



June 21, 2017

CURRENT PRICE: \$5.62
RATING: BUY
PRICE TARGET: \$10
CURRENT YIELD: N/A

EPS Estimates - GAAP

	DEC 16A	DEC 17E
1Q	(\$0.22)	(\$0.32)A
2Q	\$0.07	(\$0.30)
3Q	(\$0.21)	(\$0.29)
4Q	(\$0.38)	(\$0.19)
	(\$0.74)	(\$1.10)

Trading Data

52-WEEK PRICE RANGE: \$6.48-\$4.20
SHARES OUTSTANDING: 32.2(M)
MARKET CAP: \$181.0(M)
AVG. DAILY TRADING VOLUME: 0.2(M)
S&P 500: 2,436

Valuation Data

BOOK VALUE: \$2.92
PRICE TO BOOK: 1.92x
DIVIDEND: n/a

MAXWELL TECHNOLOGIES, Inc. (NSDQ: MXWL)

1Q17 results & \$47 million cash infusion

Highlights

- 1Q17 GAAP earnings of (\$0.32)/share vs.(\$0.22)/share
- Sequential quarterly improvement
- \$47 million cash infusion from SDIC
- Potential of higher revenues in 2018
- Maintain BUY rating & \$10/share price target

Investment Thesis

The recent sell-off in this stock has created an attractive entry point for speculative/aggressive investors seeking above average appreciation potential, from MXWL's shares during the next 6-18 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 vehicle emissions.

Company Summary

Maxwell Technologies (MXWL-\$5.62), 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 two primary items; ultracapacitors and high-voltage capacitors. Internal manufacturing is done at facilities in Phoenix AZ and Rossens Switzerland. 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.



BUSINESS OVERVIEW

MXWL has two primary products: Ultracapacitors and High-Voltage Capacitors.

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.

In 2016 MXWL sold its Radiation-Hardened Microelectronic Products business to Data Device Corporation for approximately \$21 million in cash. MXWL recognized a pre-tax gain of \$6.66 million.

MXWL recently announced it was buying Nesscap Energy Business, a producer of small sized ultracapacitors, for \$23.75 million, with newly issued stock. Management believes Nesscap's products will compliment MXWL's larger-sized ultracapacitors.

MXWL TRANSITIONING SALES/GROWTH EFFORTS

During the past 3 years there has been a change in MXWL's management team and sales strategy with the objective of diversifying its targets markets and grow revenues. CEO, Dr. Franz Fink joined the company in May 2014 and hired a new CFO, David Lyle, and employed new people for key/strategic positions. Dr. Henning Hauenstein became MXWL's Vice President of Strategy/Marketing after working at Infineon Technologies for 10 years as Senior Vice President /General Manager of the automotive business segment.

MXWL's new management group saw the need to shift MXWL away from the Chinese government subsidy-dependent hybrid bus business and diversify into other sectors moving towards mandated energy efficient standards set for 2020. These other sectors include electric/utility grid systems, wind generation, railroad systems, automotive, and truck sectors. To this end, plans are to work with existing customers and establish new strategic partnerships to assist funding of key technologies/ solutions to accelerate the broader commercialization of MXWL's products. For example, agreements have been signed with Corning (GLW-\$27.34) to develop/market MXWL's, and with Duke Energy (DUK-\$82.68) and US and foreign railroad systems to employ products in their electrical grid systems.



In another example, two of the three US truck OEMs, Kenillworth and Peterbilt, now offer MXWL's products and expectations are the third, now in the fifth season of testing, may also offer the same sometime during the next 12 months.

MXWL completed its purchase Nesscap Energy Business for \$23.75 million. The acquisition was paid for with newly issued shares of MXWL stock. Nesscap produces smaller sized ultracapacitor products and will compliment its larger ultracapacitor products

Management announced it was expanding the partnership with China Railway Rolling Stock Corporation (CRRC). The expansion will localize manufacturing of MXWL's ultracapacitor-based modules for use in the China green energy bus market during 2H17. CRRC will exclusively use MXWL's 2.7-volt and 3-volt ultracapacitor cells in local production lines and manufacture the products

MXWL unveiled a new Generator Starting Solutions (GSS) product line geared to start commercial/industrial standby/backup generators.

Another area MXWL sees as a potential new avenue of revenues is in the dry electrode battery technology area. Management's objective is to partner with automotive and energy storage industry leaders. Hopes are this area could "unlock new application forms" in this area for MXWL products and generate a new revenue stream beginning in 2022.

RECENT DEVELOPMENTS

MXWL announced the appointment of Thibault Kassir as Vice President and General Manager of the company's global energy storage product line.

The company completed its previously announced acquisition of Nesscap Energy Inc., pursuant to the announced agreement on 2/28/17. As a result, MXWL issued 4.15 million shares of its common stock and assumed Nesscap's ordinary liabilities. Nesscap produces smaller sized ultracapacitor products.

MXWL announced it entered into a cooperation agreement with Viex Capitol Advisors, LLC and its affiliates (Viex) in which MXWL agreed to appoint John Mutch as an independent director to its Board of Directors. Both parties agreed to reduce the size of MXWL's Board of Director to 8, following MXWL's 2017 shareholder meeting.

MXWL signed a \$47 million strategic equity investment agreement with China's SDOC Fund Management Co., Ltd. Under the agreement, SDIC will hold approximately 19.9% of MXWL's stock at a purchase price of \$6.32/share, a premium to MXWL's current stock price. Before transactional costs, this deal will generate approximately \$46.6 million in cash for MXWL. SDIC has significant investments in China's energy storage industry, including top battery companies, major system integrators in the new energy market, and leading OEMS in the Chinese auto/grid industries.



EQUITY RESEARCH

RECENT EARNINGS

MXWL reported 1Q17 GAAP earnings of (\$0.32)/share vs. (\$0.22)/share during 1Q16. The decline in operating results was due to lower revenues and gross profit margins. Revenues decreased to \$26.7 million from \$35.2 million and gross profit margins fell to 23% from 27% when comparing the two quarters. The majority of revenue decline came from ultracapacitors sales falling to \$14.2 million from \$23.5 million, due to lower China bus sales, and the absence of microelectronic sales resulting from the sale of the business last year.

Total operating expenses were lower, \$15.2 million vs. \$15.9 million, because of recent cost cutting efforts. SG&A expense dropped slightly to \$9.54 million from \$9.59 million while R&D decreased to \$4.7 million from \$4.8 million. Restructuring and exit costs increased to \$997,000 from \$0.

Management has moved to realign MXWL's revenue growth opportunities and lower operating expenses during the past two year. When comparing 1Q17 to 4Q16, there was sequential improvement as revenues rose slightly to \$26.7 million from \$26.4 million as ultracapacitor sales increased to \$14.2 million from \$12.7 million. The increase was partly offset by lower high-voltage sales of \$12.5 million vs. \$13.7 million. Operating expenses, on a sequential quarterly basis, fell to \$15.2 million from \$15.6 million

Non-GAAP earnings decreased to (\$0.23)/share from (\$0.14)/share when comparing 1Q17 to 1Q16.

Our Thoughts

MXWL is rated a BUY for patient aggressive/speculative investors seeking above average appreciation in a small cap alternative energy stock. Due to the Chinese government shifting "green energy" subsidies during the past two years, management has transformed MXWL's focus away from its dependence on the Chinese bus sector towards the automotive sector, and selling products deeper into the trucking, rail, wind, and smart grid sectors. These areas are seeking to become more efficient during the next 3-7 years and could potentially deploy MXWL's product lines.

While this has been a slow transformative process for MXWL, there may finally be "light at the end of the tunnel" in 2018 when looking at the sequential quarterly results. While 1Q17's loss of \$0.32/share vs. a loss of \$0.22/share is nothing to get excited about, sequential quarterly results may hint at a bottom for MXWL's results. This is possible as the company's cost cutting efforts reduced operating expenses and revenues improved when comparing 1Q17 to 4Q16. MXWL's estimate of a positive revenue growth "inflection point", materializing during 2018, could be the precursor for potential positive quarterly earnings by late 2H18 or 1H19. Fortunately, MXWL has very little debt allowing it to tread water until potential profits materialize next year. Additionally, the \$47 million in cash infusion from SDIC bolsters MXWL's balance sheet and provides funding for new product development. Should



MXWL successfully navigate itself towards profitability, then its stock appears undervalued at current levels. Our price target is \$10/share, equating to MXWL trading at 8.3x our Enterprise Value/Revenues multiple bases on our 2017 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.

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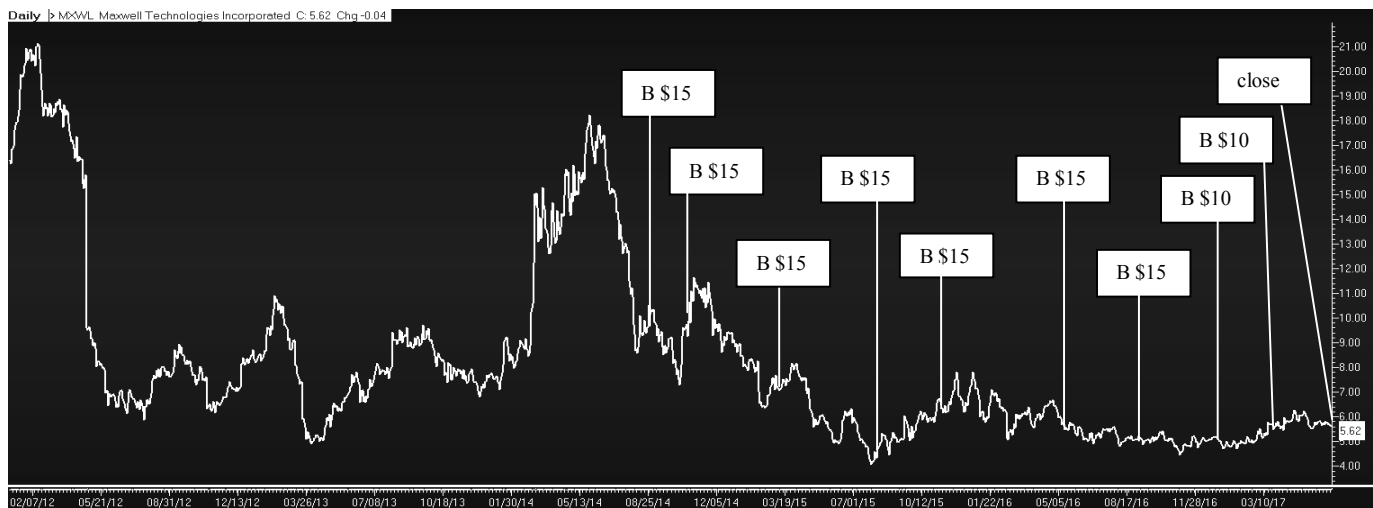


EQUITY RESEARCH

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

	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17e	3Q17e	4Q17e	2017e
Revenue	\$35,203	\$34,135	\$25,506	\$26,400	\$121,244	\$26,686	\$35,463	\$35,271	\$36,392	\$133,812
Cost of revenue	25,550	24,154	17,878	20,692	88,274	20,049	27,661	27,159	25,839	100,708
Gross profit	9,653	9,981	7,628	5,708	\$32,970	6,191	7,802	8,112	10,553	32,658
Operating expenses:										
Selling, general, & administrative	10,098	8,223	8,374	9,586	36,281	9,540	10,629	10,694	10,650	41,513
Research & development	5,607	5,461	5,193	4,783	20,889	7,686	8,361	6,322	6,217	28,586
Amortization of intangibles										
Restructuring/exit costs	188	109			297	997				997
Asset Impairment charges			155	1,234	1,389					
Total operating expenses	15,893	13,793	13,567	15,603	58,856	15,223	16,990	17,016	16,867	66,096
Income/(loss) from operations	-6,240	-3,812	-5,939	-9,895	-25,886	-9,032	-9,188	-8,904	-6,314	-33,438
Gain on asset sale		6,657			6,657					
Interest expense, net	65	66	48	69	248	63	65	67	68	263
Other Income	84	47	5	3	133	1	4	28	84	117
Amort of debt discount/prepaid debt costs										
Debt discount amort/prepaid debt costs										
For. Currency loss, gain	130	64	49	36	216	97	56	84	32	269
Income before income taxes	-6,365	2,767	-6,031	-9,931	-19,560	-9,191	-9,305	-9,027	-6,330	-33,853
Income taxes	483	600	824	2,238	4,145	1,208	1,193	1,139	529	4,069
Net income	(\$6,848)	\$2,167	(\$6,855)	(\$12,169)	(\$23,705)	(\$10,399)	(\$10,498)	(\$10,216)	(\$6,859)	(\$37,972)
Net income per share (diluted)	(\$0.22)	\$0.07	(\$0.21)	(\$0.38)	(\$0.74)	(\$0.32)	(\$0.30)	(\$0.29)	(\$0.19)	(\$1.10)
Shares outstanding (diluted)	31,650	32,027	31,989	31,995	31,870	32,200	35,500	35,500	35,500	35,500

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
 1/5/17 Lower price target to \$10
 Ratings-
 BUY: B
 HOLD: H
 SELL: S

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Our price target is \$10/share, equating to 8.3x our Enterprise Value/Revenue multiple based on our 2017 revenue estimate

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- (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.

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