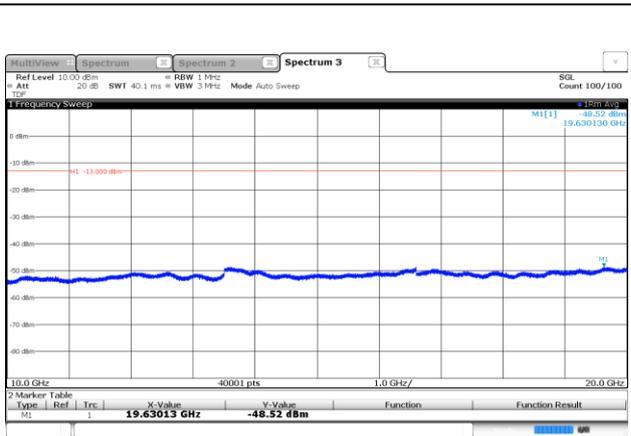
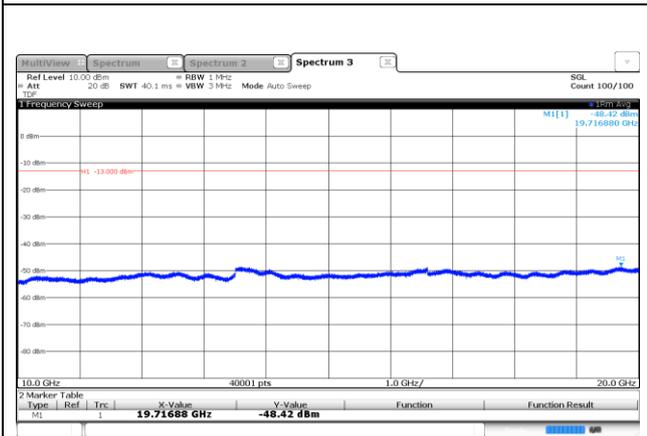
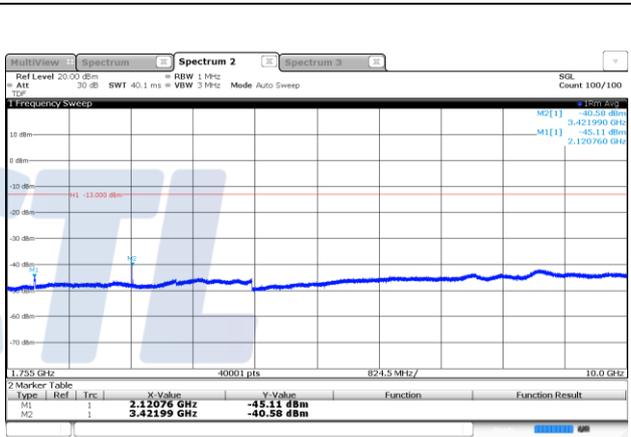
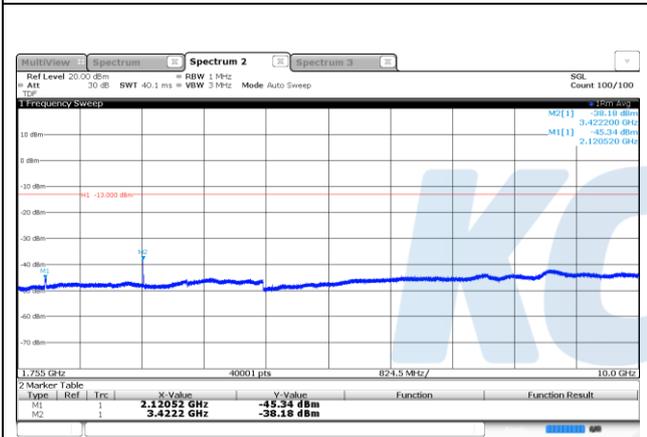
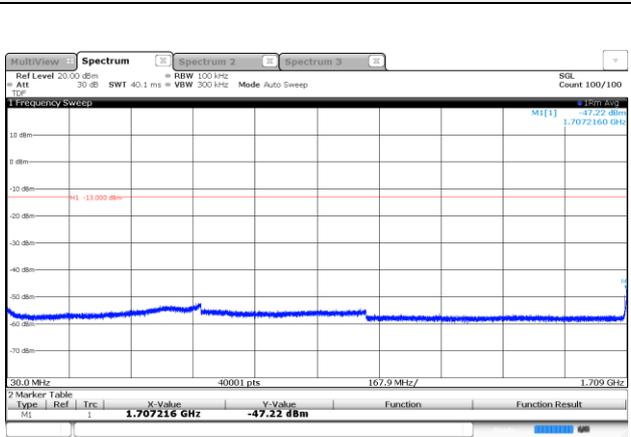
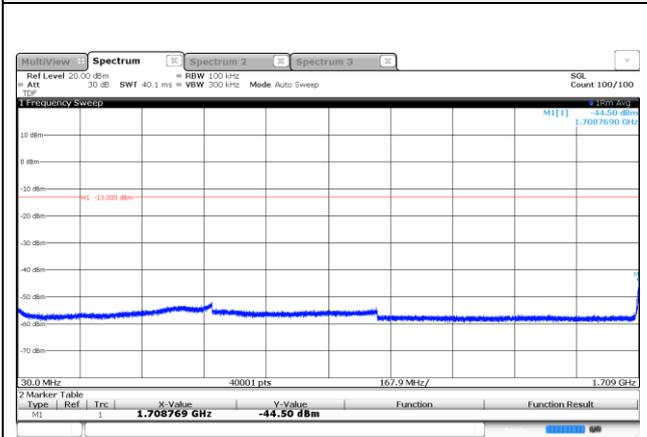


Test mode: LTE Band4

20M BW / QPSK / Low ch.

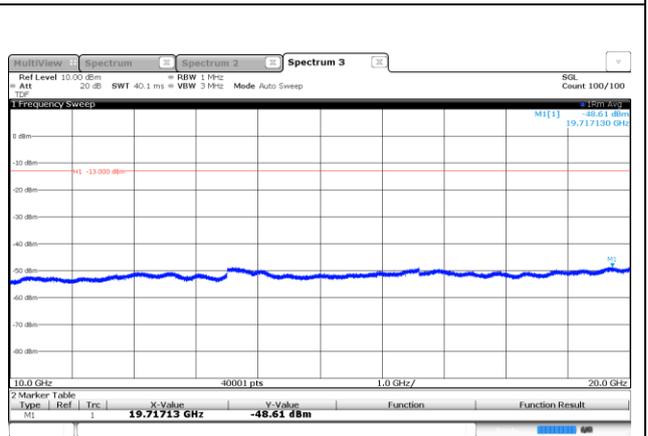
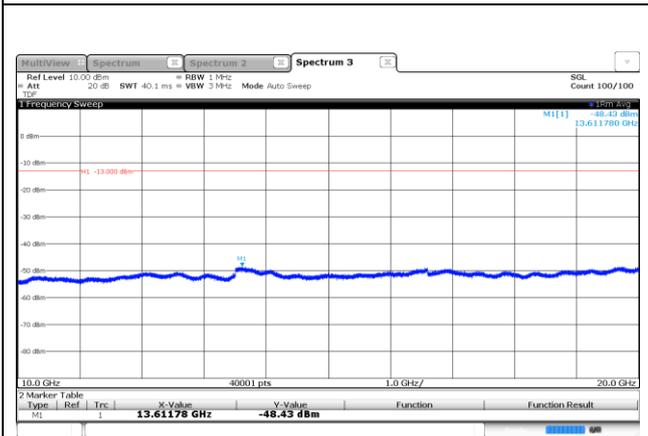
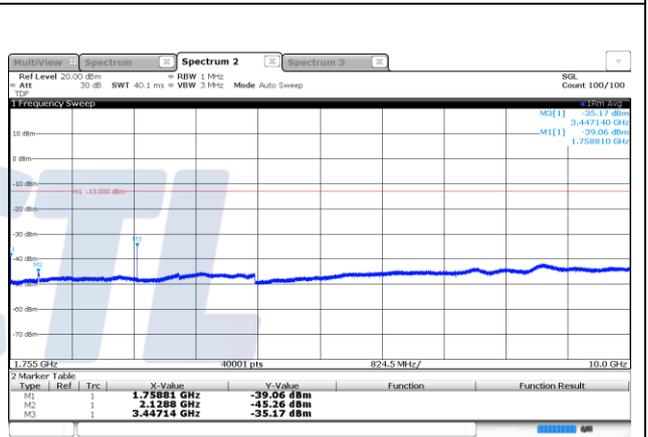
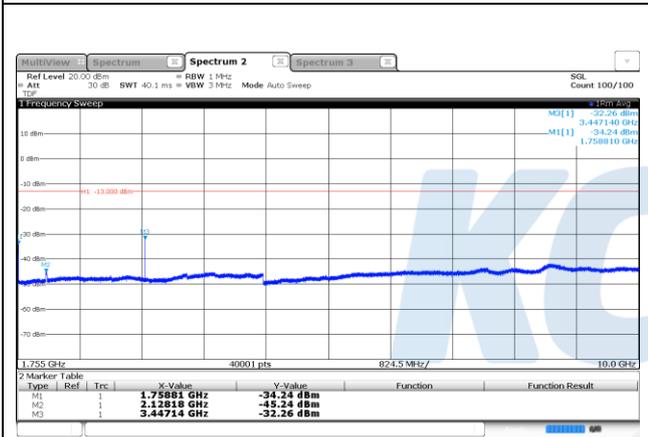
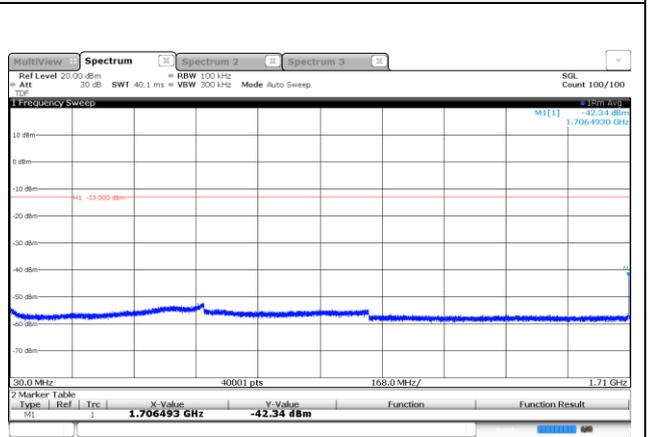
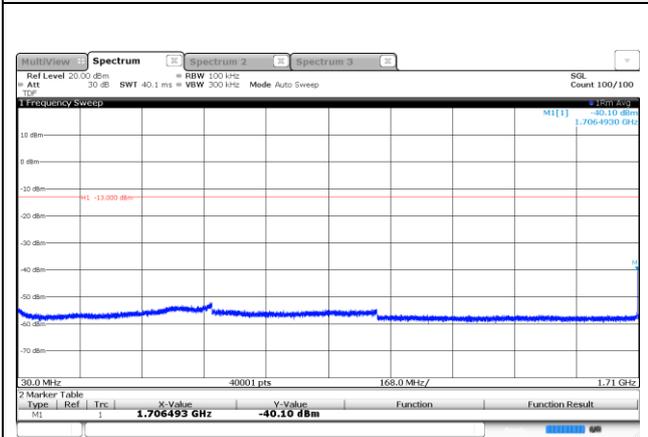
20M BW / 16QAM / Low ch.



Test mode: LTE Band4

20M BW / QPSK / Mid ch.

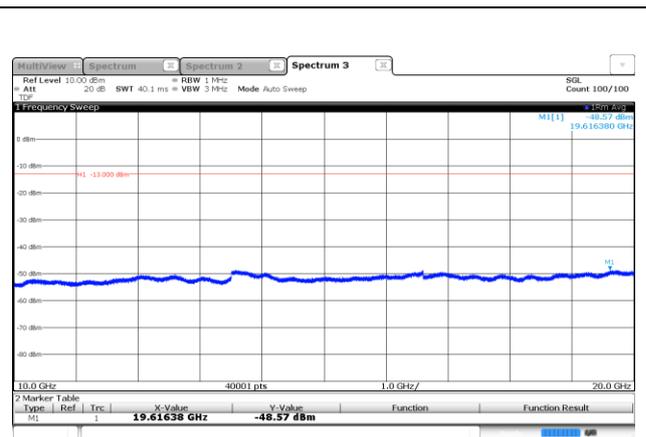
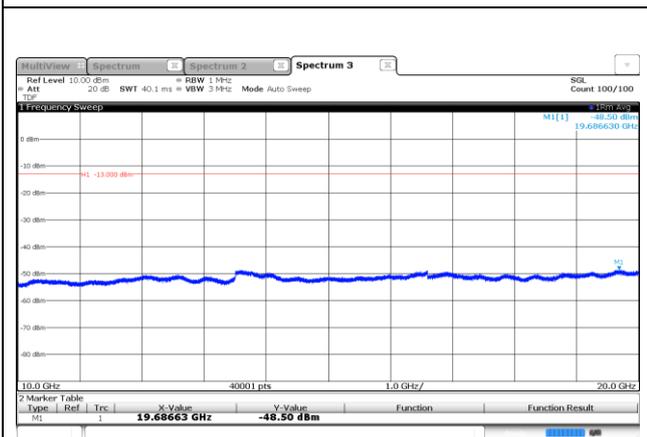
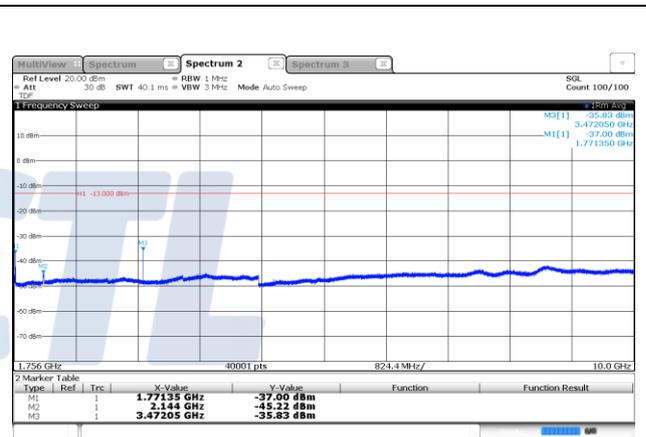
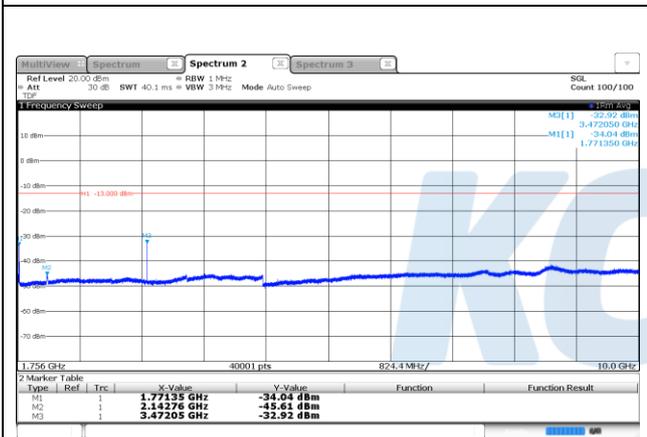
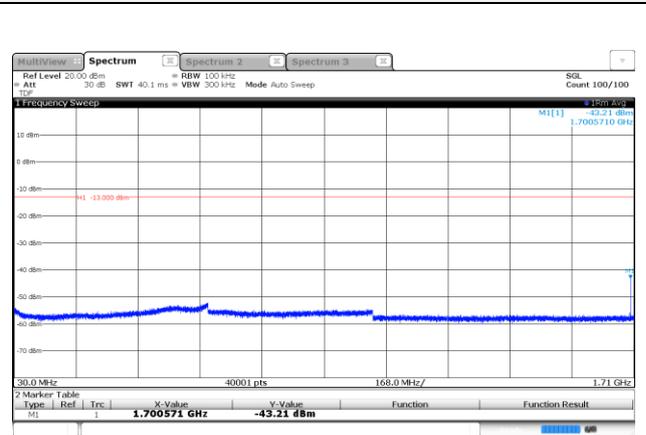
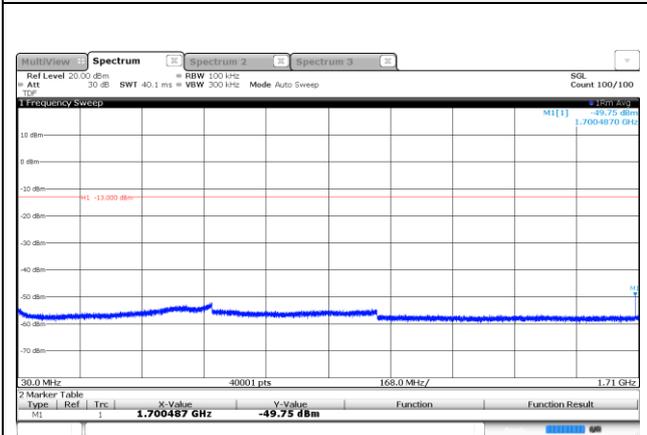
20M BW / 16QAM / Mid ch.



Test mode: LTE Band4

20M BW / QPSK / High ch.

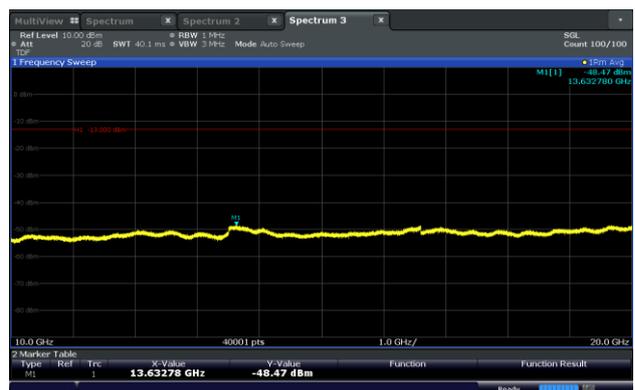
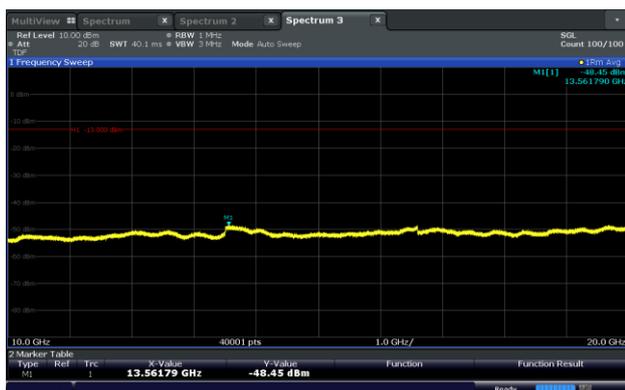
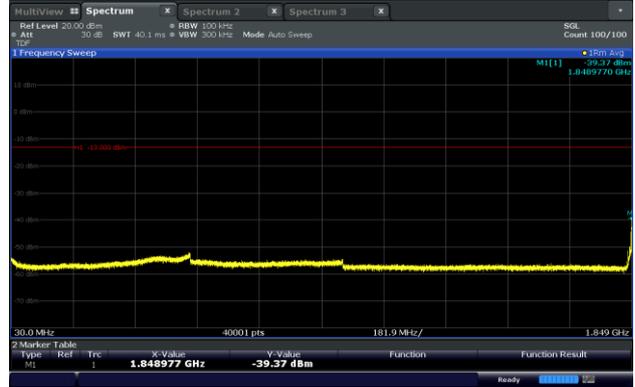
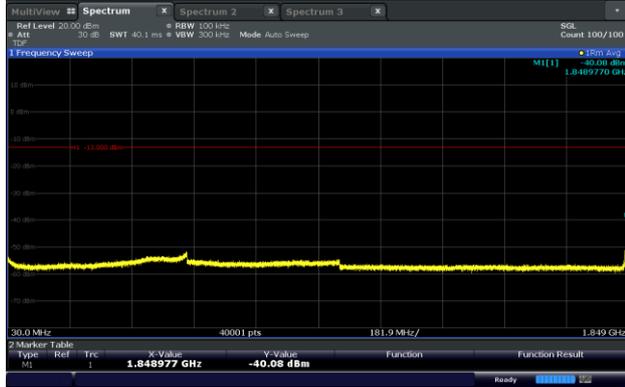
20M BW / 16QAM / High ch.



Test mode: LTE Band2

1.4M BW / QPSK / Low ch.

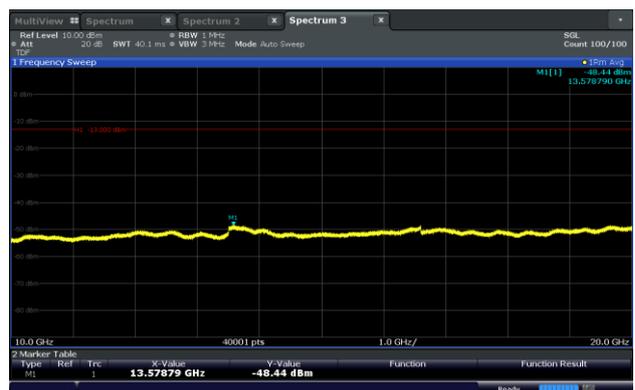
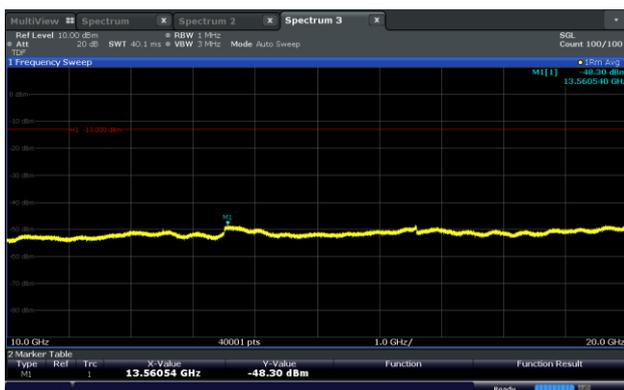
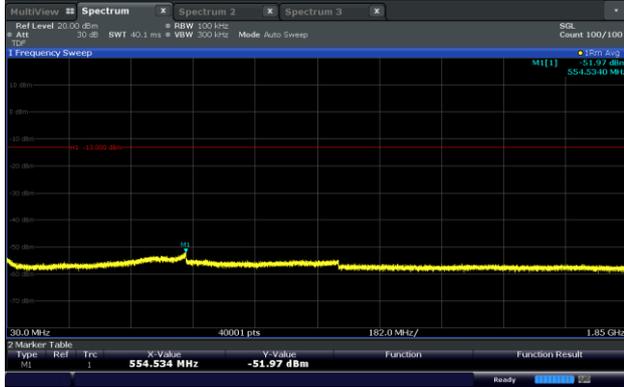
1.4M BW / 16QAM / Low ch.



Test mode: LTE Band2

1.4M BW / QPSK / Mid ch.

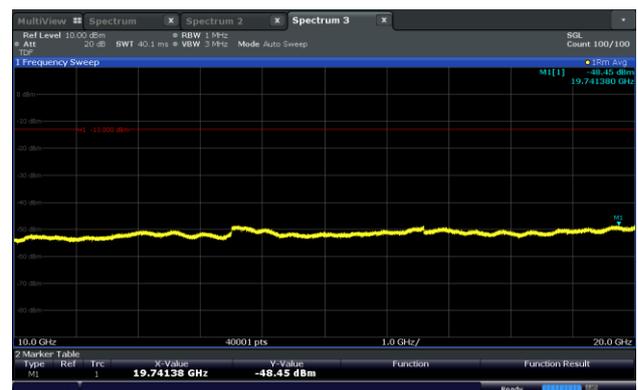
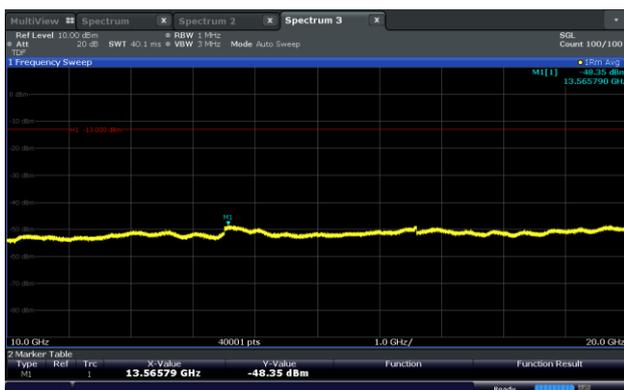
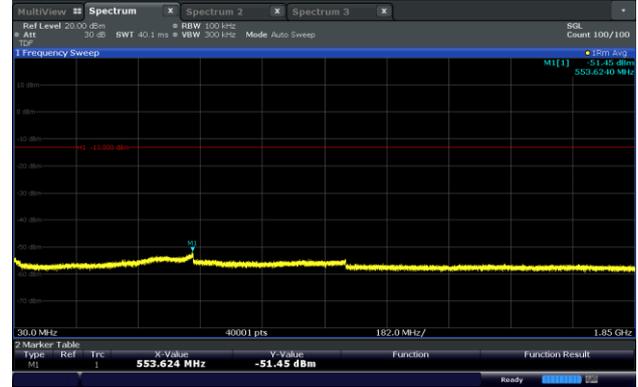
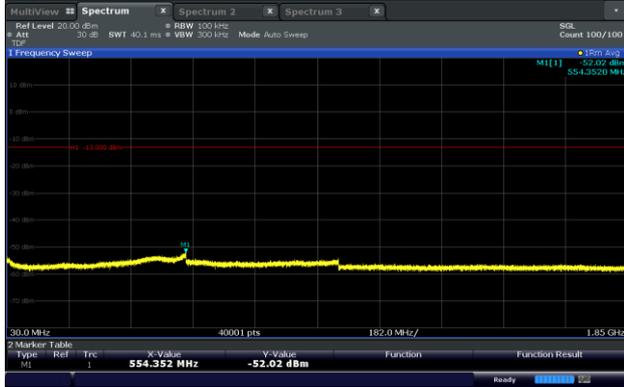
1.4M BW / 16QAM / Mid ch.



Test mode: LTE Band2

1.4M BW / QPSK / High ch.

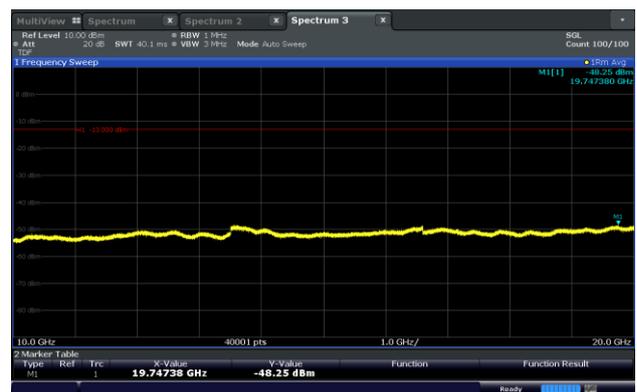
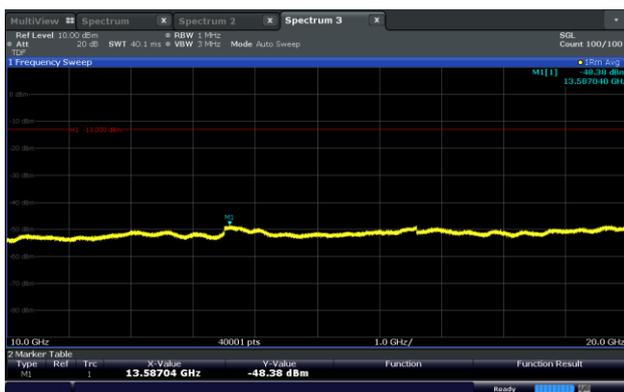
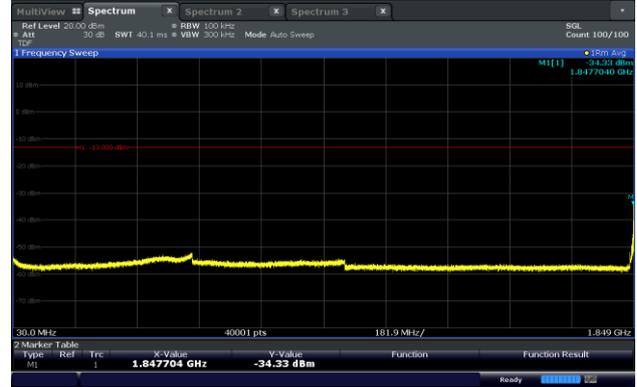
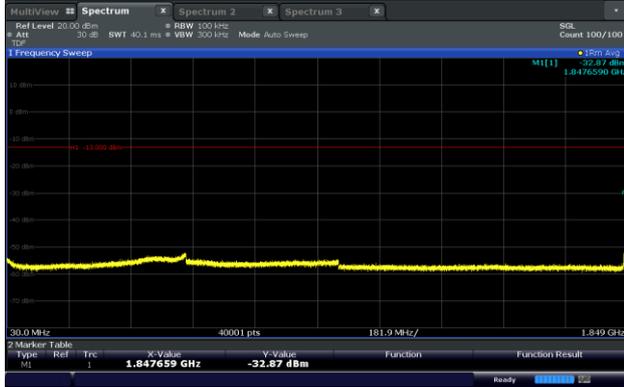
1.4M BW / 16QAM / High ch.



Test mode: LTE Band2

3M BW / QPSK / Low ch.

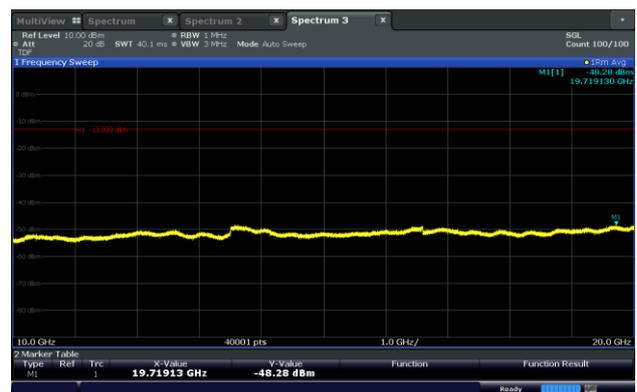
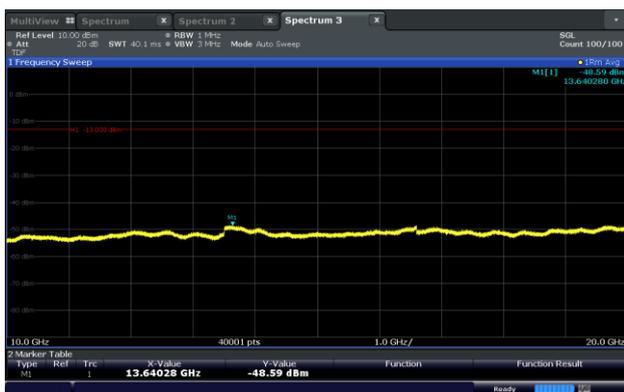
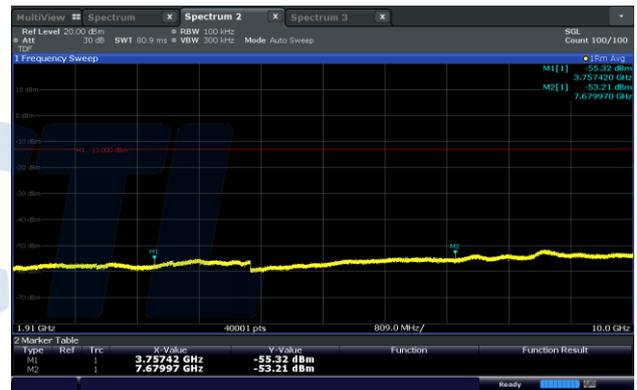
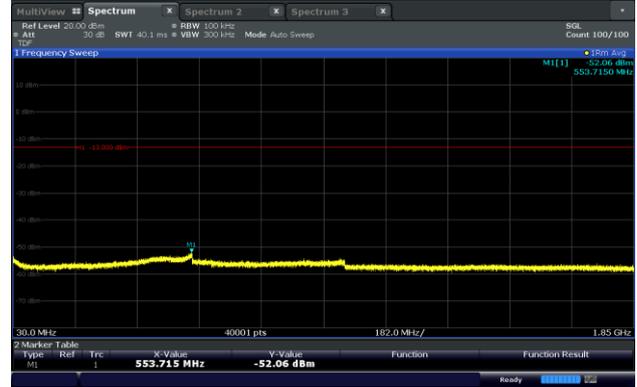
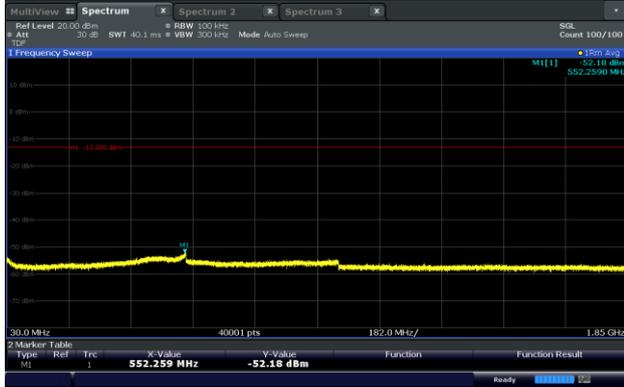
3M BW / 16QAM / Low ch.



Test mode: LTE Band2

3M BW / QPSK / Mid ch.

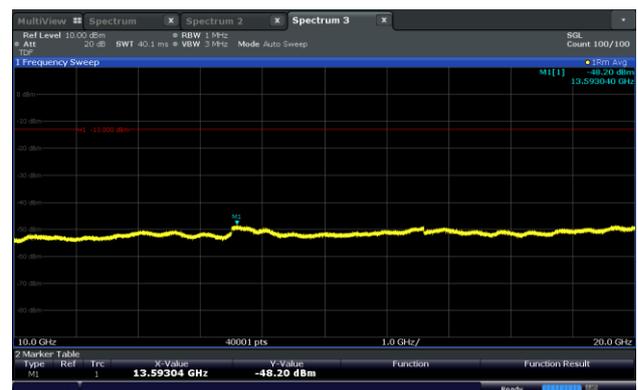
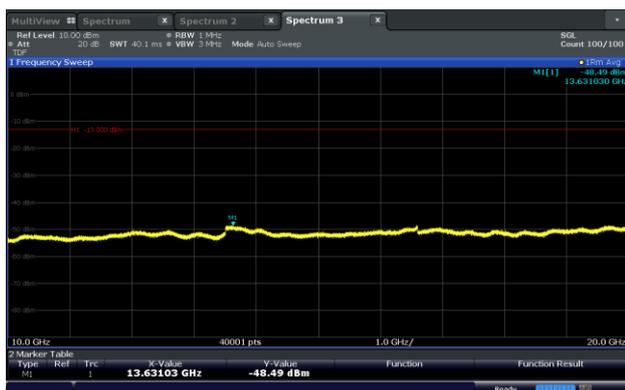
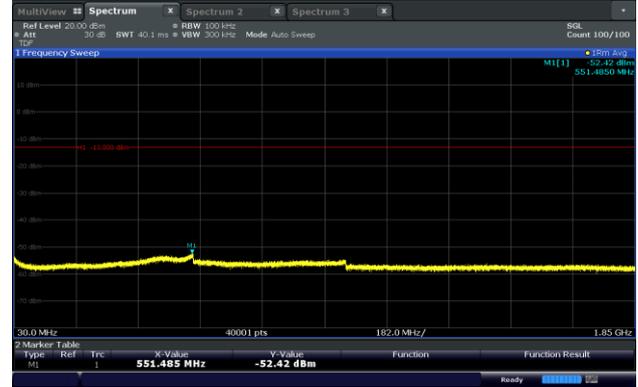
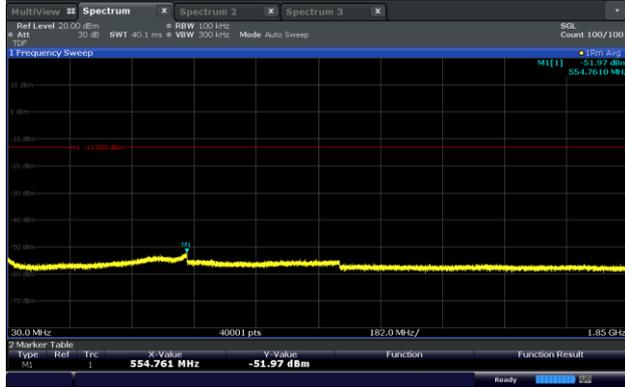
3M BW / 16QAM / Mid ch.



Test mode: LTE Band2

3M BW / QPSK / High ch.

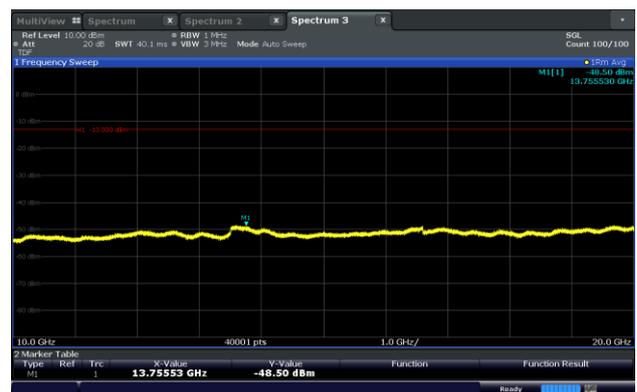
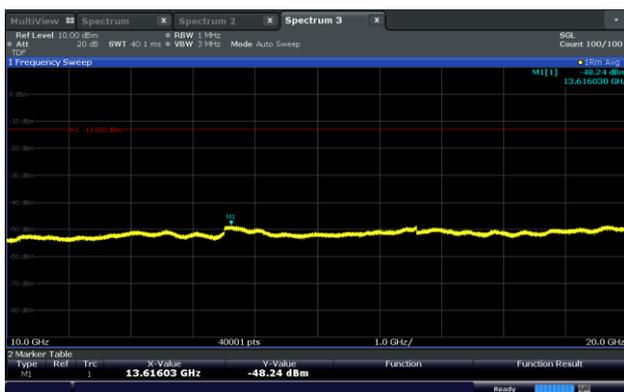
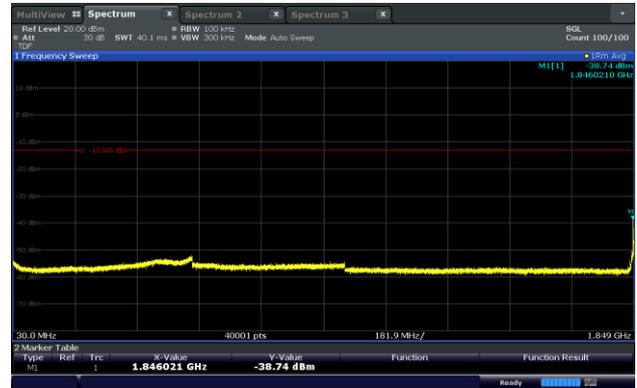
3M BW / 16QAM / High ch.



Test mode: LTE Band2

5M BW / QPSK / Low ch.

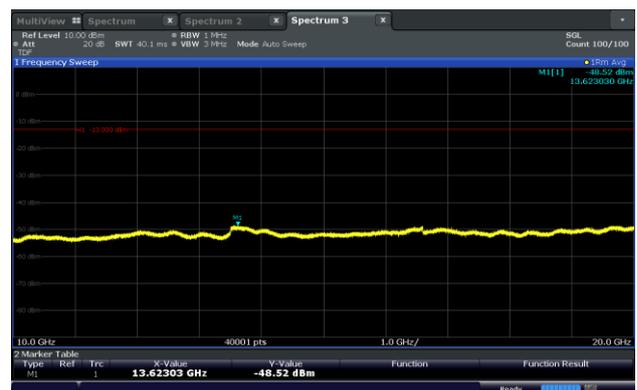
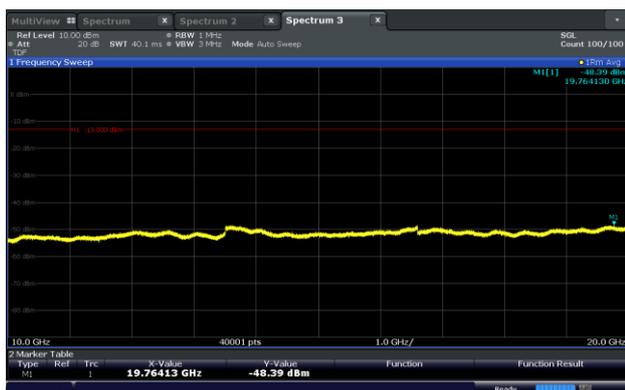
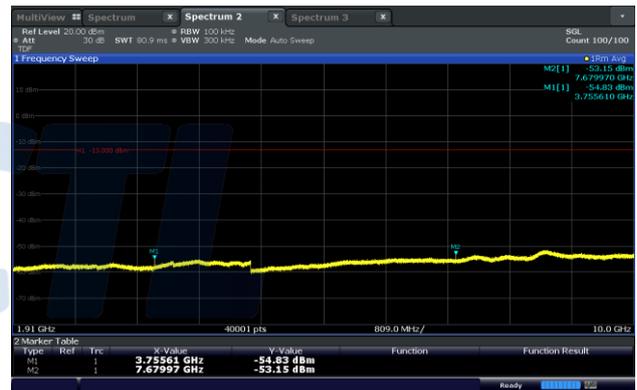
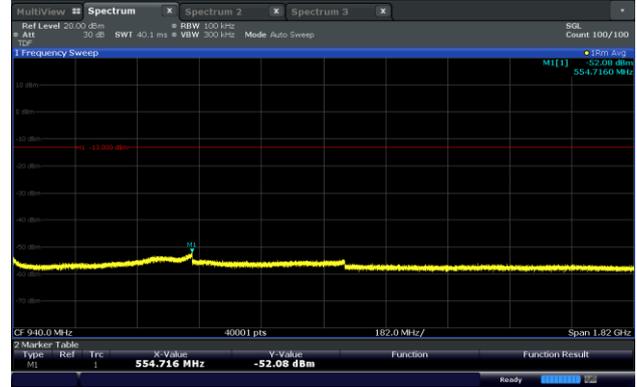
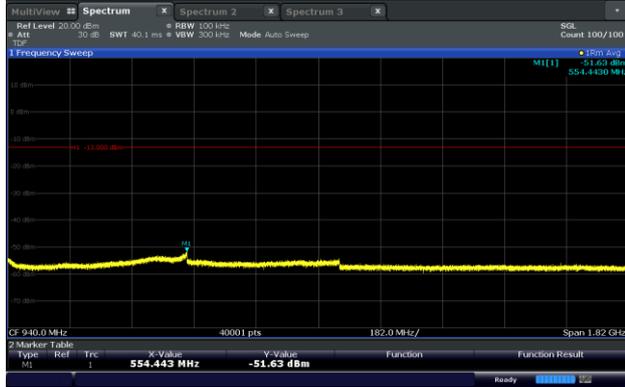
5M BW / 16QAM / Low ch.



Test mode: LTE Band2

5M BW / QPSK / Mid ch.

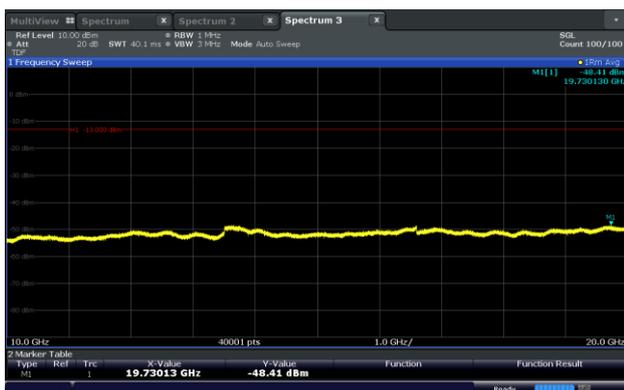
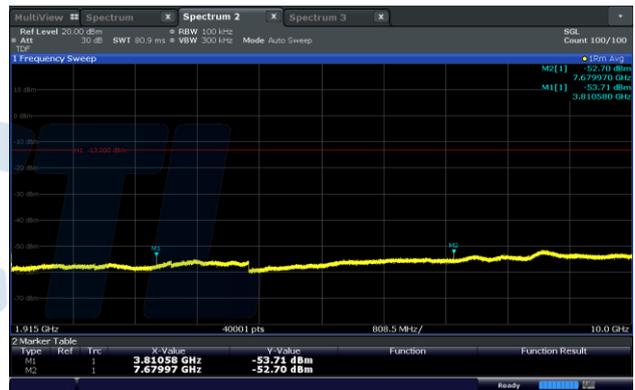
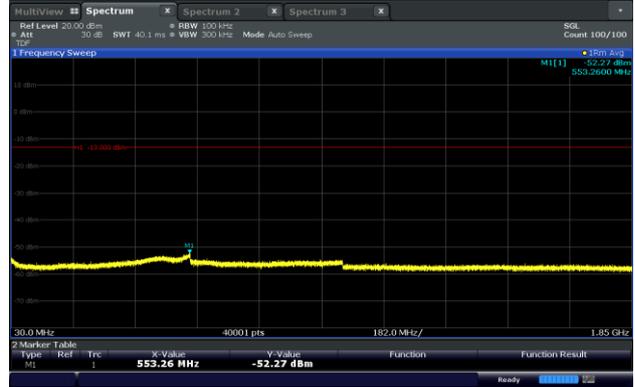
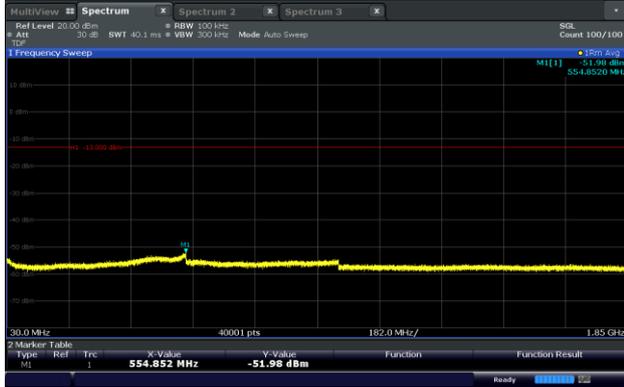
5M BW / 16QAM / Mid ch.



Test mode: LTE Band2

5M BW / QPSK / High ch.

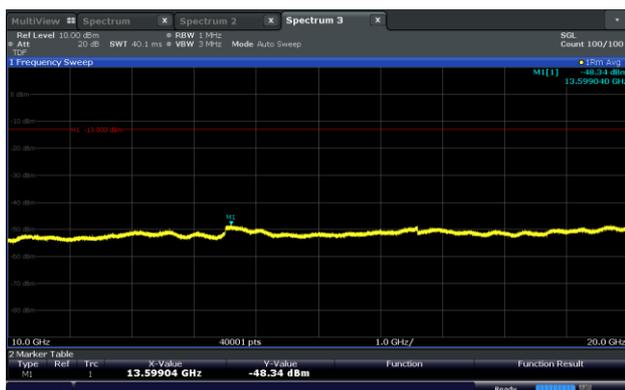
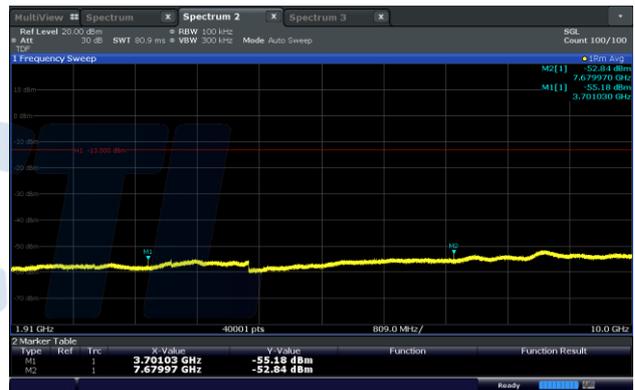
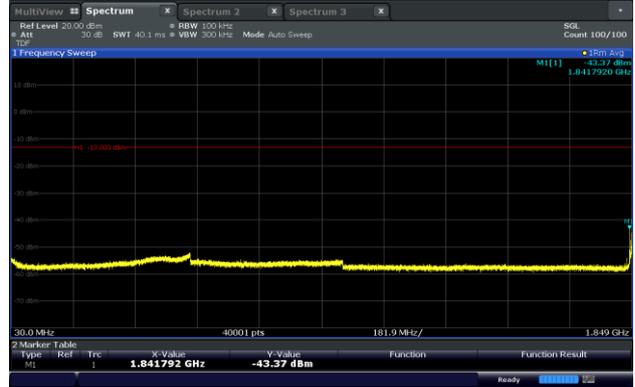
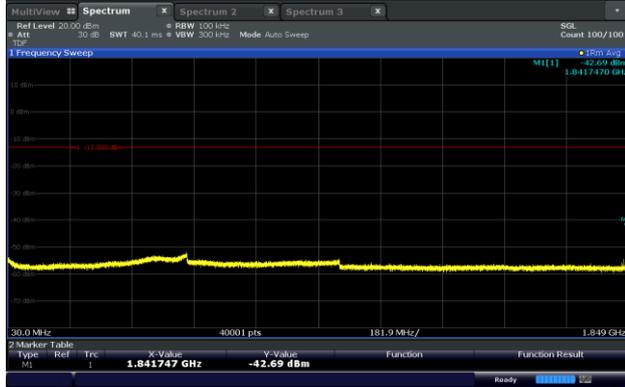
5M BW / 16QAM / High ch.



Test mode: LTE Band2

10M BW / QPSK / Low ch.

10M BW / 16QAM / Low ch.



KCTL Inc.

65, Sinwon-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16677, Korea
TEL: 82-31-285-0894 FAX: 82-505-299-8311
www.kctl.co.kr

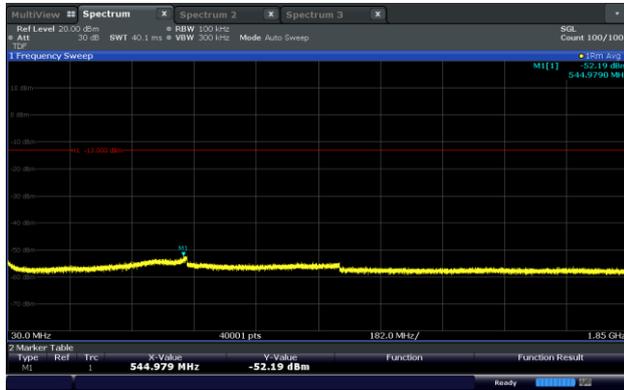
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KR19-SRF0016-A

Page (112) of (279)

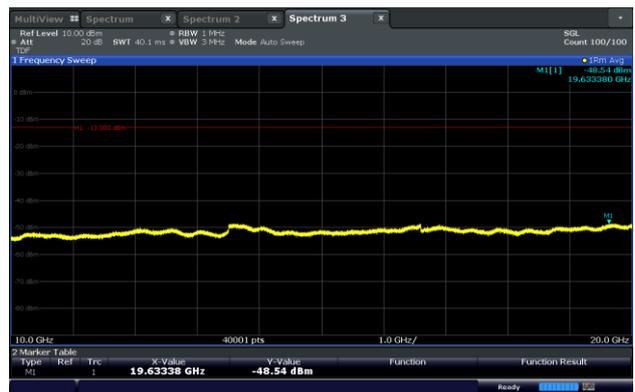
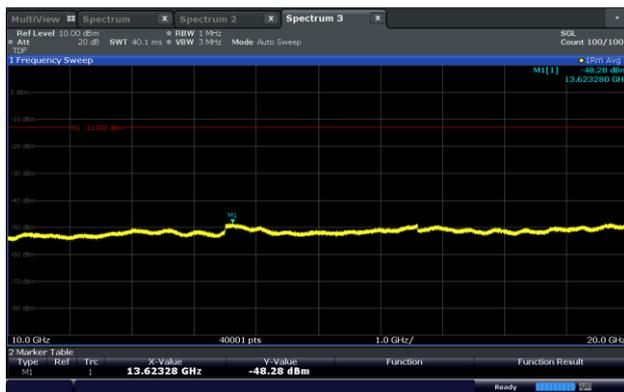
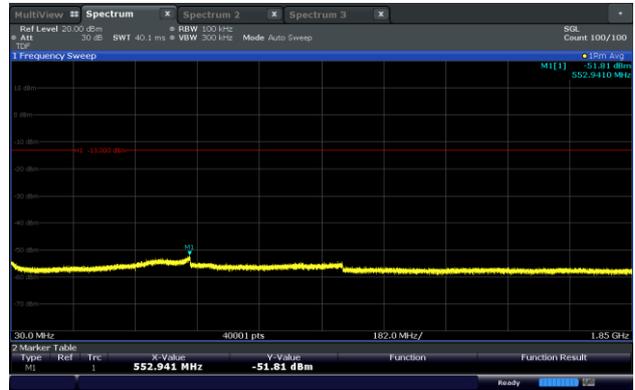


Test mode: LTE Band2

10M BW / QPSK / Mid ch.



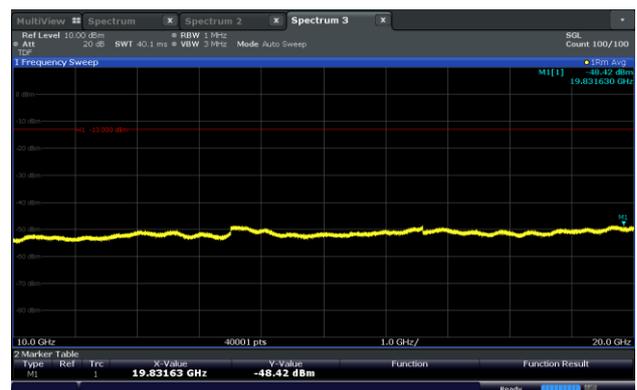
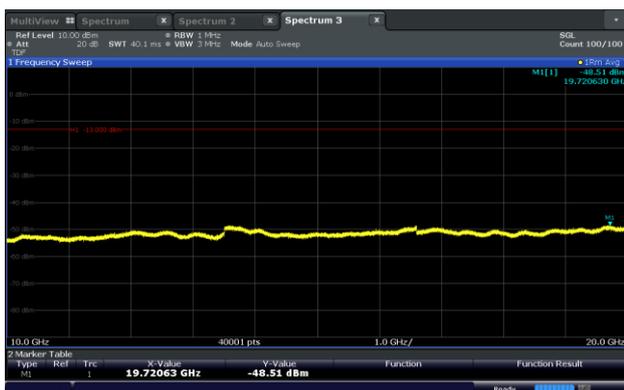
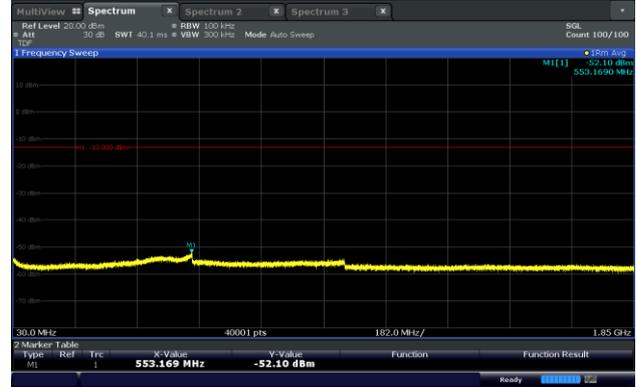
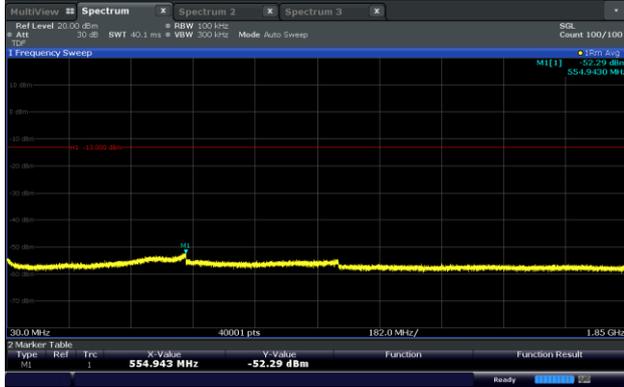
10M BW / 16QAM / Mid ch.



Test mode: LTE Band2

10M BW / QPSK / High ch.

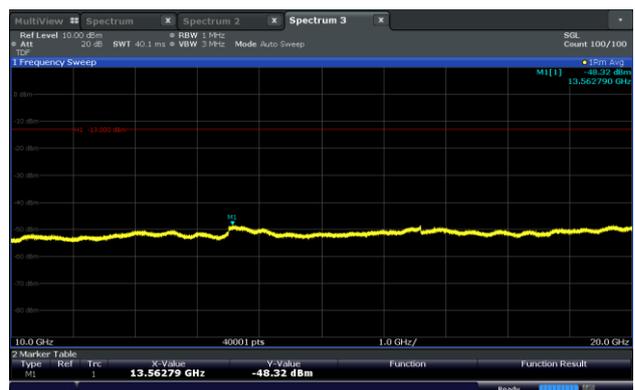
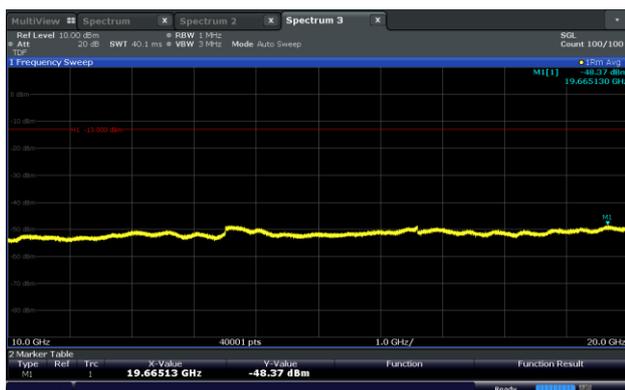
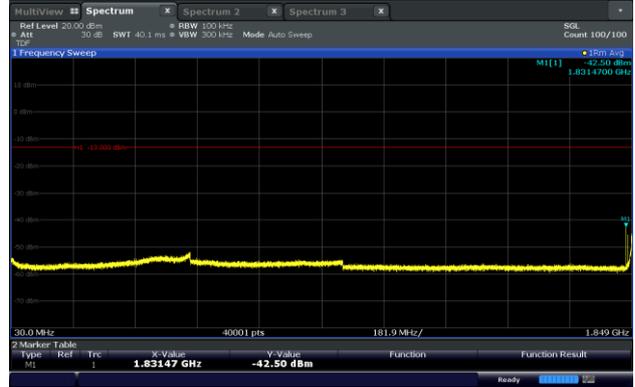
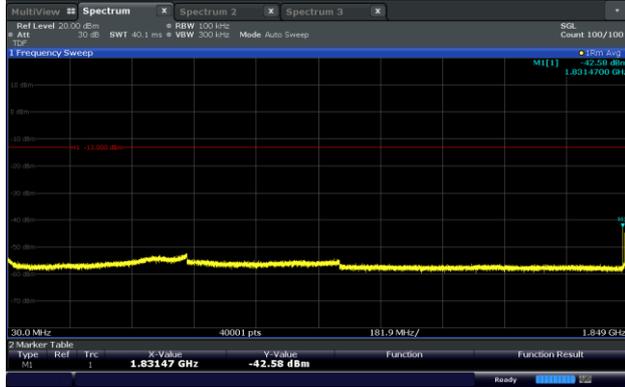
10M BW / 16QAM / High ch.



Test mode: LTE Band2

15M BW / QPSK / Low ch.

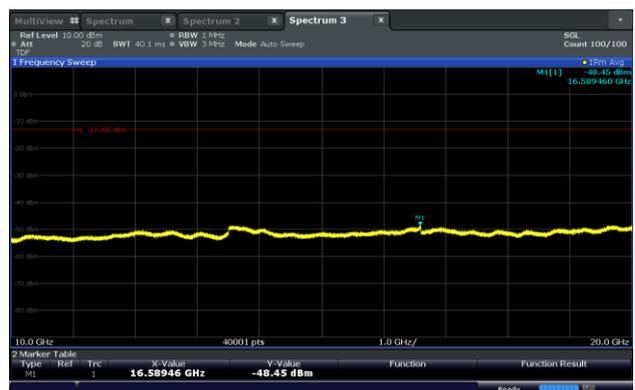
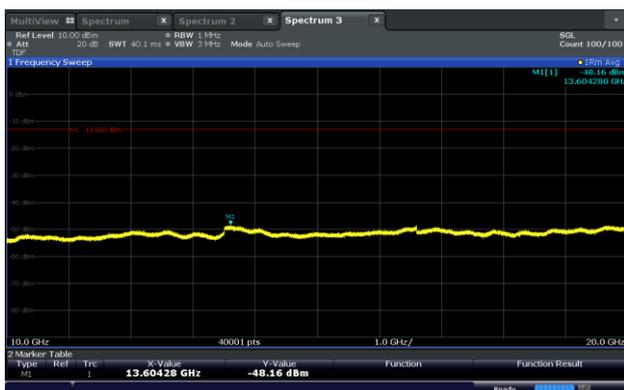
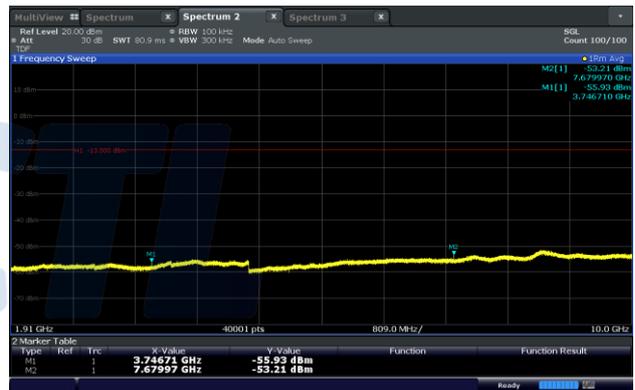
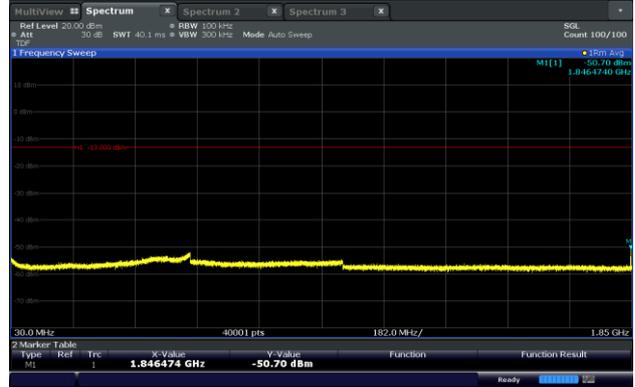
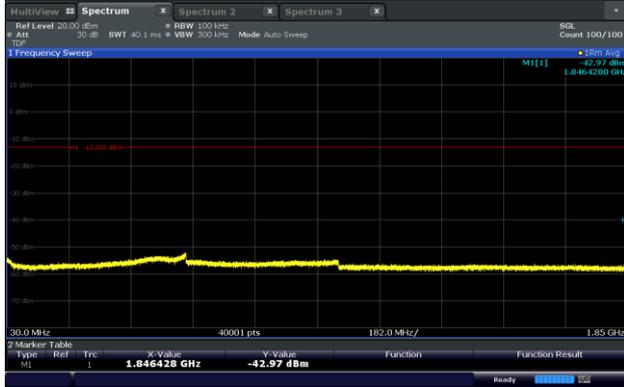
15M BW / 16QAM / Low ch.



Test mode: LTE Band2

15M BW / QPSK / Mid ch.

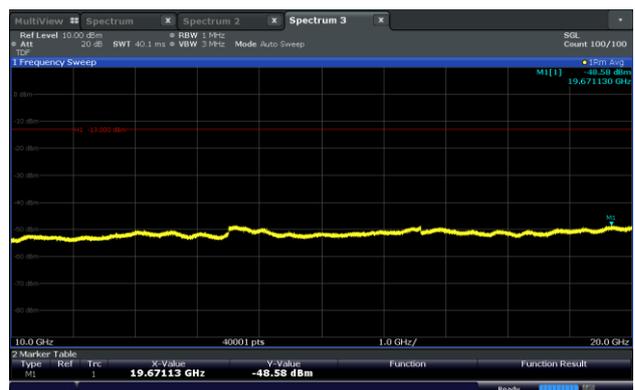
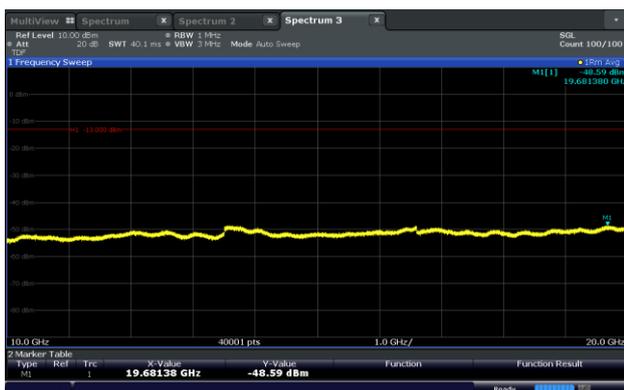
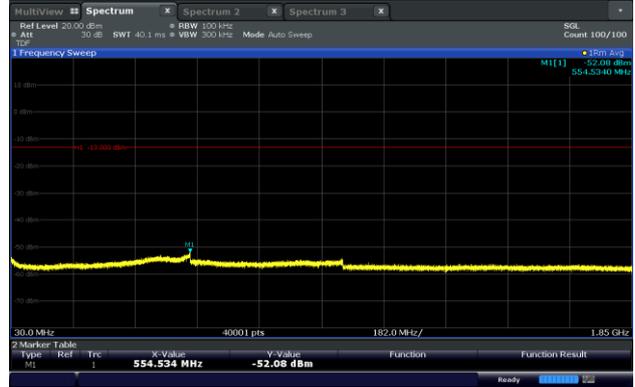
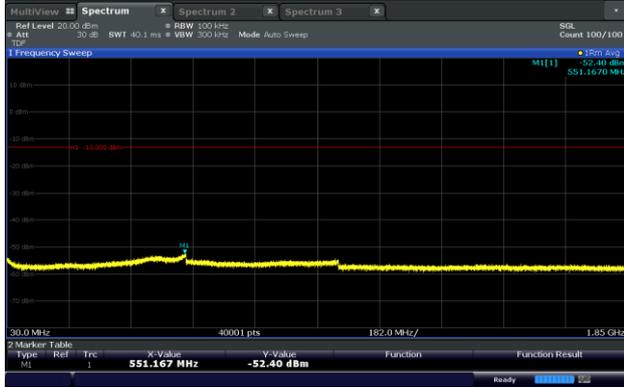
15M BW / 16QAM / Mid ch.



Test mode: LTE Band2

15M BW / QPSK / High ch.

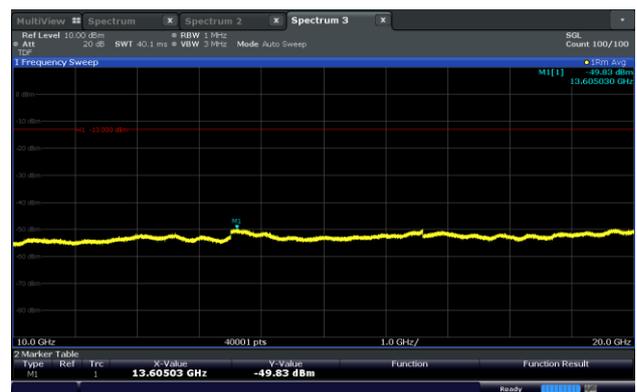
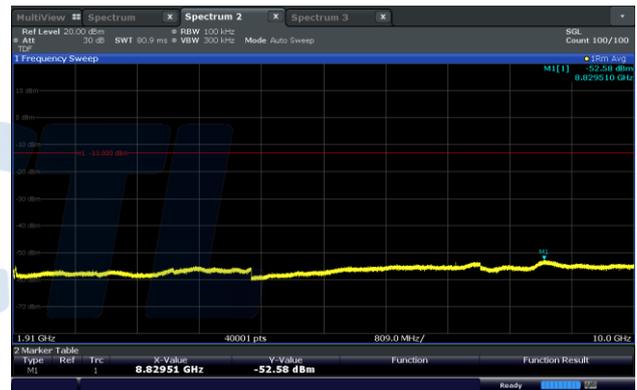
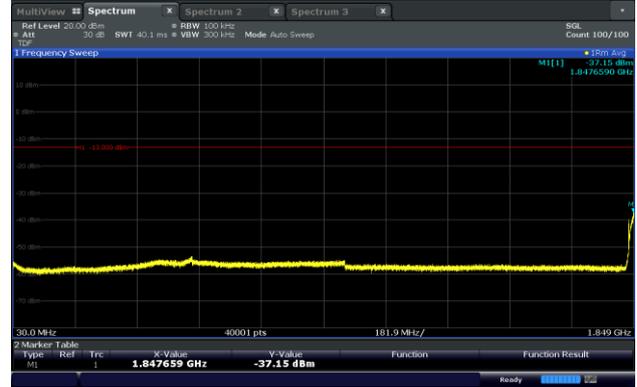
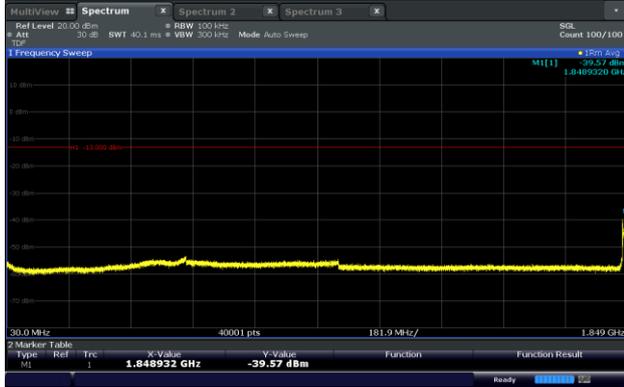
15M BW / 16QAM / High ch.



Test mode: LTE Band2

20M BW / QPSK / Low ch.

20M BW / 16QAM / Low ch.



KCTL Inc.

65, Sinwon-ro, Yeongtong-gu,
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TEL: 82-31-285-0894 FAX: 82-505-299-8311
www.kctl.co.kr

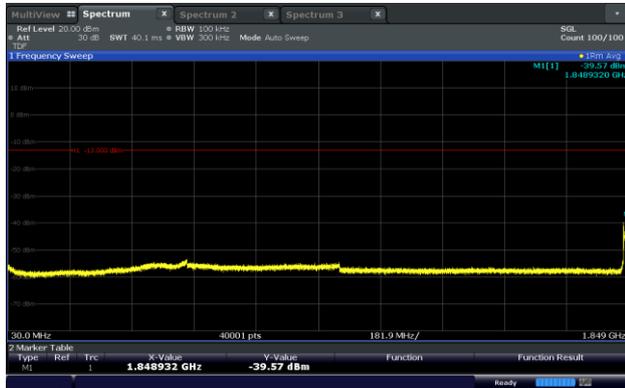
Report No.:
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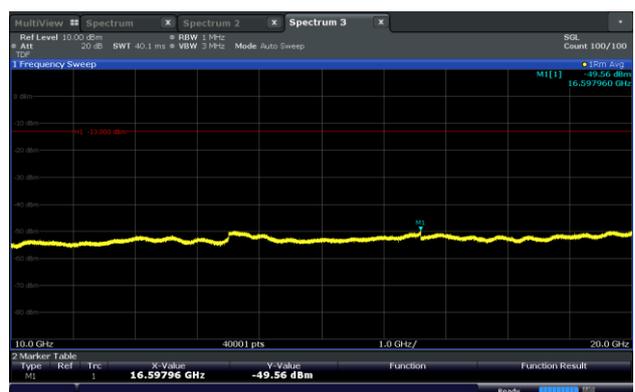
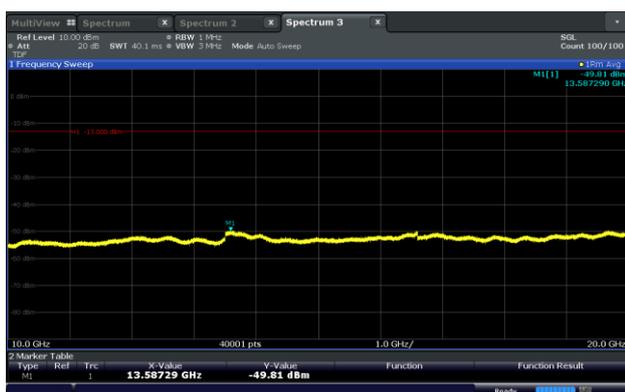
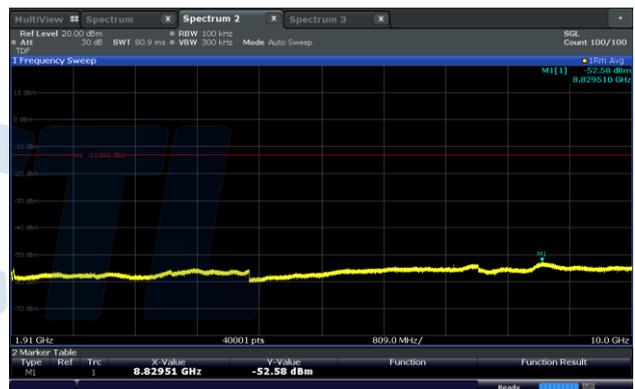
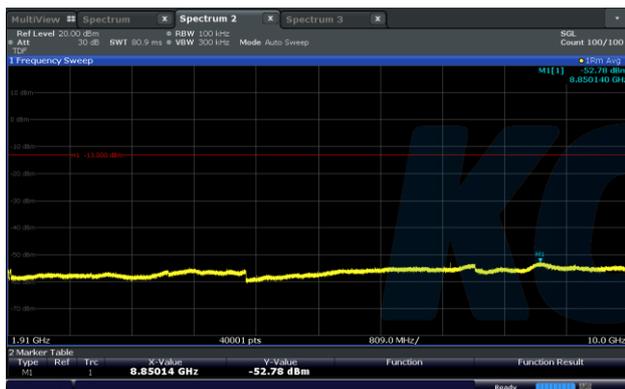
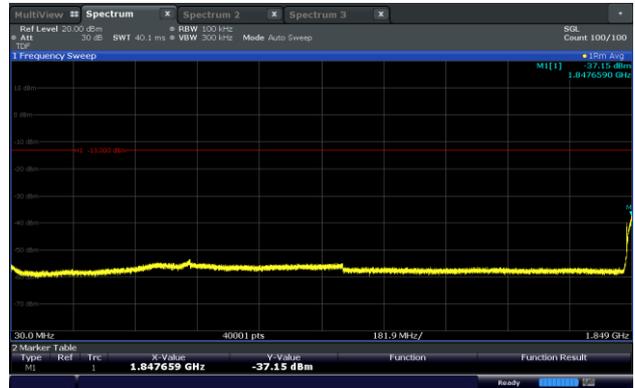


Test mode: LTE Band2

20M BW / QPSK / Mid ch.



20M BW / 16QAM / Mid ch.



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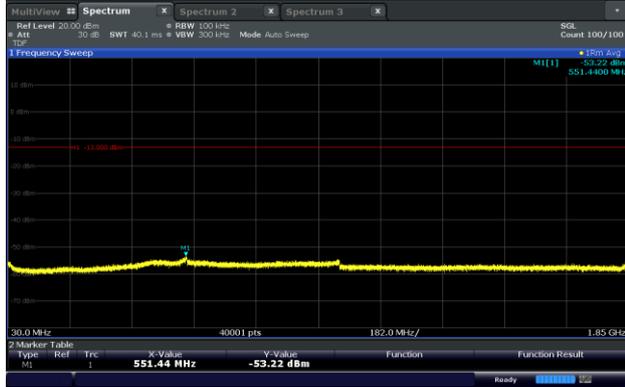
Report No.:
KR19-SRF0016-A

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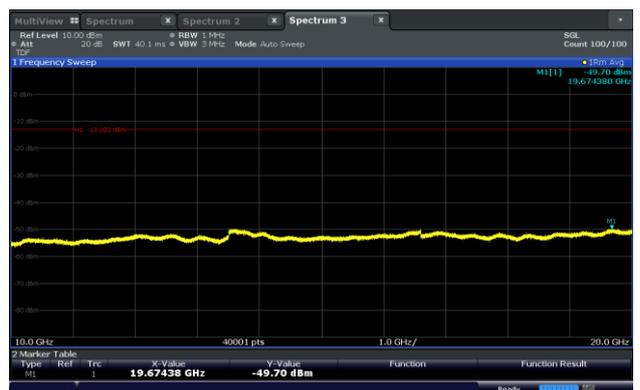
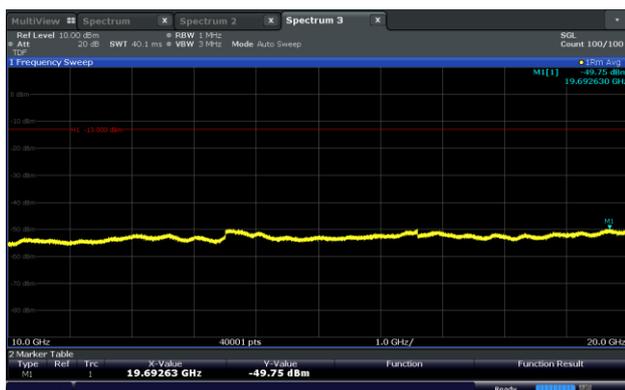


Test mode: LTE Band2

20M BW / QPSK / High ch.

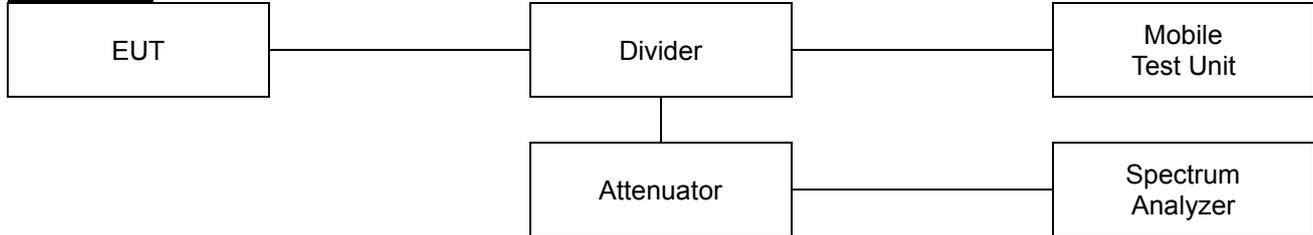


20M BW / 16QAM / High ch.



7.3. Band Edge Emissions at Antenna Terminal

Test setup



Limit

According to §22.917(a), §24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P_{Watts}) by a factor of at least $43 + 10\log(P_{\text{Watts}})$ dB.

According to §27.53(g), for operations in the 600 MHz band and the 698~746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10\log(P_{\text{Watts}})$ dB.

According to §27.53(h), except as otherwise specified below, for operations in the 1695~1710 MHz, 1710 ~ 1755 MHz, 1755 ~ 1780 MHz, 1915~1920 MHz, 1995~2000 MHz, 2000~2020 MHz, 2110~2155 MHz, 2155~2180 MHz, and 2180~2200 bands, the power of an emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10\log(P_{\text{Watts}})$ dB.

Test procedure

971168 D01 v03r01 - Section 6
ANSI C63.26-2015 – Section 5.7

Test settings

- 1) Start frequency was set to 30 MHz and stop frequency was set to at least 10th the fundamental frequency.
- 2) Span was set large enough so as to capture all out of band emissions near the band edge.
- 3) Set the RBW > 1% of the emission bandwidth.
- 4) Set the VBW $\geq 3 \times$ RBW.
- 5) Set the number of sweep points $\geq 2 \times$ Span/RBW
- 6) Detector = RMS
- 7) Trace mode = trace average
- 8) Sweep time should be auto for peak detection. For RMS detection the sweep time should be set as follows:
 - a) If the device can be configured to transmit continuously (duty cycle $\geq 98\%$), set the (sweep time) > (number of points in sweep) \times (symbol period) (e.g., by a factor of 10 \times symbol period \times number of points) Increasing the sweep time (i.e., slowing the sweep speed) will allow for averaging over multiple symbols.
 - b) If the device cannot transmit continuously (duty cycle < 98%), a gated sweep shall be used when possible (i.e., gate triggered such that the analyzer only