

China Technology

Qualcomm Reference Design Summit takeaway - TD-LTE smartphone ready, mass shipment in end-2013

We attended the Qualcomm Reference Design (QRD) Summit, which saw the participation of thousands of industry people, in Shenzhen on 20 June. The first QRD-enabled TD-LTE smartphone will be on the shelf in August. But vendors likely will not ship meaningful units of TD-LTE smartphone until the end of 2013.

- QRD family is growing:** Qualcomm launched 6 entry-level smartphone processors (8x10 and 8x12), based on its latest Snapdragon 200 series, in an effort to fend off growing competition from MediaTek. These are TD-SCDMA, HSPA+, and CDMA dual-core and quad-core Cortex A7 chipsets. QRD now has 40+ OEM customers and 250+ QRD-based devices, vs. 170+ 6 months ago. It now takes less than 60 days to launch QRD-based products, according to the company. Qualcomm also hosted an exhibition of ~60 hardware and software vendors in the QRD ecosystem. Interestingly, Shenzhen O-Film (0002456 CH, NC) said that it is now also in the camera module business, although currently monthly shipment is less than 2mn. Sunny Optical showcased its array camera module, but adoption rate remains low given its relatively large surface area.
- The first TD-LTE product based on QRD solutions will be on the shelf in August.** K-Touch launched Touch 1, the first LTE product based on MSM8930. According to K-Touch VP Yanyu Tang, Touch 1 will enter mass production in July and should be available on shelves for China Mobile's TD-LTE commercial trial in August. It will be a five mode 'Thousand Rmb' phone that fully complies with China Mobile requirements. For example, it will support bands 38, 39, 40 (for mainland China) and 7 (for Hong Kong) for TD-LTE. It will not support band 41, since carriers do not require this band until 2014. Mr. Tang believes that there is no major form factor (it does feel quite slim and lightweight to us) or battery issues with the phone. He also praised QRD, mentioning that: 1) K-Touch only started the planning the phone in February–March and 2) having RF360 that supports simple design for multiband, multi mode smartphone has helped a lot.
- TD-LTE smartphone volume may get meaningful toward the end of year.** Several Qualcomm and Huawei contacts we met at the summit said that while the TD-LTE smartphones should be ready this summer, China Mobile is experiencing technical difficulties in TD-LTE network upgrade. Hence, we may need to wait until the end of 2013 for good user experience. China Mobile will procure tens of millions TD-LTE devices in 2014, vs. 3mn in 2013. China Mobile currently requires five mode (TD-LTE, FDD LTE, TD-SCDMA, WCDMA and GSM) for roaming considerations but it could turn a bit more flexible later. For example, it could require three modes only (TD-LTE, TD-SCDMA and GSM) for entry level users. Qualcomm is the clear leader in TD-LTE chipset, while HiSilicon, Marvell and MediaTek belong to tier-2. It is possible that TD-LTE smartphones for China Telecom could start coming out in 2H14.

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Table 1: Comp Table

Company	Ticker	Share Price (LC)	Market Cap (US\$M)	Price Target	Rating	EPS Growth (%)		P/E (x)		ROE (%)		P/B (x)	
						FY13E	FY14E	FY13E	FY14E	FY13E	FY14E	FY13E	FY14E
Qualcomm	QCOM US	61.27	105,507	65.00	N	29.7	8.7	13.5	12.5	20.5	19.3	2.7	2.4
MediaTek	2454 TT	328.00	14,701	480.00	OW	57.6	63.6	16.6	10.1	14.3	20.7	2.3	2.0
Spreadtrum	SPRD US	26.25	1,255	22.00	N	38.4	10.6	10.6	9.6	35.4	30.8	2.6	2.1
RDA	RDA US	11.65	562	NC	NC	0.2	0.2	9.0	7.3	0.3	0.3	3.3	2.3
ZTE	763 HK	12.56	5,568	15.00	N	(173.8)	26.7	16.3	12.9	9.0	10.5	1.4	1.3
Lenovo	992 HK	7.02	9,172	9.00	OW	31.6	22.8	14.7	12.0	23.8	32.5	3.9	3.2
TCL Comm	2618 HK	3.53	507	5.50	OW	(252.1)	87.5	12.7	6.8	12.5	21.0	1.5	1.3
China Wireless	2369 HK	2.92	787	NC	NC	71.4	26.9	13.5	10.7	18.6	19.4	2.1	1.8
Average						(24.6)	30.9	13.4	10.2	16.8	19.3	2.5	2.0

Source: J.P. Morgan estimates, Bloomberg. Note: Share price as of June 27, 2013. LC – Local Currencies. NC = Not Covered. NR = Not Rated.

Table 2: Qualcomm Reference Design Baseband Roadmap

Baseband Model	Release Date	Number of Cores	Core	Core Speed
MSM7x27A	4Q 2011	single-core	ARM Cortex A5	1GHz
MSM8x25	2Q 2012	dual-core	ARM Cortex A5	1.2GHz
MSM8x30	1Q 2013	quad-core	dual Krait	1.2GHz
MSM8x25Q	1Q 2013	quad-core	ARM Cortex A5	1.4GHz
MSM8x26	3Q 2013	quad-core	ARM Cortex A7	1.2GHz
MSM8926	4Q 2013	quad-core	ARM Cortex A7	1.2GHz
MSM8x12	4Q 2013	dual-core & quad-core	N/A	N/A
MSM8x10	4Q 2013	dual-core & quad-core	N/A	N/A

Source: Company reports.

Table 3: Qualcomm Reference Design Summit Software Suppliers

iFlyTek	Baidu
Opera	iQiYi
China Weather	InterGrafX
Testin	duomi.com
Neusoft	poco.cn
LeTV	Lewa
360.cn	China Telecom (Shanghai)
TTPod	Tencent
CleNET	tv.sohu.com
Speakingpal	Taobao
inoPath	Youku Tudou
China Mobile Migu	ThunderSoft
WPS Office	DeNA
UC Web	3g.cn

Source: Qualcomm

Table 4: Qualcomm Reference Design Summit Hardware Suppliers

TDK Epcos	SK Hynix
SuperPix Micro Technology	GigaDevice
Booyitech	Texas Instruments
FocalTech	Freescale
GalaxyCore	OmniVision Technologies
Himax	Elite Semiconductor Memory Technology
Jiangsu Changjiang Electronics Technology	Novatek
Skyworks	Sunny Optical Technology
Cypress Semiconductor	SanDisk
Silead	Biwin Semiconductor
Shenzhen O-Film	Panasonic
Sony	Truly
Orise Technology	STMicroelectronics
Elan Microelectronics	InvenSense
Aptina	Qualcomm Snapdragon
TCL	TriQunt Semiconductor

Source: Qualcomm

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