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Date: August 31, 2013
 PCTEST TCB/CB
 Div. of PCTEST Engineering Lab., Inc.
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Subject: Samsung Electronics Co., Ltd.
 FCC ID: A3LSMN900R4

To Whom it May Concern

We attest the following regarding FCC ID: A3LSMN900R4

1. MPR is permanently implemented for all channel BWs, modulations, frequency bands and RB sizes:

Supported channel BWs, modulations, frequency bands:

- a. LTE Band 2 (Channel BW 5 & 10 MHz)/QPSK & 16QAM
- b. LTE Band 4 (Channel BW 5 & 10 MHz)/QPSK & 16QAM
- c. LTE Band 5 (Channel BW 5 & 10 MHz)/QPSK & 16QAM
- d. LTE Band 12 (Channel BW 5 & 10 MHz)/QPSK & 16QAM
- e. LTE Band 17 (Channel BW 5 & 10 MHz)/QPSK & 16QAM
- f. LTE Band 25 (Channel BW 5 & 10 MHz)/QPSK & 16QAM

2. MPR is implemented per 3GPP TS 36.101. With the MPR permanently implemented, this device will never operate over than 23.0 dBm in QPSK and 16QAM.

3. We confirm the specific MPR targets and tolerances shown below

1) The LTE MPR Targets for Band 2 are:

Band	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Target MPR [dB]	Maximum MPR Allowed per 3GPP [dB]
LTE Band 2	5	QPSK	1	0	0	0
	5	QPSK	1	12	0	0
	5	QPSK	1	24	0	0
	5	QPSK	12	0	1	0-1
	5	QPSK	12	6	1	0-1
	5	QPSK	12	13	1	0-1
	5	QPSK	25	0	1	0-1
	5	16-QAM	1	0	1	0-1
	5	16-QAM	1	12	1	0-1
	5	16-QAM	1	24	1	0-1
	5	16-QAM	12	0	2	0-2
	5	16-QAM	12	6	2	0-2
	5	16-QAM	12	13	2	0-2
	5	16-QAM	25	0	2	0-2
	10	QPSK	1	0	0	0
10	QPSK	1	25	0	0	

10	QPSK	1	49	0	0
10	QPSK	25	0	1	0-1
10	QPSK	25	12	1	0-1
10	QPSK	25	25	1	0-1
10	QPSK	50	0	1	0-1
10	16-QAM	1	0	1	0-1
10	16-QAM	1	25	1	0-1
10	16-QAM	1	49	1	0-1
10	16-QAM	25	0	2	0-2
10	16-QAM	25	12	2	0-2
10	16-QAM	25	25	2	0-2
10	16-QAM	50	0	2	0-2

2) The LTE MPR Targets for Band 4 are:

Band	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Target MPR [dB]	Maximum MPR Allowed per 3GPP [dB]
LTE Band 4	5	QPSK	1	0	0	0
	5	QPSK	1	12	0	0
	5	QPSK	1	24	0	0
	5	QPSK	12	0	1	0-1
	5	QPSK	12	6	1	0-1
	5	QPSK	12	13	1	0-1
	5	QPSK	25	0	1	0-1
	5	16-QAM	1	0	1	0-1
	5	16-QAM	1	12	1	0-1
	5	16-QAM	1	24	1	0-1
	5	16-QAM	12	0	2	0-2
	5	16-QAM	12	6	2	0-2
	5	16-QAM	12	13	2	0-2
	5	16-QAM	25	0	2	0-2
	10	QPSK	1	0	0	0
	10	QPSK	1	25	0	0
	10	QPSK	1	49	0	0
	10	QPSK	25	0	1	0-1
	10	QPSK	25	12	1	0-1
	10	QPSK	25	25	1	0-1
	10	QPSK	50	0	1	0-1
	10	16-QAM	1	0	1	0-1
	10	16-QAM	1	25	1	0-1
	10	16-QAM	1	49	1	0-1
	10	16-QAM	25	0	2	0-2
	10	16-QAM	25	12	2	0-2
	10	16-QAM	25	25	2	0-2
	10	16-QAM	50	0	2	0-2

3) The LTE MPR Targets for Band 5 are:

Band	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Target MPR [dB]	Maximum MPR Allowed per 3GPP [dB]
LTE Band 5	5	QPSK	1	0	0	0
	5	QPSK	1	12	0	0
	5	QPSK	1	24	0	0
	5	QPSK	12	0	1	0-1
	5	QPSK	12	6	1	0-1
	5	QPSK	12	13	1	0-1
	5	QPSK	25	0	1	0-1
	5	16-QAM	1	0	1	0-1
	5	16-QAM	1	12	1	0-1
	5	16-QAM	1	24	1	0-1
	5	16-QAM	12	0	2	0-2
	5	16-QAM	12	6	2	0-2
	5	16-QAM	12	13	2	0-2
	5	16-QAM	25	0	2	0-2
	10	QPSK	1	0	0	0
	10	QPSK	1	25	0	0
	10	QPSK	1	49	0	0
	10	QPSK	25	0	1	0-1
	10	QPSK	25	12	1	0-1
	10	QPSK	25	25	1	0-1
	10	QPSK	50	0	1	0-1
	10	16-QAM	1	0	1	0-1
	10	16-QAM	1	25	1	0-1
	10	16-QAM	1	49	1	0-1
10	16-QAM	25	0	2	0-2	
10	16-QAM	25	12	2	0-2	
10	16-QAM	25	25	2	0-2	
10	16-QAM	50	0	2	0-2	

4) The LTE MPR Targets for Band 12 are :

Band	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Target MPR [dB]	Maximum MPR Allowed per 3GPP [dB]
LTE Band 12	5	QPSK	1	0	0	0
	5	QPSK	1	12	0	0
	5	QPSK	1	24	0	0
	5	QPSK	12	0	1	0-1
	5	QPSK	12	6	1	0-1
	5	QPSK	12	13	1	0-1
	5	QPSK	25	0	1	0-1
	5	16-QAM	1	0	1	0-1
	5	16-QAM	1	12	1	0-1
	5	16-QAM	1	24	1	0-1

5	16-QAM	12	0	2	0-2
5	16-QAM	12	6	2	0-2
5	16-QAM	12	13	2	0-2
5	16-QAM	25	0	2	0-2
10	QPSK	1	0	0	0
10	QPSK	1	25	0	0
10	QPSK	1	49	0	0
10	QPSK	25	0	1	0-1
10	QPSK	25	12	1	0-1
10	QPSK	25	25	1	0-1
10	QPSK	50	0	1	0-1
10	16-QAM	1	0	1	0-1
10	16-QAM	1	25	1	0-1
10	16-QAM	1	49	1	0-1
10	16-QAM	25	0	2	0-2
10	16-QAM	25	12	2	0-2
10	16-QAM	25	25	2	0-2
10	16-QAM	50	0	2	0-2

5) The LTE MPR Targets for Band 17 are :

Band	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Target MPR [dB]	Maximum MPR Allowed per 3GPP [dB]
LTE Band 17	5	QPSK	1	0	0	0
	5	QPSK	1	12	0	0
	5	QPSK	1	24	0	0
	5	QPSK	12	0	1	0-1
	5	QPSK	12	6	1	0-1
	5	QPSK	12	13	1	0-1
	5	QPSK	25	0	1	0-1
	5	16-QAM	1	0	1	0-1
	5	16-QAM	1	12	1	0-1
	5	16-QAM	1	24	1	0-1
	5	16-QAM	12	0	2	0-2
	5	16-QAM	12	6	2	0-2
	5	16-QAM	12	13	2	0-2
	5	16-QAM	25	0	2	0-2
	10	QPSK	1	0	0	0
	10	QPSK	1	25	0	0
	10	QPSK	1	49	0	0
	10	QPSK	25	0	1	0-1
	10	QPSK	25	12	1	0-1
	10	QPSK	25	25	1	0-1
	10	QPSK	50	0	1	0-1
	10	16-QAM	1	0	1	0-1
	10	16-QAM	1	25	1	0-1
	10	16-QAM	1	49	1	0-1
10	16-QAM	25	0	2	0-2	
10	16-QAM	25	12	2	0-2	
10	16-QAM	25	25	2	0-2	
10	16-QAM	50	0	2	0-2	

6) The LTE MPR Targets for Band 25 are

Band	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Target MPR [dB]	Maximum MPR Allowed per 3GPP [dB]
LTE Band 25	5	QPSK	1	0	0	0
	5	QPSK	1	12	0	0
	5	QPSK	1	24	0	0
	5	QPSK	12	0	1	0-1
	5	QPSK	12	6	1	0-1
	5	QPSK	12	13	1	0-1
	5	QPSK	25	0	1	0-1
	5	16-QAM	1	0	1	0-1
	5	16-QAM	1	12	1	0-1
	5	16-QAM	1	24	1	0-1
	5	16-QAM	12	0	2	0-2
	5	16-QAM	12	6	2	0-2
	5	16-QAM	12	13	2	0-2
	5	16-QAM	25	0	2	0-2
	10	QPSK	1	0	0	0
	10	QPSK	1	25	0	0
	10	QPSK	1	49	0	0
	10	QPSK	25	0	1	0-1
	10	QPSK	25	12	1	0-1
	10	QPSK	25	25	1	0-1
	10	QPSK	50	0	1	0-1
	10	16-QAM	1	0	1	0-1
	10	16-QAM	1	25	1	0-1
	10	16-QAM	1	49	1	0-1
	10	16-QAM	25	0	2	0-2
	10	16-QAM	25	12	2	0-2
10	16-QAM	25	25	2	0-2	
10	16-QAM	50	0	2	0-2	

4. A-MPR was disabled for all SAR test samples for SAR testing purposes only.

5. This device does not implement power back-off schemes for SAR compliance.

6. We attest to the Simultaneous Tx listed on Operational Description to be accurate and furthermore, any other simultaneous Tx combinations not listed on the SAR report are not supported by software/hardware design.

Should you have any questions or comments concerning the above, please contact the undersigned.

Sincerely,

A handwritten signature in black ink, consisting of several overlapping loops and a horizontal stroke extending to the right.

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