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Date: Aug. 28, 2013
PCTEST TCB/CB
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Subject: Samsung Electronics Co., Ltd.
FCC ID: A3LSMC105A

To Whom it May Concern

We attest the following regarding FCC ID: A3LSMC105A

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, 15 & 20 MHz)/QPSK & 16QAM
 - b. LTE Band 4 (Channel BW 5 , 10, 15 & 20 MHz)/QPSK & 16QAM
 - c. LTE Band 5 (Channel BW 5 & 10 MHz)/QPSK & 16QAM
 - d. LTE Band 17 (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 higher than 24.0 dBm or higher in QPSK and 16QAM.
3. We confirm the specific MPR targets and tolerances shown below
 - 1) The LTE MPR Targets for Band2 are:

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

Band 2	15	QPSK	1	0	0	0
	15	QPSK	1	36	0	0
	15	QPSK	1	74	0	0
	15	QPSK	36	0	1	0-1
	15	QPSK	36	18	1	0-1
	15	QPSK	36	37	1	0-1
	15	QPSK	75	0	1	0-1
	15	16QAM	1	0	1	0-1
	15	16QAM	1	36	1	0-1
	15	16QAM	1	74	1	0-1
	15	16QAM	36	0	2	0-2
	15	16QAM	36	18	2	0-2
	15	16QAM	36	37	2	0-2
	15	16QAM	75	0	2	0-2
	20	QPSK	1	0	0	0
	20	QPSK	1	50	0	0
	20	QPSK	1	99	0	0
	20	QPSK	50	0	1	0-1
	20	QPSK	50	25	1	0-1
	20	QPSK	50	50	1	0-1
	20	QPSK	100	0	1	0-1
	20	16QAM	1	0	1	0-1
	20	16QAM	1	50	1	0-1
	20	16QAM	1	99	1	0-1
	20	16QAM	50	0	2	0-2
	20	16QAM	50	25	2	0-2
	20	16QAM	50	50	2	0-2
	20	16QAM	100	0	2	0-2

2) The LTE MPR Targets for Band 4 (AWS) are:

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

Band 4	15	QPSK	1	0	0	0
	15	QPSK	1	36	0	0
	15	QPSK	1	74	0	0
	15	QPSK	36	0	1	0-1
	15	QPSK	36	18	1	0-1
	15	QPSK	36	37	1	0-1
	15	QPSK	75	0	1	0-1
	15	16QAM	1	0	1	0-1
	15	16QAM	1	36	1	0-1
	15	16QAM	1	74	1	0-1
	15	16QAM	36	0	2	0-2
	15	16QAM	36	18	2	0-2
	15	16QAM	36	37	2	0-2
	15	16QAM	75	0	2	0-2
	20	QPSK	1	0	0	0
	20	QPSK	1	50	0	0
	20	QPSK	1	99	0	0
	20	QPSK	50	0	1	0-1
	20	QPSK	50	25	1	0-1
	20	QPSK	50	50	1	0-1
	20	QPSK	100	0	1	0-1
	20	16QAM	1	0	1	0-1
	20	16QAM	1	50	1	0-1
	20	16QAM	1	99	1	0-1
	20	16QAM	50	0	2	0-2
	20	16QAM	50	25	2	0-2
	20	16QAM	50	50	2	0-2
	20	16QAM	100	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]
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	16QAM	1	0	1	0-1
	10	16QAM	1	25	1	0-1
	10	16QAM	1	49	1	0-1
	10	16QAM	25	0	2	0-2
	10	16QAM	25	12	2	0-2
	10	16QAM	25	25	2	0-2
	10	16QAM	50	0	2	0-2

4) 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]
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	16QAM	1	0	1	0-1
	10	16QAM	1	25	1	0-1
	10	16QAM	1	49	1	0-1
	10	16QAM	25	0	2	0-2
	10	16QAM	25	12	2	0-2
	10	16QAM	25	25	2	0-2
	10	16QAM	50	0	2	0-2

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

5. his 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.

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