

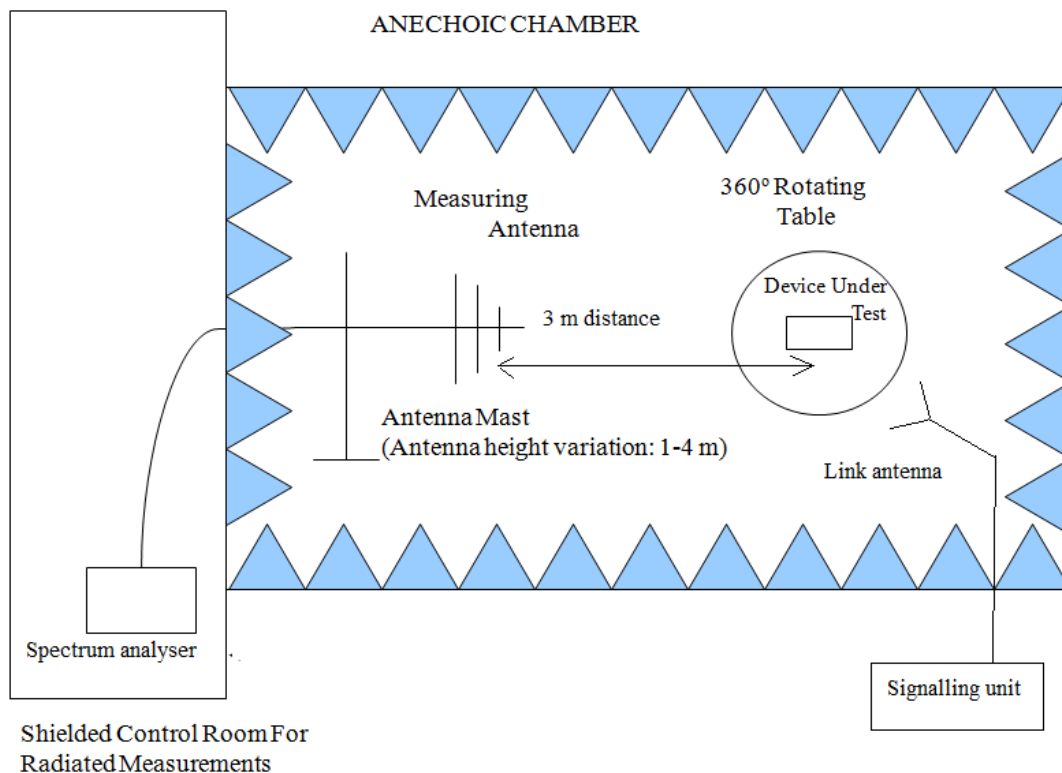
The maximum field strength (dB μ V/m) of each detected emission at less than 20 dB respect to the limit is converted to an equivalent EIRP level (dBm) according to ANSI C63.26 with the formula:

$$\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20 \log(D) - 104.8;$$

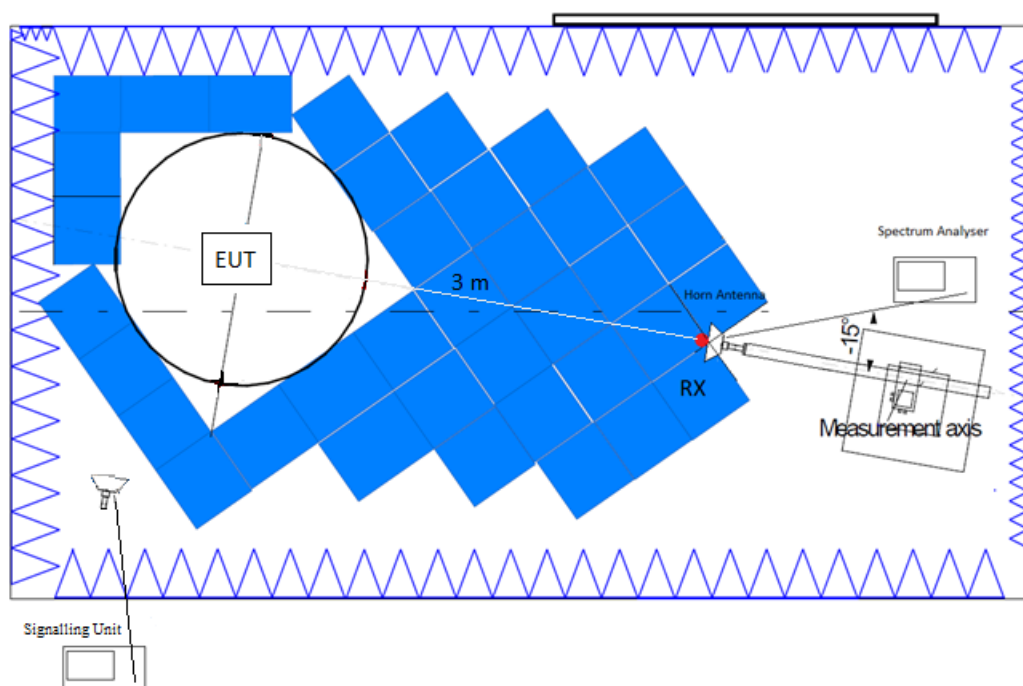
where D is the measurement distance (in the far field region) in m. D = 3m.

Test Setup

Radiated measurements setup from 30 MHz to 1 GHz:



Radiated measurements setup from 1 GHz to 18 GHz:



Results

Test was performed on worst-case channel in terms of radiated spurious emissions, determined by a preliminary scan for each band.

LTE Cat NB1 Band 85:

A preliminary scan determined the QPSK, BW=15 kHz, Tone Number=3, Tone Offset=6, MSC/TBS=5 as the worst case. The next results are for this worst-case configuration.

- LOW CHANNEL:

Frequency range 30 MHz - 1 GHz:

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 8 GHz:

No spurious frequencies at less than 20 dB below the limit.

- MIDDLE CHANNEL:

Frequency range 30 MHz - 1 GHz:

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 8 GHz:

No spurious frequencies at less than 20 dB below the limit.

- HIGH CHANNEL:

Frequency range 30 MHz - 1 GHz:

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 8 GHz:

No spurious frequencies at less than 20 dB below the limit.

Measurement uncertainty (dB) $< \pm 5.35$ for $f < 1$ GHz
 $< \pm 4.32$ for $f \geq 1$ GHz up to 8 GHz

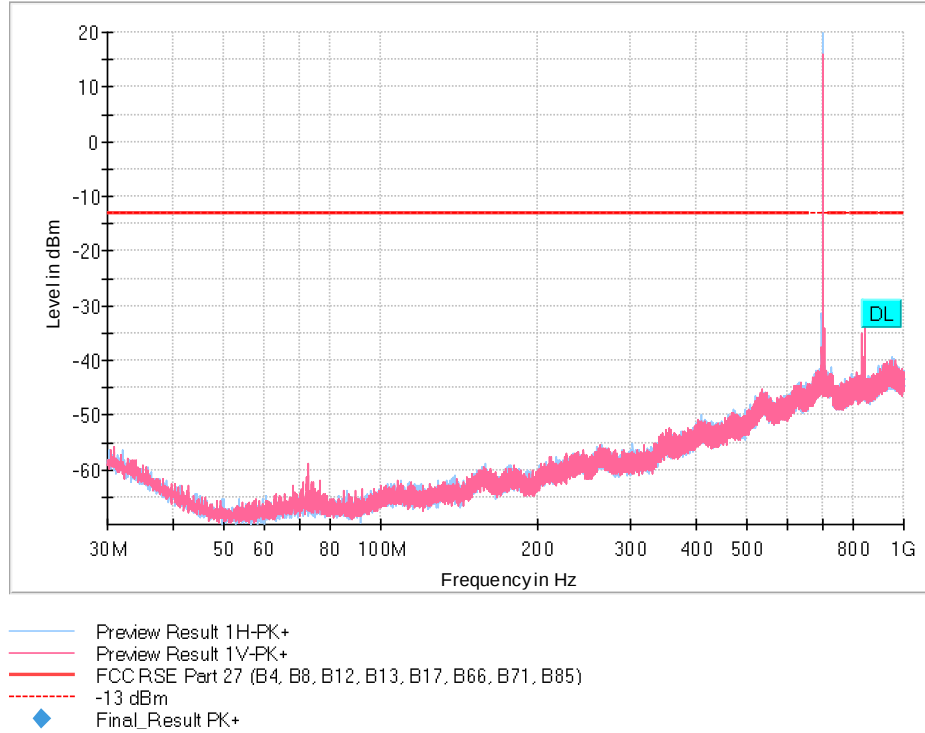
Verdict

Pass

LTE Cat NB1 Band 85:

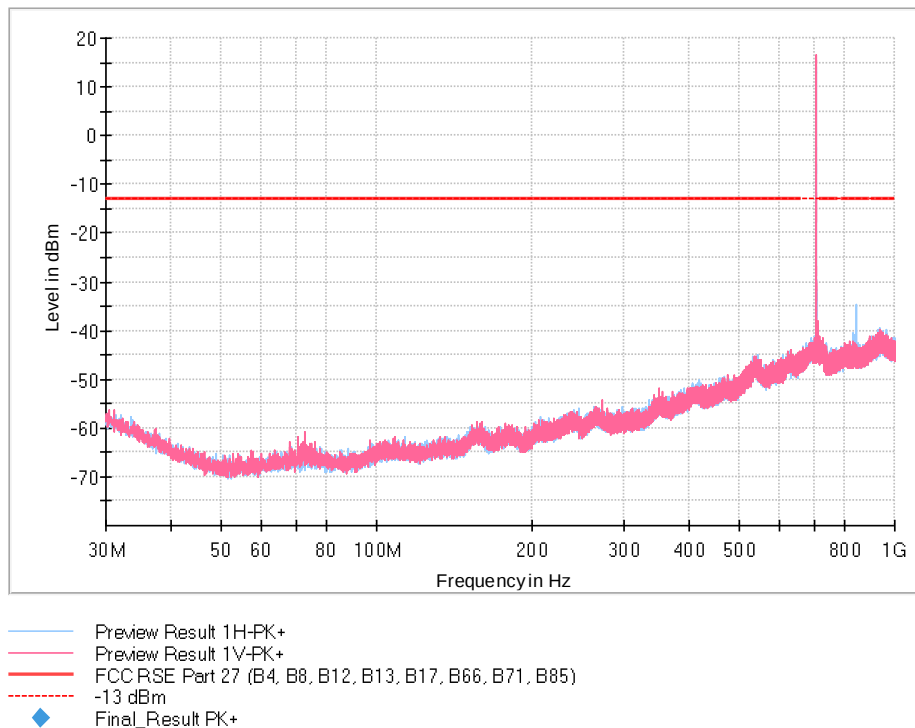
FREQUENCY RANGE 30 MHz - 1 GHz:

- LOW CHANNEL:



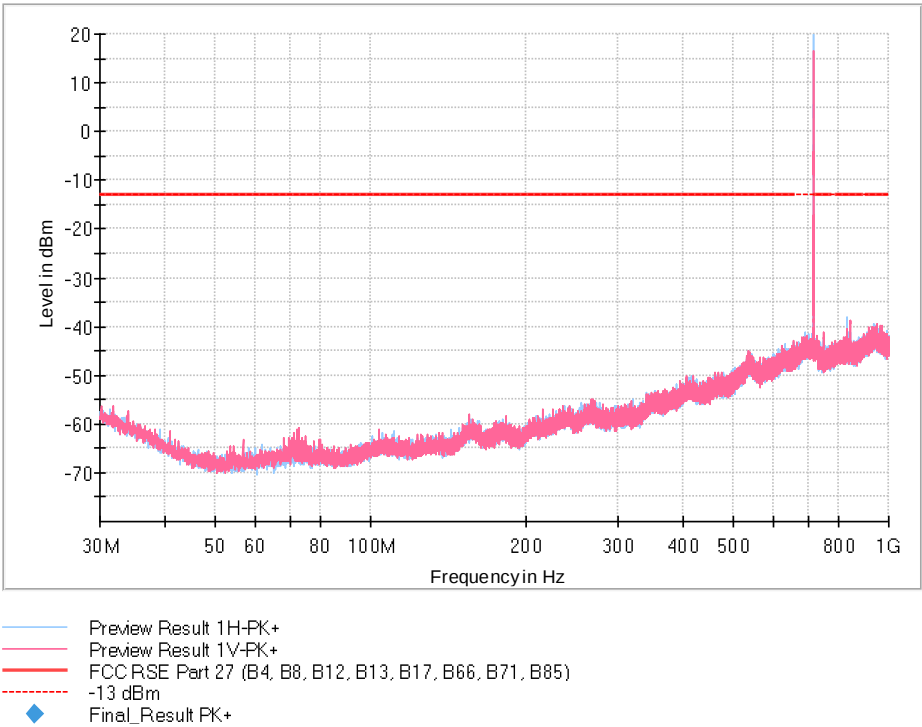
The peak above the limit is the LTE Cat NB1 Band 85 carrier frequency.

- MIDDLE CHANNEL:



The peak above the limit is the LTE Cat NB1 Band 85 carrier frequency.

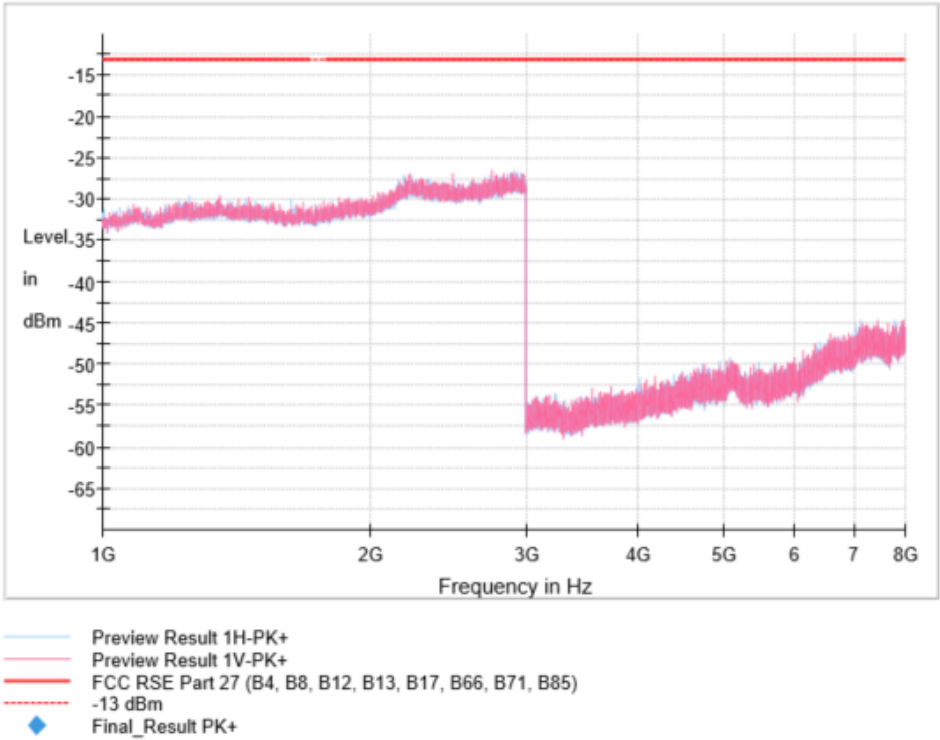
- HIGH CHANNEL:



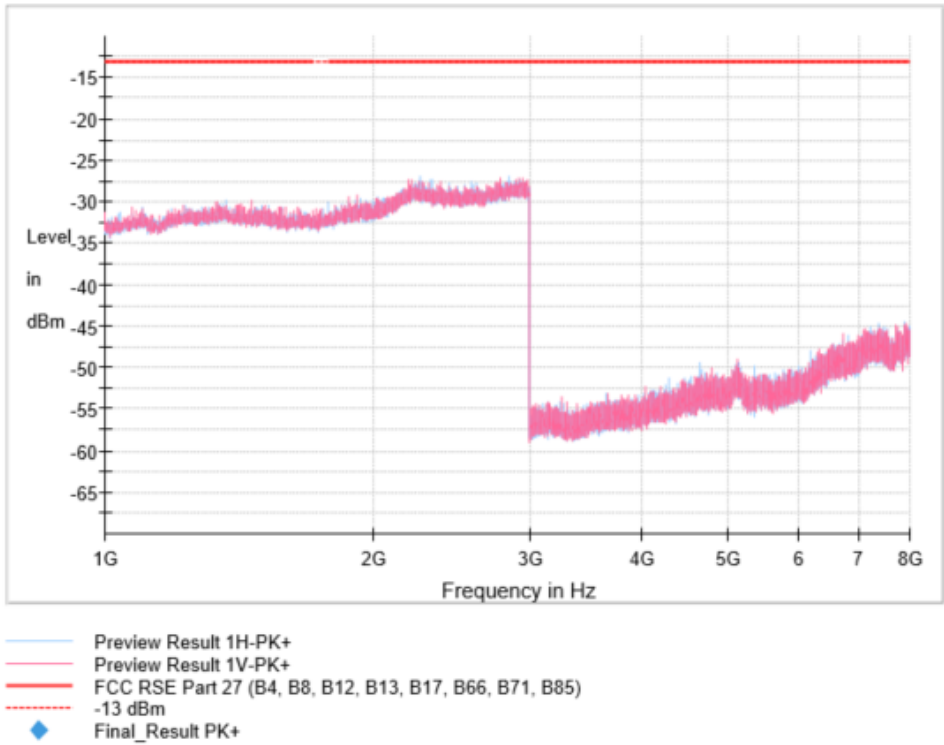
The peak above the limit is the LTE Cat NB1 Band 85 carrier frequency.

FREQUENCY RANGE 1 GHz - 8 GHz

- LOW CHANNEL:



- MIDDLE CHANNEL:



- HIGH CHANNEL:

