CONDUCTED SPURIOUS EMISSIONS § 2.1057 / §24.238

Measurement Procedure:
The following steps outline the procedure used to measure the conducted emissions from the EUT.
1. Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency.
For the equipment under test, this equates to a frequency range of 30 MHz to 19.1 GHz, data taken from 30 MHz to 20 GHz for PCS-1900 and30MHz – 9GHz for GSM-850.
2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.

GSM-850 Transmitter

Channel	Frequency
128	824.2 MHz
190	836.6 MHz
251	848.8 MHz

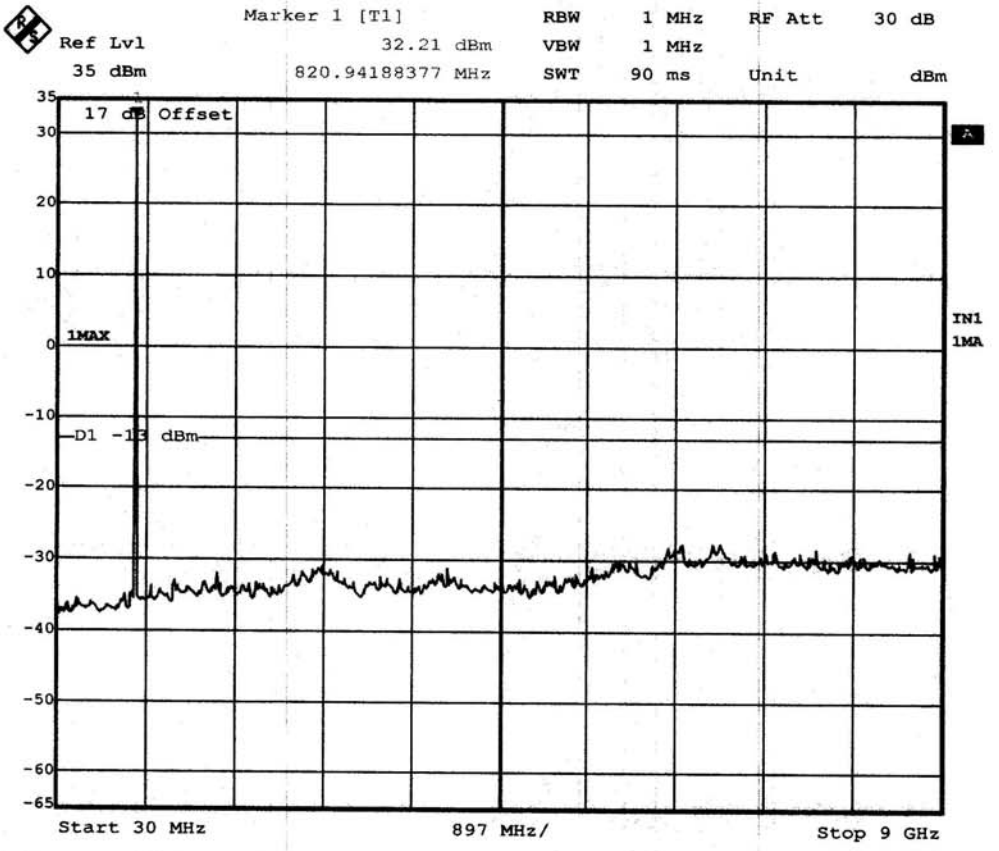
PCS-1900 Transmitter

Channel	Frequency
512	1850.2 MHz
661	1880.0 MHz
810	1909.8 MHz

Measurement Limit:
Sec. 24.238 Emission Limits.
(a) On any frequency outside frequency band of the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. For all power levels +30 dBm to 0dBm, this becomes a constant specification limit of -13 dBm.

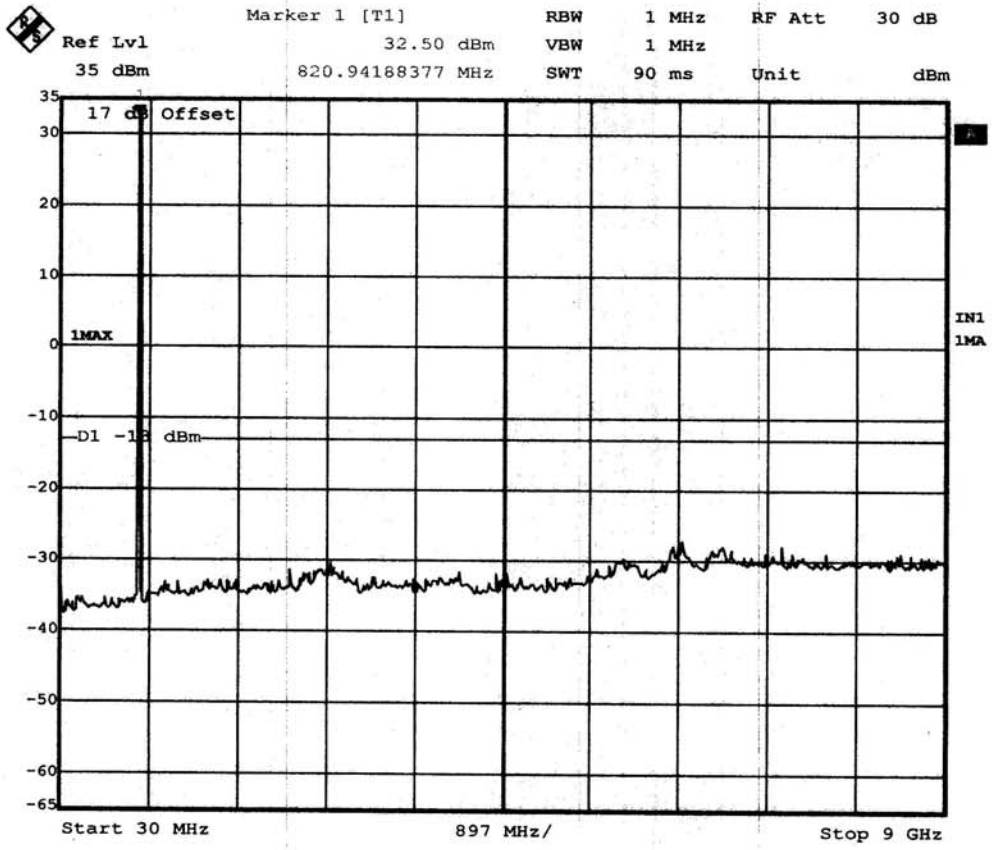
CONDUCTED SPURIOUS EMISSIONS
CHANNEL 128 (GSM-850)
30MHz – 9GHz

Note: The peak above the limit line is the carrier freq. at ch-128.



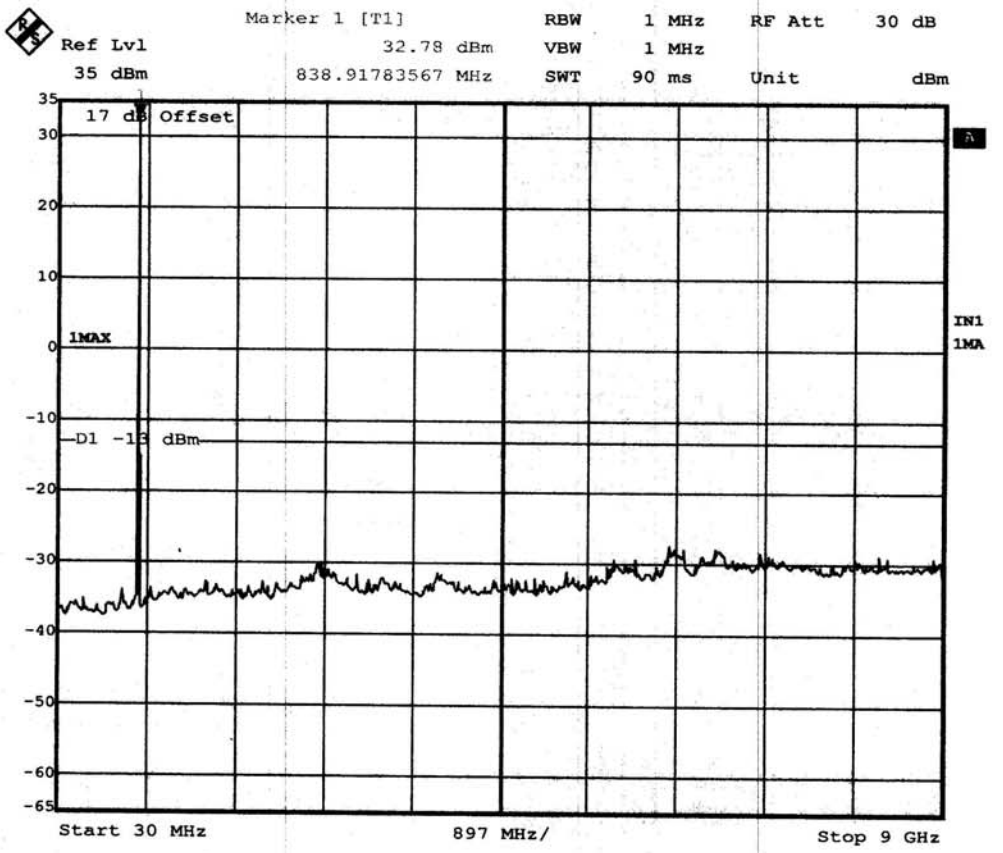
CONDUCTED SPURIOUS EMISSIONS
CHANNEL 190 (GSM-850)
30MHz – 9GHz

Note: The peak above the limit line is the carrier freq. at ch-190.



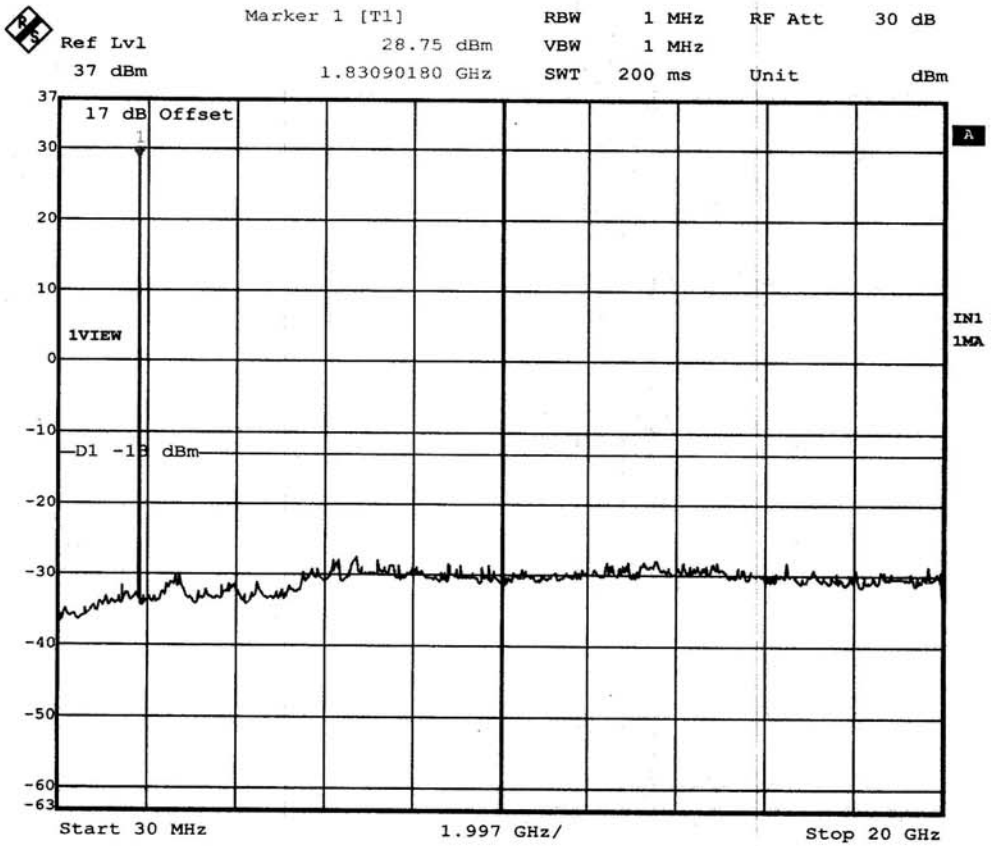
CONDUCTED SPURIOUS EMISSIONS
CHANNEL 251 (GSM-850)
30MHz – 9GHz

Note: The peak above the limit line is the carrier freq. at ch-251.



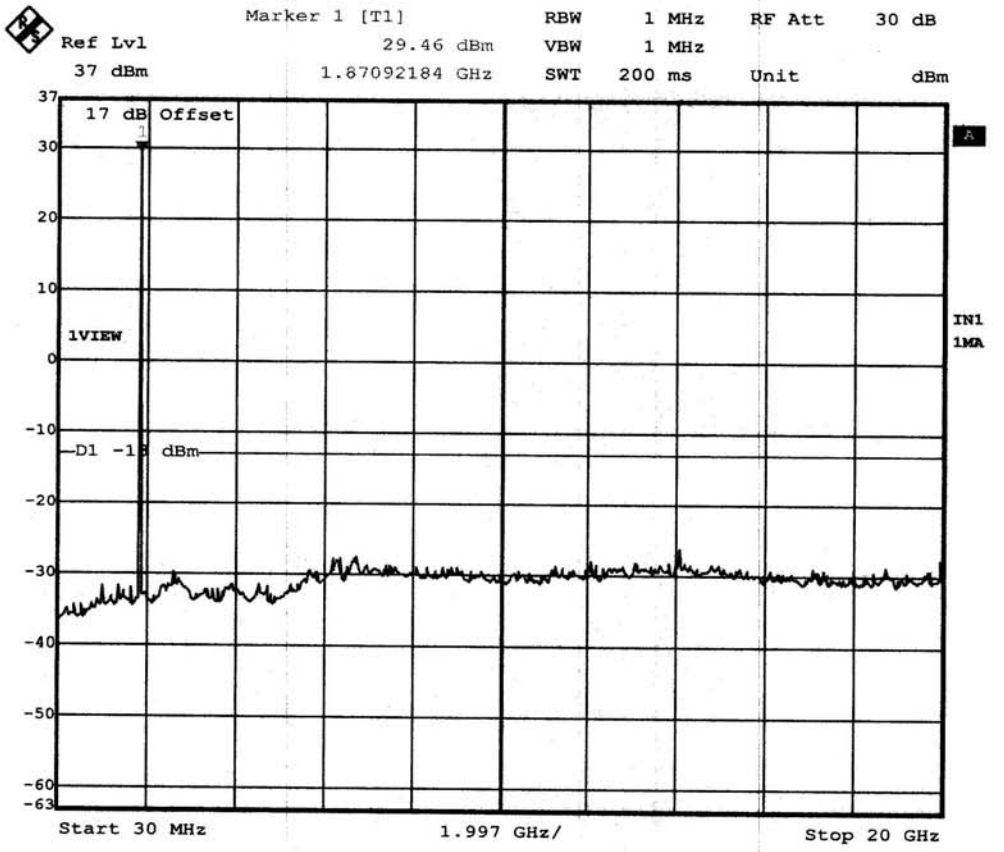
CONDUCTED SPURIOUS EMISSIONS
CHANNEL 512 (PCS-1900)
30MHz – 20GHz

Note: The peak above the limit line is the carrier freq. at ch-512.



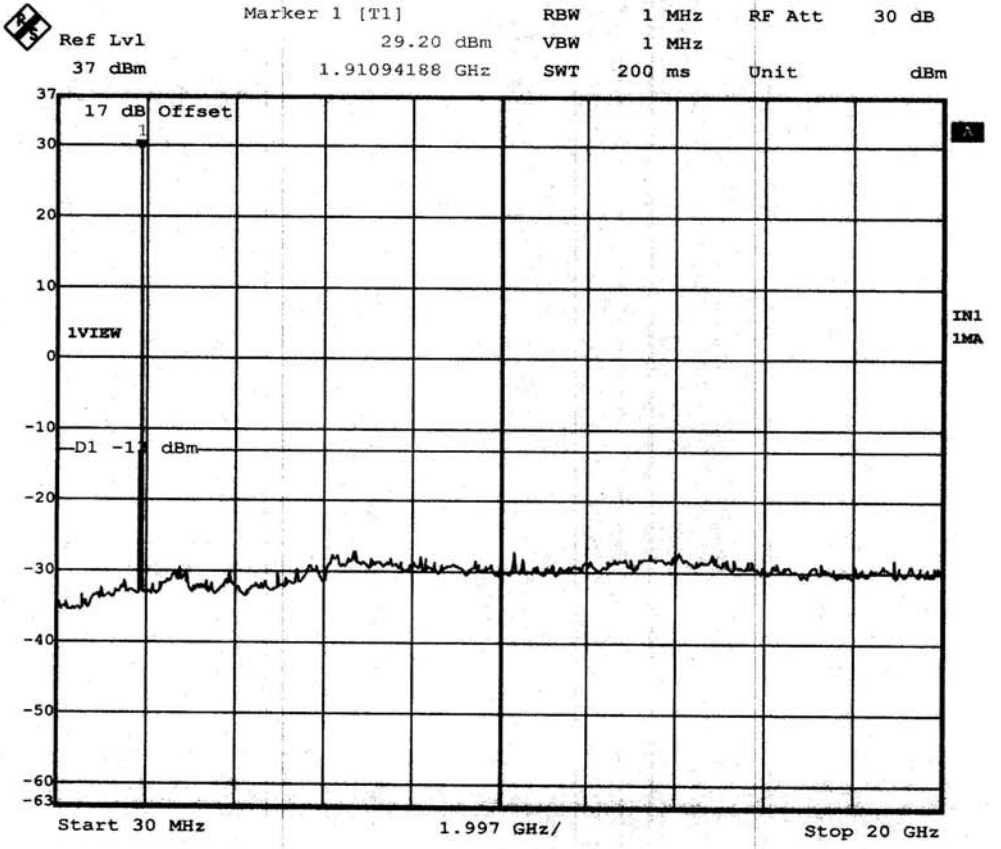
CONDUCTED SPURIOUS EMISSIONS
CHANNEL 661 (PCS-1900)
30MHz – 20GHz

Note: The peak above the limit line is the carrier freq. at ch-661.



CONDUCTED SPURIOUS EMISSIONS
CHANNEL 810 (PCS-1900)
30MHz – 20GHz

Note: The peak above the limit line is the carrier freq. at ch-810.



CONDUCTED SPURIOUS EMISSIONS
Idle Mode
30MHz – 20GHz
Note: This plot is valid for both GSM-850/1900 bands. (Worst-case plot)