

Samsung Electronics Co., LTD.
416, Maetan-3dong, Yeongtong-gu
Suwon-City, Gyeonggi-do, 443-742, Korea

Date: March 21, 2012
PCTEST TCB/CB
Div. of PCTEST Engineering Lab., Inc.
660-B Dobbin Road
Columbia, MD 21045

Subject: Samsung Electronics Co., Ltd.
FCC ID: A3LSCHI405U

To Whom it May Concern

We attest the following regarding FCC ID: A3LSCHI405U

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 1.4 & 3 & 5 MHz)/QPSK & 16QAM
 - b. LTE Band 4 (Channel BW 5 & 10 MHz)/QPSK & 16QAM
 - c. LTE Band 5 (Channel BW 1.4 & 3 & 5 MHz)/QPSK & 16QAM
 - d. LTE Band 12 (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 at 23.5dBm or higher in QPSK and 16QAM.
3. We confirm the specific MPR targets and tolerances shown below

- 1) The LTE MPR Targets for Band 12 are:

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

- 2) The LTE MPR Targets for Band 5 (Cell.) are:

Channel	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Target MPR [dB]	Maximum Allowed per 3GPP [dB]
LTE Band 5 (Cell.)	1.4	QPSK	1	0	0	0
		QPSK	1	5	0	0
		QPSK	3	2	0	0
		QPSK	6	0	1	0-1
		16-QAM	1	0	1	0-1
		16-QAM	1	5	1	0-1
		16-QAM	3	2	1	0-1
		16-QAM	6	0	2	0-2
	3	QPSK	1	0	0	0
		QPSK	1	14	0	0
		QPSK	8	4	1	0
		QPSK	15	0	1	0-1
		16-QAM	1	0	1	0-1
		16-QAM	1	14	1	0-1
		16-QAM	8	4	2	0-1
		16-QAM	15	0	2	0-2
	5	QPSK	1	0	0	0
		QPSK	1	24	0	0
		QPSK	12	6	1	0
		QPSK	25	0	1	0-1
		16-QAM	1	0	1	0-1
		16-QAM	1	24	1	0-1
		16-QAM	12	6	2	0-1
		16-QAM	25	0	2	0-2

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

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

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

Channel	Bandwidth [MHz]	Modulation	RB Size	RB Offset	Target MPR [dB]	Maximum Allowed per 3GPP [dB]
LTE Band 2 (PCS)	1.4	QPSK	1	0	0	0
		QPSK	1	5	0	0
		QPSK	3	2	0	0
		QPSK	6	0	1	0-1
		16-QAM	1	0	1	0-1
		16-QAM	1	5	1	0-1
		16-QAM	3	2	1	0-1
		16-QAM	6	0	2	0-2
	3	QPSK	1	0	0	0
		QPSK	1	14	0	0
		QPSK	8	4	1	0
		QPSK	15	0	1	0-1
		16-QAM	1	0	1	0-1
		16-QAM	1	14	1	0-1
		16-QAM	8	4	2	0-1
		16-QAM	15	0	2	0-2
	5	QPSK	1	0	0	0
		QPSK	1	24	0	0
		QPSK	12	6	1	0
		QPSK	25	0	1	0-1
		16-QAM	1	0	1	0-1
		16-QAM	1	24	1	0-1
		16-QAM	12	6	2	0-1
		16-QAM	25	0	2	0-2

5) The Simultaneous Transmission Scenarios are described in the following table:

No.	Capable Transmit Configurations	Head	Body-Worn Accessory	Hot Spot	Note
		IEEE 1528, Supp C	Supplement C	FCC KDB 941225 D06 edges/sides	
1	1X CDMA 850/1900 Voice + LTE 700/800/1700/1900 MHz Data	√	√	N/A	SVLTE
2	1X CDMA 850/1900 Voice + LTE 700/800/1700/1900 MHz Data + 2.4 GHz WIFI	√	√	√	Voice and LTE+WIFI Hotspot
3	1X CDMA 850/1900 Voice + 2.4 GHz WIFI	√	√	N/A	1X voice and WiFi Data
4	1X CDMA 850/1900 Voice + 5 GHz WIFI	√	√	N/A	1X voice and WiFi Data
5	1X/EVDO 850/1900 Data + 2.4 GHz WIFI	N/A	N/A	√	EVDO+WIFI Hotspot
6	LTE 700/800/1700/1900 MHz Data + 2.4 GHz WIFI	N/A	N/A	√	LTE+WIFI Hotspot
7	LTE 700/800/1700/1900 MHz Data + 5 GHz WIFI	N/A	N/A	N/A	5GHz WiFi Hotspot Not available by SW
8	1X/EVDO 800/1900 Data + 5 GHz WIFI	N/A	N/A	N/A	5GHz WiFi Hotspot Not available by SW
9	1X CDMA 800/1900 Voice + LTE 700/800/1700/1900 MHz Data + 5 GHz WIFI	N/A	N/A	N/A	5GHz WiFi Hotspot Not available by SW
10	1X CDMA 800/1900 Voice + EVDO	N/A	N/A	N/A	Not available by SW
11	850/1900 EVDO data + LTE 700/800/1700/1900 MHz Data	N/A	N/A	N/A	Not available by SW

Notes:

1. CDMA and EVDO share the same antenna path and cannot transmit simultaneously.
2. Bluetooth and 2.4 GHz WLAN share the same antenna path and cannot transmit simultaneously.

Sincerely,



Heesung Kim

Senior manager

Samsung Electronics

heesung_kim@samsung.com

+82-031-301-1530