

## Buy (unchanged)

Share price: TWD365  
 Target price: TWD500 (unchanged)

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### Stock Information

**Description:** MediaTek is a world-leading IC design house, specializing in wireless communications and consumer electronics. Though its headquarters are in Taiwan, it operates globally. The company outsources its production to foundries and packagers in order to focus solely on the design and sales/marketing of semiconductor chips.

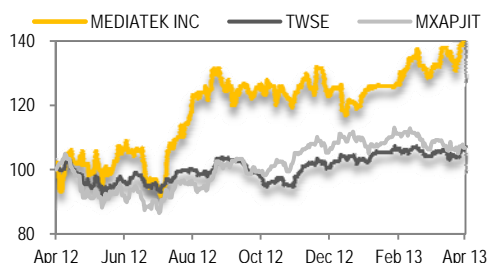
Ticker:	2454 TT
Shares Issued (m):	1,349.4
Market Cap (USDm):	16,545
3-mth Avg Daily Turnover (USDm):	86.0
TWSE :	8,023.7
Free Float (%):	88.5

<b>Major Shareholders:</b>	%
Management	10.46
Capital Group	5.34
BlackRock	2.31
Vanguard Group	2.23

### Key Indicators – FY13F

ROE – annualised (%)	21.7
Net cash/share (TWD):	67.2
NTA/shr (TWD):	96.9
Interest cover (x):	NM

### Historical Chart



### Performance:

52-week High/Low TWD368 / TWD235

	1-mth	3-mth	6-mth	1-yr	YTD
Absolute (%)	10.0	11.8	10.0	40.1	10.2
Relative 1 (%)	6.7	9.9	2.1	34.1	8.4
Relative 2 (%)	9.5	13.4	2.3	33.3	11.6

Note: 1 is to TWSE and 2 is MXAPJIT. All exclusive of cash dividend and in USD.

# MediaTek

## Ready For Prime Time

**Post-initiation update, reiterate BUY.** We provide an update here on the industry as well as Mediatek (MTK) five months after initiating coverage on the stock. We reiterate our BUY call and Street-high target price of TWD500, but raise our FY13F/14F earnings by 3%/2% to reflect higher-than-expected smart device shipments and better product mix. Our forecasts are now 13%/27% higher than consensus. With smartphones hitting the mainstream market, the replacement cycle for feature phones seems to be accelerating and tablet adoption in the emerging markets (in particular China) is gathering momentum. Against this backdrop, we think MTK may have to raise its target unit shipments of 400-450m smartphones and 100m tablets for 2013.

**Best positioned to benefit from new secular trend.** MTK is stepping up efforts to diversify its product portfolio to capture the proliferation of smart devices. It will have all its application processors (APs) on 28nm node this year, with designs based on the latest Cortex-A7 and/or Cortex-A15. By mid-year, it will introduce several low-cost models (MT6572/6582/6589M) to consolidate its position in the white-box market and enhance its cost structure. Also, MTK will foray into tablet markets (MT8389/8135 [big.Little design]), a new addressable market. By 4Q13, it will sample its high-end 4G/LTE/LTE-TDSCDMA modem chipset. Importantly, the ongoing consolidation of the AP industry and recent hiring of high-profile executives from Qualcomm could spur MTK to become a major force in the global smart device industry.

**1H13 may signal margin improvement.** We believe MTK is likely to report a GM of >42% for 1Q13 (its highest since 4Q11) due to better product mix despite a 10% QoQ dip in revenue. The key would be a higher proportion of smart device revenue. On a YoY basis, MTK's 1Q13F core operating profit could grow 60-70% and possibly climb by >100% in 2H13F/1H14F on better product mix, competitive cost structure, higher profitability and market share gain. We forecast 2Q13F revenue to expand by 20-25% QoQ and GM to improve to 43.5%±0.5%. MTK is due to report its 1Q results after market close on 6 May.

**MTK stock has gained near-20%** since we initiated coverage of the stock in Nov 2012. It also outperformed all major indexes and the QFII holdings have risen 10ppts to 50%. We believe MTK's earnings could double in the next 12 months and profit could hit a new record in FY14F, making its PEG valuation attractive. MTK is our best tech idea for 2013.

### MediaTek – Summary Earnings Table

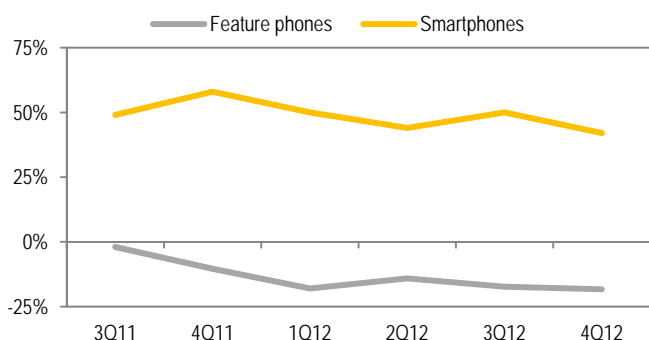
FYE Dec (TWDm)	2011A	2012F	2013F	2014F
Revenue	86,857	99,263	142,090	180,514
EBITDA	15,074	15,785	29,909	41,172
Recurring Net Profit	13,623	15,677	28,532	37,898
Recurring Basic EPS (TWD)	11.87	11.62	19.56	24.17
EPS growth (%)	-58	-2	68	24
DPS (TWD)	9.00	8.81	13.80	18.32
PER (x)	30.7	31.4	18.7	15.1
P/BV(x)	3.60	4.06	3.77	3.76
EV/EBITDA (x)	22.0	25.8	14.52	11.28
Div Yield (%)	2.5%	2.4%	3.8%	5.0%
ROE (%)	12%	13%	21.7%	25.8%
ROA (%)	10%	10%	16%	19%
Net cash/ share (TWD)	75.6	63.3	67.2	68.7
Consensus Net Profit (TWDm)	NM	NM	25,152	29,834

Source: Company data, Maybank KE estimates

**Acceleration in replacement of feature phones by mainstream smartphones.**

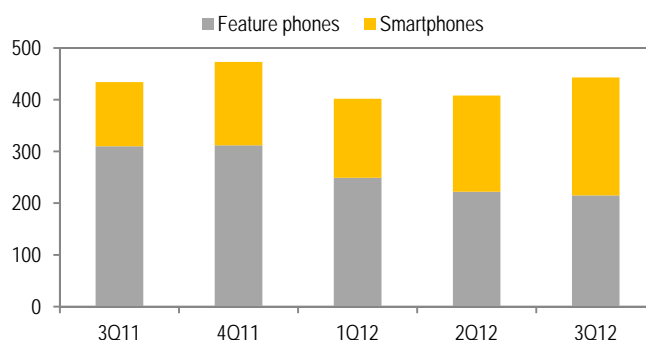
A lower entry price and attractive features (vis-à-vis feature phones) are, in our view, some of the advantages that mainstream smartphones and low-cost models in the emerging markets enjoy. As evidence, recent data from IDC showed that global shipments of feature phones declined 15-20% YoY in 2H12. Clearly, momentum has weakened considerably compared with 2H11 when a mid-single-digit YoY dip was recorded. We think this suggests that the replacement cycle is gathering pace. For the first time in the history of mobile phones, smartphone shipments overtook feature phone shipments in 4Q12 (228m vs 218m for the former). For 2013, IDC predicts that worldwide feature phone shipments will slip 10% YoY to 919m units, while smartphone shipments could pick up by 25-30% YoY to 925m units. However, given the faster pace of replacement in 2H12, we expect the drop in feature phone shipments for 2013 to be steeper than what IDC estimates while the reverse is true for smartphones.

**Figure 1: Feature vs smartphone shipments (% YoY)**



Source: IDC, Bloomberg, Maybank KE

**Figure 2: Feature vs smartphone shipments (m units)**

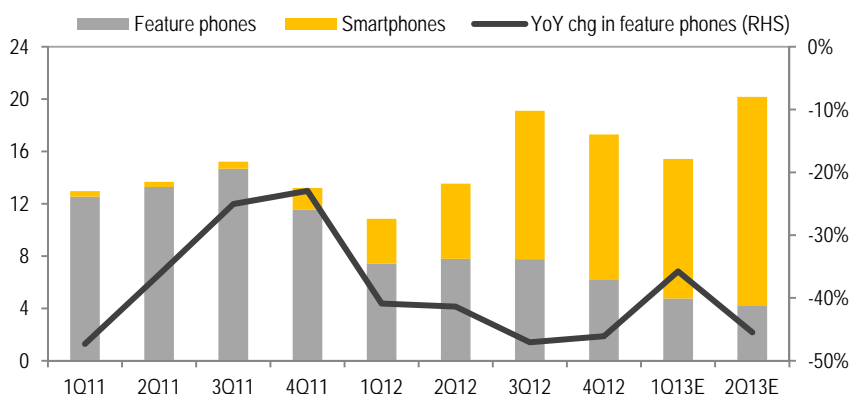


Source: IDC, Bloomberg, Maybank KE

The rapid pace of the replacement cycle can also be illustrated by the significant YoY change in MTK’s shipments of feature phones and smartphones. We estimate its feature phone shipment has suffered a sharp 40% YoY contraction for most of 2012 (406m units vs 493m units in 2011). We expect a further 30-35% YoY decline in unit shipments in 2013 (to 285m units). Our recent discussion with MTK reveals management’s lower expectations: it now anticipates that its feature phone shipments may fall below 300m units in 2013 vs its estimate of low-300m units in January. The overseas markets, ie, phones produced in China and re-exported to the rest of the emerging markets, are experiencing a steep drop in feature phones while demand for smartphones has picked up substantially. This trend mirrors that in China, where the demand for smartphones surged strongly in 2H11. Subsequently, there has been very little demand for feature phones.

We note that MTK’s shipments include the white-box market, which is not captured by third-party research firms such as IDC. As such, analysing the change in MTK’s handset types may offer a clue to the dynamics of the handset industry, especially in the global emerging markets. We estimate MTK may ship close to 90m smartphones in 1H13 and its full-year target of 200m units (400-450m for global emerging markets) thus seems too conservative to us. An official upgrade in shipment per se and industry revisions should be expected. We currently forecast MTK to ship 235-240m smartphones in 2013. Back in November last year, our industry forecast of 500-550m unit shipments sounded aggressive, but now, it might look realistic given the speed of the replacement cycle and the popularity of smartphones in the global emerging countries.

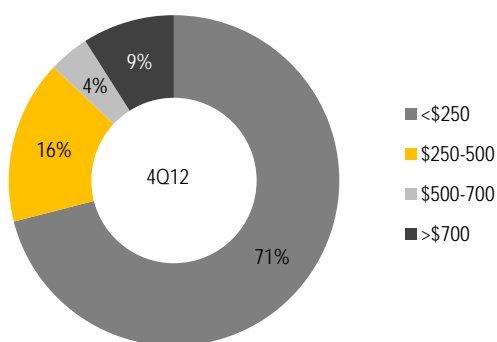
**Figure 3: MTK – breakdown of handset shipments by type (m units)**



Source: Bloomberg, Maybank KE

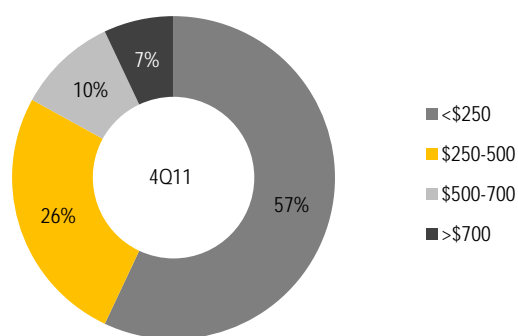
We believe the lower price points for smartphones have led to the popularity of such handsets in the developing countries. According to IDC, low-end smartphones (USD250 or below) accounted for 71% of total OEM smartphones in China (this number excludes the white-box market), up a strong 57% YoY. The market share of high-end models (USD500 and above) has shrunk to 15% in 4Q12 from 17% in 4Q11. In fact, we believe the average ASP for the mainstream smartphones sold or shipped in China is materially lower than USD250 or CNY1,500-1,600. For example, Lenovo’s latest low-end smartphone A860 is sold for USD175. This model is powered by MTK’s latest quad-core 1.2GHz AP (MT6589) and comes with a 4.5” display screen and 8MP camera. The mainstream model for 2012 of A630 is priced at USD120. It comes with 1.0GHz dual-core AP (MT6577), 4.5” screen and 3MP camera. We estimate Lenovo shipped 28m unit of smartphones in 2012 (15% of market share and ranked No. 2 behind Samsung) and expect it will sell 45-50m units in 2013. In reality, many smartphones sold in the white-box market can go for as low as CNY499 (USD80), given their outdated specifications and lack of factory guarantee.

**Figure 4: China smartphone shipments by ASP (USD)**



Source: IDC, Bloomberg, Maybank KE

**Figure 5: China smartphone shipments by ASP (USD)**



Source: IDC, Bloomberg, Maybank KE

**Tablets a new addressable market.** In China, the tablet market has been dominated by the white-box market due to the low price point (USD199 and below). The key players are Allwinner, Rockchip, Amlogic, Vimicro and Via Technologies. Together, they shipped 55m APs for tablets in China in 2012. Allwinner accounted for 50% of the market share, followed by Rockchip at 19% and Via Tech at 10%. Allwinner is a spin-off from Action Semi and sells dual-core Cortex A5 as the mainstream AP for tablets. It is also developing quad-core Cortex A7 as the next generation AP. Rockchip ships dual-core Cortex A9 but is sampling the unique quad-core Cortex A9 on 28nm node for the tablet market.

**Figure 6: AP market share in China (white box only)**

	No. of units	Market share	Remarks
Allwinner	27.5m	50%	Spun off from Action Semi in 2007
Rockchip	10.5m	19%	A domestic Chinese fabless startup
Via Tech	5.2m	10%	
Amlogic	na	na	Headquartered in Santa Clara California but operates in China and HK
Vimicro	na	na	US-listed fabless with operations in China
Total	55m		

Source: Company data, Maybank KE

MTK predicts that 100m tablets may be needed in 2013 for the global emerging markets, but we suspect the bulk of this will be destined for the domestic market in China. Although the company is eyeing a 10% share (ie, 10m units) of this market, we believe the upside will be as much as 20m as major customers such as Lenovo, Acer and Asustek are launching new models aggressively in 2013. We estimate Lenovo is targeting >5m units, while Acer and Asustek aim for 10m and 12m units, respectively. For example, Lenovo's newly launched mainstream tablet, the A3000 model, is priced at CNY1,700 (USD290) and comes with 1.2GHz quad-core (MT8389), dual-SIM cards (supporting data and voice) and 7" full HD display. For USD150-175, a low-end A1000 model comes with similar specifications as the A3000 but without the dual-SIM modem. Both models are sold in China as well as overseas markets from April onwards.

Until recently, MTK's tablet strategy is focused on the OEM market, rather than the white-box market where price competition is keen. However, as markets start to demand voice and data cellular on tablets (standard features in OEM models for the China market), we believe MTK stands to gain some share in the white-box market as most of the existing AP suppliers provide only standalone solutions without 3G modem baseband features. We note that all MTK tablet APs, such as MT8377 (dual-core Cortex A9), MT8389 (quad-core Cortex A7) come with the optional 3G/TD-SCDMA modem, with the exception of the upcoming high-end MT8135 (quad-core, A15+A7), which is a standalone AP.

As in most countries, the white-box tablets in China use WiFi for connectivity and the AP solutions provided by existing vendors such as Allwinner and Rockchip are therefore sufficient. At the moment, we are less sure about the wireless modem capability and the design roadmap of AP vendors like Allwinner and Rockchip. However, given that the development of the baseband technology requires significant investments, vendors like Allwinner may be inclined to license the baseband technology or purchase the modem device from third-party merchant vendors. Whichever the case, we believe MTK's fully integrated solution, with the option formodem baseband, offers superior features as well as an efficient system cost structure.

**Best positioned to benefit from new secular trend.** MTK is stepping up efforts to diversify its product portfolio to capture the proliferation of smart devices. It will have all its APs on 28nm node this year, with designs based on the latest Cortex-A7 and/or Cortex-A15. In this section, we provide an update on MTK's new products and compare them to some of the solutions offered by its peers. Figures 7-8 illustrate the timeline of product introduction and specifications.

- 1) MT6572 enters mass production in 2Q13 with the first shipment expected between late-May and June. MT6572 (dual-core, Cortex A7) is designed to replace MT6515 (single-core, Cortex A9) with significant cost savings and battery life enhancement. The die size of MT6572 is significantly smaller (than MT6515) and this AP comes with an integrated WiFi chipset – the first for MTK. Coupled with 28nm node and requiring only four layers of PCB board, we believe MT6572 offers significant cost savings for handset OEMs. MT6572 will also be a significant volume runner for MTK as it comes with various connectivity such as MT6572E (for 2.75G), MT6572T (TD-SCDMA) and MT6572W (WCDMA). The W-version targets smartphones with ASP of CNY1,000 (USD160) while the E-and-T-versions will go well-below CNY1,000 (USD100-125), and both should be well-received by the white-box market. We believe MT6572T can hold its own against Spreadtrum's latest SC8825 (dual-core Cortex A5, TD-SCDMA on 40nm node and without integrated WiFi).
- 2) The MT6582 has features similar to those of the MT6572 but the former comes with Quad-core, Cortex A7 engines as opposed to the latter's dual-core engine. Like the MT6572, MT6582 targets the white-box market for better system performance. We expect volume shipments to commence in 3Q13. We believe the MT6582W will compete well with Qualcomm's MSM8225Q, the low-end Quad-core Cortex A5 AP which only supports WCDMA networks.
- 3) MT6589M is a cost-down version of the currently leading quad-core MT6589, which began shipment in March and has found favour among OEM customers (60-70 clients) in China. MT6589M shares most of the features and design architecture of MT6589. But it comes with HD and 8MP camera compared with full HD and 13MP camera for the latter. In addition, we estimate MTK could achieve 15-20% cost savings on MT6589M by tweaking some foundry and back-end processes. As such, MT6589M offers a lower-cost solution for handset OEMs who do not wish to equip their smartphones with similar high-end features as MT6589. With a lower ASP, MTK could narrow the price gap between MT6589M and Qualcomm's MSM8225Q by 10-15% and yet offer better features. We estimate the price gap between MT6589 and MSM8225Q currently is at least 30-40%. That being said, we note that MSM8225Q is a quad-core using Cortex A5 and 40nm node, and does not support TD-SCDMA network.
- 4) MT629X is a standalone LTE/4G modem targeted at mid- to high-end smartphones as well as tablets. We estimate the sample will be available in 4Q13 and volume shipments will start in late 1Q14 or early 2Q14. We think the MT629X will support dual-mode LTE and LTE-TD-SCDMA networks, but is unlikely to be a global band. We believe MTK is likely to price MT629X at mid-to-high teen USD, significantly below Qualcomm's current LTE chipset priced at ±USD25. Qualcomm's high-end LTE chipset could cost well over USD30 for global modes, multiple bands and Category 4 transmissions. MTK may pair MT629X with its upcoming MT8135 discrete AP (the first big.Little architecture) with some modifications, targeted at the high-end smart devices market, in 2014. At this moment, we think MT8135 is designed for tablets and will be shipped in 3Q13. This chip utilises the innovative big.Little architecture by having a mix-and-match of the powerful Cortex A15 and energy-saving Cortex A7, in a bid to optimise performance with battery life.



Figure 7: MTK – product roadmap for 2013

Smartphones	4Q12			1Q13			2Q13			3Q13			4Q13		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MT6589	S	S	S			V									
MT6589M						S	S			V					
MT6572W/T/E				S	S	S			V						
MT629X													S	S	S
Tablets	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MT8377	V														
MT8389		S	S	S			V								
MT8135							S	S	S			V			

Note: S – Sample, V – Volume shipment.  
Source: Company data, Maybank KE

In the meantime, MTK is taking steps to capture a slice of the potentially sizeable tablet market, especially in China. We highlight several products below.

- 1) MT8377 is derived from MT6577 (for smartphones) with an optional radio modem (MT8137 comes without a modem). It is a rather mature device (shipped since 4Q12) and currently used in many low-end models, such as Acer Iconia B1 and Lenovo LePad A2207, and among other Chinese OEMs. These tablets come with a 7” display screen and usually sell for below USD150 per unit, ie, lower than CNY1,000.
- 2) MT8389 offers similar specifications as its sibling MT6589 (for smartphones) and has been adopted by Lenovo’s mid-end tablet A3000, Acer’s upcoming 8-10” tablet and Asustek’s up-and-coming low-cost model. We note that Lenovo’s A3000 tablet (CNY1,799 or USD290) comes with dual-SIM cards and can support data and call functions. iPad Mini, which only supports cellular data, sells for USD459. MT8125 does not carry a cellular modem but offers features similar to the MT8389. Both MT8125/8389 have been available since April.
- 3) MT8315 is MTK’s first-ever big.Little architecture designed for mid- to high-end tablet models. It is a quad-core standalone (2x Cortex A15+2x Cortex A7) that can operate at 1.5-1.8GHz. This chip utilises the innovative big.Little architecture by having a mix-and-match of the powerful Cortex A15 and energy-saving Cortex A7 in a bid to optimise performance with battery life. We believe MTK may pair MT8315 with its upcoming MT619X discrete modem (the first dual-mode LTE and LTE-TD-SCDMA modem) with some modifications, to offer voice and data cellular features for high-end tablets.

Figure 8: MTK – specifications of product roadmap

	MT6589	MT6589M	MT6572*	MT629X	MT8377*	MT8389*	MT8135
Core, CPU	Quad, A7	Quad, A7	Dual, A7	-	Dual, A9	Quad, A7	Quad, A15+A7
Speed	1.2GHz	1.2GHz	1.0GHz	-	1.0GHz	1.2GHz	1.5-1.8GHz
Networks	W&TDS	W&TDS	W&TDS	LTE&LTE-TDS	W&TDS	W&TDS	na
GPU	SGX544	SGX544	Mali400	-	SGX531	SGX544	SGX544
Video	FHD 1080p	HD 720p	HD 720p	-	-	FHD 1080p	FHD 1080p
Resolution	1280x1080	1280x1080	960x540	-	800x480	1280x1080	1280x1080
Camera	13MP	8MP	8MP	-	13MP	13MP	13MP
Tech node	28nm	28nm	28nm	28nm	40nm	28nm	28nm
ASP	USD13-15	USD12	USD10	USD15-18	USD10	USD13-15	>USD15
Remarks		15% cost saving	Integrated WIFI	Baseband Modem only	For low-end models	Acer, Lenovo, Asus & others	Standalone AP
Availability	Mar13	Jul13	Jun13	1Q14	4Q12	Apr13	3Q13

Note: \* MT6582 is a Quad-core AP and offers similar spec as MT6572. MT8137 is similar to MT8377 but w/o modem. MT8125 is the same as MT8389 but w/o modem.  
Source: Company data, Maybank KE

Importantly, MTK has recently stepped up its hiring efforts globally in an attempt to penetrate the OEM vendors in North America and Europe. The company hired Mohit Bhushan, formerly with Motorola Mobility, to head its US sales and marketing efforts. In Europe, Sieghmund Redl joined as head of marketing after more than 10 years with Qualcomm. Both report to Johan Lodenius, Chief Marketing Officer, who was previously with Qualcomm and joined MTK in Dec 2012. Coupled with the introduction of several high-end devices, notably, the big.Little AP, and initiatives to penetrate the tablet market, we believe the hiring reflects MTK’s ambition to expand its already-strong presence in the global emerging markets to the developed countries.

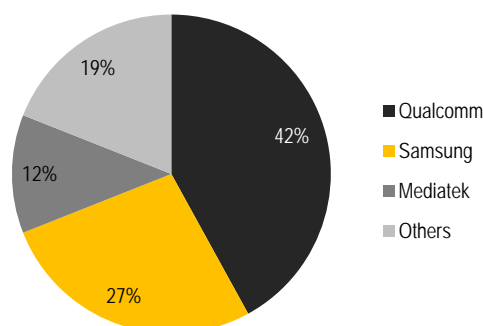
We think this move is timely, as several established and long-term vendors in the baseband (BB) and application processor (AP) industries have either exited or scaled back their operations following market share loss, poor profitability and an inability to keep pace with the rapid product cycle. Of note, Texas Instruments (TI) shut down its OMAP division in 2H12 and STE, a joint venture, was recently dismantled by both its parent companies, SMT and Ericsson. Renesas, too, has announced its intention to discontinue or sell off its AP subsidiary, Renesas Mobility. As a result, the number of players in the BB/AP industries has dwindled to not more than eight from 30 in the earlier 2000s. If we exclude the internal merchant suppliers such as Apple and Samsung, this number is further reduced to a handful, comprising Qualcomm, MTK, Broadcom, Marvell, Intel, Spreadtrum and a few smaller names.

**Figure 9: Consolidation of BB/AP industries**

1H07	LSI acquired Agere's handset chip business
2H07	Infineon bought LSI's handset operation
2H07	Mediatek acquired ADI's wireless division
2H08	SMT, NXP and Erisson merged their handset businesses
2H08	TI exited its handset baseband business
2H08	Freescale disposed its handset baseband division
2H10	Intel acquired Infineon's baseband business
2H12	TI exited its AP (OMAP) smat device business
1H13	STE annouced to break the JV or close down the operation
1H13	Renasas Mobile to be closed or sold off by its parent company
2003	Next one on the block - Marvell?

Source: Maybank KE

**Figure 10: AP market share by vendor, 3Q12**

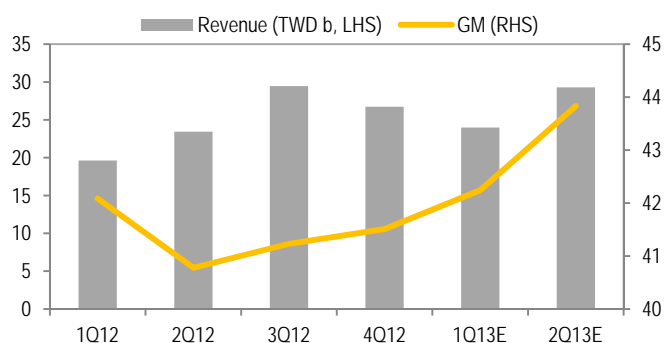


Source: The Linley Group, Maybank KE

**Profitability, earnings outlook and stock valuation.** We believe 1H13 results could offer a strong sign of margin improvement for MTK. This should come as a result of better product mix and improved cost structure. We believe MTK is likely to report a GM of 42.5%±0.5% in 1Q13, its highest since 4Q11, despite a 10% QoQ decline in revenue. A higher proportion of smart device revenue would be the key as we estimate smartphone revenues could account for 44% of overall revenue mix in 1Q13, vs 41% in 4Q12 and 18% in 1Q12. We forecast GM for the former will surpass the group average and come in at least 10ppts above the fast declining feature phones, whose revenue weighting plunged to 20% of overall company sales in 1Q13 vs 38% in 1Q12. The same analysis explains why MTK is likely to achieve better profitability for 1Q13 vs 2Q12 despite a similar revenue size of TWD24b for both periods.

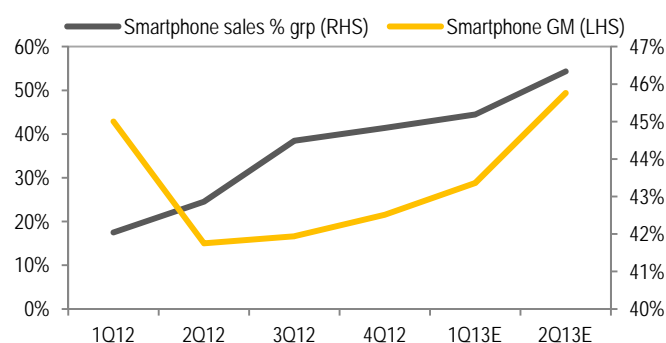
We believe margin expansion will gather pace from 2Q13 onwards as revenue contribution from the higher-margin quad-core AP (MT6589 and MT8389) improves. The higher profit margin for quad-core (>50%) is now well-understood by investors – first reported in our initiation report in Nov 2012 – and the key to our bullish view on the stock. Depending on the product mix, we now think MTK’s 2Q13F GM could rise to 43.5%±0.5%. We also estimate 2Q13F revenue to grow 20-25% QoQ and 25-30% YoY. MTK is due to report its 1Q results and provide 2Q outlook on 6<sup>th</sup> May.

Figure 11: MTK – overall revenue vs GM trend



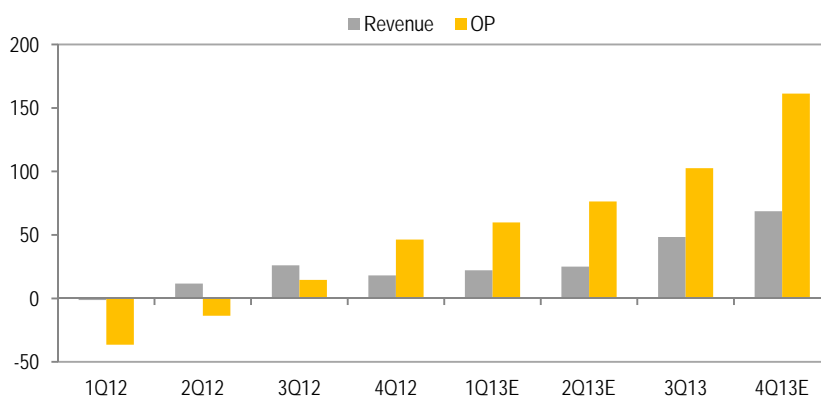
Source: Company data, Maybank KE

Figure 12: MTK – smartphone sales mix vs GM



Source: Company data, Maybank KE

Figure 13: MTK – YoY chg in revenue & operating profit



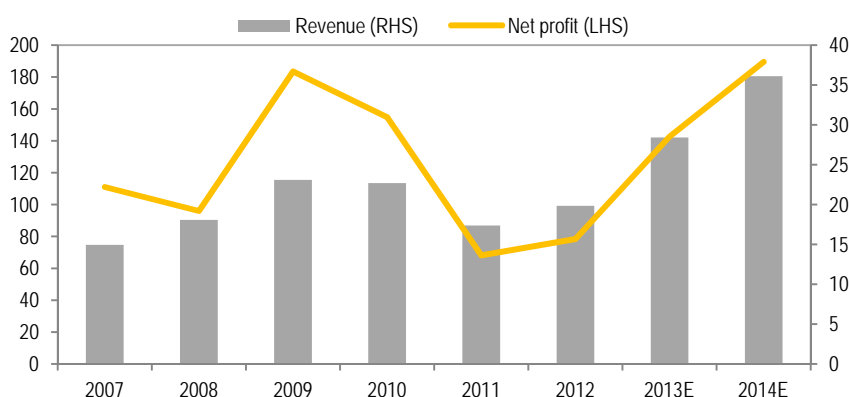
Source: Company data, Maybank KE



On a YoY basis, we estimate MTK's 1Q13F core operating profit could grow 60-70% and possibly climb by >100% in 2H13F/1H14F on better product mix, competitive cost structure, better profitability and market share gain. If so, this will make MTK one of the fastest-growing technology companies in the region, if not the world. We believe it is important to analyse the rolling earnings outlook for MTK simply because it has potentially very attractive earnings power, given its focus on higher mix of profitable devices and market share gain. We argue that this will have implications on stock valuation as growth-oriented investors may be willing to pay for a higher valuation multiple since MTK's PEG is currently below 0.3x. We estimate the 12-month rolling PER to be 15-16x vs the annualised PER of 18-19x for 2013F.

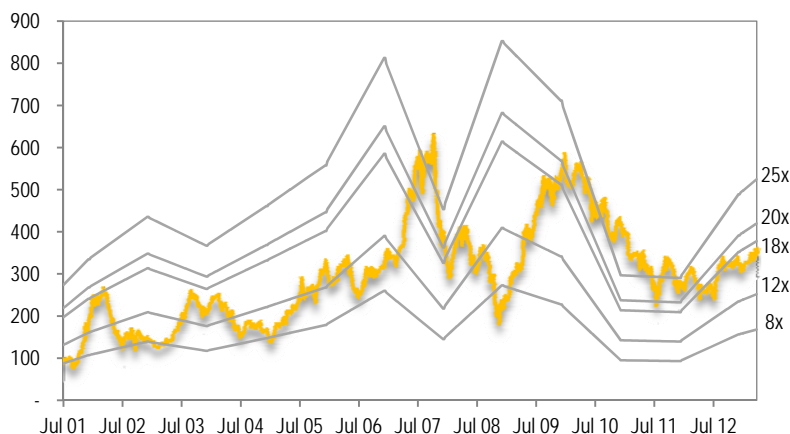
Our target price is unchanged at TWD500, based on FY14F peak earnings multiple of 20x. Note that if our forecasts turn out to be right, MTK could post yet another record profit in 2014 that could surpass its previous records of TWD22.2b in 2007 and TWD36.7b in 2009. During those two years, MTK shares traded at 20-25x peak multiple when the company dominated the 2G feature phone market. Admittedly, MTK is unlikely to generate margins and returns similar to the good old days going forward; however, we are not ruling out the possibility that it can achieve a higher absolute profit because new addressable markets have emerged, such as tablets and international developed markets. Both did not exist previously and have not been tapped by MTK as of now. We believe that MTK's initiatives to penetrate the mid- to high-end segment of the smart device market and its hiring of executives from Qualcomm and Motorola Mobility will be the key to unearthing new growth opportunities.

**Figure 14: MTK – long-term trend of revenue and net profit (TWD b)**



Source: Bloomberg, Maybank KE

**Figure 15: MTK – 12-month forward PER bands**



Source: Bloomberg, Maybank KE

Figure 16: Revenue and earnings model

Assumptions (unit m)	1Q12	2Q12	3Q12	4Q12	1Q13E	2Q13E	3Q13*	4Q13E	1Q14E	2Q14E	3Q14E	4Q14E	2011	2012E	2013E	2014E
Smartphones+tablets	10	21	38	40	38	52	73	92	79	99	110	116	10	109	255	404
Feature phones	91	103	113	99	82	74	68	60	55	50	46	43	493	406	284	194
DTV	8	9	10	10	9	10	36	33	28	32	36	33	35	38	87	129
Optical storage	25	26	26	25	23	23	25	25	24	24	23	23	116	103	95	94
DVD/BR	11	13	13	12	10	10	11	11	11	10	10	10	48	49	43	41
% to group revenue																
Smartphones+tablets	18	25	38	41	44	54	51	56	53	59	59	61	3	32	52	58
Feature phones	38	33	26	23	20	14	9	8	8	6	5	5	60	29	12	6
DTV	8	8	7	7	7	6	16	14	14	14	14	14	8	7	12	14
Optical storage	15	13	11	11	11	9	7	6	7	6	5	5	16	12	8	6
DVD/BR	10	10	8	8	7	6	4	4	4	4	3	3	10	9	5	4
Others	11	11	10	10	11	10	13	12	13	11	12	12	3	10	12	12
TWD/USD	29.7	29.6	29.7	29.1	29.4	29.9	30.0	30.0	30.0	30.0	30.0	30.0	29.4	29.5	29.8	30.0
<b>Smart devices mix analysis (shipment)</b>																
Single-core (40nm)	-	-	-	-	26%	14%	3%	1%	0%	0%	0%	0%	-	-	8%	0%
Dual-core (28/40nm)	-	-	-	-	66%	53%	52%	55%	48%	37%	31%	27%	-	-	55%	35%
Quad-core (28nm)	-	-	-	-	8%	30%	35%	33%	34%	31%	32%	32%	-	-	29%	32%
Quad-core 4G (28nm)	-	-	-	-	0%	0%	0%	0%	3%	15%	18%	22%	-	-	0%	15%
Tablets (28nm)	-	-	-	-	0%	3%	10%	12%	15%	17%	19%	19%	-	-	8%	18%
Total	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%	-	-	100%	100%
<b>Smart devices mix analysis (revenue)</b>																
Single-core (40nm)	-	-	-	-	21%	9%	2%	0%	0%	0%	0%	0%	-	-	5%	0%
Dual-core (28/40nm)	-	-	-	-	67%	47%	43%	44%	37%	25%	22%	19%	-	-	42%	20%
Quad-core (28nm)	-	-	-	-	12%	39%	41%	37%	37%	29%	28%	26%	-	-	41%	29%
Quad-core 4G (28nm)	-	-	-	-	0%	0%	0%	0%	5%	24%	29%	34%	-	-	0%	29%
Tablets (28nm)	-	-	-	-	0%	4%	14%	18%	21%	21%	22%	21%	-	-	13%	22%
Total	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%	-	-	100%	100%
Blended ASP (USD)	11.57	9.26	10.18	9.50	9.53	10.18	10.21	9.15	8.66	9.04	8.72	8.38	10.77	9.86	9.72	8.69
Blended GM (%)	45.0%	41.8%	41.9%	42.5%	43.4%	45.8%	46.2%	45.3%	45.7%	46.5%	45.4%	43.7%	48.5%	42.4%	45.4%	45.3%
<b>P&amp;L model (TWD bn)</b>																
Revenue	19.6	23.4	29.5	26.7	24.0	29.3	43.7	45.1	38.6	45.7	48.6	47.6	86.9	99.3	142.1	180.5
COGS	-11.4	-13.9	-17.3	-15.6	-13.8	-16.5	-24.3	-25.2	-21.4	-25.1	-27.0	-26.9	-47.5	-58.2	-79.7	-100.5
Gross profit	8.3	9.6	12.2	11.1	10.1	12.8	19.5	19.9	17.1	20.6	21.6	20.7	39.3	41.1	62.4	80.0
OPEX	-6.3	-6.8	-7.9	-7.6	-7.0	-8.0	-10.9	-10.9	-10.2	-11.1	-11.5	-11.4	-27.0	-28.6	-36.7	-44.3
Operating profit	1.9	2.8	4.2	3.5	3.1	4.9	8.6	9.1	6.9	9.5	10.0	9.3	12.3	12.4	25.6	35.8
Profit before tax	2.6	3.9	5.1	5.0	4.2	6.2	9.5	10.0	7.8	10.5	11.2	10.5	14.2	16.6	30.0	40.0
Net profit	2.5	3.4	4.9	4.89	4.1	5.7	9.1	9.6	7.5	9.6	10.8	10.1	13.6	15.7	28.5	37.9
EPS (TWD)	1.85	2.49	3.65	3.62	3.02	4.22	5.83	6.14	4.75	6.15	6.86	6.41	11.87	11.62	19.21	24.17
<b>Margin (%)</b>																
GM	42.1	40.8	41.2	41.5	42.2	43.8	44.5	44.2	44.4	45.1	44.4	43.5	45.3	41.4	43.9	44.3
OPM	9.9	11.8	14.4	13.0	13.0	16.7	19.6	20.1	17.8	20.8	20.7	19.6	14.2	12.5	18.0	19.8
NP	12.7	14.3	16.7	18.3	17.0	19.4	20.9	21.3	19.3	21.1	22.1	21.1	15.7	15.8	20.1	21.0
<b>QoQ chg (%)</b>																
Revenue	-13	19	26	-9	-10	22	49	3	-14	18	6	-2	-	-	-	-
Gross profit	-17	16	27	-9	-9	27	51	2	-14	20	5	-4	-	-	-	-
Operating profit	-18	42	53	-18	-10	57	76	5	-24	38	6	-7	-	-	-	-
Net profit	-14	34	47	-1	-17	40	61	5	-23	29	12	-7	-	-	-	-
EPS	-27	34	47	-1	-17	40	38	5	-23	29	12	-7	-	-	-	-
<b>YoY chg (%)</b>																
Revenue	-1	12	26	18	22	25	48	69	61	56	11	6	-23	14	43	27
Gross profit	-10	-1	15	11	23	34	60	80	69	60	11	4	-35	4	52	28
Operating profit	-36	-14	15	46	60	76	103	161	121	94	17	3	-60	1	106	39
Net profit	-24	1	21	68	63	69	85	97	83	69	18	4	-56	15	82	33
EPS	-36	-14	3	43	63	69	60	69	57	46	18	4	-58	-2	65	26

Note: Merge with MStar from 1Q13 onward.

Source: Company data, Maybank KE

## INCOME STATEMENT

FYE Dec (TWD b)	2011A	2012F	2013F	2014F
Revenue	86.9	99.3	142.1	180.5
EBITDA	15.1	15.8	29.9	41.2
Depreciation & Amortisation	2.7	3.4	4.3	5.4
<b>Operating Profit (EBIT)</b>	<b>12.3</b>	<b>12.4</b>	<b>25.6</b>	<b>35.8</b>
Interest (Exp)/Inc	1.0	1.9	2.8	3.6
Associates	0.1	2.0	1.4	0.6
One-offs	0.8	0.5	0.2	0.0
<b>Pre-Tax Profit</b>	<b>14.2</b>	<b>16.6</b>	<b>30.0</b>	<b>40.0</b>
Tax	0.6	1.0	1.4	2.1
Minority Interest	0.0	0.0	0.0	0.0
<b>Net Profit</b>	<b>13.6</b>	<b>15.7</b>	<b>28.5</b>	<b>37.9</b>
<b>Recurring Net Profit</b>	<b>13.6</b>	<b>15.7</b>	<b>28.5</b>	<b>37.9</b>
Revenue Growth (%)	-23%	14%	43%	27%
EBITDA Growth (%)	-56%	5%	89%	38%
EBIT Growth (%)	-60%	1%	106%	39%
Net Profit Growth (%)	-56%	15%	82%	33%
Recurring Net Profit Growth (%)	-56%	15%	82%	33%
Tax Rate %	4.1%	5.8%	4.8%	5.2%

## BALANCE SHEET

FYE Dec (TWD b)	2011A	2012F	2013F	2014F
Fixed Assets	98.1	110.5	124.3	139.9
Other LT Assets	25.9	26.2	25.9	26.0
Cash/ST Investments	91.0	98.0	111.1	121.3
Other Current Assets	21.0	26.7	41.3	43.9
<b>Total Assets</b>	<b>147.7</b>	<b>161.9</b>	<b>190.7</b>	<b>205.2</b>
ST Debt	4.1	12.4	12.9	13.5
Other Current Liabilities	26.3	26.7	34.6	37.3
LT Debt	0.1	0.1	0.1	0.0
Other LT Liabilities	0.8	1.4	1.8	2.1
Minority Interest	0.0	0.0	0.0	0.0
Shareholders' Equity	116.3	121.2	141.4	152.2
<b>Total Liabilities-Capital</b>	<b>147.7</b>	<b>161.9</b>	<b>190.7</b>	<b>205.2</b>
Share Capital (m)	1,148	1,349	1,459	1,568
Gross Debt/(Cash)	NM	NM	NM	NM
Net Debt/(Cash)	NM	NM	NM	NM
Working Capital	81.6	85.6	104.9	114.4

## CASH FLOW

FYE Dec (TWD b)	2011A	2012F	2013F	2014F
Profit before taxation	14.2	16.6	30.0	40.0
Depreciation	2.7	3.4	4.3	5.4
Net interest receipts/(payments)	1.0	1.9	2.8	3.6
Working capital change	0.4	-3.3	-8.0	-1.3
Cash tax paid	-0.6	-1.0	-1.4	-2.1
Others (incl'd exceptional items)	-1.0	-4.6	-6.3	-6.8
<b>Cash flow from operations</b>	<b>16.7</b>	<b>13.1</b>	<b>21.3</b>	<b>38.9</b>
Capex	-2.6	-1.9	-1.4	-1.6
Disposal/(purchase)	-0.3	-0.8	-0.7	-0.8
Others	3.9	-1.1	0.0	0.0
<b>Cash flow from investing</b>	<b>1.0</b>	<b>-3.8</b>	<b>-2.1</b>	<b>-2.4</b>
Debt raised/(repaid)	4.3	8.3	0.5	0.5
Equity raised/(repaid)	0.0	1.0	2.0	3.0
Dividends (paid)	-22.0	-10.3	-11.9	-21.6
Interest payments	0.0	0.0	0.0	0.0
Others	-0.1	-0.5	0.0	0.0
<b>Cash flow from financing</b>	<b>-19.9</b>	<b>-1.9</b>	<b>-11.4</b>	<b>-21.1</b>
Change in cash	-0.1	6.7	7.8	15.4

## RATES &amp; RATIOS

FYE Dec	2011A	2012F	2013F	2014F
EBITDA Margin (%)	17%	16%	22%	23%
Op. Profit Margin (%)	14%	13%	19%	20%
Net Profit Margin (%)	16%	16%	19%	20%
ROE (%)	12%	13%	24%	27%
ROA (%)	10%	10%	18%	20%
Net Margin Ex. EI (%)	16%	16%	19%	20%
Dividend Cover (x)	1.32	1.32	1.32	1.32
Interest Cover (x)	NM	NM	NM	NM
Asset Turnover (x)	0.60	0.59	0.59	0.57
Asset/Debt (x)	34.7	13.1	14.9	15.4
Debtors Turn (days)	41.8	38.7	38.4	41.4
Creditors Turn (days)	57.6	63.4	63.3	65.6
Inventory Turn (days)	60.3	75.3	70.4	73.0
Net Gearing %	NM	NM	NM	NM
Debt/ EBITDA (x)	0.3	0.7	0.4	0.3
Debt/ Market Cap (x)	0.0	0.0	0.0	0.0

## PER SHARE DATA

FYE Dec (TWD)	2011A	2012F	2013F	2014F
EPS	11.87	11.62	19.21	24.17
CFPS	0.0	0.0	0.0	0.0
BVPS	101.4	89.8	96.9	97.1
SPS	75.7	73.6	97.4	115.1
EBITDA/share	13.1	11.7	20.5	26.3
DPS	9.0	8.8	13.8	18.3

Source: Company data, Maybank KE estimates

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CAGR = Compounded Annual Growth Rate	FY = Financial Year	PER = PE Ratio
Capex = Capital Expenditure	FYE = Financial Year End	QoQ = Quarter-On-Quarter
CY = Calendar Year	MoM = Month-On-Month	ROA = Return On Asset
DCF = Discounted Cashflow	NAV = Net Asset Value	ROE = Return On Equity
DPS = Dividend Per Share	NTA = Net Tangible Asset	ROSF = Return On Shareholders' Funds
EBIT = Earnings Before Interest And Tax	P = Price	WACC = Weighted Average Cost Of Capital
EBITDA = EBIT, Depreciation And Amortisation	P.A. = Per Annum	YoY = Year-On-Year
EPS = Earnings Per Share	PAT = Profit After Tax	YTD = Year-To-Date
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