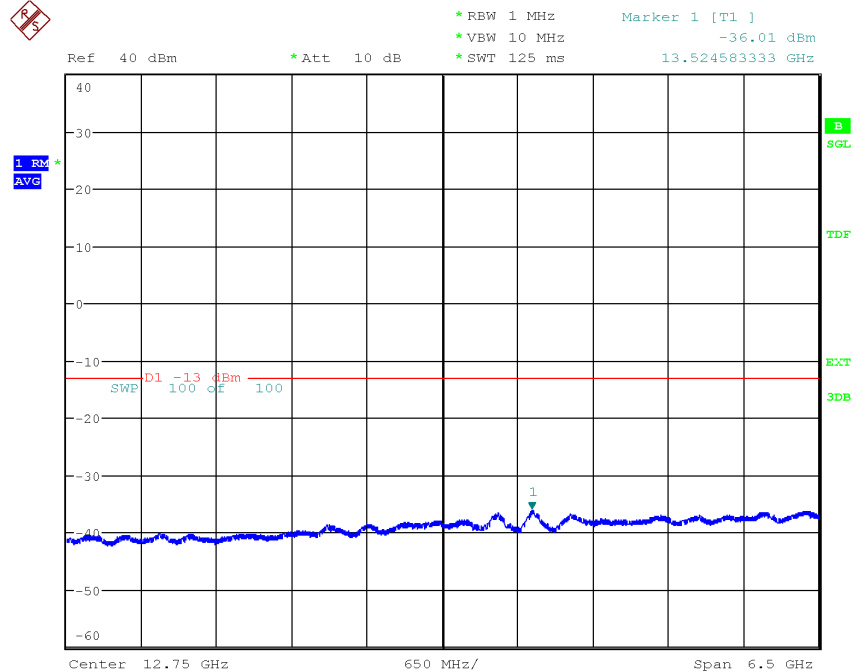
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.22c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 3 GHz – 9.5 GHz, Port D:



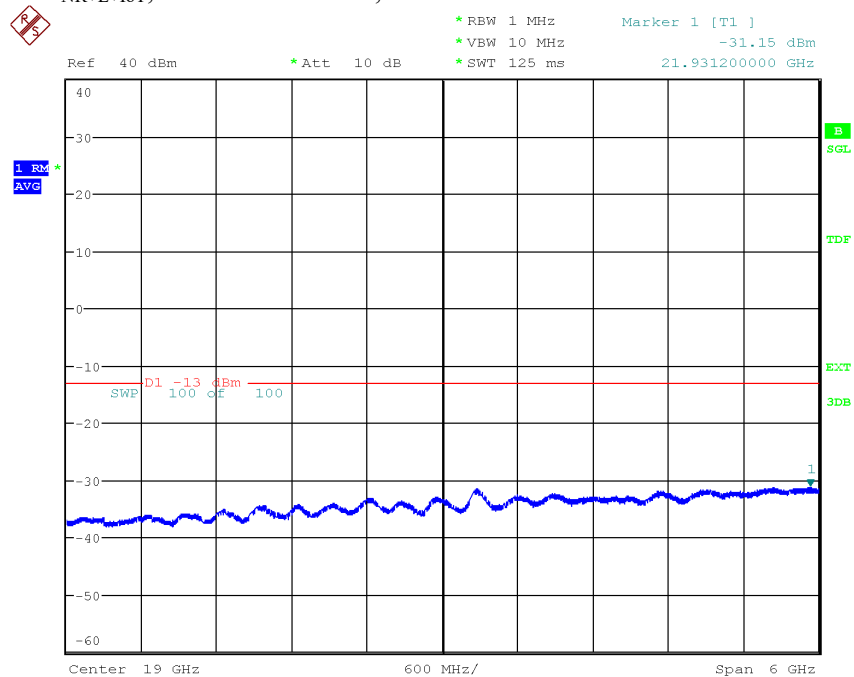
Date: 10.AUG.2020 15:59:29

Diagram 3.22d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 9.5 GHz – 16 GHz, Port D:



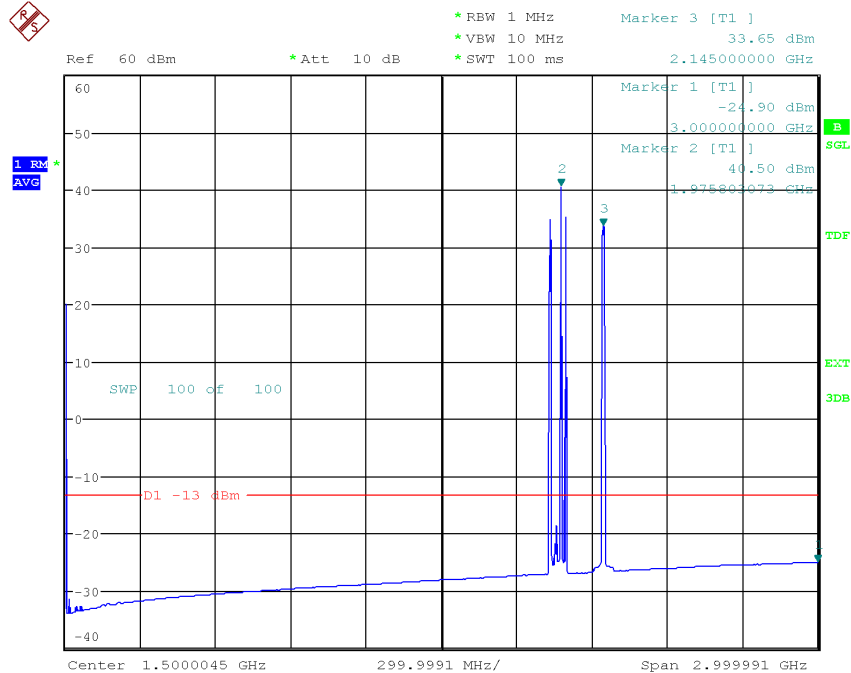
Date: 10.AUG.2020 15:57:06

Diagram 3.22e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 16 GHz – 22 GHz, Port D:



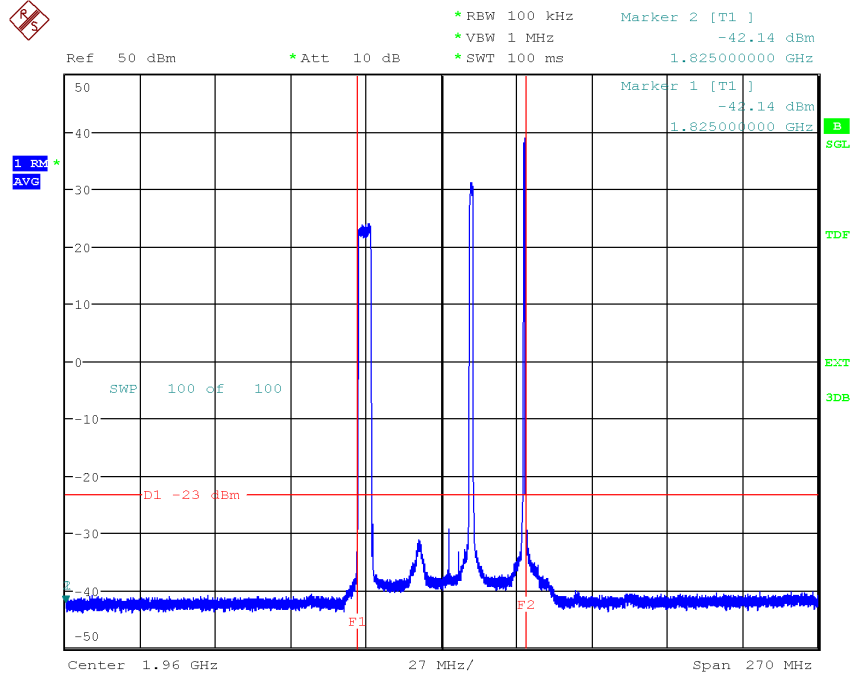
Date: 10.AUG.2020 15:54:47

Diagram 3.23a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 9 kHz – 3 GHz, Port D:



Date: 10.AUG.2020 16:12:34

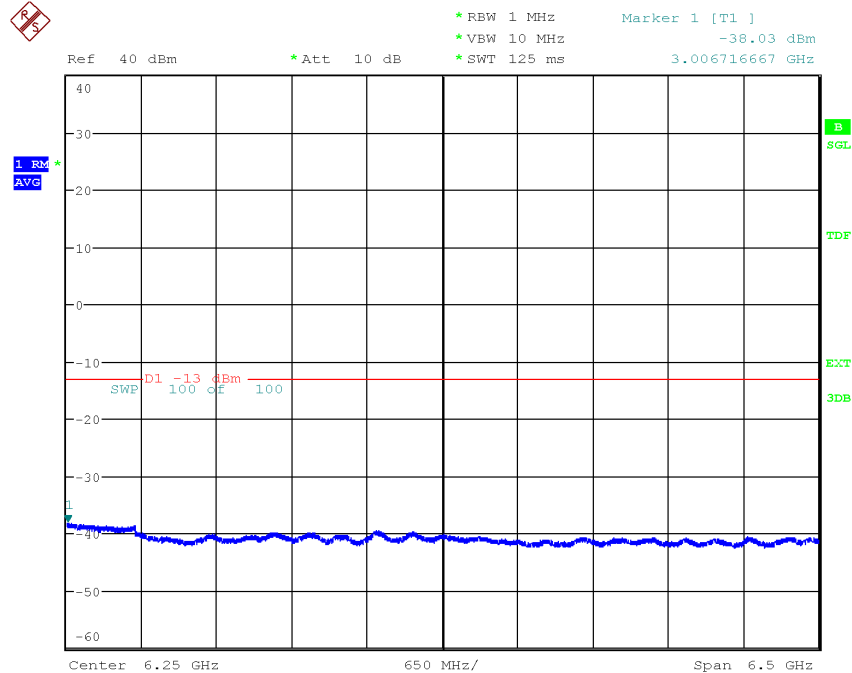
Diagram 3.23b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 1.8275 GHz – 2.0975 GHz, Port D:



Date: 30.JUN.2020 10:38:08

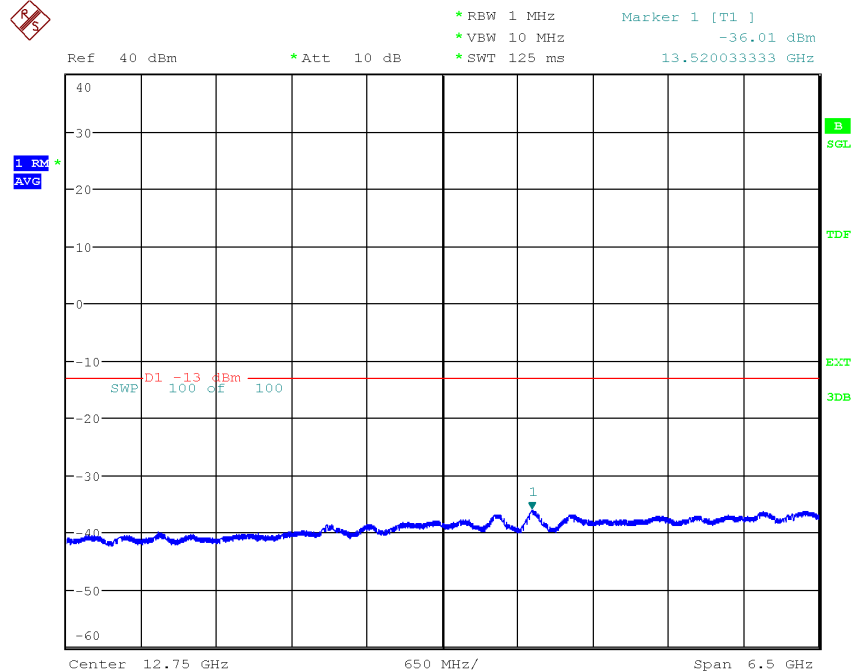
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.23c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 3 GHz – 9.5 GHz, Port D:



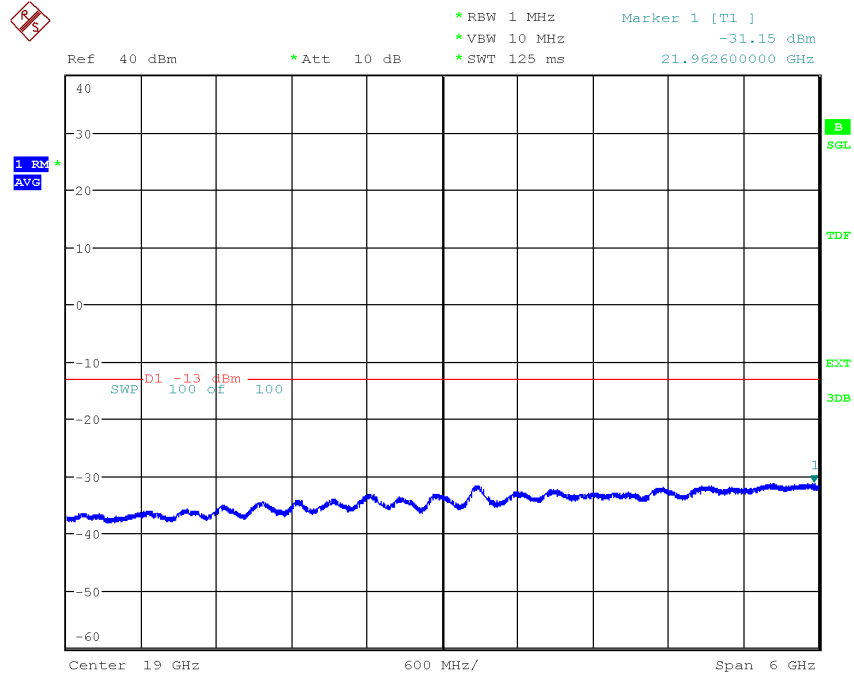
Date: 10.AUG.2020 16:18:29

Diagram 3.23d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 9.5 GHz – 16 GHz, Port D:



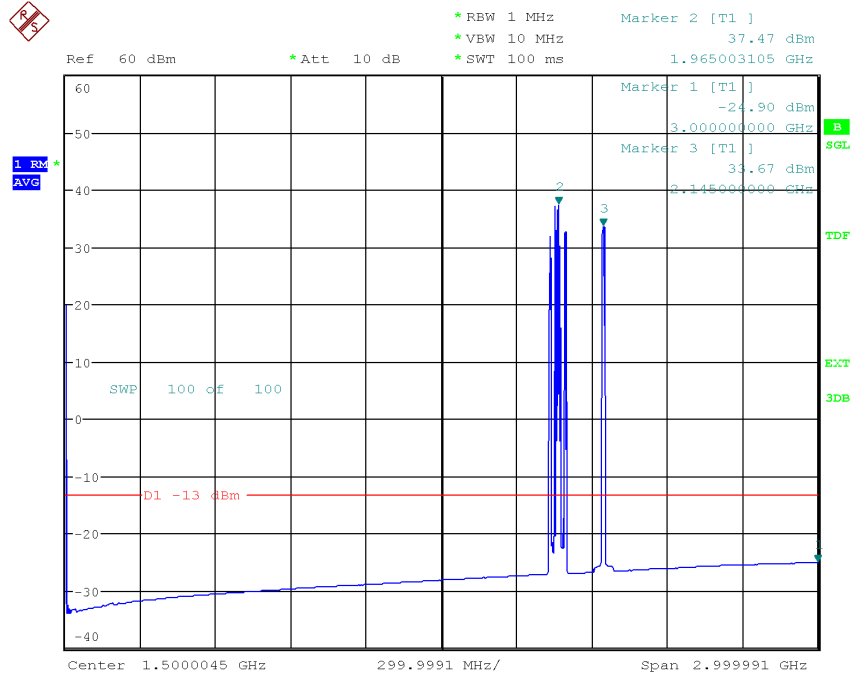
Date: 10.AUG.2020 16:21:30

Diagram 3.23e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 16 GHz – 22 GHz, Port D:



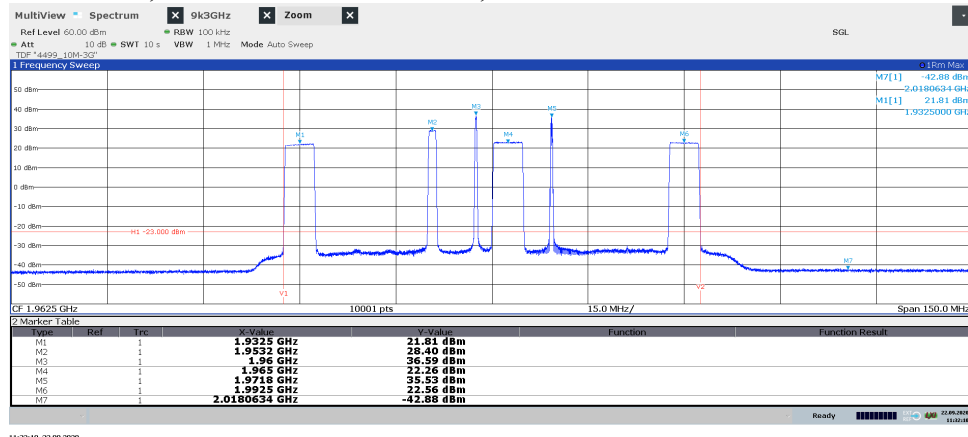
Date: 10.AUG.2020 16:23:38

Diagram 3.24a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Max_{NR+L+IoT}, 9 kHz – 3 GHz, Port D:



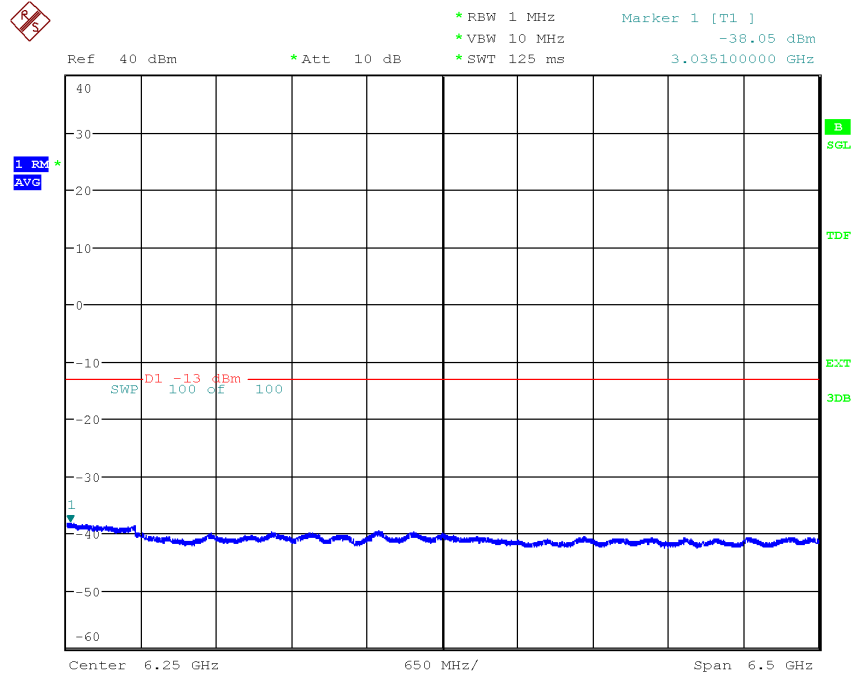
Date: 10.AUG.2020 14:29:42

Diagram 3.24b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Max_{NR+L+IoT}, 1.8275 GHz – 2.0975 GHz, Port D:



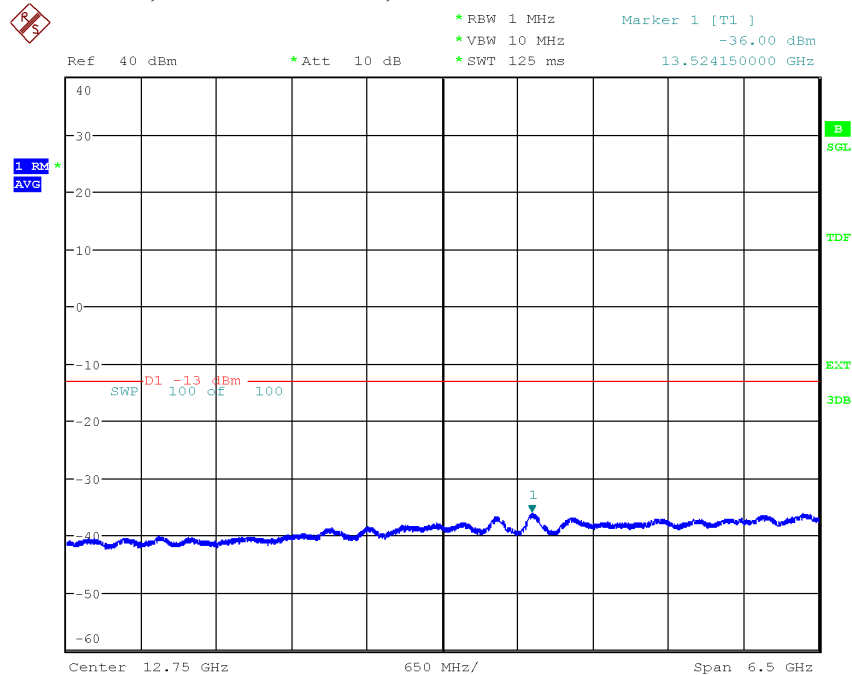
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.24c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
MaxNR+L+IoT, 3 GHz – 9.5 GHz, Port D:



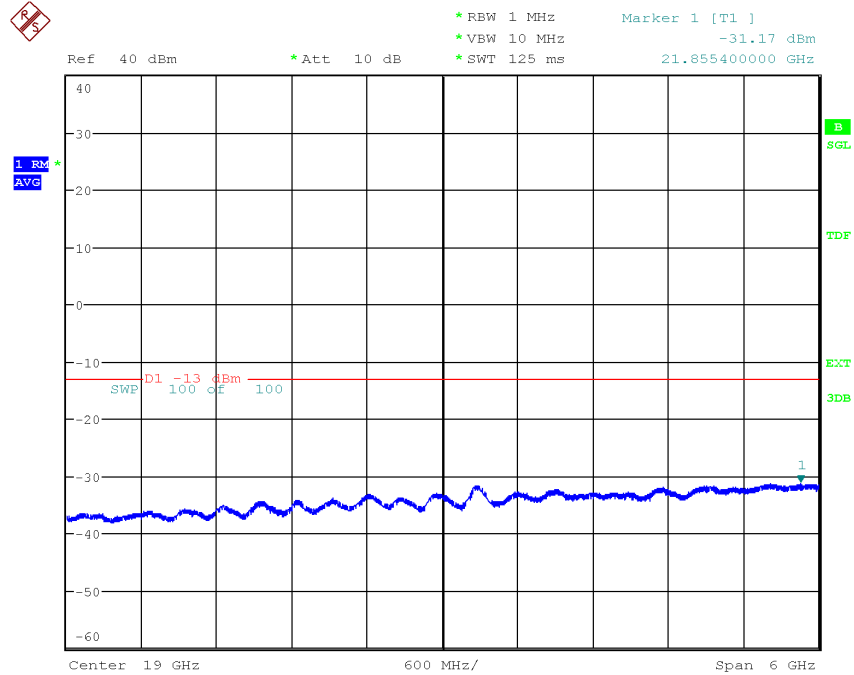
Date: 10.AUG.2020 14:36:35

Diagram 3.24d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
MaxNR+L+IoT, 9.5 GHz – 16 GHz, Port D:



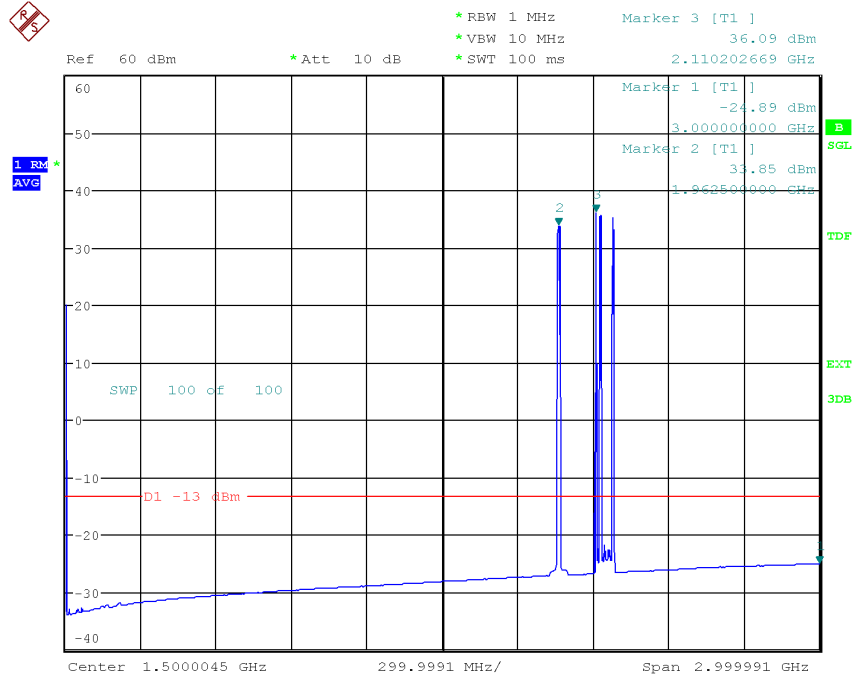
Date: 10.AUG.2020 14:48:08

Diagram 3.24e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Max_{NR+L+IoT}, 16 GHz – 22 GHz, Port D:



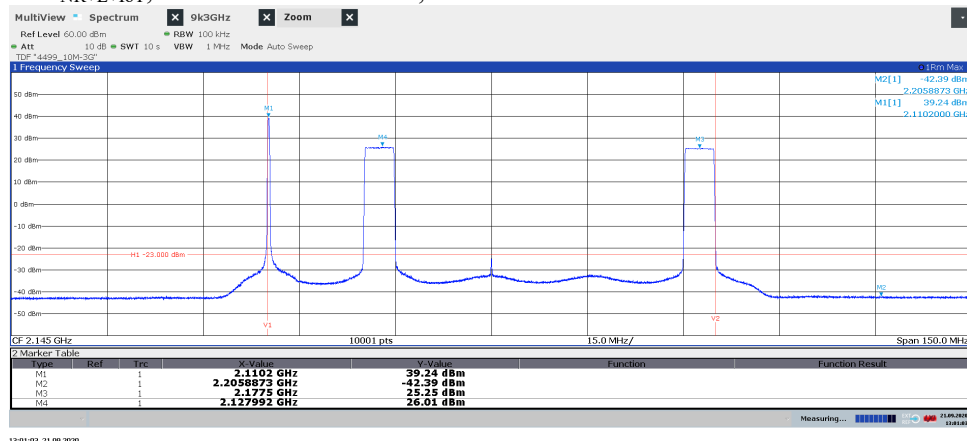
Date: 10.AUG.2020 15:33:10

Diagram 3.25a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 9 kHz – 3 GHz, Port A:



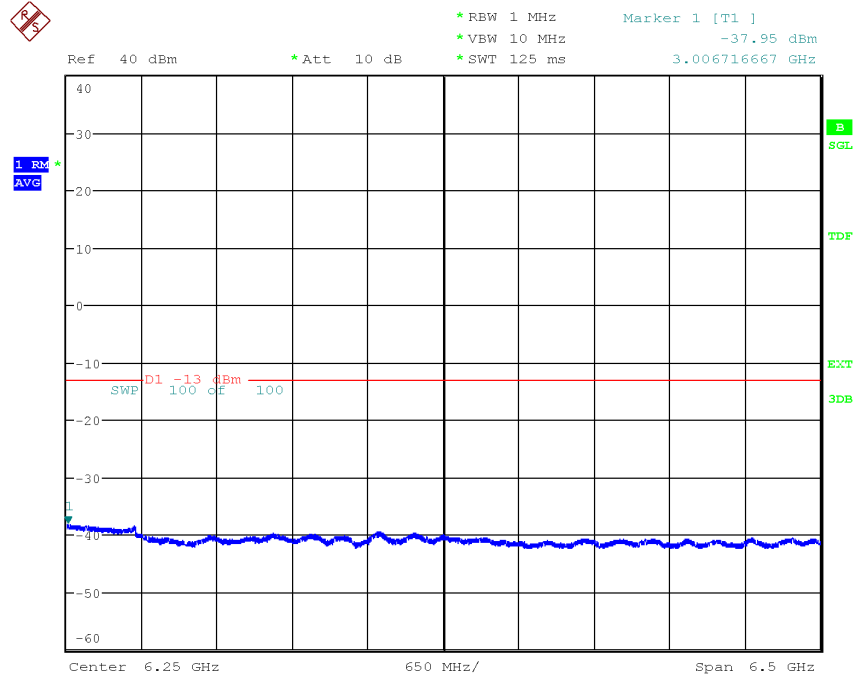
Date: 11.AUG.2020 16:14:08

Diagram 3.25b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 2.01 GHz – 2.28 GHz, Port A:



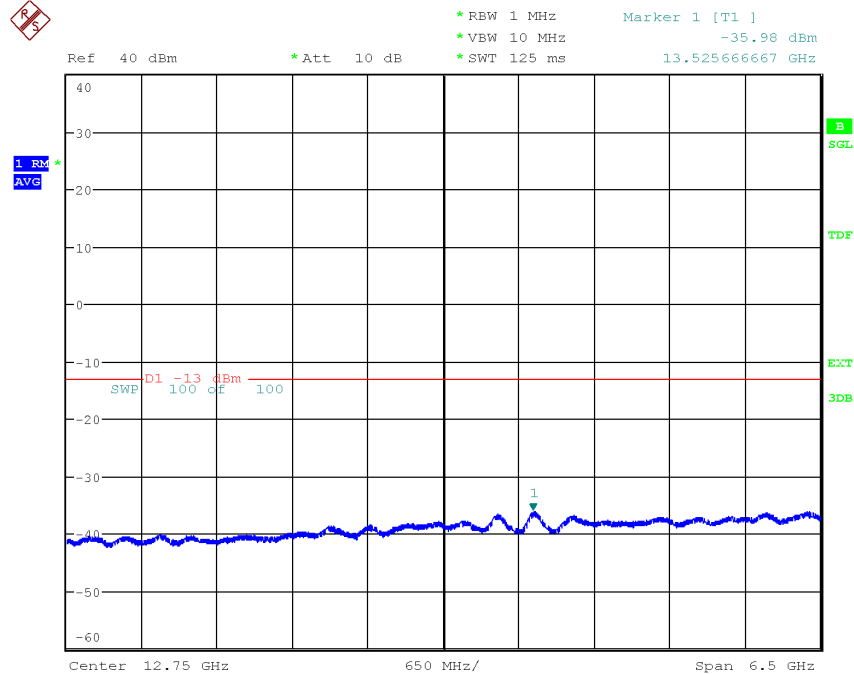
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.25c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 3 GHz – 9.5 GHz, Port A:



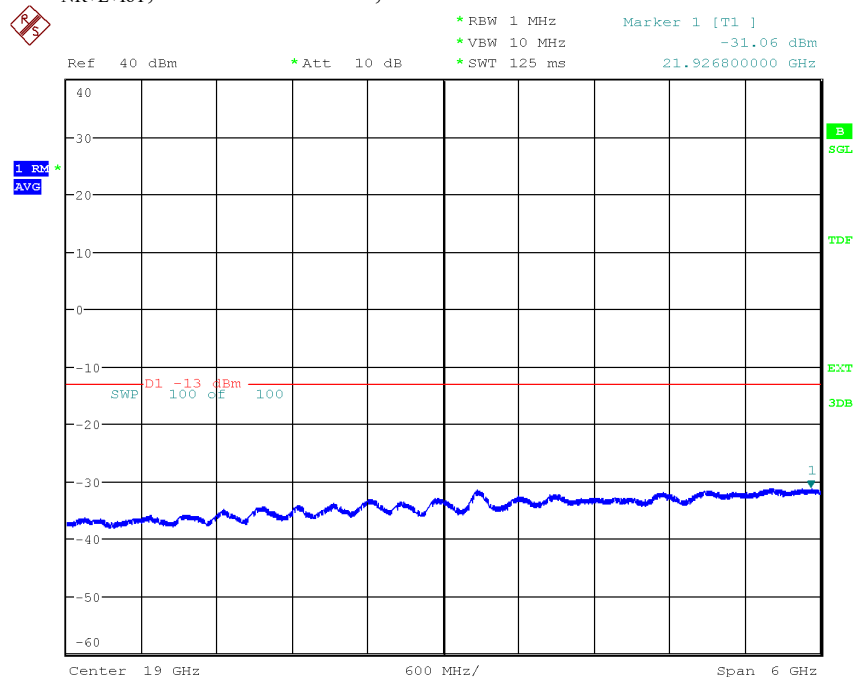
Date: 11.AUG.2020 16:17:03

Diagram 3.25d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 9.5 GHz – 16 GHz, Port A:



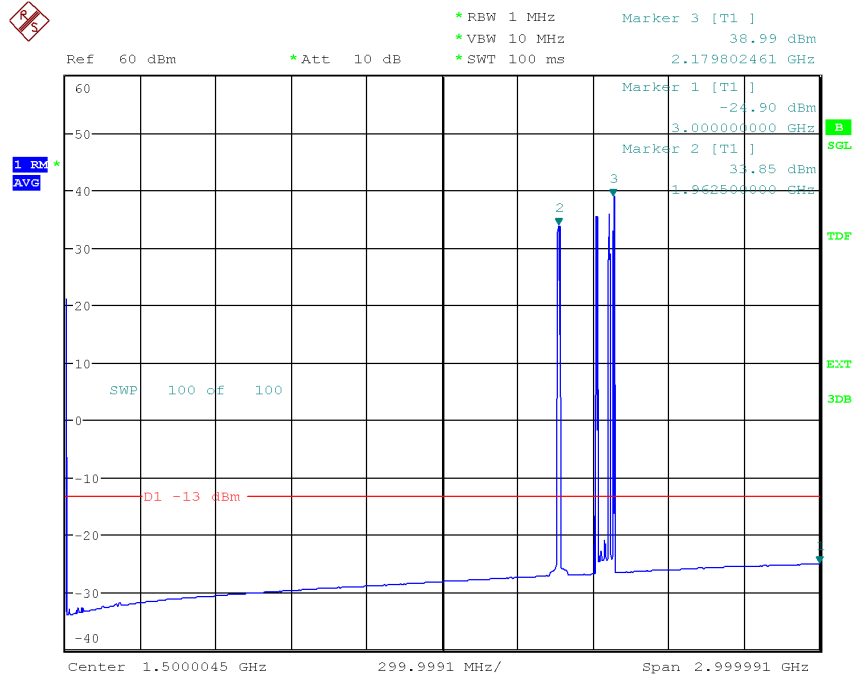
Date: 11.AUG.2020 16:19:34

Diagram 3.25e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Bim_{NR+L+IoT}, 16 GHz – 22 GHz, Port A:



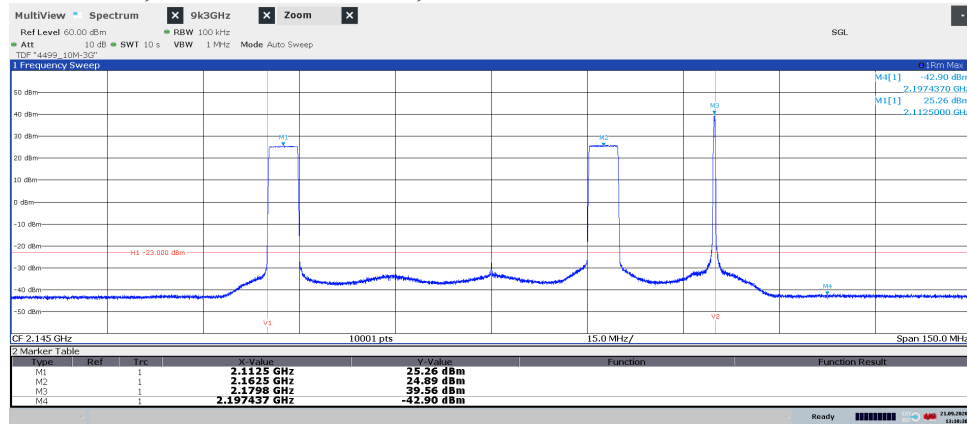
Date: 11.AUG.2020 16:23:16

Diagram 3.26a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 9 kHz – 3 GHz, Port A:



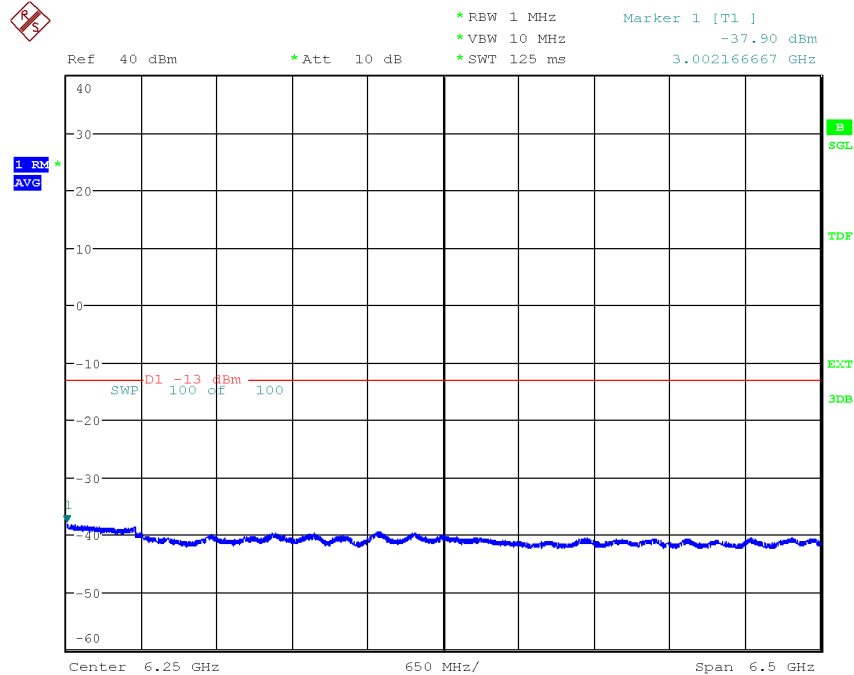
Date: 12.AUG.2020 11:51:57

Diagram 3.26b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 2.01 GHz – 2.28 GHz, Port A:



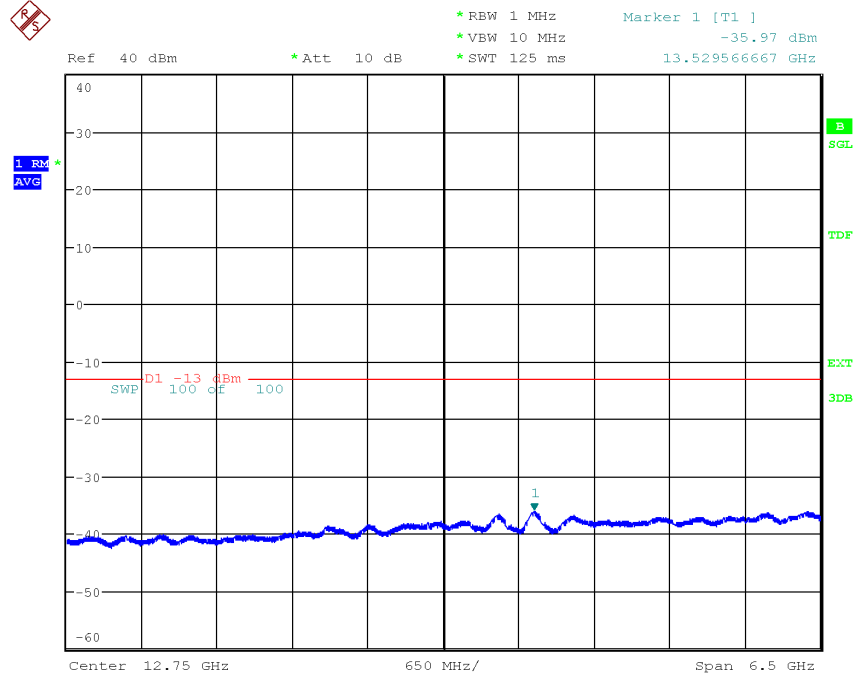
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.26c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 3 GHz – 9.5 GHz, Port A:



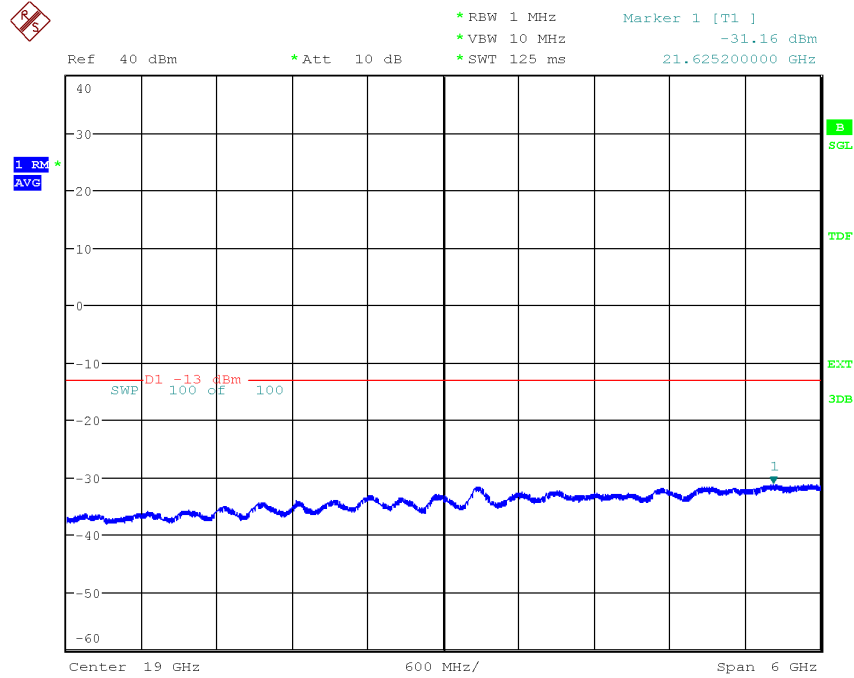
Date: 12.AUG.2020 11:36:37

Diagram 3.26d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 9.5 GHz – 16 GHz, Port A:



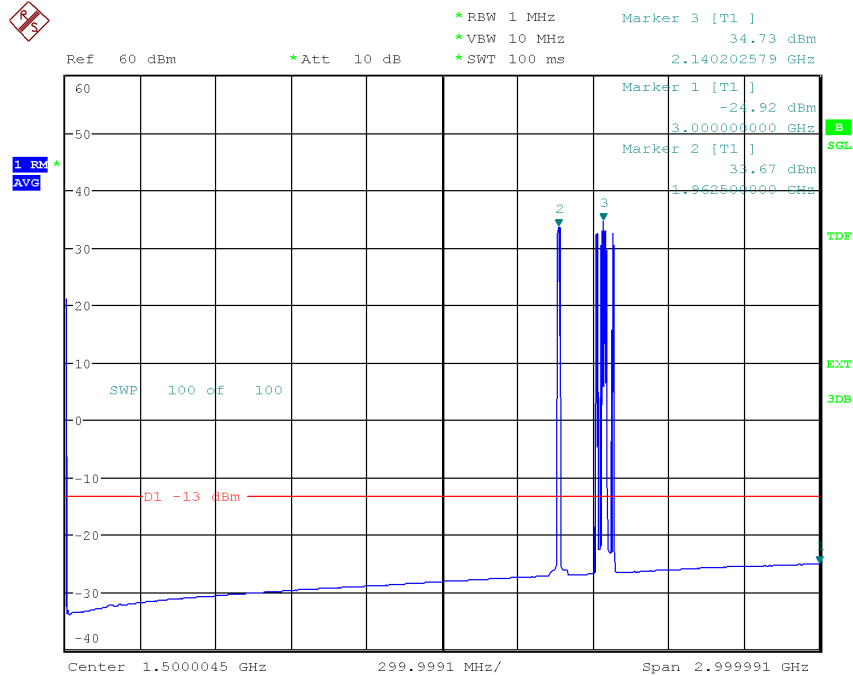
Date: 12.AUG.2020 11:33:53

Diagram 3.26e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Tim_{NR+L+IoT}, 16 GHz – 22 GHz, Port A:



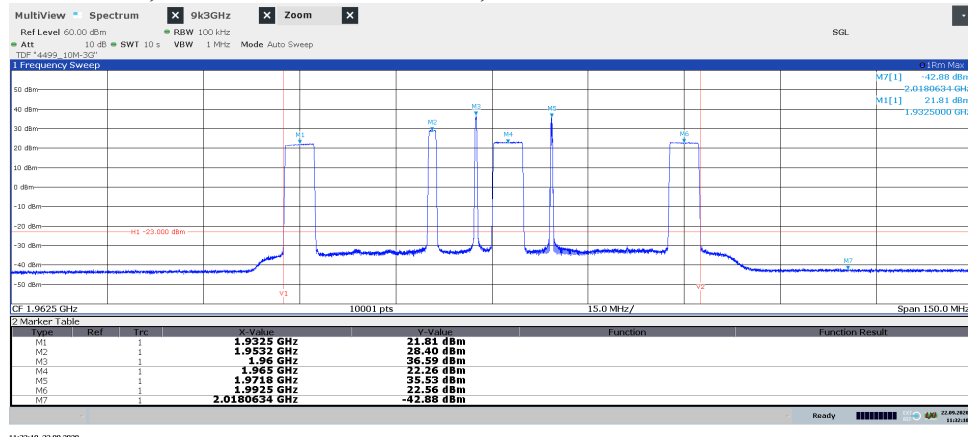
Date: 12.AUG.2020 11:29:09

Diagram 3.27a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Max_{NR+L+IoT}, 9 kHz – 3 GHz, Port A:



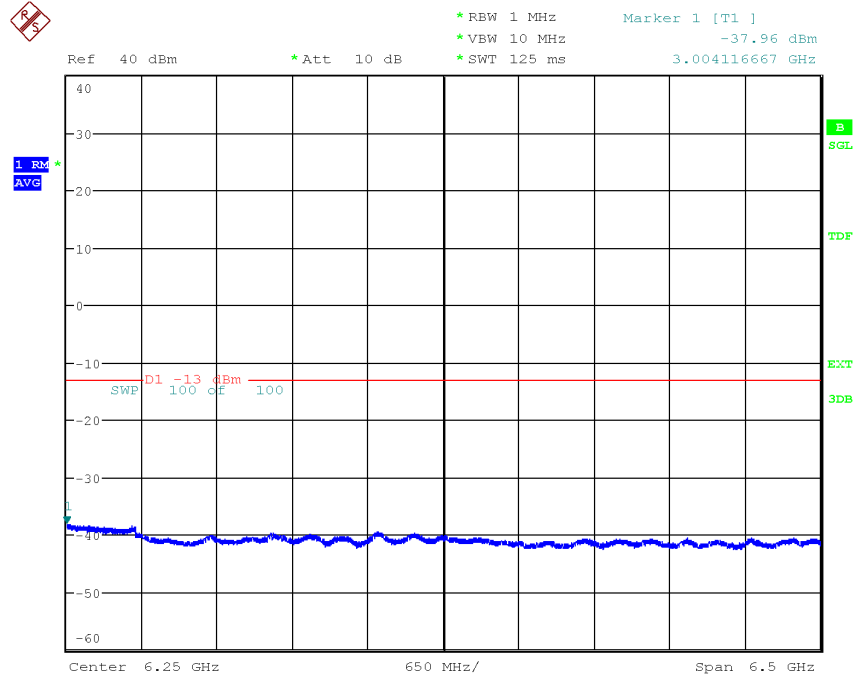
Date: 12.AUG.2020 12:50:52

Diagram 3.27b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Max_{NR+L+IoT}, 1.8275 GHz – 2.0975 GHz, Port A:



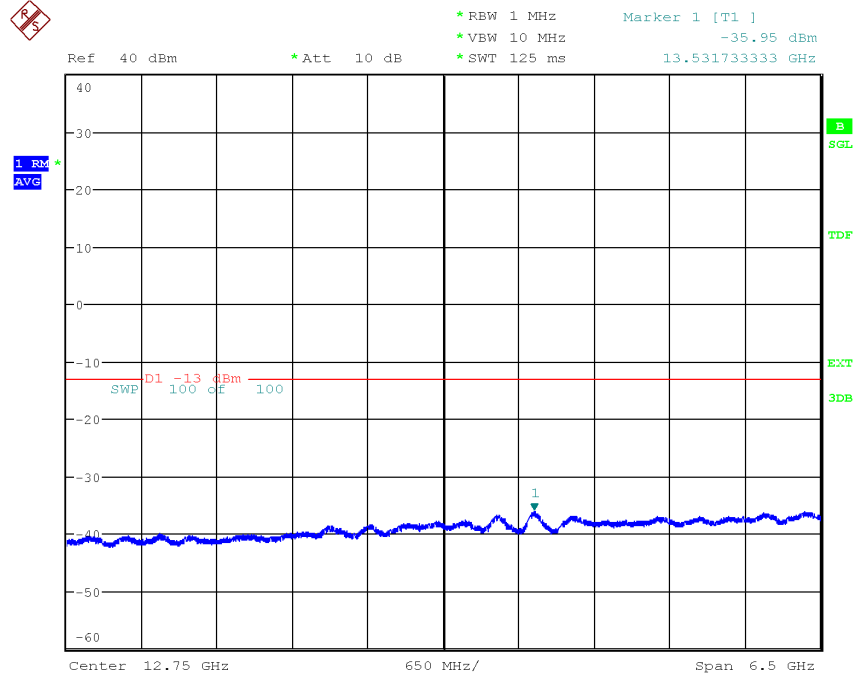
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.27c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
MaxNR+L+IoT, 3 GHz – 9.5 GHz, Port A:



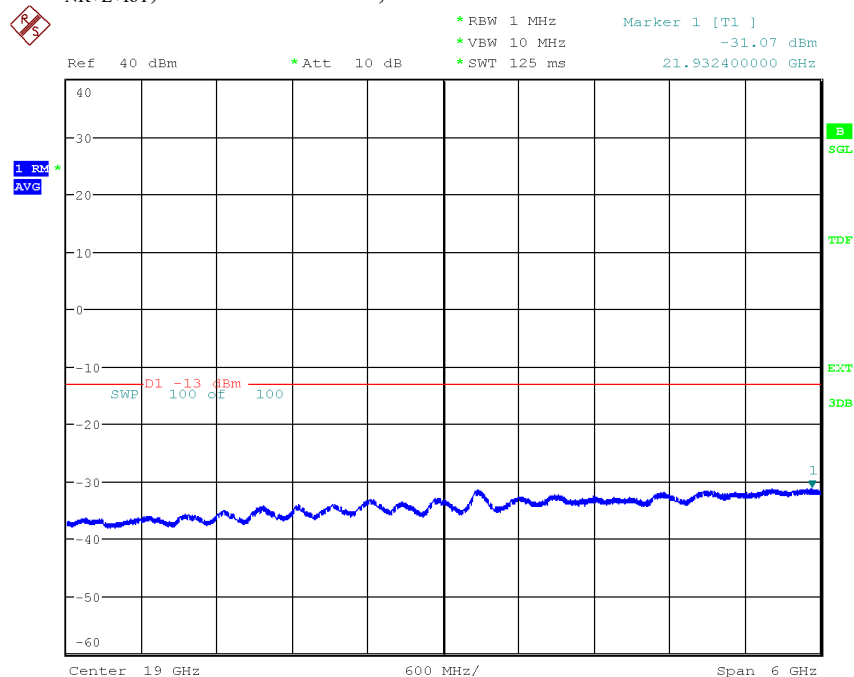
Date: 12.AUG.2020 13:18:09

Diagram 3.27d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
MaxNR+L+IoT, 9.5 GHz – 16 GHz, Port A:



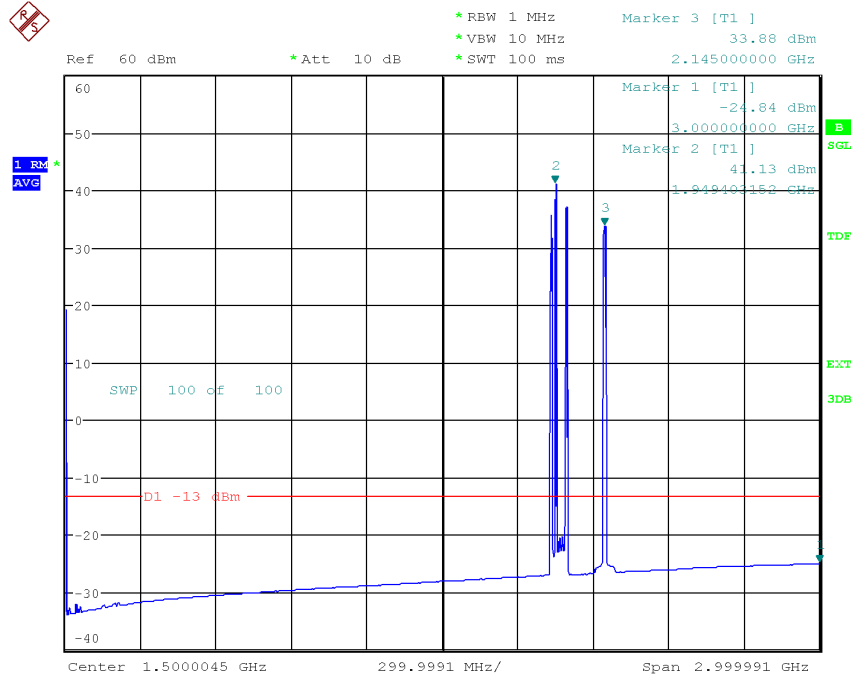
Date: 12.AUG.2020 13:32:27

Diagram 3.27e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, NB IoT SA: N-TM,
Max_{NR+L+IoT}, 16 GHz – 22 GHz, Port A:



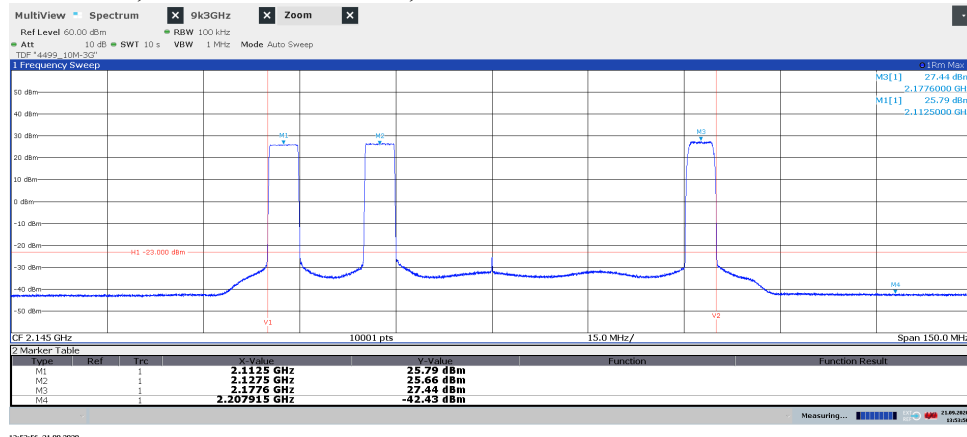
Date: 12.AUG.2020 13:55:55

Diagram 3.28a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 9 kHz – 3 GHz, Port D:



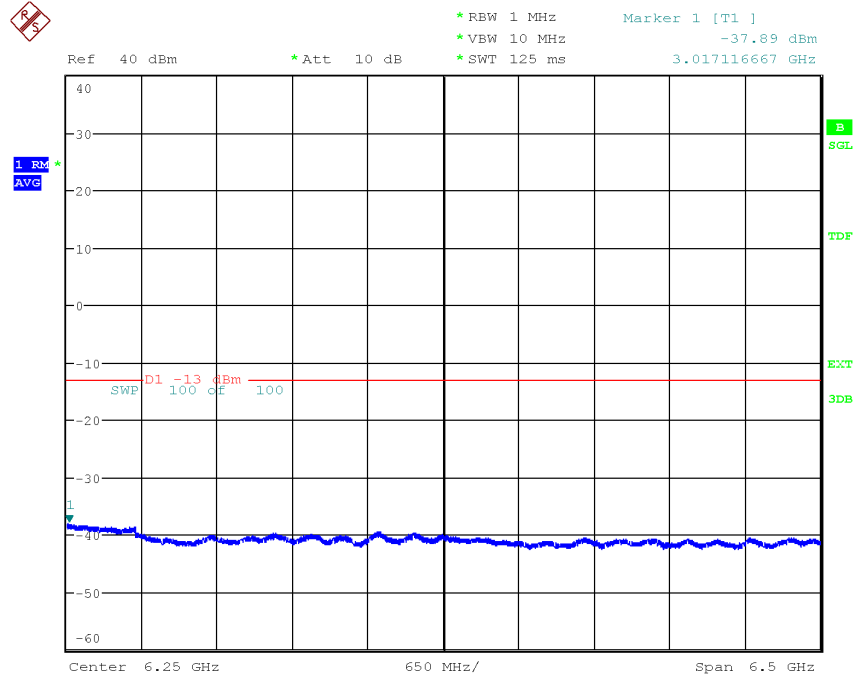
Date: 11.AUG.2020 10:57:42

Diagram 3.28b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 2.01 GHz – 2.28 GHz, Port D:



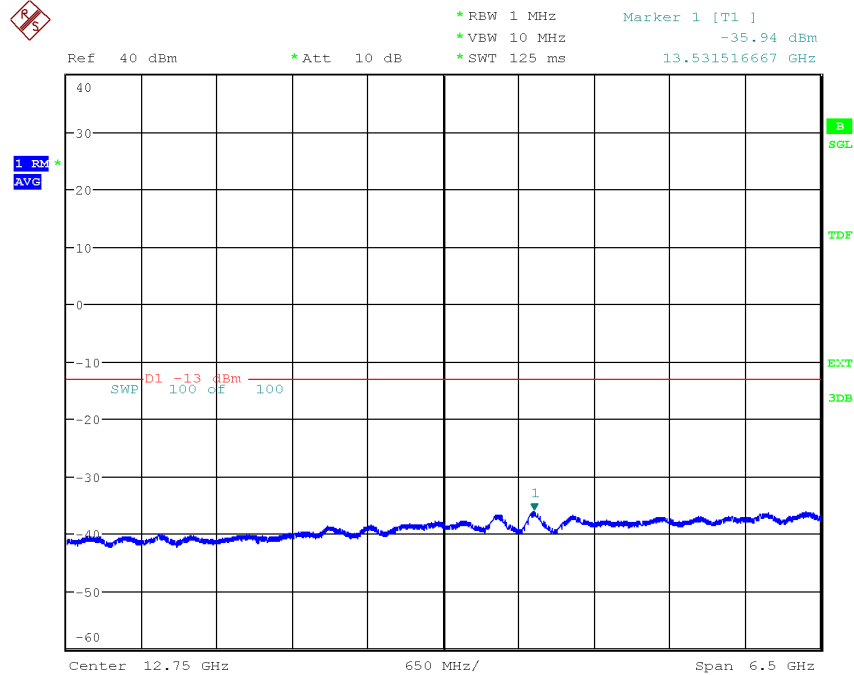
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.28c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 3 GHz – 9.5 GHz, Port D:



Date: 11.AUG.2020 11:01:43

Diagram 3.28d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 9.5 GHz – 16 GHz, Port D:



Date: 11.AUG.2020 11:03:55

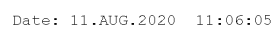
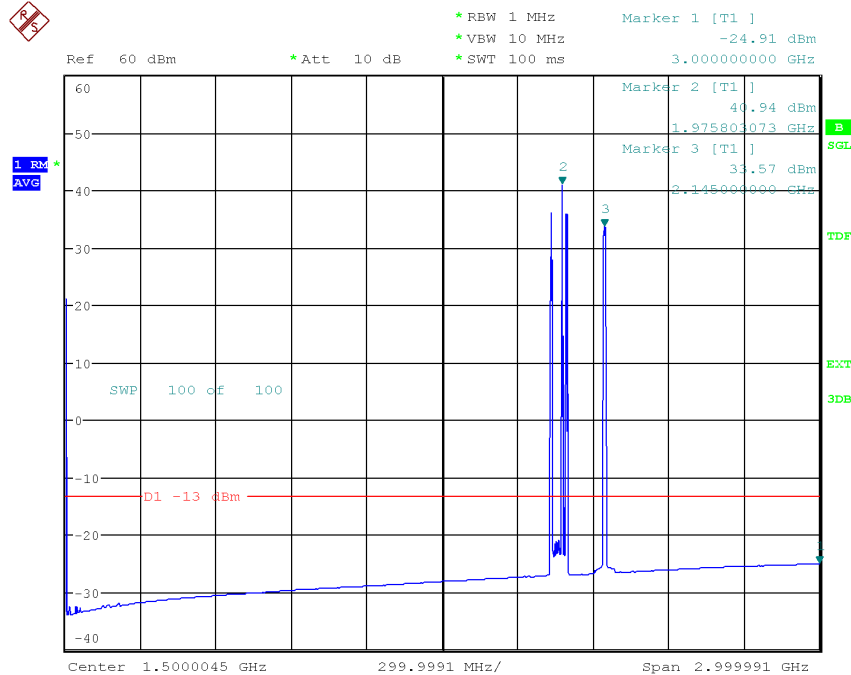
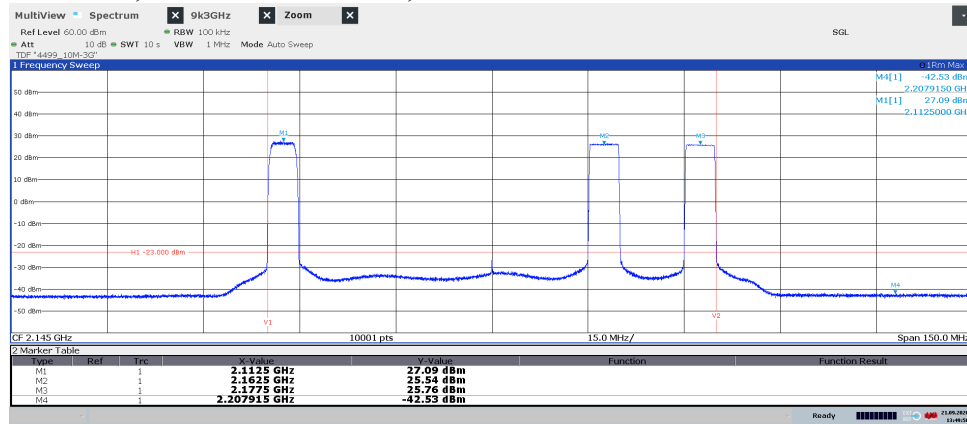


Diagram 3.29a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 9 kHz – 3 GHz, Port D:



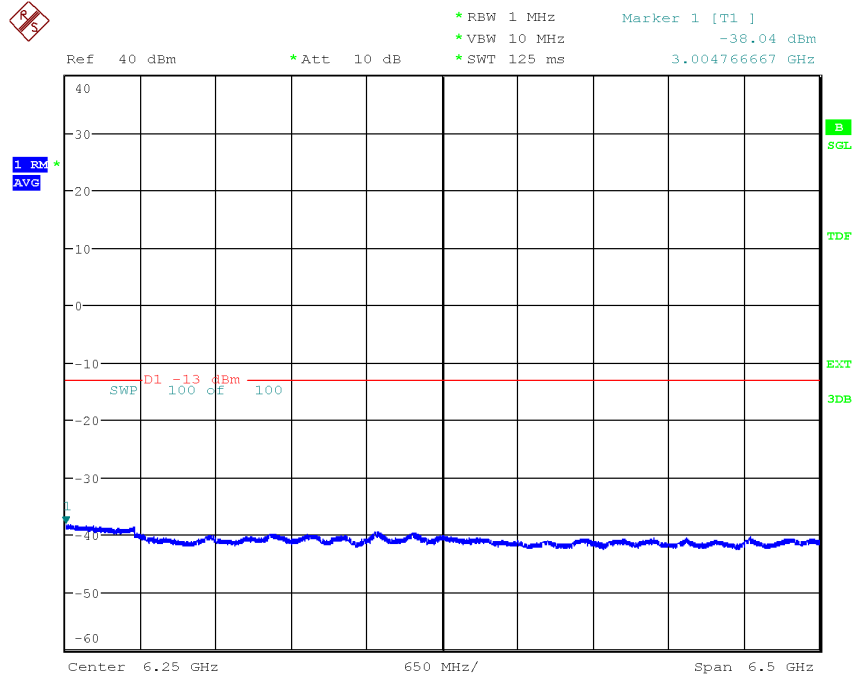
Date: 11.AUG.2020 13:55:41

Diagram 3.29b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 2.01 GHz – 2.28 GHz, Port D:



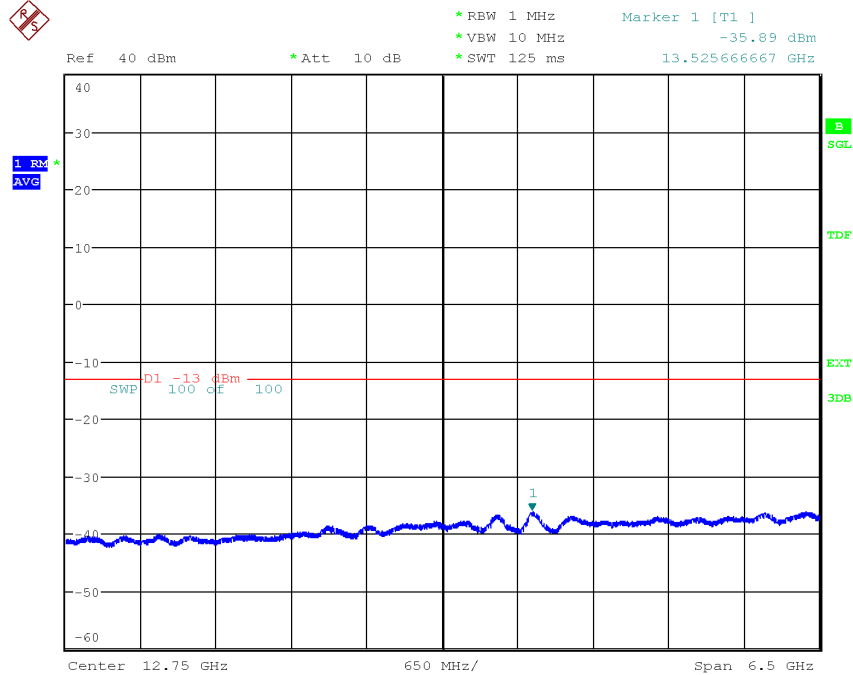
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.29c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 3 GHz – 9.5 GHz, Port D:



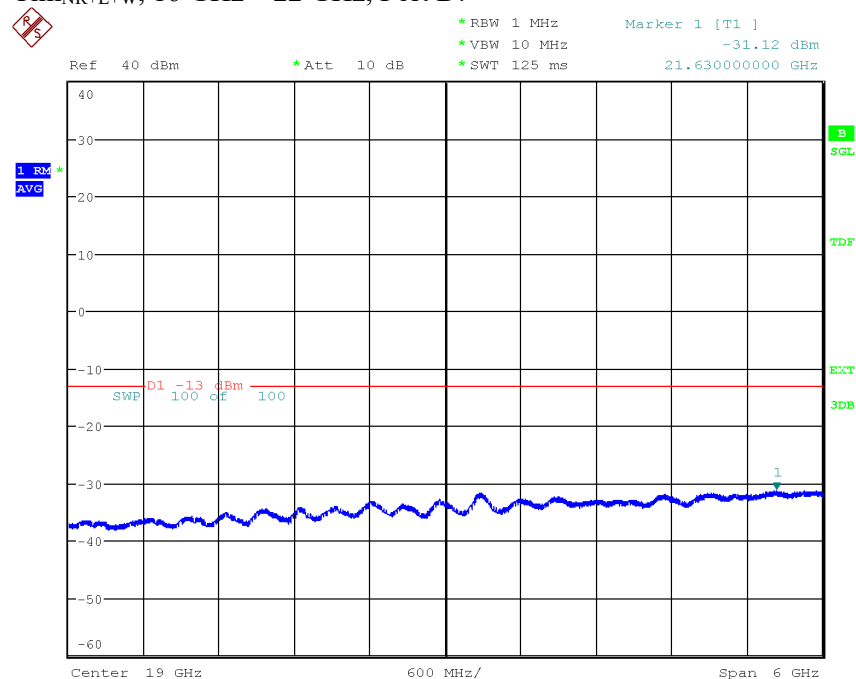
Date: 11.AUG.2020 13:52:36

Diagram 3.29d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 9.5 GHz – 16 GHz, Port D:



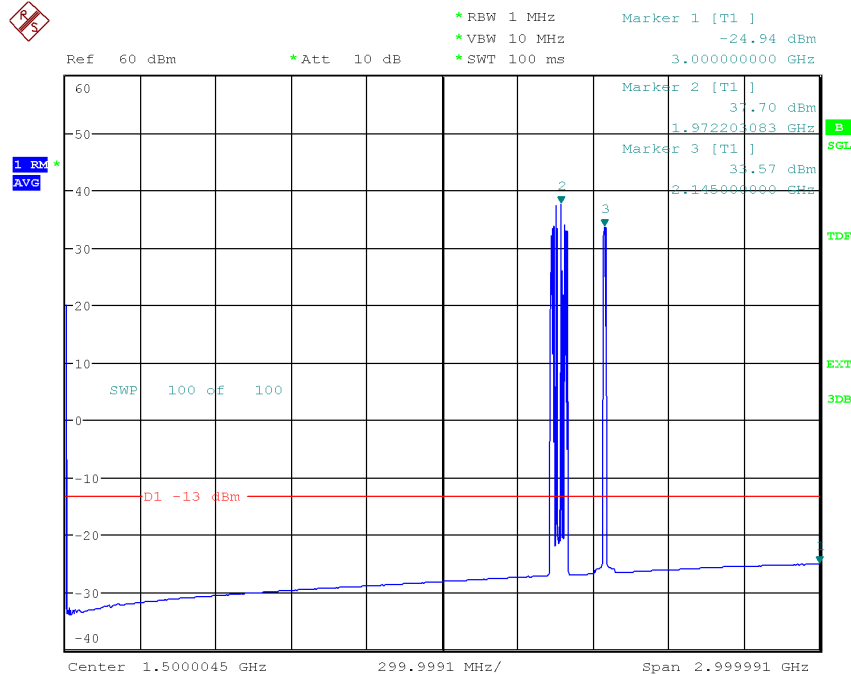
Date: 11.AUG.2020 13:39:27

Diagram 3.29e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 16 GHz – 22 GHz, Port D:



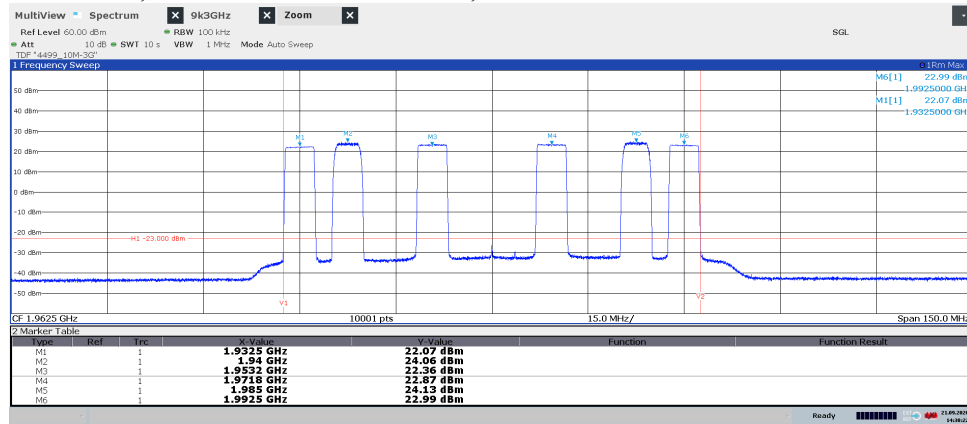
Date: 11.AUG.2020 12:19:49

Diagram 3.30a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Max_{NR+L+W}, 9 kHz – 3 GHz, Port D:



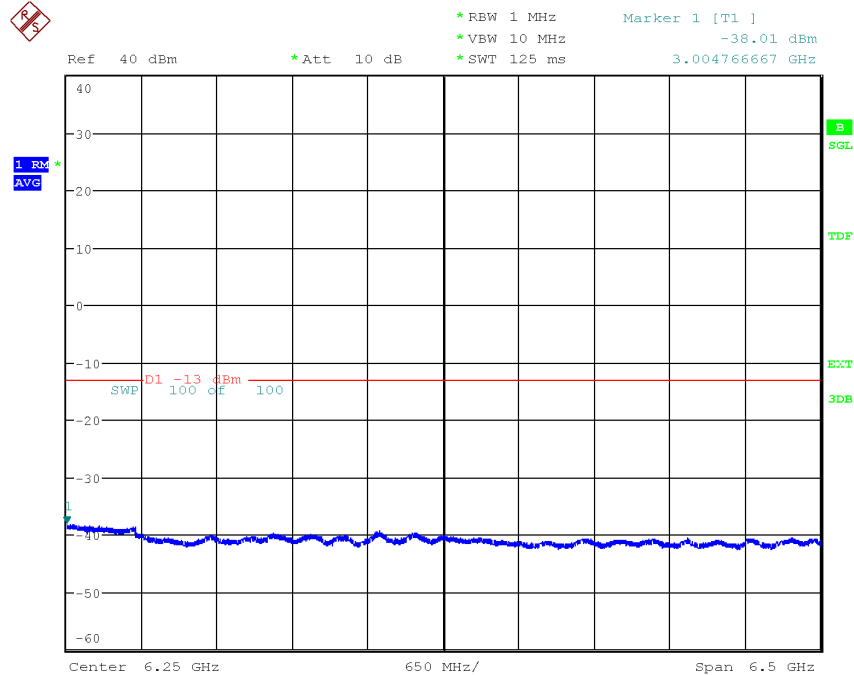
Date: 11.AUG.2020 14:08:53

Diagram 3.30b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Max_{NR+L+W}, 1.8275 GHz – 2.0975 GHz, Port D:



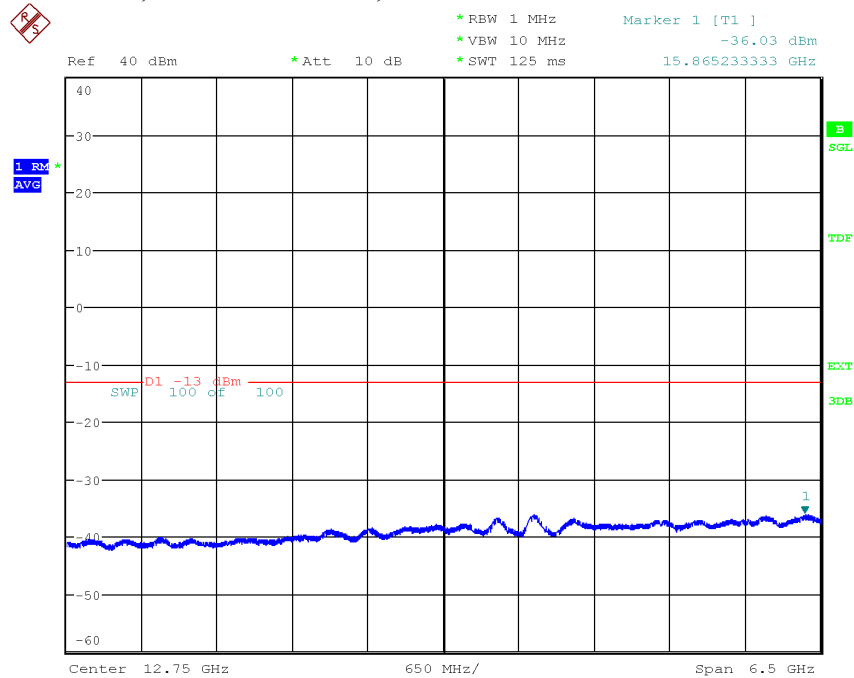
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.30c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Max_{NR+L+W}, 3 GHz – 9.5 GHz, Port D:



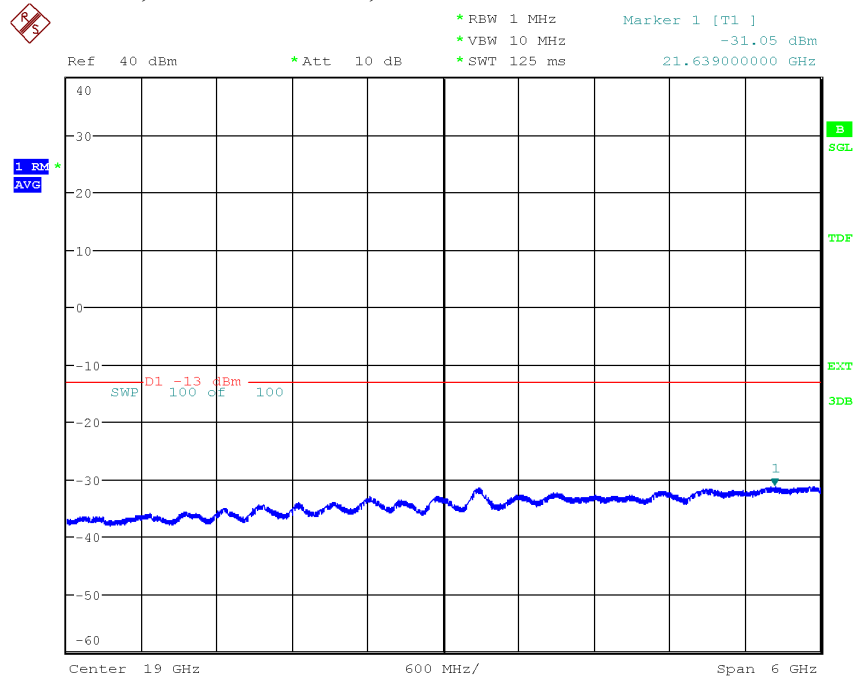
Date: 11.AUG.2020 14:18:44

Diagram 3.30d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Max_{NR+L+W}, 9.5 GHz – 16 GHz, Port D:



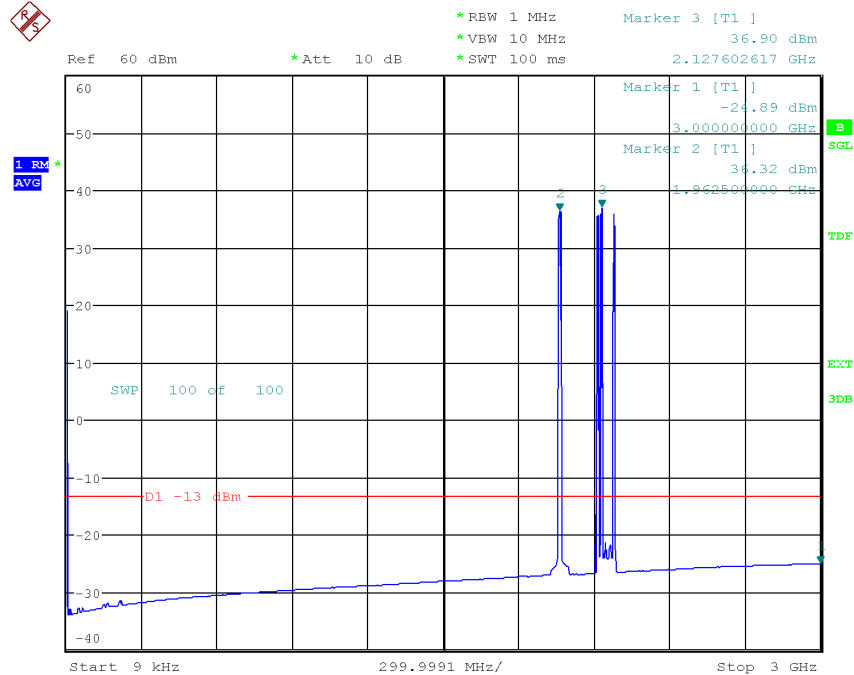
Date: 11.AUG.2020 14:21:16

Diagram 3.30e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Max_{NR+L+W}, 16 GHz – 22 GHz, Port D:



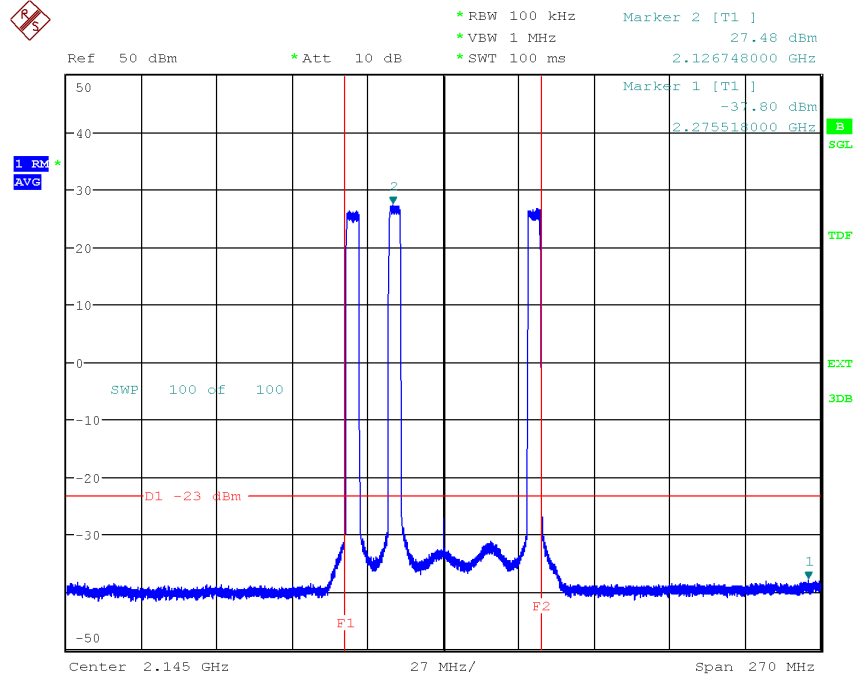
Date: 11.AUG.2020 14:24:22

Diagram 3.31a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 9 kHz – 3 GHz, Port A:



Date: 28.SEP.2020 11:27:08

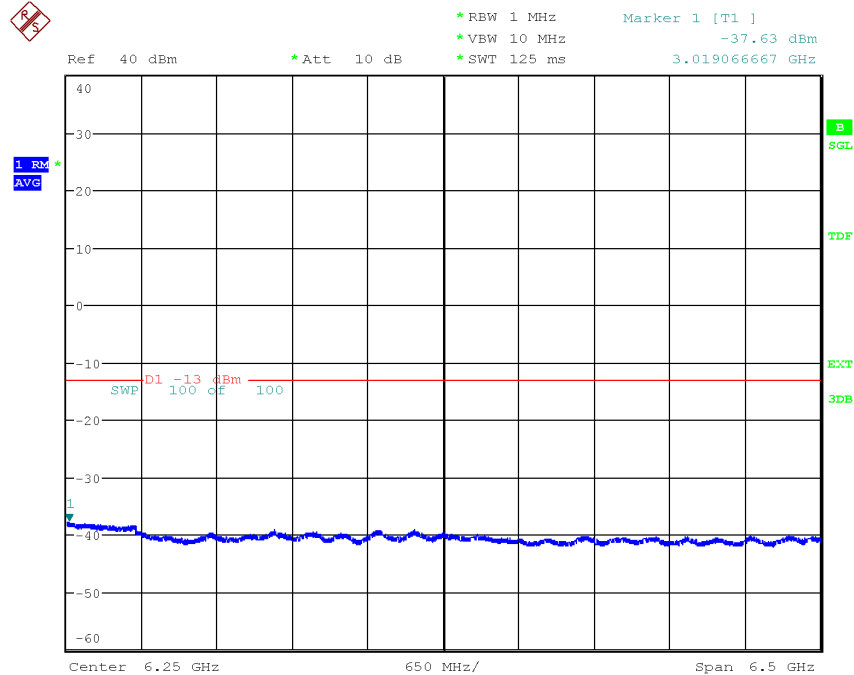
Diagram 3.31b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 2.01 GHz – 2.28 GHz, Port A:



Date: 28.SEP.2020 11:34:46

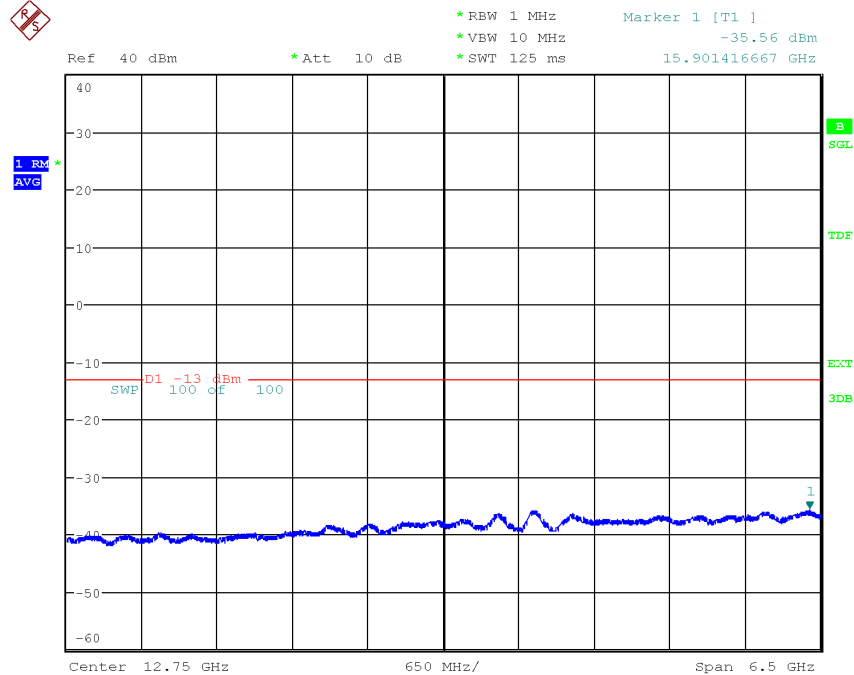
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.31c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 3 GHz – 9.5 GHz, Port A:



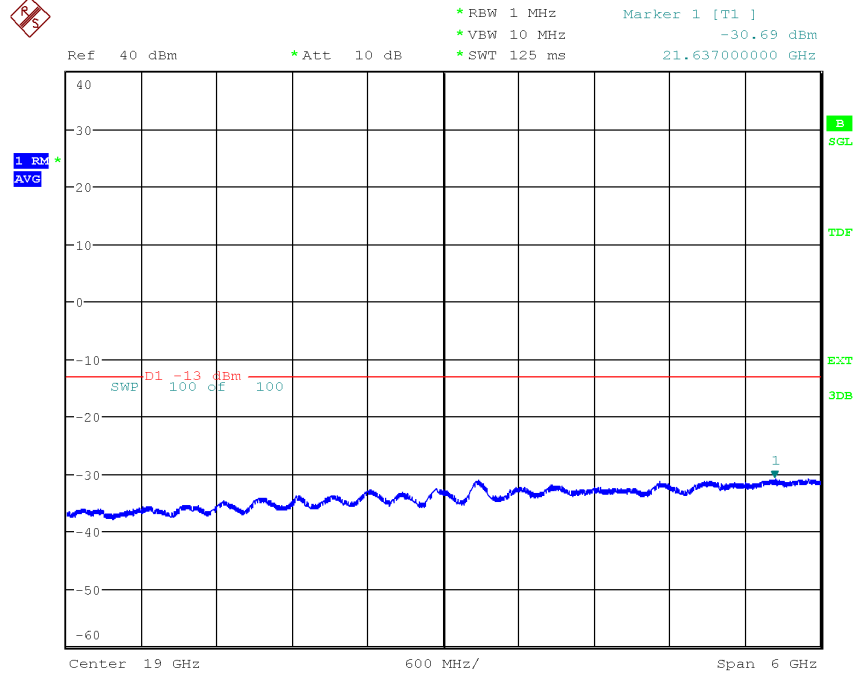
Date: 28.SEP.2020 11:24:16

Diagram 3.31d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 9.5 GHz – 16 GHz, Port A:



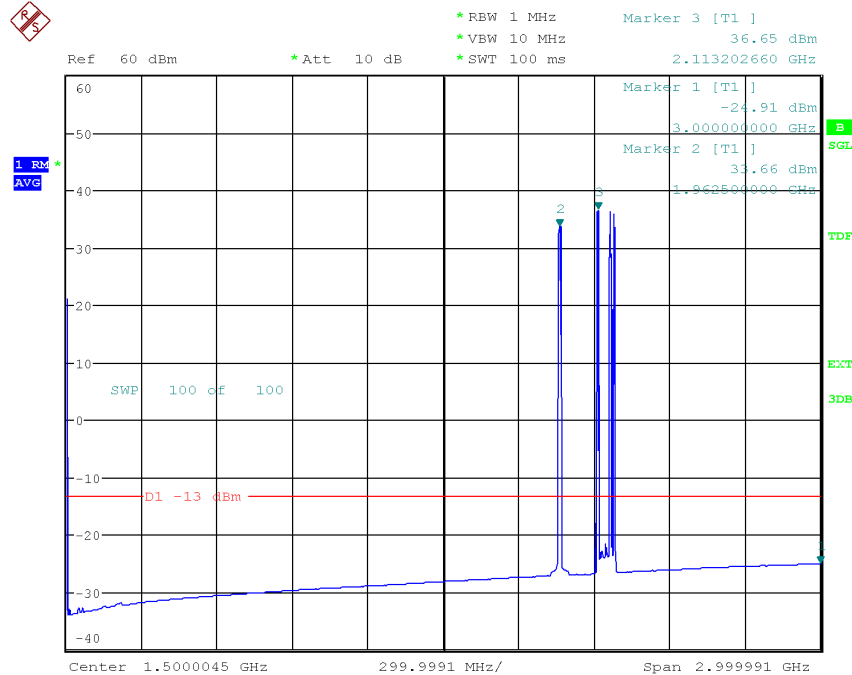
Date: 28.SEP.2020 11:21:50

Diagram 3.31e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Bim_{NR+L+W}, 16 GHz – 22 GHz, Port A:



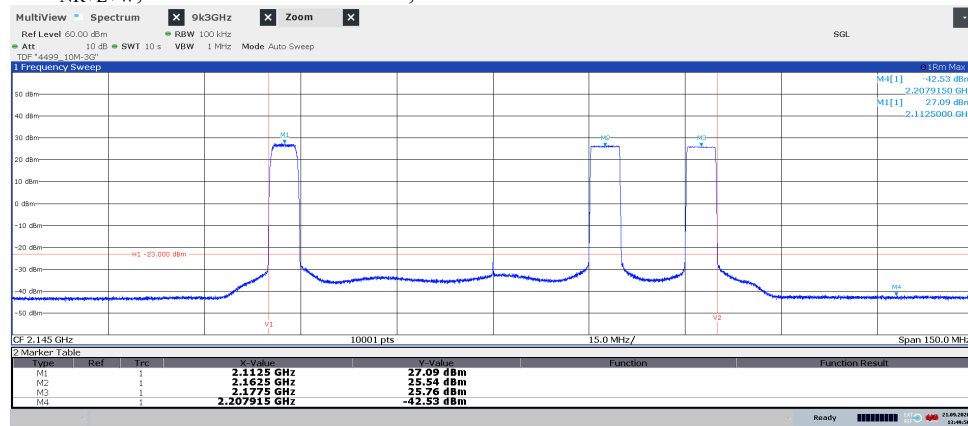
Date: 28.SEP.2020 11:17:35

Diagram 3.32a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 9 kHz – 3 GHz, Port A:



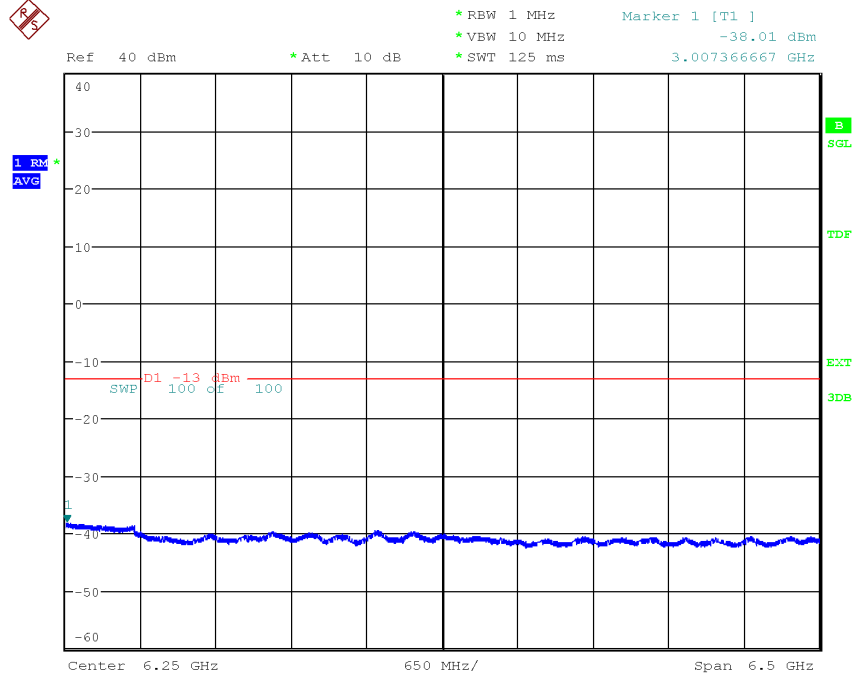
Date: 12.AUG.2020 15:45:41

Diagram 3.32b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 2.01 GHz – 2.28 GHz, Port A:



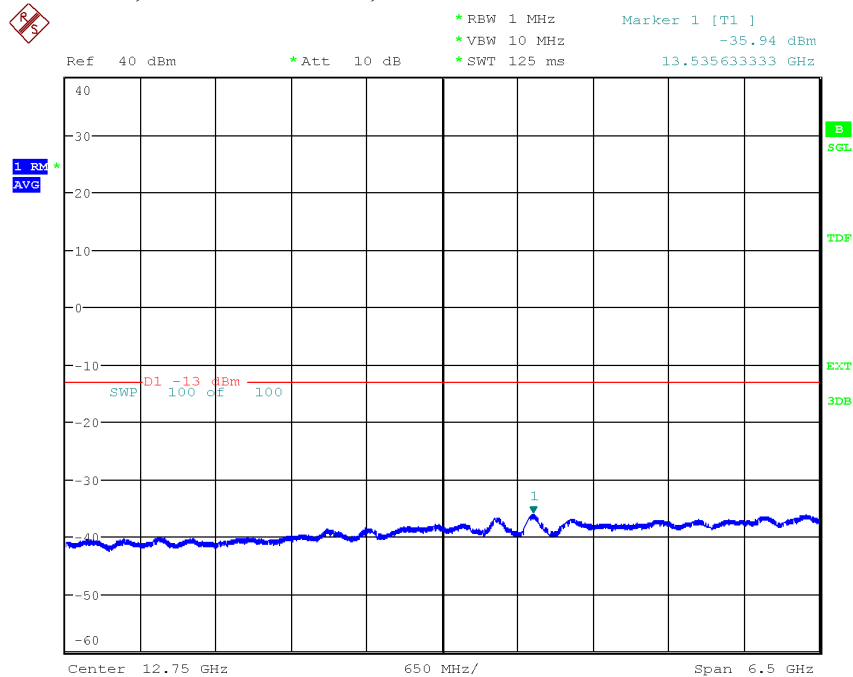
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.32c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 3 GHz – 9.5 GHz, Port A:



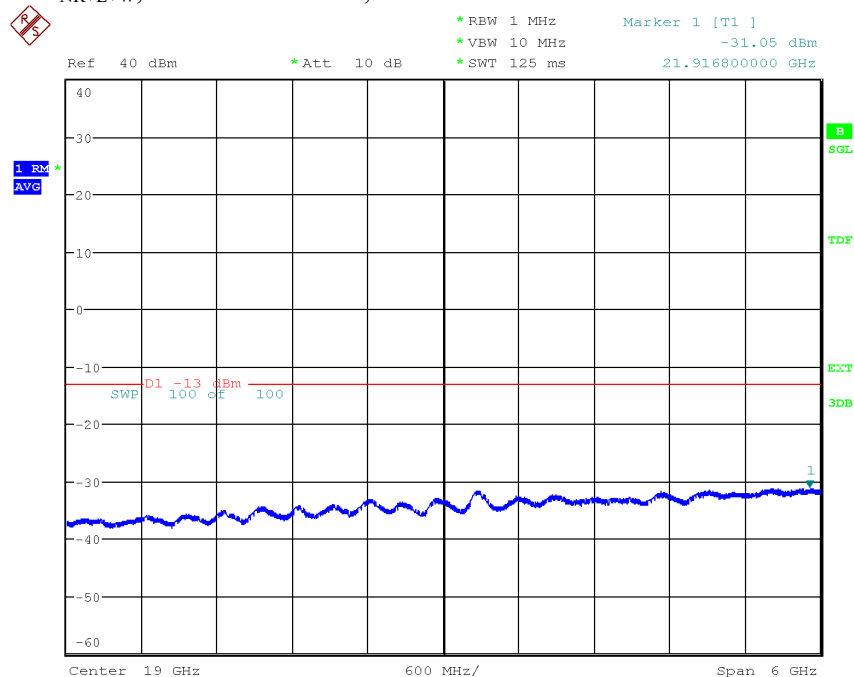
Date: 12.AUG.2020 15:39:18

Diagram 3.32d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 9.5 GHz – 16 GHz, Port A:



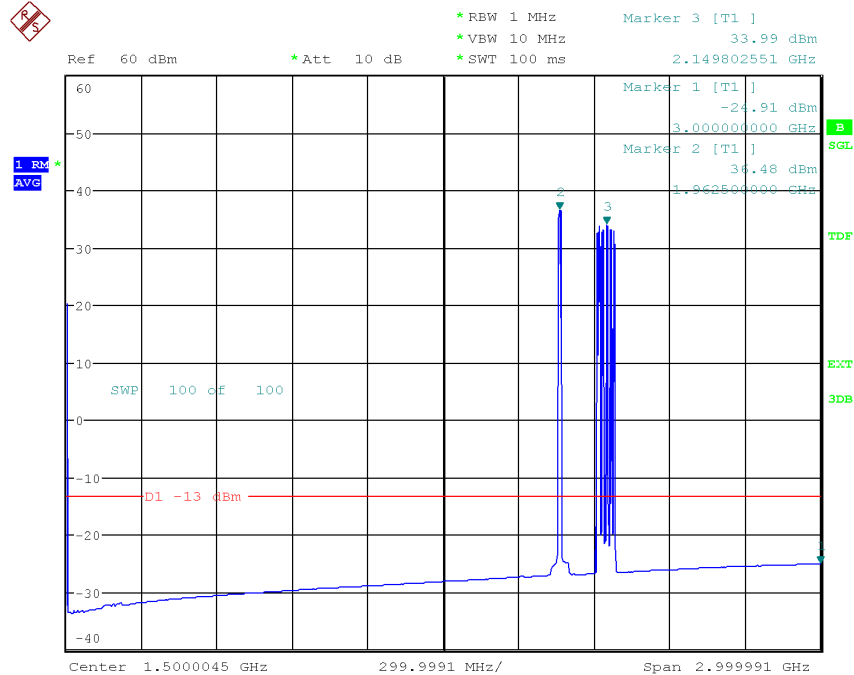
Date: 12.AUG.2020 15:28:04

Diagram 3.32e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Tim_{NR+L+W}, 16 GHz – 22 GHz, Port A:



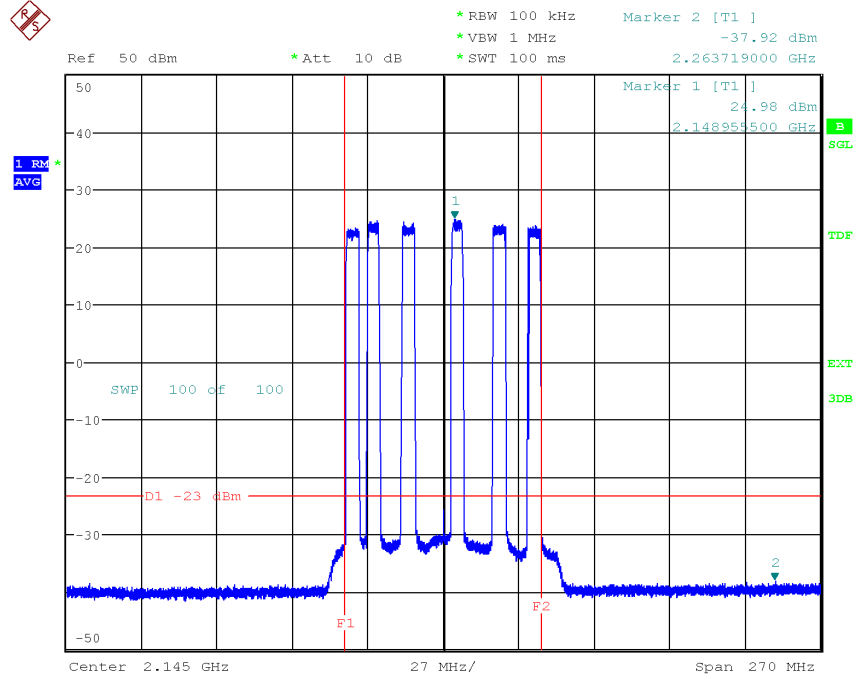
Date: 12.AUG.2020 15:25:25

Diagram 3.33a, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1, MaxNR+L+W, 9 kHz – 3 GHz, Port A:



Date: 28.SEP.2020 10:31:26

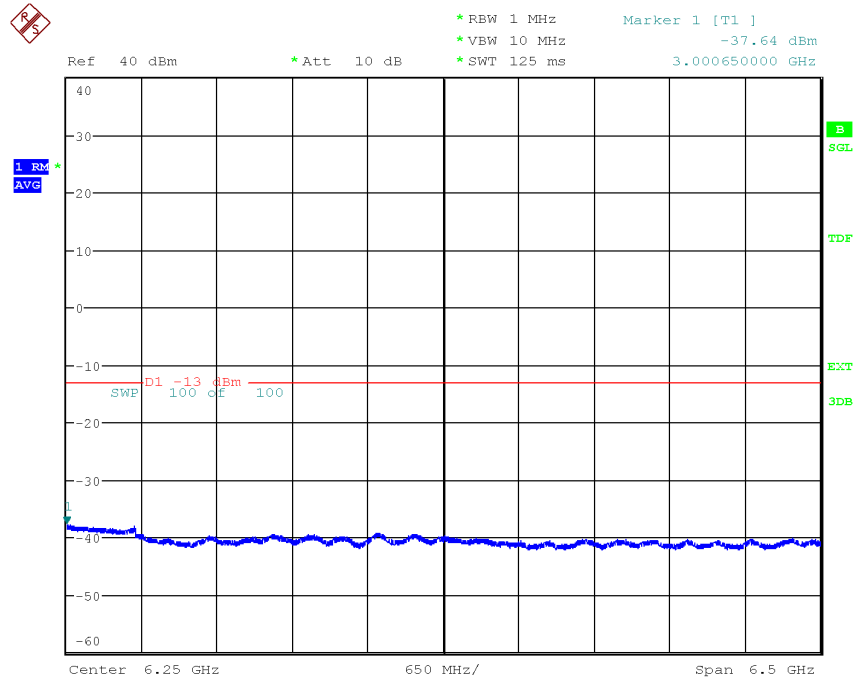
Diagram 3.33b, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1, MaxNR+L+W, 1.8275 GHz – 2.0975 GHz, Port A:



Date: 28.SEP.2020 10:25:37

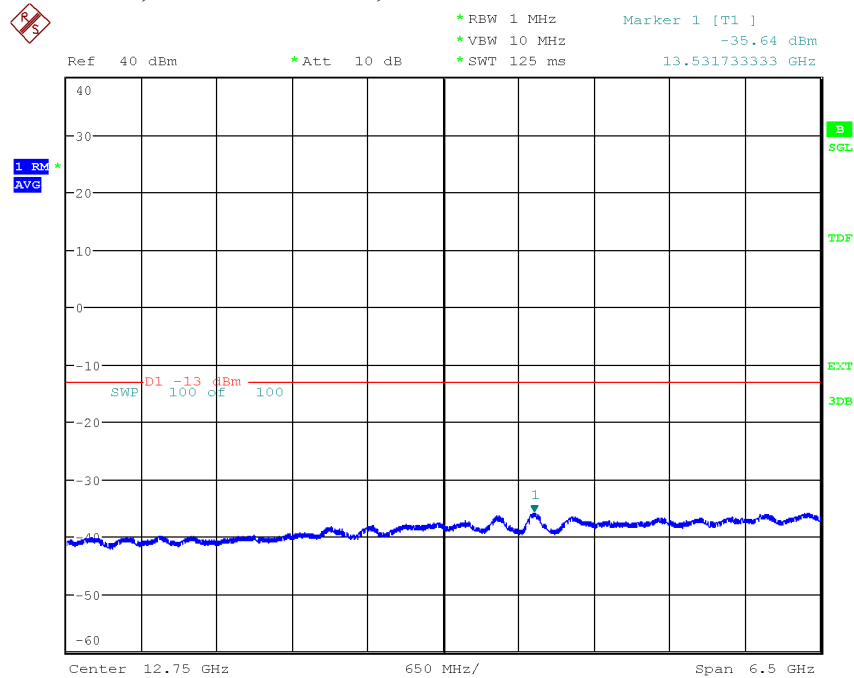
Note: The purpose of this measurement is to find IM products, not to verify compliance at the Band edges.

Diagram 3.33c, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Max_{NR+L+W}, 3 GHz – 9.5 GHz, Port A:



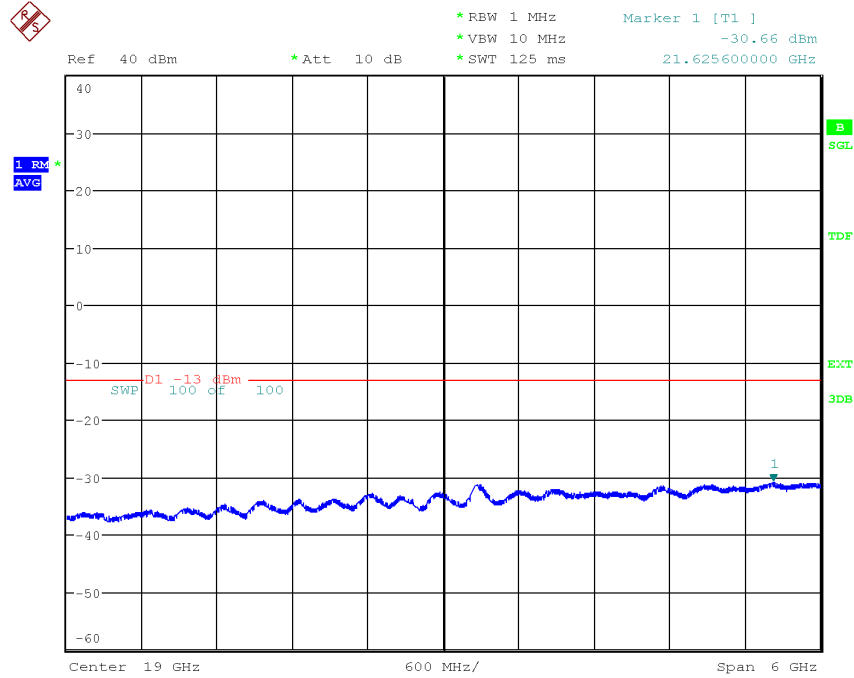
Date: 28.SEP.2020 10:40:27

Diagram 3.33d, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Max_{NR+L+W}, 9.5 GHz – 16 GHz, Port A:



Date: 28.SEP.2020 10:45:12

Diagram 3.33e, NR: NR-FR1-TM1.1, LTE: E-TM1.1, WCDMA: TM1,
Max_{NR+L+W}, 16 GHz – 22 GHz, Port A:



Date: 28.SEP.2020 11:03:18

Field strength of spurious radiation measurements according to CFR 47 §24.238 and §27.53(h) / RSS-133 6.5, RSS-139 6.6

Date	Temperature	Humidity
2020-05-14	22 °C ± 3 °C	20 % ± 5 %
2020-05-15	22 °C ± 3 °C	35 % ± 5 %

The test site conforms to the site validation criterion specified in ANSI C63.4.

The measurements were performed with both horizontal and vertical polarization of the antenna. The antenna distance and test object height in the different frequency ranges can be seen below.

The antenna distance was 3 m in the frequency range 30 MHz – 18 GHz and 1 m in the frequency range 18 GHz – 22 GHz.

The EUT was placed 0.8 m above reference ground plane in frequency range 30 MHz – 1 GHz and 1.5 m above reference ground plane in frequency range 1 GHz – 22 GHz.

The measurement was performed with an RBW of 1 MHz.

A propagation loss in free space was calculated. The used formula was

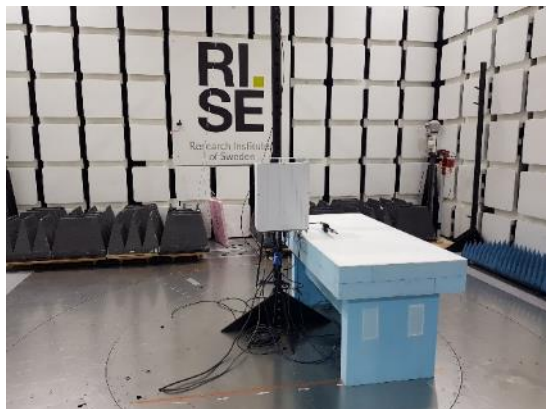
$$\gamma = 20 \log \left(\frac{4\pi D}{\lambda} \right), \quad \gamma \text{ is the propagation loss and } D \text{ is the antenna distance.}$$

The measurement procedure was as the following:

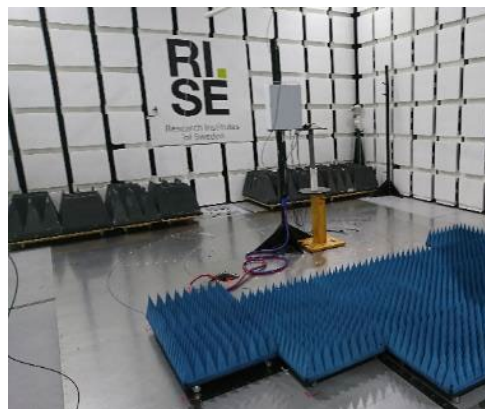
1. A pre-measurement is performed with peak detector. For measurement < 1 GHz the test object was measured in eight directions with the antenna at three heights, 1.0 m, 1.5 m and 2.0 m. For measurements > 1 GHz the test object was measured in seventeen directions with the antenna height 1.5 m, 2.0 m and 2.5 m with elevation angle.
2. Spurious radiation on frequencies closer than 20 dB to the limit in the pre-measurement is scanned 0-360 degrees and the antenna is scanned 1- 4 m for maximum response. The emission is then measured with the RMS detector and the RMS value is reported. Frequencies closer than 10 dB to the limit when measured with the RMS detector were measured with the substitution method according to ANSI 63.26.

The test set-up during the spurious radiation measurements is shown in the pictures below:

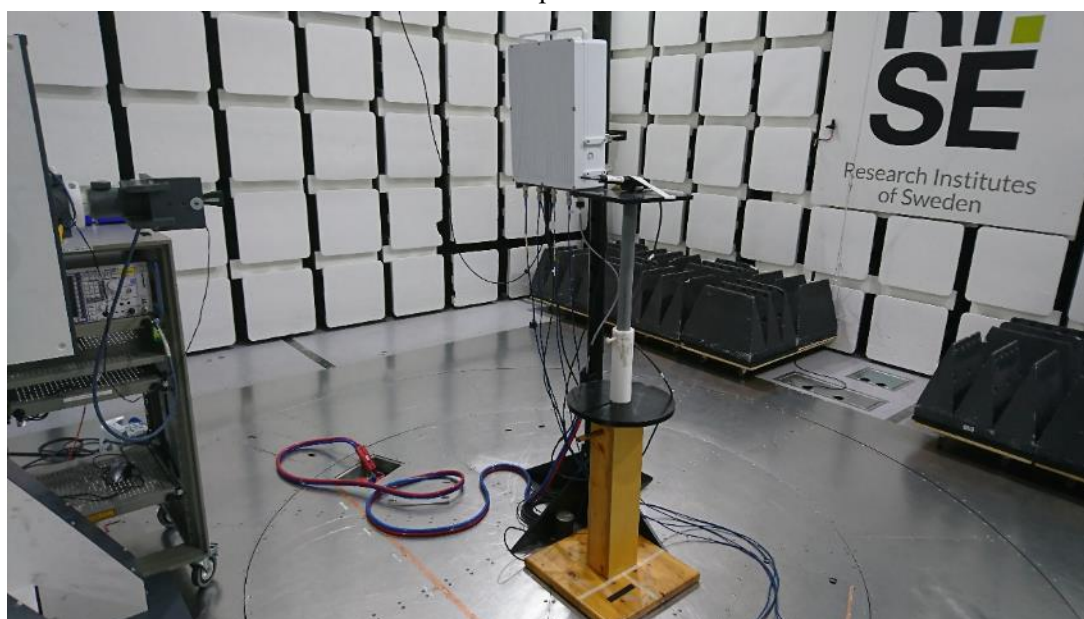
Test setup 30-1000 MHz:



Test setup 1-18 GHz:



Test setup 18-22 GHz:



Measurement equipment

Measurement equipment	RISE number
Semi anechoic chamber Tesla	503 881
Rohde & Schwarz ESU 40	901 553
EMC 32 ver. 10.60	BX62351
Coaxial cable, Tesla emission	BX91490
Coaxial cable	503 508
Coaxial cable	503 509
Teseq CBL6143A BiLog antenna	BX92331
EMCO Horn Antenna 3115	502 175
Coaxial cable	503 697
EMCO Horn Antenna 3116	503 279
µComp Nordic, Low Noise Amplifier	901 545
Miteq, Low Noise Amplifier 18-40 GHz	503 278
HP Filter 3-18 GHz	BX40074
Temperature and humidity meter, Testo 625	504 188

Test frequencies

Symbolic name:

T_{5NR}
$T_{5NR+5LTE}$
$T_{10NR+5LTE}$

Results

Representing worst case:

Symbolic name T_{5NR} , Diagram 4.1a-d

Frequency (MHz)	Spurious emission level (dBm)	
	Vertical	Horizontal
30-22000	All emission > 20 dB below limit	All emission > 20 dB below limit

Measurement uncertainty: 3.1 dB

Limits

CFR 47 §24.238 and §27.53(h)

Outside a licensee's frequency band(s) of operation the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB, resulting in a limit of -13 dBm.

Complies?	Yes
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Diagram 4.1a:

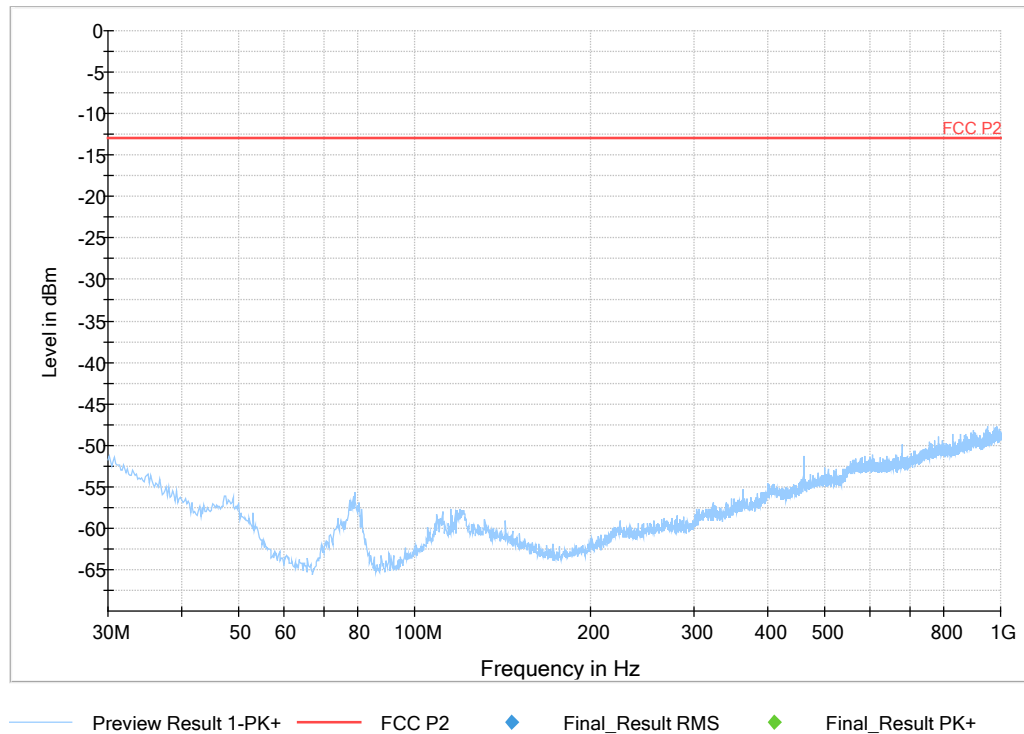
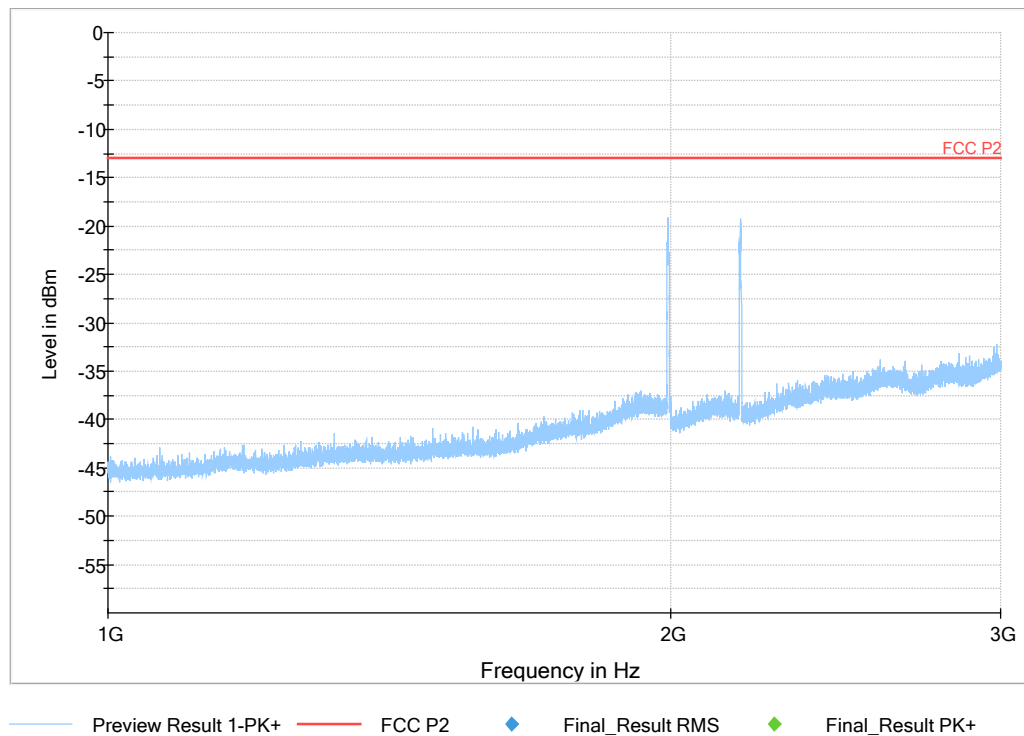


Diagram 4.1b:



Note: The emissions at 1992.5 MHz and 2177.5 MHz are the carrier frequency and shall be ignored in the context.

Diagram 4.1c:

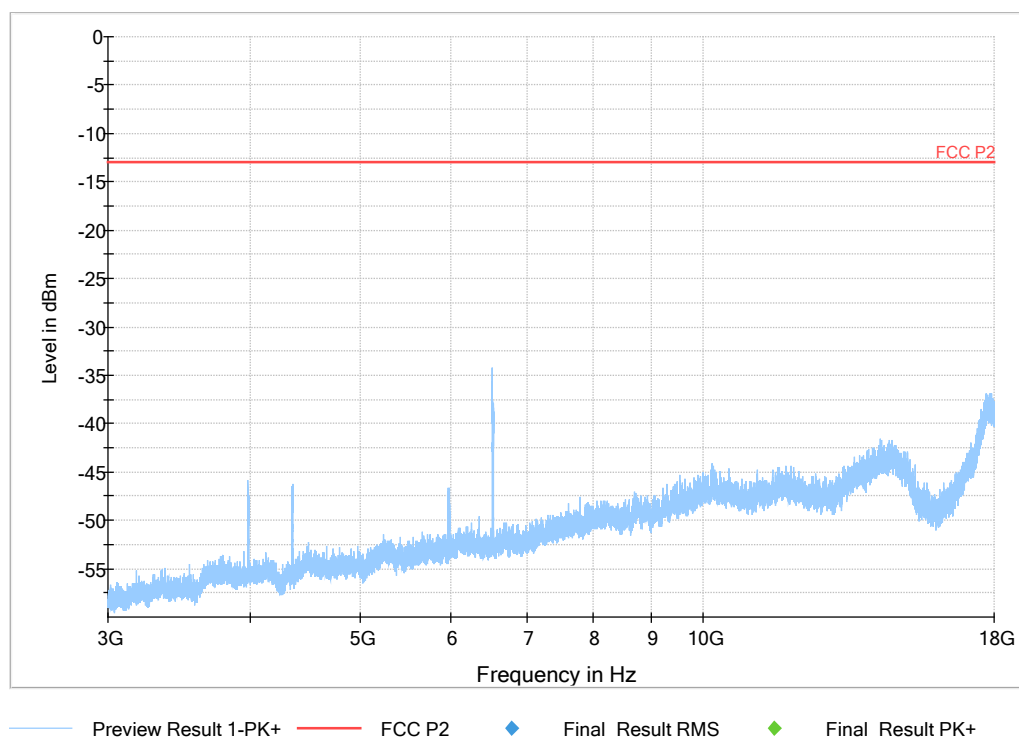
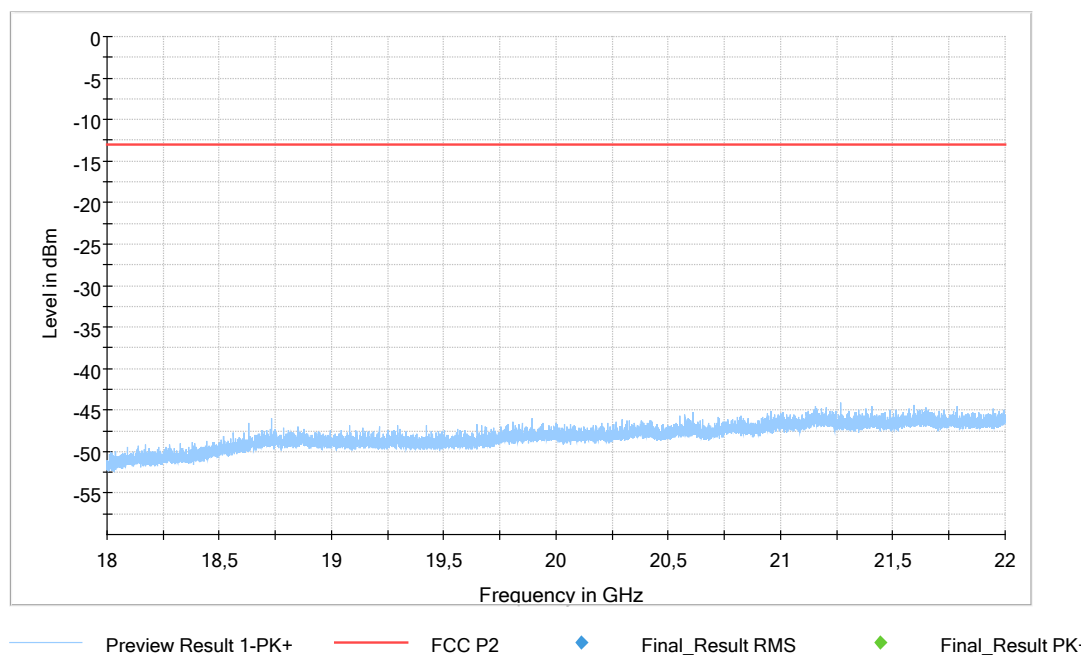


Diagram 4.1d:

Full Spectrum



Frequency stability measurements according to CFR 47 §24.235 and §27.54 / RSS-133 6.3 and IC RSS-139 6.4

Date	Temperature (test equipment)	Humidity (test equipment)
2020-08-18	22 °C ± 3 °C	51 % ± 5 %
2020-08-19	22 °C ± 3 °C	53 % ± 5 %
2020-08-20	23 °C ± 3 °C	42 % ± 5 %
2020-08-21	24 °C ± 3 °C	40 % ± 5 %
2020-08-24	23 °C ± 3 °C	35 % ± 5 %
2020-09-04	23 °C ± 3 °C	46 % ± 5 %

Test set-up and procedure

The measurements were made per RSS 133, 6.3 and RSS 139, 6.4. Using a resolution bandwidth of 1% of the emission bandwidth, a reference point at the unwanted emission level which complies with the attenuation of $43 + 10 \log_{10} P$ (watts) (i.e. -13 dBm) (for 4x 4MIMO - 19 dBm) at the band edge of the lowest and highest channel was selected, and the frequency at these points was recorded as fL and fH respectively.

Measurement equipment	RISE number
R&S FSW 43	902 073
Directional coupler	901 496
RF attenuator	902 282
Coaxial cable Megaphase	BX50191
Coaxial cable Sucoflex 102EA	BX50237
Temperature Chamber	503 360
Testo 635, temperature and humidity meter	504 203
Multimeter Fluke 87	502 190

Results

B25

Rated output power level at connector RF A (maximum): 47.8 dBm

Test conditions			Frequency margin to band edge at -19 dBm	
Supply voltage DC [V]	Temp [°C].	Carrier Bandwidth [MHz]	Symbolic name: B10	Symbolic name: T10
			Margin for fL [kHz]	Margin for fH [kHz]
-40.8	+20	10	19.24	21.09
-55.2	+20	10	5.82	20.24
-48.0	+20	10	6.82	16.69
-48.0	+30	10	5.46	13.89
-48.0	+40	10	5.33	14.71
-48.0	+50	10	7.01	16.02
-48.0	+10	10	7.14	16.20
-48.0	0	10	6.33	14.74
-48.0	-10	10	5.17	13.73
-48.0	-20	10	5.09	13.52
-48.0	-30	10	4.89	13.52

B66

Rated output power level at connector RF A (maximum): 47.8 dBm

Test conditions			Frequency margin to band edge at -19 dBm	
Supply voltage DC [V]	Temp [°C].	Carrier Bandwidth [MHz]	Symbolic name: B10	Symbolic name: T10
			Margin for fL [kHz]	Margin for fH [kHz]
-40.8	+20	10	16.80	16.20
-55.2	+20	10	2.56	15.76
-48.0	+20	10	2.63	14.45
-48.0	+30	10	1.96	10.42
-48.0	+40	10	2.8	12.26
-48.0	+50	10	4.06	14.49
-48.0	+10	10	3.59	13.03
-48.0	0	10	3.82	13.46
-48.0	-10	10	2.37	10.92
-48.0	-20	10	2.81	11.37
-48.0	-30	10	2.09	10.42

The frequency error results shows that the frequency stability is good enough to ensure that the transmitted carrier stay within the operating band.

Remark

The measurements were performed with the bandwidth configuration 10 MHz representing worst case with regards to band edge compliance.

Limits

CFR 47 §24.235 and §27.54 / RSS-133 6.3 and RSS-139 6.4

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency band.

Complies?	Yes
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Photos of test object

Front side



Rear side



Left side



Right side



Bottom side



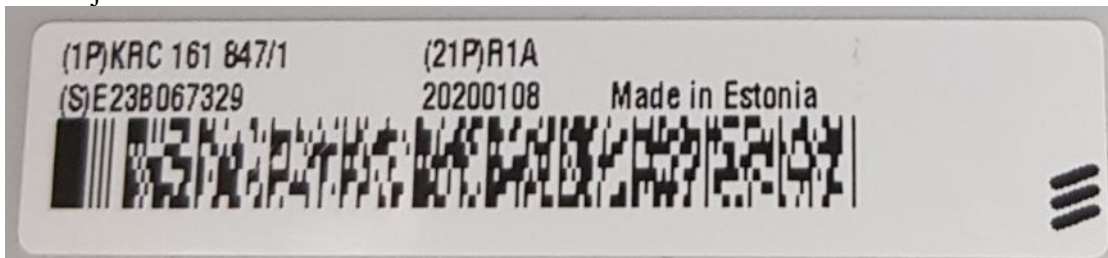
Top side



Labels:

Radiated measurements:

Test object label:



SFP module Data 1:



SFP module Data 2:



Conducted measurements:

Test object label:



SFP module Data 1:



SFP module Data 2:



End of report.