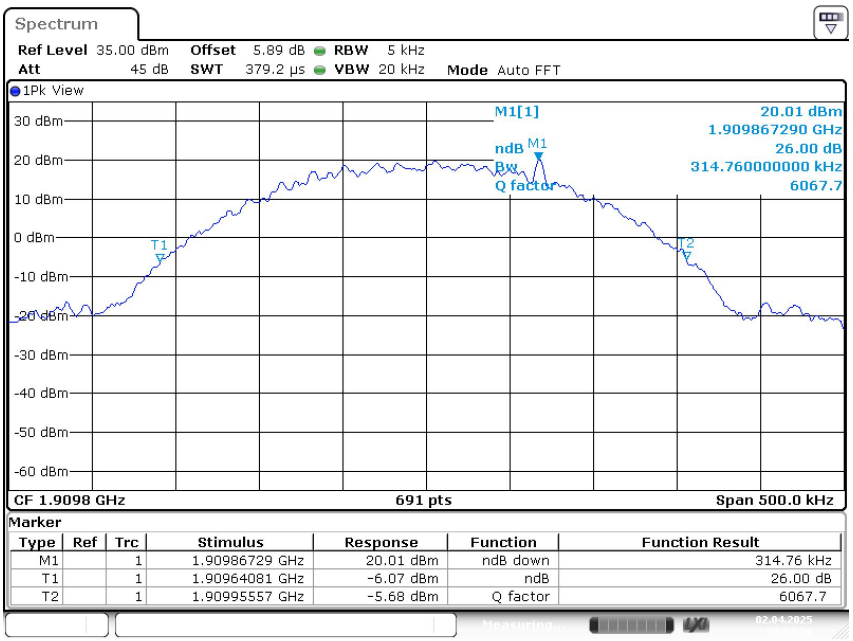
Channel 810-Emission Bandwidth (-26dBc BW)



Date: 2.APR.2025 09:03:58

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A.6 Band Edge Compliance

A.6.1 Measurement limit

Part 22.917 and Part 24.238 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to KDB 971168, a relaxation of the reference bandwidth is often provided for measurements within a specified frequency range at the edge of the authorized frequency block/band. This is often implemented by permitting the use of a narrower RBW (typically limited to a minimum RBW of 1% of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth.

The spectrum analyzer readings are corrected by [10 log (1/duty cycle)] for the non-continuous transmitting scenario.

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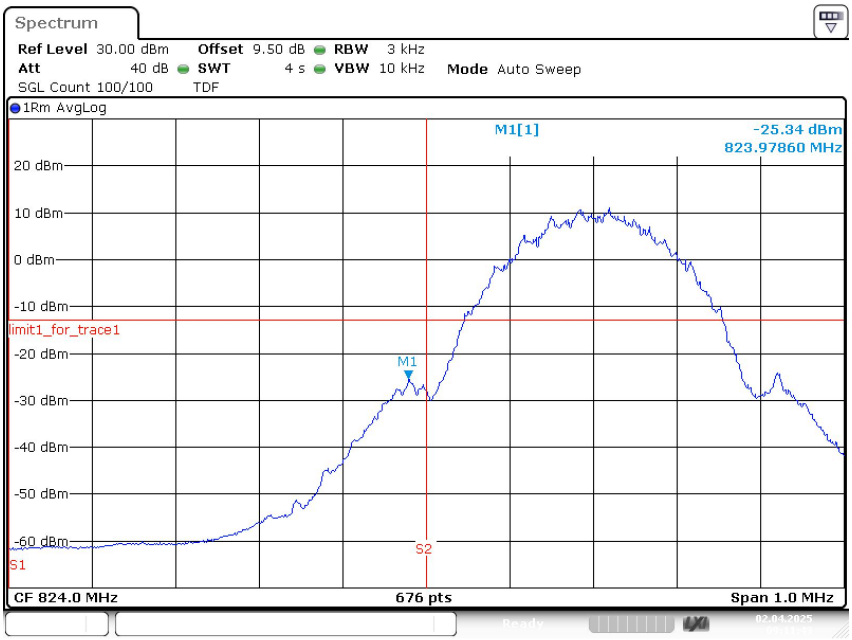
A.6.2 Measurement result

GSM850

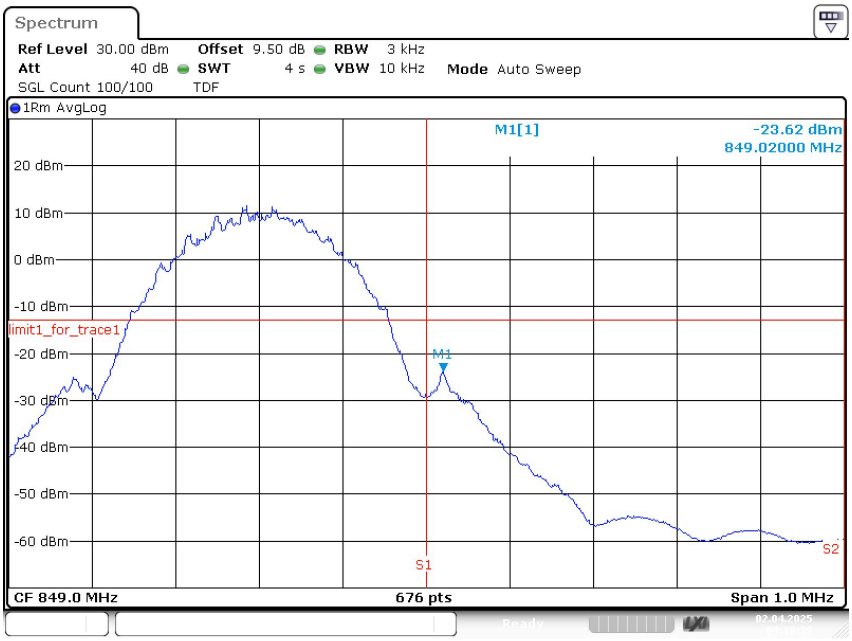
GSM

Channel 128



Date: 2.APR.2025 09:11:43

Channel 251



Date: 2.APR.2025 09:18:39

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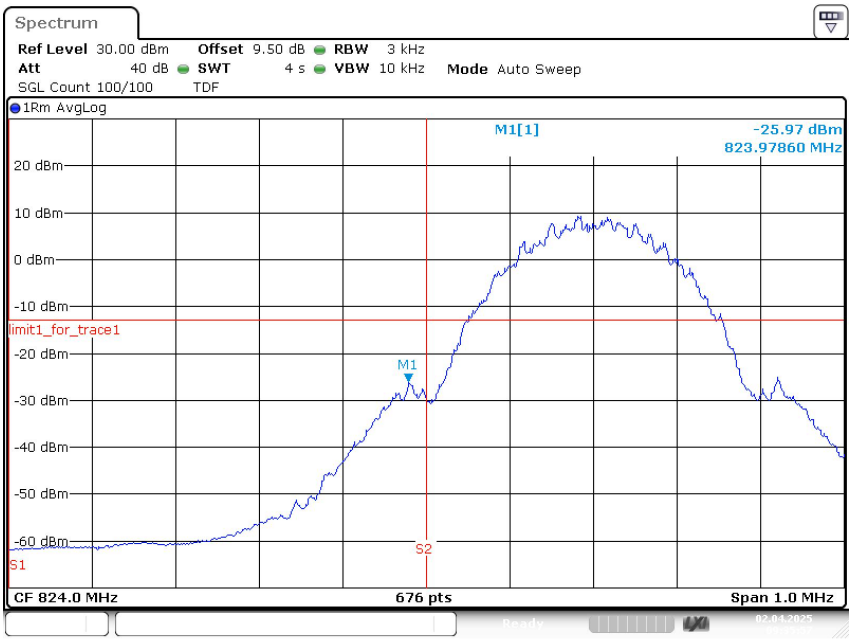
GSM850

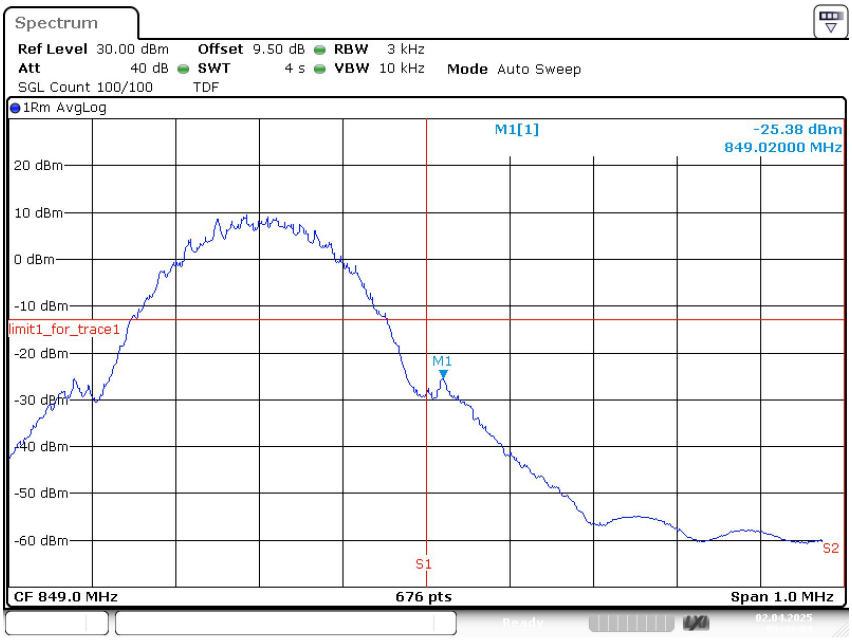
GPRS

Channel 128



Date: 2.APR.2025 09:35:58

Channel 251



Date: 2.APR.2025 09:43:04

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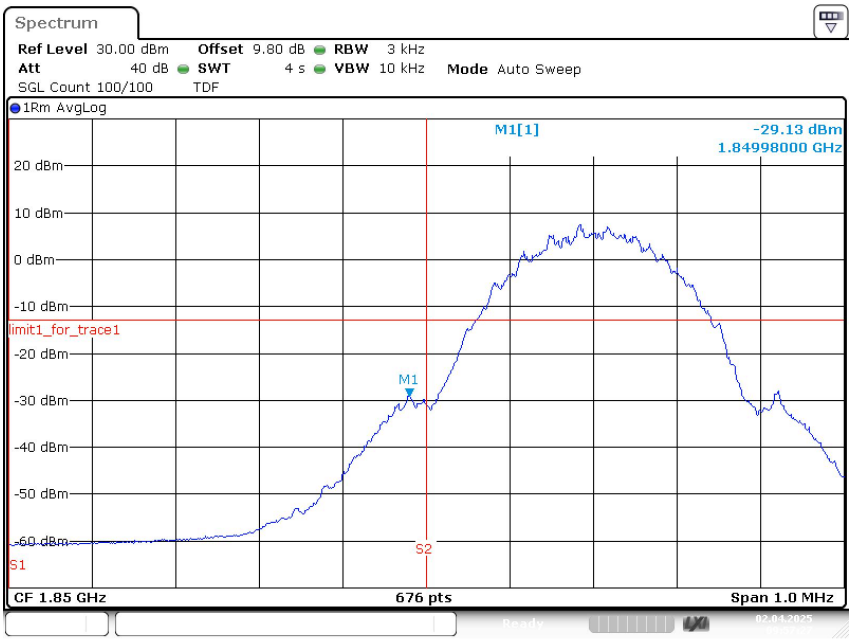
PCS1900

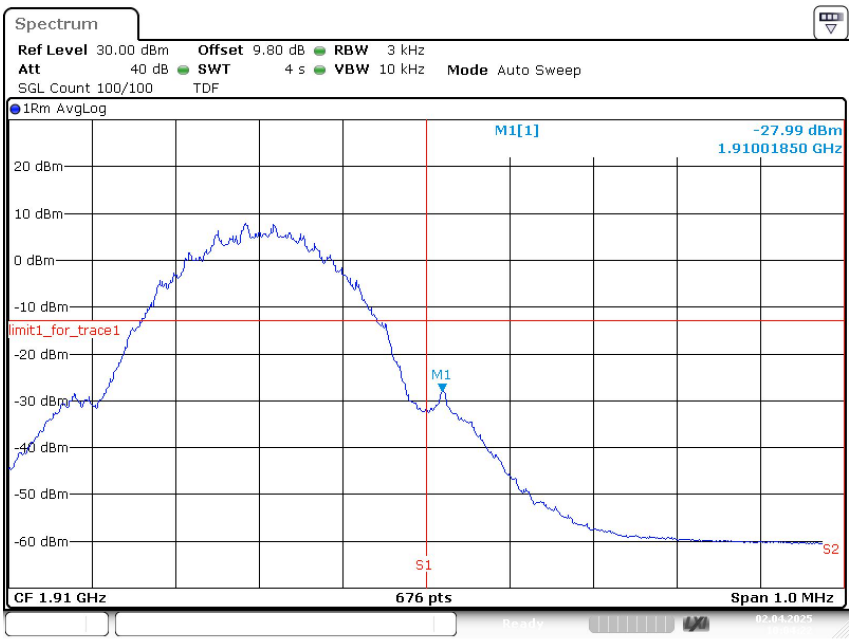
GSM

Channel 512



Date: 2.APR.2025 09:57:27

Channel 810



Date: 2.APR.2025 10:04:22

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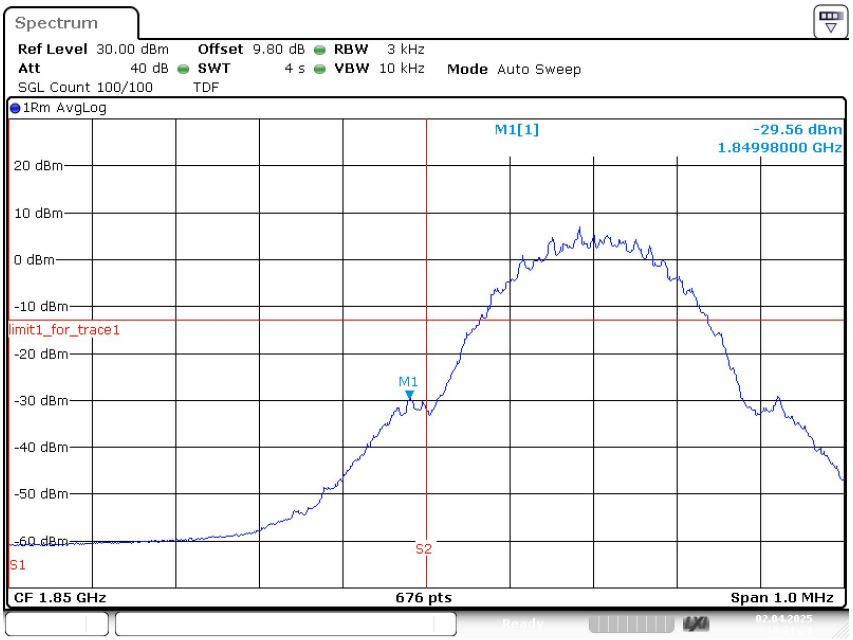
PCS1900

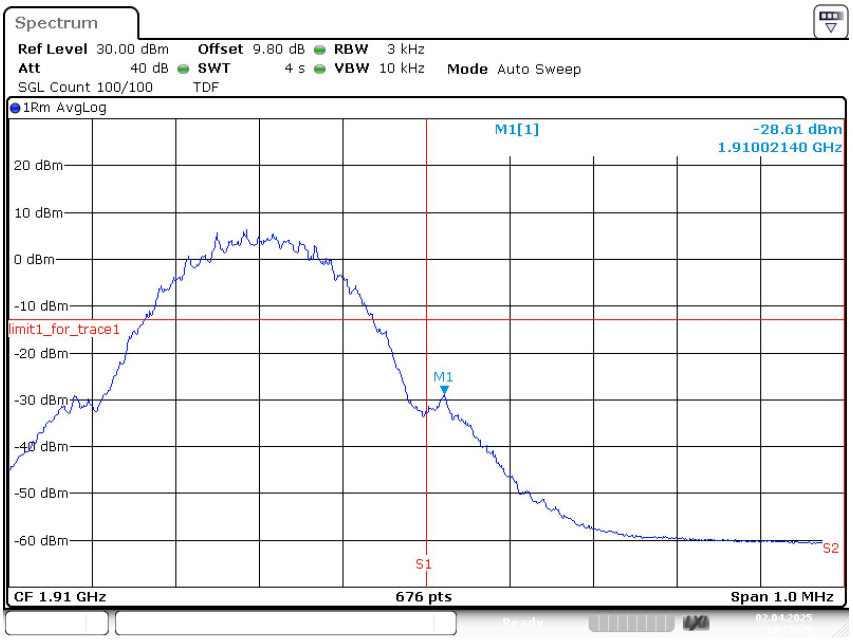
GPRS

Channel 512



Date: 2.APR.2025 10:21:23

Channel 810



Date: 2.APR.2025 10:28:30

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A.7 Conducted Spurious Emission

A.7.1 Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. In measuring unwanted emissions, the spectrum shall be investigated from 30 MHz or the lowest radio frequency signal generated in the equipment, whichever is lower, without going below 9 kHz, up to at least the frequency given below:
   (a) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
   (b) If the equipment operates at or above 10 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.
3. The number of sweep points of spectrum analyzer is greater than 2×span/RBW.

A. 7.2 Measurement Limit

Part 22.917 and Part 24.238 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

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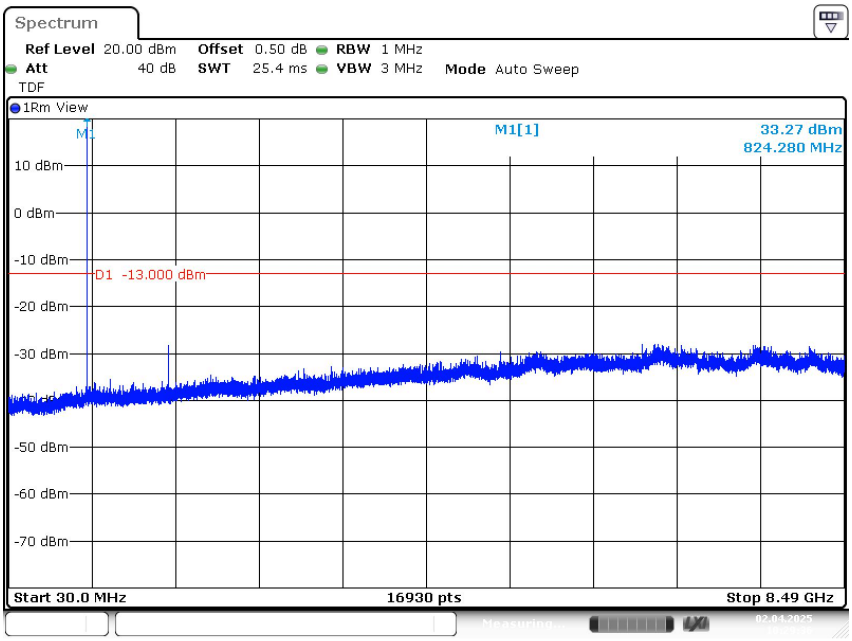
A.7.3 Measurement result

GSM850

Channel 128:

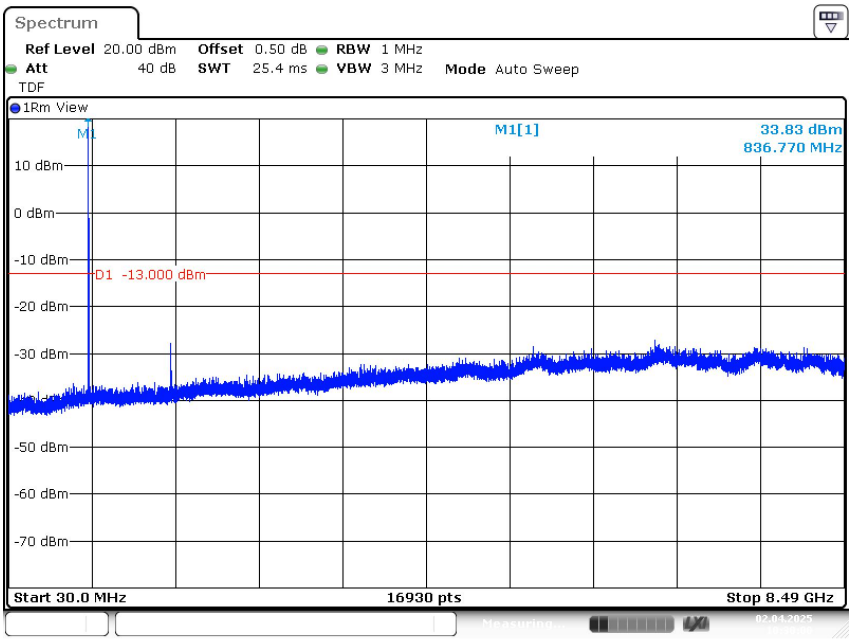
NOTE: peak above the limit line is the carrier frequency.



Date: 2.APR.2025 10:29:37

Channel 190:

NOTE: peak above the limit line is the carrier frequency.



Date: 2.APR.2025 10:30:00

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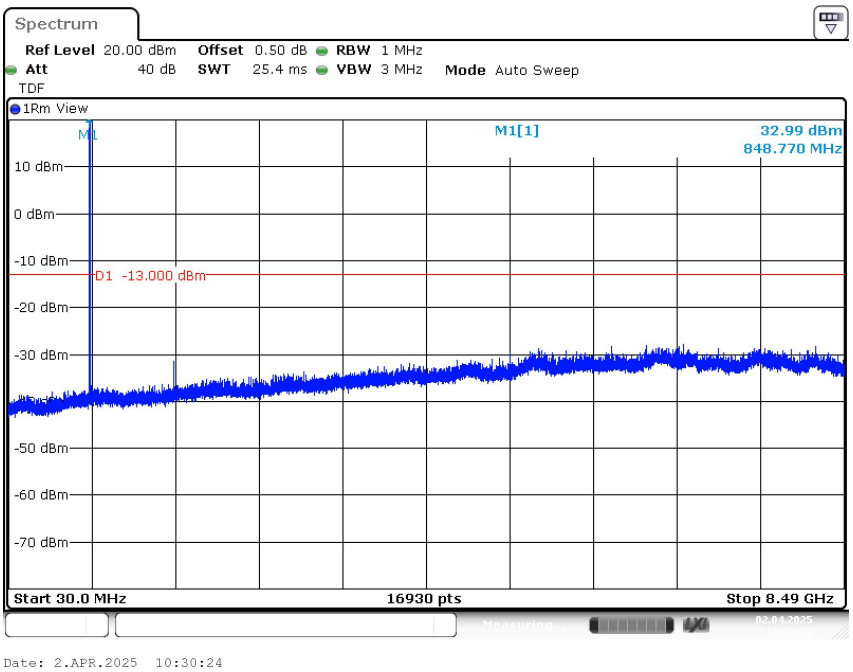
Channel 251:

NOTE: peak above the limit line is the carrier frequency.



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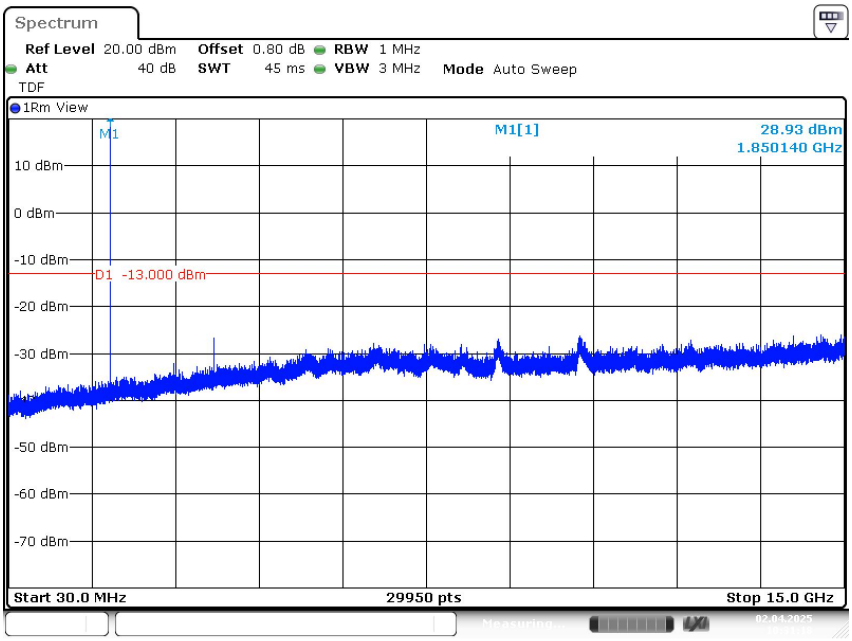
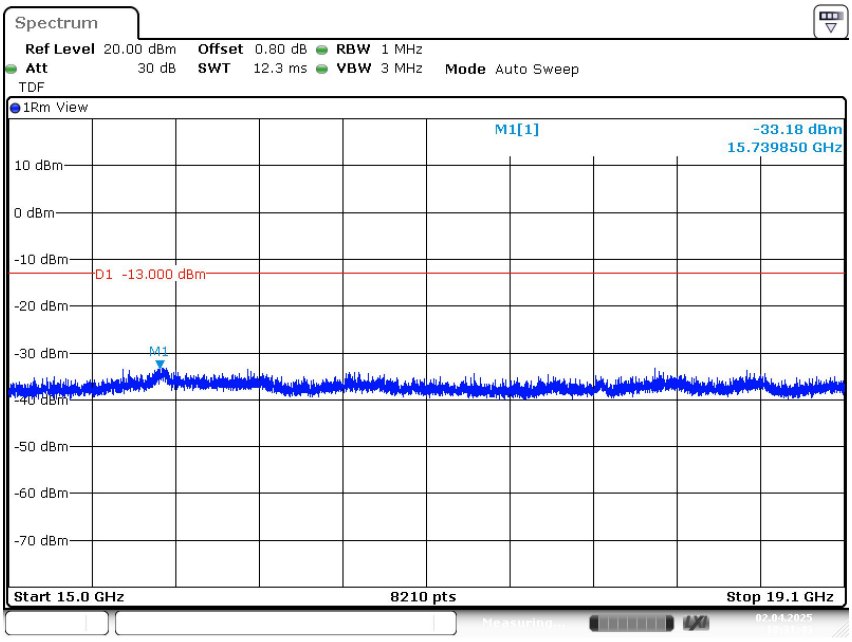
PCS1900

Channel 512:

NOTE: peak above the limit line is the carrier frequency.



Date: 2.APR.2025 10:31:19



Date: 2.APR.2025 10:31:43

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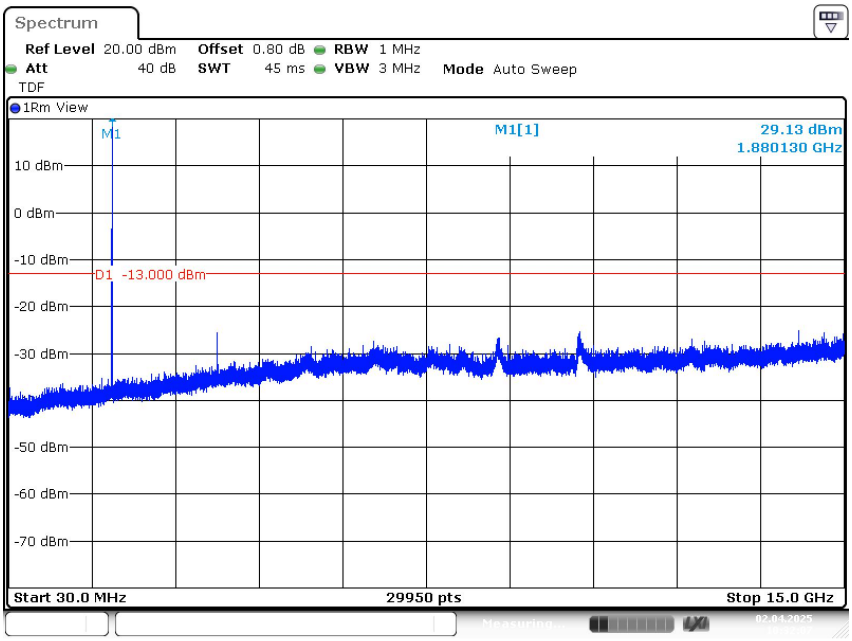
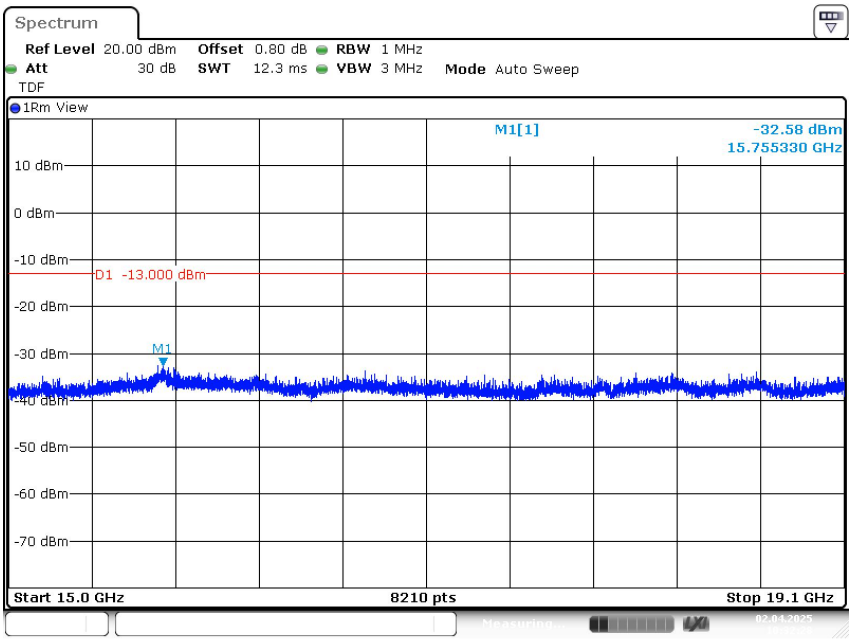
Channel 661:

NOTE: peak above the limit line is the carrier frequency.



Date: 2.APR.2025 10:32:07



Date: 2.APR.2025 10:32:29

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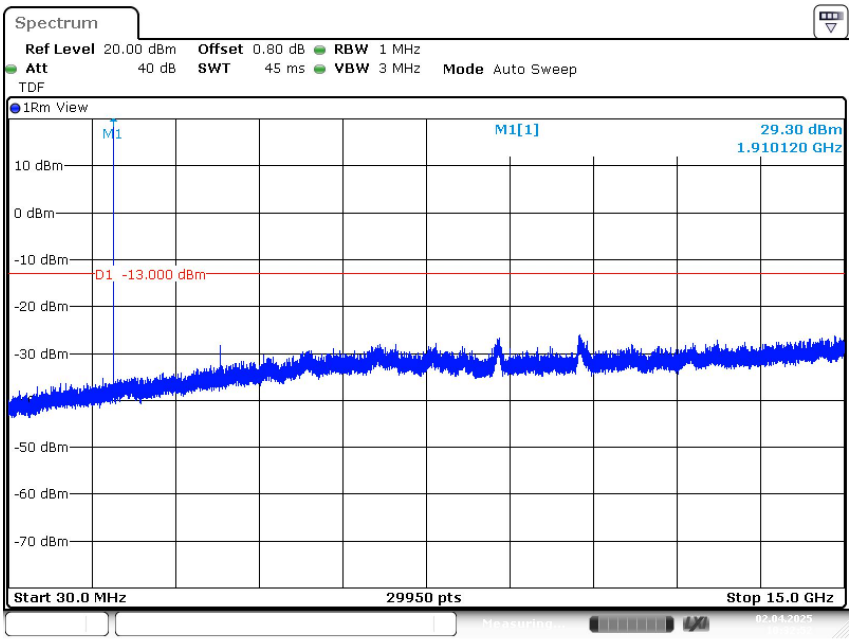
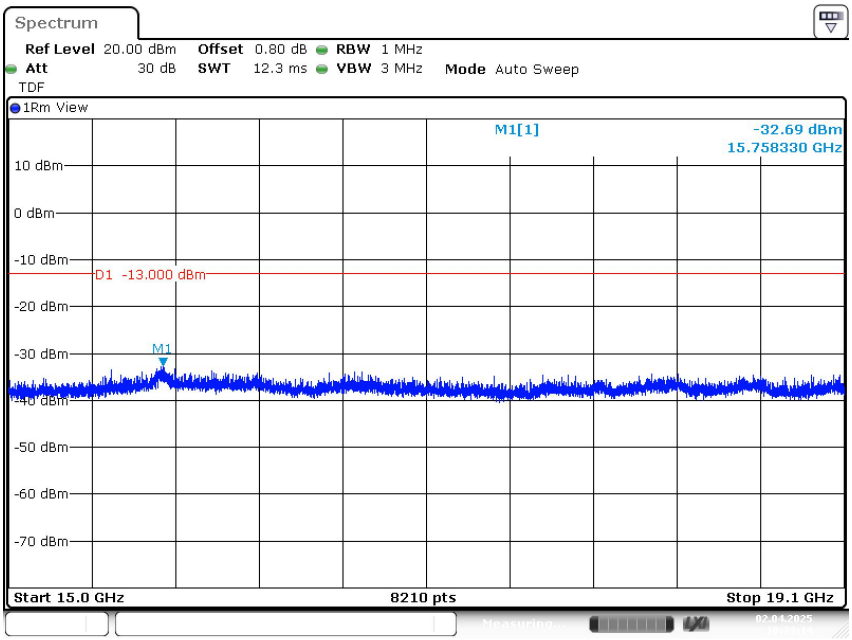
Channel 810:

NOTE: peak above the limit line is the carrier frequency.



Date: 2.APR.2025 10:32:53



Date: 2.APR.2025 10:33:14

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A.8 Peak-to-Average Power Ratio

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB

a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;

b) Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;

c) Set the number of counts to a value that stabilizes the measured CCDF curve;

d) Record the maximum PAPR level associated with a probability of 0.1%.

Measurement results

PCS1900

Measurement result

PCS1900	Frequency (MHz)	PAPR (dB)
GSM	1880	4.75
GPRS	1880	4.67

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Annex B: Accreditation Certificate

Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 23rd day of July 2024.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

*****END OF REPORT*****

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