



November 12, 2015

CURRENT PRICE: \$6.18
RATING: BUY
PRICE TARGET: \$15
CURRENT YIELD: N/A

EPS Estimates - GAAP

	DEC 14A	DEC 15E
1Q	\$0.01	(\$0.32)A
2Q	(\$0.04)	(\$0.31)A
3Q	(\$0.11)	(\$0.05)A
4Q	(\$0.07)	(\$0.05)A
	(\$0.21)	(\$0.73)

Trading Data

52-WEEK PRICE RANGE: **\$11.65-\$4.06**
SHARES OUTSTANDING: **31.5(M)**
MARKET CAP: **\$195.5(M)**
AVG. DAILY TRADING VOLUME: **0.3(M)**
S&P 500: **2,045**

Valuation Data

BOOK VALUE: **\$3.79**
PRICE TO BOOK: **1.63x**
DIVIDEND: **n/a**

MAXWELL TECHNOLOGIES, Inc. (NSDQ: MXWL)

Upbeat 3Q15 Earnings report

Highlights

- Non-GAAP earnings of \$0.01/share vs.(\$0.08)/share
- Improved results from higher revenues/lower expenses
- Expect 1H16 UC softness & possible 2017 increase
- Potential higher revenues from auto, rail, & truck sectors
- Maintain BUY rating & \$15 price target

Investment Thesis

The recent sell-off in this stock has created an attractive entry point for speculative/aggressive investors seeking 50%-100% appreciation potential, or higher, from MXWL's shares during the next 3-18 months. We believe MXWL is a revenue/earnings growth story, based on rising demand for the company's products on both a short-term and long-term basis. Specifically, increased demand for the company's ultracapacitor products could drive earnings growth as auto/truck/rail industries move towards "greener" options to increase mileage and lower emissions.

Company Summary

Maxwell Technologies (MXWL), headquartered in San Diego CA, develops, manufactures, and markets advanced energy storage/power delivery products. These products are used in the transportation, renewable energy, industrial, information technology sectors and the company also offers microelectronic products for space/satellite applications. MXWL's produces three primary items; ultracapacitors, high-voltage capacitors, and radiation-hardened microelectronic products. Internal manufacturing is done at facilities in San Diego CA, and Rossens Switzerland, with a new plant opening in Phoenix AZ later this year. Low-cost offshore assembling of MXWL's ultracapacitor products is done by Belton Technology (Hong Kong China) and Lishan Battery Company (Tianjin China). Sales offices are located in San Diego CA, Norfolk UK, Rossens Switzerland, Munich Germany, and Shanghai China.

For Important Disclosure information regarding the Firm's rating system, valuation methods and potential conflicts of interest, please refer to the last two pages of this report.



EQUITY RESEARCH

BUSINESS OVERVIEW

MXWL has three primary products: Ultracapacitors, High-Voltage Capacitors, and Radiation-hardened Microelectronic Products.

Ultracapacitors (UC) are energy storage devices which possess high power density (having the ability to charge/discharge energy at a fast rate) and a long operational life. MXWL's ultracapacitor cells and multi-cell packs/modules supply high energy storage/power delivery solutions for application in many industries. These products are used in the transportation, energy, consumer, industrial electronics, and information technology industries. Ultracapacitors are the "lion's share" of MXWL's business comprising 62% of 2011's sales.

High-Voltage Capacitors (HVC) are devices designed/manufactured to perform reliably in all types of climates for electric utility infrastructures for long periods of time. This product group includes grading/coupling capacitors and capacitive voltage dividers used for safety, and reliability, in electric utility infrastructures. Other applications for this product group are used in the transmission, distribution, and measurement of high-voltage electrical energy.

Radiation-Hardened Microelectronic Products (RMP) include high-performance/high-density power modules, memory modules, and single board computers. These use MXWL's patented/proprietary "RADPAK" packaging/shielding technology and unique architectures enabling MXWL's products to withstand high doses of environmental radiation and provide reliable service while in outer space. RMP are used primarily in orbiting satellites and other space crafts.

GROWTH STRATEGY

MXWL's primary strategy is to grow revenues and profits during the next 5 years primarily through increased market demand for its ultracapacitor-based energy storage and power delivery products. Over the near-term, management believes the windmill and transit bus businesses could lead to higher revenues. Longer-term, the automotive vehicle and uninterruptable power source businesses could add an influx of new revenues towards Maxwell's operations. To this end, management is expanding manufacturing capacity to meet potential increased future product demand expected during the next two years. Revenue growth, combined with controlling expenses, could lead to significant earnings growth during the next 1-5 years for MXWL.

Continental AG, considered a Global Tier 1 automotive supplier, uses MXWL's ultracapacitors in its "stop-start idle-elimination" product. The "stop-start" product is used in the European hybrid automotive market being installed in PSA autos (Peugeot and Citroen). MXWL believes European market share growth is possible in the future, assuming "stop-start" is deployed by other foreign auto manufacturers. The "stop-start" product improves



miles per gallon for autos by turning off the engine when it would otherwise be idling at a traffic stop. This is achieved as the “stop-start” product provides the power needed, from the ultracapacitor, to restart the vehicle. The product has appeal to auto manufacturers seeking to add a “greener” aspect to their automobiles and comply with increasingly stringent fuel/economy/emission standards.

The US auto market is another potential source of growth for MXWL due to the growing demand from customers for “greener” and more fuel-efficient automobiles. Currently no US automakers are using the company’s products. However, MXWL is hopeful this could change if domestic automakers, and US consumer demand, seek “greener” vehicles. US automakers deployment of the “stop/start” product could generate significant revenue growth for MXWL. To this end, MXWL has opened up a marketing office in Detroit MI., home of the “Big Three” US automakers.

The hybrid bus market is another potential large growth market for MXWL going forward. MXWL’s ultracapacitors are used in regenerative braking/power systems in buses. Ultracapacitors capture and store energy from a bus’s braking-action, which can then be reused to propel the vehicle from a standing stop. Thus, a bus using this product would reduce fuel consumption and corresponding exhaust emissions. This type of system has appeal to overseas bus manufacturers seeking “greener” public transit vehicles and improved urban air quality.

Overseas bus manufacturers, seeking “greener” public transit vehicles and increased fuel efficiency are using MXWL’s ultracapacitor products for metropolitan buses with hybrid-electric drive systems. MXWL has supply agreements with Voith Turbo (leading European/North America drive system integrator), Yutong (China’s largest bus producer), and others. Potentially, other bus manufacturers may gravitate towards the use of MXWL ultracapacitors in its vehicles.

MXWL’s ultracapacitors are presently being used in only 5,000 buses around the world, including pilot-projects in 3 US municipal areas. Over the near term the potential exists for new orders from China and Europe, and longer term there could be an increase in demand from US municipalities.

The heavy truck area is a new potential source of revenue growth. MXWL recently introduced the “Engine Start Module”, an engine start module for 18-wheel trucks. This product, with a 10-year design life, provides energy to start trucks, provide “stop-start idle-elimination” features, and allows the cab to run “hotel” loads off of the capacitor, while eliminating battery drain. This offers the potential to increase fuel efficiency, lower emissions, and extend a truck’s regular battery life. Industry studies estimate the North American battery replacement market for Class 4 – 8 trucks could be approximately \$1 billion, equating to a potential large source of new business for MXWL. Presently, only 1,000 of these units are being used in the North American market. However, a wider acceptance of this product by the trucking industry could be another contributor to MXWL’s revenue growth during the next 2-4 years.

Alternative energy is another growth area for MXWL. Owners of electrical generating windmills have been using the company’s ultracapacitor products. These ultracapacitors are used to rotate the windmill blades in order to protect them from problematic weather conditions. This product replaces batteries (used to change the pitch of



turbine blades), which need to be replaced periodically by servicemen. Currently, MXWL's products are in approximately 20,000 windmills, primarily in China. market sector

HVC are used primarily by the electric utility sector. Grading and coupling capacitors are vital circuit breaker components used to prevent high-voltage arcing which can damage switches, step-down transformers and other equipment involved in the transmission/distribution of high-voltage electricity circulated through utility infrastructures and high-voltage laboratories. Capacitive voltage dividers measure power/voltage levels in overhead transmission lines.

The market for these products consists of the building, expansion, upgrading, and maintenance of existing/new infrastructure systems/installations in developing countries. Recently government spending has slowed in this area due to the recent world economic slowdown. However, improvement in the world economy, or credit markets, could cause an increase in electrical infrastructure spending & provide growth opportunities for MXWL.

RMP are used mainly in the space/satellite industries. Due to high manufacturing costs of satellites/spacecrafts, long-lead times needed to develop products for this area, and relatively limited number of space programs, this is a comparatively small market for MXWL.

Recent Earnings

MXWL reported non-GAAP 3Q15 diluted earnings of \$0.01/share vs. (\$0.08)/share during 3Q14. GAAP earnings improved to (\$0.05)/share vs. (\$0.11)/share. The improvement was the result of higher ultracapacitor and microelectronic sales, in addition to lower operating expenses when comparing the two quarters. Revenues rose 8.4% to \$45.1 million, from \$41.6 million as ultracapacitor sales increased 10.4% to \$31.8 million driven primarily by higher demand in the China hybrid bus market and from microelectronic sales rising to \$3.0 million from \$2.5 million.

Total operating expenses declined to \$14.9 million from \$17.8 million due to recent cost cutting and streamlining efforts. Earlier this year management unveiled plans to become more efficient and reduce costs through a reduction in workforce to bring it in line with expected revenues, consolidating its two factories, and plans to sell the microelectronics unit. When comparing 3Q15 with 3Q14, selling/general/administrative expense decreased to \$9.07 million from \$10.84 million, research and development fell to \$5.78 million from \$6.92 million, and restructuring costs were \$56,000 vs. \$0.



Gross profit declined to \$14.26 million from \$14.48 million as an increase in revenues (\$45.1 million vs. \$41.6 million) was unable to offset an increase in cost of revenues (\$30.8 million vs. \$26.1 million). The GAAP gross profit margin decreased to 31.6% from 37.2% while the non-GAAP gross profit margin was 32.3%, in line with

previous guidance of 32%-34%. The non-GAAP profit margin excludes approximately \$190,000 of stock-based compensation expense and \$130,000 of accelerated equipment depreciation expense.

Conference Call Takeaways:

MXWL held its 3Q15 earnings conference call and several things could be taken away from the call:

Management provided 4Q15 guidance of \$46 million-\$50 million in revenues, 31%-33% gross profit margins(non-GAAP), operating expenses of approximately \$13.5 million, improvement in revenues (from Chinese hybrid bus market), and about \$800,000 in income tax expense.

While the company estimates higher ultracapacitor revenues during 4Q15, MXWL also anticipates softness in this area during 1H16 due to a reduction in Chinese government hybrid-bus subsidies beginning January 1, 2016. While management expects ultracapacitor sales growth from the truck, rail, and auto sectors during 2016, they are uncertain it will be enough to offset weakness in the Chinese hybrid bus market. MXWL expects meaningful revenue growth in 2017 based on wider acceptance of ultracapacitors, particularly with the potential of a 3rd truck OEM employing use of MXWL's products in its vehicles. Peterbilt and Kenworth currently incorporate ultracapacitors in their trucks, and a third truck manufacturer may announce the use of MXWL's products during the next few months.

MXWL discussed the recent announcement of Continental Automotive Systems voltage stabilization process powered by MXWL's ultracapacitors now being offered as a standard option in GM's 2016 Cadillac ATS and CTS sedans (excluding ATS-V, CTS-V, & CT6). Initial response has been positive and could generate revenues of \$1 million-\$5 million in revenues for MXWL in 2016. Additionally, there could be a product launch of a different application which would be used in another 2016 model luxury car platform.

Management envisions several revenue growth opportunities in the automotive market with the progression of vehicle electrification advances in the future and the incorporation of ultracapacitors into the automobile's core as both the number of applications and ASP content grows in the future.



EQUITY RESEARCH

RECENT DEVELOPMENTS

General Motors became the first US automotive OEM to adopt MXWL's ultracapacitors for Start-Stop systems. Continental Automotive Systems' Maxwell-powered voltage stabilization system will be a standard feature on 2016 Cadillac ATS and CTS sedans and ATS coupes (excludes ATS-V, CTS-V, and CT6 models).

Peterbilt Motors Company, a leading designer/manufacturer of premium trucks, announced it will begin offering MXWL's ultracapacitor-powered Engine Start Module on new model 579 and 567 trucks as a factory-installed option.

CAF Power & Automation, a global manufacturer of railway vehicles/equipment, announced it will employ MXWL's ultracapacitors as a standard component of the energy-storage system ACR (Rapid Charge Accumulator) used to power light-rail cars.

Our Thoughts

The 3Q15 earnings announcement appears to have attracted investors back into MXWL's stock following previous quarterly announcement disappointments. MXWL reported non-GAAP 3Q15 diluted earnings of \$0.01/share vs. (\$0.08)/share during 3Q14. GAAP earnings improved to (\$0.05)/share vs. (\$0.11)/share. The improvement was the result of higher ultracapacitor and microelectronic sales, in addition to lower operating expenses when comparing the two quarters. Revenues rose 8.4% to \$45.1 million, from \$41.6 million as ultracapacitor sales increased 10.4% to \$31.8 million driven primarily by higher demand in the China hybrid bus market and from microelectronic sales rising to \$3.0 million from \$2.5 million.

During the past year a new CEO and CFO were installed and Wall Street seems pleased with recent moves to rationalize operating expenses and consolidate production facilities. Additionally, GM's announcement of using MXWL's capacitors in Cadillacs was viewed as a positive by the street. Our sense is that while investors seem pleased with MXWL's new management, the company will need to deliver in 2016 and 2017 and provide clarity regarding revenue growth and earnings guidance during the next 4 quarters.

While management warned against UC revenue softness during 1H16, due to Chinese government hybrid-bus subsidies changing on 1/1/16, MXWL believes product sales could rebound during 2H16 and into 2017. Potentially, this could arise from revenue growth generated by the automotive, truck, and rail sectors employing more of MXWL's ultracapacitors in vehicles and grid systems.



If management achieves stated goals of reducing expenses and growing revenues during 2H16 and 2017, then profit expectations by Wall Street could dramatically increase and thus provide substantial upside to MXWL's stock as momentum investors rush back into these shares. We rate this speculative stock a BUY with a \$15/share price target equating to 14.4x our Enterprise Value/Revenue multiple based on our 2015 revenue estimate.

Risks

There are no guarantees MXWL will be able to grow future earnings. Declining customer orders, increasing commodity prices, and rising operating costs could negatively affect the company's profits. Economic slowdowns, or political change, in Europe and Asia could have adverse effects on earnings. Given the majority of its revenues come from overseas, fluctuations in currency values could impact MXWL's profitability. New products from competitors, or changing industry trends, are risks for MXWL's ability to sell its products. Negative equity markets, rising interest rates, terrorist attacks, and failure to comply with the Sarbanes Oxley Act could cause a decline in MXWL's share price. Given the relatively small amount of daily trading activity in MXWL's stock, any increase in trading volume could significantly accelerate the volatility of its share price movement.

Steve Marascia
Director of Research
Capitol Securities Management
804-612-9715
smarascia@capitolsecurities.com



EQUITY RESEARCH

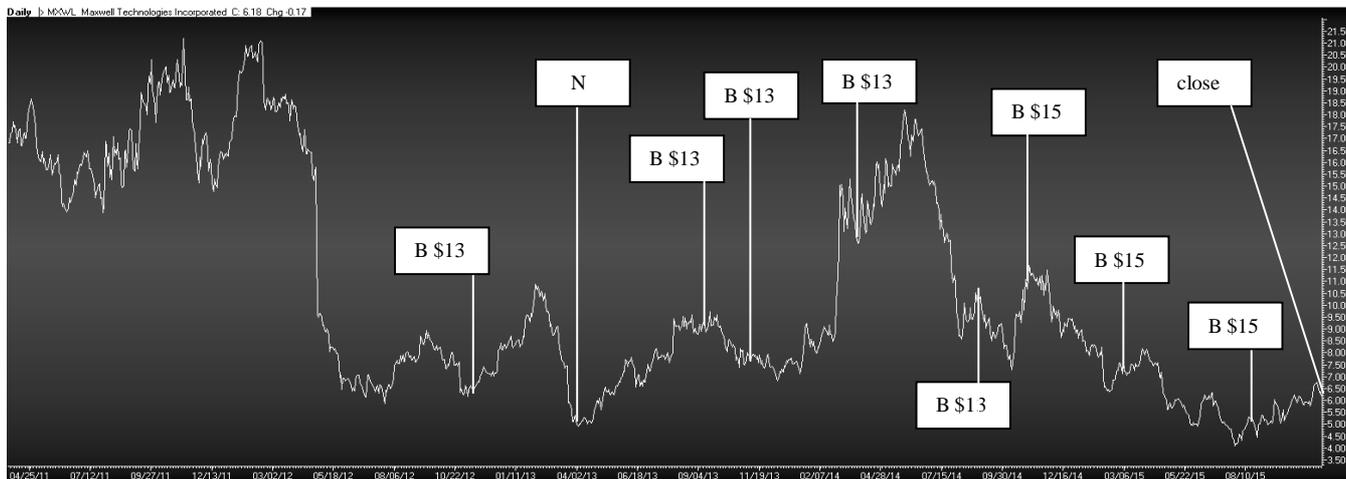
MAXWELL TECHNOLOGIES, INC. & SUBSIDIARIES
condensed consolidated statements of operations
(in thousands, except per share data - unaudited)

	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15e	2015e
Revenue	\$46,001	\$46,074	\$39,818	\$52,918	\$186,586	\$34,670	37,796	45,076	\$47,264	\$164,806
Cost of revenue	28,131	29,474	25,362	34,418	118,146	24,284	25,643	30,820	32,140	112,887
Gross profit	17,870	16,600	14,256	18,500	68,440	10,386	12,153	14,256	15,124	51,919
Operating expenses:										
Selling, general, & administrative	10,939	10,944	10,928	11,151	43,857	11,368	10,142	9,070	9,268	39,848
Research & development	6,171	6,223	6,276	7,003	26,320	7,918	5,930	5,781	5,792	25,421
Amortization of intangibles										
Restructuring/exit costs							2,340	56	915	3,311
Total operating expenses	17,110	17,167	17,204	18,154	70,117	19,286	18,412	14,907	15,975	68,441
Income/(loss) from operations	760	-567	-2,948	346	-1,737	-8,900	-6,259	-651	-851	-16,661
Interest expense, net	-39	-28	-28	-53	-169	-89	-75	-25	-22	-211
Amort of debt discount/prepaid debt costs								5		
Gain on embedded derivatives & warrants										
Debt discount amort/prepaid debt costs										
For: Currency loss, gain	-5	-5	-7	-5	-22	-5	-2			-7
Income before income taxes	716	-600	-2,983	288	-1,926	-8,994	-6,421	-584	-829	-16,828
Income taxes	397	581	368	2,406	4,346	347	2,955	865	801	4,968
Net income	\$319	(\$1,181)	(\$3,351)	(\$2,118)	(\$6,272)	(\$9,341)	-9,376	(\$1,449)	(\$1,630)	(\$21,798)
Net income per share (diluted)	\$0.01	(\$0.04)	(\$0.11)	(\$0.07)	(\$0.21)	(\$0.32)	(\$0.31)	(\$0.05)	(\$0.05)	(\$0.73)
Shares outstanding (diluted)	29,216	29,206	29,206	29,301	29,301	29,445	30,232	31,529	31,529	31,529



EQUITY RESEARCH

Important Disclosures



5/1/12 \$9.58 initiate BUY & \$13 price target
 4/2/13 \$4.98 lower to HOLD
 9/9/13 \$9.12 raise to BUY & \$13 price target
 4/8/14 Raise price target to \$15
 Ratings-
 BUY: B
 HOLD: H
 SELL: S

Steven Marascia certifies, with respect to the companies or securities that he analyzes, that (1) the views expressed in this report accurately reflect his personal views about all of the subject companies and securities and (2) no part of his compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

Our price target is \$15/share, equating to 14.4x our Enterprise Value/Revenue multiple based on our 2015 revenue estimate

Stock ratings used in this report are defined as follows:

- (1) Buy – The stock's total return including dividends is expected to exceed the industry or market average by at least 10% over the next twelve months.
- (2) Hold – The stock's total return including dividends is expected to be in line with the industry or market average of +/- 10% over the next twelve months.
- (3) Sell – The Stock's total return including dividends is expected to be below the industry or market average by 10% or more over the next twelve months.

The distribution of investment ratings for all companies in our coverage universe are as follows: (1) 50%, (2) 50%, (3) 0%

The distribution of investment ratings used for companies whom we have performed banking services in the last 12 months are (1) 0%, (2) 0%, (3) 0%

Capitol Securities Management's Investment Banking/Public Finance unit has not received compensation for investment banking services from the subject company in the past 12 months. Nor does it expect to receive, or intend to seek compensation for, investment banking services from the subject company in the next 3 months.

No affiliate of Capitol Securities Management, or Capitol Securities Management, received compensation from the subject company for products or services during the past 12 months.

The subject company is not, or during the past 12 months, was not, a client of Capitol Securities Management's Investment Banking/Public Finance unit.

Other Disclosures



This report is not directed to, or intended for distribution to or use by any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Capitol Securities or its affiliates to any registration or licensing requirement within such jurisdiction. The information presented in this report is provided to you for information purposes only and is not to be used or considered as an offer or the solicitation of an offer to sell or buy or subscribe for securities or other financial instruments. Capitol Securities may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. Capitol Securities will not treat recipients of this report as its customers by virtue of their receiving this report. The investments and services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. Capitol Securities does not advise on the tax consequences of investments and you are advised to contact an independent tax advisor. Information and opinions presented in this report have been obtained or derived from sources believed by Capitol Securities to be reliable, but Capitol Securities

Makes no representation as to their accuracy or completeness. This report is not to be relied upon in substitution for the exercise of independent judgment. Capitol Securities may have issued, and may in the future issue, other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgment at its original date of publication by Capitol Securities and are subject to change without notice. The price, value of and income from any of the securities mentioned in this report can fall as well as rise.

For more information on this report, please contact us at 800.612.1484 or write to Capitol Securities, 100 Concourse Boulevard, Suite 101, Glen Allen, Virginia 23059