

GigPeak, Inc.
NYSE:GIG

Analyst: Audrey Barrucand
Sector: Technology

BUY

Price Target: \$3.75

Key Statistics as of 11/18/16

Market Price: \$2.78
Industry: Semiconductor Devices
Market Cap: \$189.66 M
52-Week Range: \$1.61 - \$3.42
Beta: 1.91

Catalysts:

- Q4 2016 Earnings Announcement
- New product launches
- Mergers and acquisitions

Company Description:

GigPeak is a semiconductor designer, developer, and supplier of a wide range of components to enable high speed information streaming over the telecom networks, data center infrastructures, and consumer electronics. GIG is a leading innovator of ICs and solutions for high-speed connectivity and high-quality video compression over the network and the cloud. Market-leading products include ASCI chips, integrated circuits, and streaming solutions. GigPeak markets its products in the United States, Asia, and Europe. The company was founded in 2007 by the current CEO and Chairman of the Board of Directors, Dr. Avi Katz, and is headquartered in San Jose, California.



Thesis

- GigPeak focuses on the future of certain areas in technology. It is currently the only supplier of specific products that will be needed in the market by early 2017.
- The company bought 8 companies since 2007 to increase its product lines and to grow, while managing to issue very little debt.
- It is a growth company with a big potential for further development across the industry.

Industry Outlook

The technology sector is a fast growing sector because of the constant innovations in products. Companies have to be able to keep track and adapt to the constant changes in demand and in products in general. In the semiconductor industry, it is the same as changes happen very quickly and companies have to be able to adapt quickly to better performing chips. Looking at the future of the industry, it is expected to bring more

Figure 16. Semiconductor revenue and growth forecast, worldwide, 2010–2017



revenues to technology companies each year, from around \$347.9 B in 2015 to around \$382 B in 2017. Even if revenues are expected to grow at a slower pace than in the past, technology keeps changing, innovation will always be required, and it will bring new revenues for such companies.

In the past few years, the industry has been growing because of the increasing demand for improved and faster technology. In fact, the at-home viewing of videos by teens has increased by 85% since 2011 and is expected to increase more with the next generations. Other than that, there is increasing potential in the data centers business. Indeed, 6 million new servers are expected to be installed worldwide every year for the next 10 years, which would allow companies like GigPeak to grow their data center business.

Product Differentiation

GigPeak currently has many products on the market, which are separated into 2 different segments: Above the Cloud and Below the Cloud. Above the Cloud includes high-speed and high-quality cloud enterprise connectivity products whereas Below the Cloud includes the wireless access products and the ASIC (Application-Specific Integrated Circuit) base products.



As part of the Above the Cloud segment, GIG has 2 product lines: GX and HX. The GX line focuses on telecom, core, and metro networks. It differentiates itself from other products made by competitors through chips and drivers made for all speeds and

formats, and through its leadership in 100Gbps to 400Gbps drivers that are becoming prime technology for those networks. As for the HX product line, it focuses on data center communications. To differentiate itself from competitors, GIG became the sole merchant supplier for 40Gbps ICs (Integrated Circuits), and developed a complete 100Gbps ICs product portfolio with best-in-class performance. Additionally, the HX product line serves professional broadcast and IP video streaming solutions. These products are being developed to address the next wave of video generation and distribution applications which will be introduced in the next couple of years. By offering this line of product, GIG's goal is to increase the efficiency of the pipe serving the cloud, which would allow them to offer an integral solution to clients.

As part of the Below the Cloud segment, GIG has another 2 product lines: EX and CX. The EX line focuses on wireless access products and 5G applications through solid technology platforms for 5G applications and differentiating ASIC chips with best output power performance. Through its highly profitable ASIC base products, GIG has been able to make very high margins; this line also accounts for 25% of revenues. As for the CX product line, it focuses on solutions for the Internet of Things (IoT) and differentiates itself through its extensive experience with ultra-high-speed interfaces and its capability to address sophisticated IoT applications.

Furthermore, GigPeak differentiates itself from other technology companies through the fact that they currently are the only company with all 3 generations of speed required for future needs. Nowadays, data center infrastructures worldwide use the 40Gbps per second technology. The next steps would be a 100Gbps per second and a 200Gbps per second technologies. Most carriers will start the upgrade of their metro infrastructure to the 100Gbps technology by early 2017, because of the growing size and ongoing expansion of data center infrastructures. Today, GIG is the only supplier of PAM4 drivers, which are needed for the 200Gbps per second technology. This technology will allow them to differentiate themselves and become the leader in the market. Currently, the 40Gbps per second chips already account for around 30% of the company's revenues. The 100Gbps shipments are expected to grow at a CAGR of 25% to 30% through 2020. Since revenue growth is primarily driven by the constant demand from all major Web 2.0 data centers EOMs, the potential revenue growth for the company could be colossal.

GigPeak will also take advantage of the mass proliferation of broadcasting and networking data center services in China. Next year, China will expand its next-generation optical infrastructure throughout 100 new cities, each populated of at least 1 million people. This new opportunity will allow the company to provide huge Greenfield installations around the world and will bring big revenues in the future.

Looking at the current revenues for both segments, Above the Cloud brings around 2/3 of total revenues and Below the Cloud brings the other 1/3 as of Q3 2016.

Acquisitions to Expand Product Lines and Customer Base

Since 2007, GigPeak has made seven acquisitions of companies that allowed them to expand their lines of product and their customer base. With those acquisitions, their customer base broadened to include the following companies:

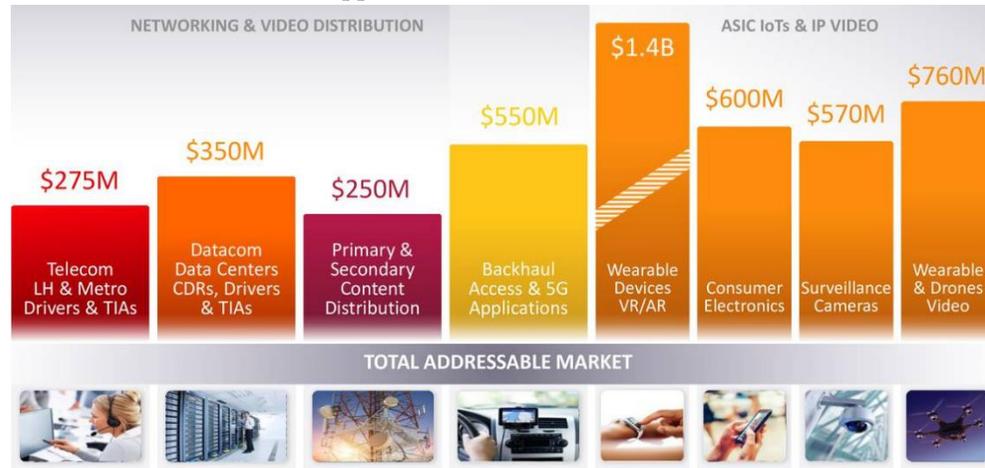


The latest acquisitions include Terasquare in December 2015 which brought GIG high speed communication interface semiconductors needed to find solutions for the Internet of Things. GIG's most recent acquisition is Magnum Semiconductors, Inc. in April 2016, a company specialized on products for the professional video broadcast and IoT camera markets. With this acquisition, GigPeak changed its company name from previously GigOptix in order to capture its broader market reach.

Even with those acquisitions, GIG has managed to keep its debt level to a minimum. In 2011 and 2012, it had \$0.7M and \$0.3M respectively in debt but as of the end of FY 2015, the company has been debt free. Looking at its competitors, they are either debt free or have a high D/E ratio because technology requires a lot of investments.

Growth Opportunity

With its acquisitions, GigPeak has many new market opportunities for 2017. Below are the 2017 estimates of those opportunities for GIG.



As shown, GIG would have more opportunities to grow in many of its product lines and to create new lines of products that could bring up to \$1.4 B in revenues.

To take advantage of these opportunities, the company can rely on its proven executive management team, made of 5 skilled and experienced executives, its global diversified customer base of around 70 companies, its highly differentiated technology portfolio, and its disciplined M&A strategy which is driving scale and growth. Additionally, the company has the opportunity to address high margin market opportunities with its track record of growing revenue and improving profit margins.

Financials

GigPeak has total revenues of \$40.4M in 2015, up by 23% from \$32.9M in 2014, and a net income of \$1.2M up from \$-5.8M in the same time period.

GigPeak's financials are consistent with those of its similarly-sized competitors. It has a gross margin of 65.10%, which is the highest among its competitors. Its operating margin is 21.70% and its net margin is 10.70%.

Competitors	Market Cap.	Gross Margin	Operating Margin	Net Margin
GigPeak, Inc.	\$191M	65.10%	21.70%	10.70%
DSP Group, Inc.	\$268M	41.70%	5.30%	3.40%
Sigma Designs, Inc.	\$305M	51.50%	-1.70%	-5.60%
Neophotonics Corp.	\$563M	31.50%	7.30%	6.10%

As for its P/E ratio, it is high but similar to its competitors, which makes it a normal P/E for the industry it is in. As for its ROIC, it is the highest compared to its competitors, with 2.68%.

Competitors	Market Cap.	D/E	P/E	ROIC
GigPeak, Inc.	\$191M	0.01	24.75	2.68
DSP Group, Inc.	\$268M	0.00	36.4	0.43
Sigma Designs, Inc.	\$305M	0.00	25.1	-0.02
Neophotonics Corp.	\$563M	20.87	22.2	0.01

GigPeak is a growth company that has been succeeding at earning higher revenues and making higher margins through acquisitions, and that has seen its revenue grow at a CAGR of over 20% from 2009 to 2015. See here its growth history, with the corresponding acquisitions.



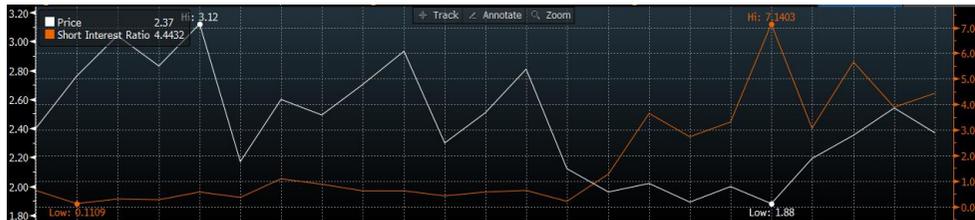
The effect of the acquisitions on revenue and on NI is significant and the company has been able to keep growing through these acquisitions and will keep growing if it keeps following its current strategy.

Looking at the ROIC/WACC, it is higher than the company's competitors, mostly due to a smaller WACC. Looking at GIG's ROIC, the latest one is bigger and shows that the company is making more and more returns on invested capital.

ROIC			WACC		
	History	LFY		History	LFY
GIG	12.1%	13.5%	GIG	10.5%	10.6%
Competitors	12.3%	11.6%	Competitors	12.0%	11.5%

ROIC /WACC		
	History	LFY
GIG	1.15	1.27
Competitors	1.02	1.01

Additionally, the short interest ratio is low, with only 4.44, up from 3.88 as of end of October.



Moreover, the company is mostly owned by investment advisers (61.54%) and by hedge fund managers (24.97%), and by individuals (11.85%), mostly private investors and the founders of the company.

54) Ownership Type	11/13/16	Curr	Change
41) Investment Advisor	58.28	61.54	+3.26
42) Hedge Fund Manager	28.68	24.97	-3.71
43) Individual	11.42	11.85	+0.43
44) Pension Fund	1.00	1.03	+0.03
45) Brokerage	0.37	0.36	-0.01
46) Bank	0.23	0.23	0.00
47) Insurance Company	0.02	0.02	0.00

Risks

Even if GigPeak has been increasing its customer base, it still faces risks of big loss in revenues. In fact, a major part of their revenues come from only a few customers. Alcatel-Lucent, now Nokia, and 3 distributors in China, the USA, and Taiwan accounted for 23%, 16%, 11%, and 10% of its total revenues. This poses a risk for the company because if they happen to lose one of these contracts, their revenues would drop significantly, and the stock price would go down with it.

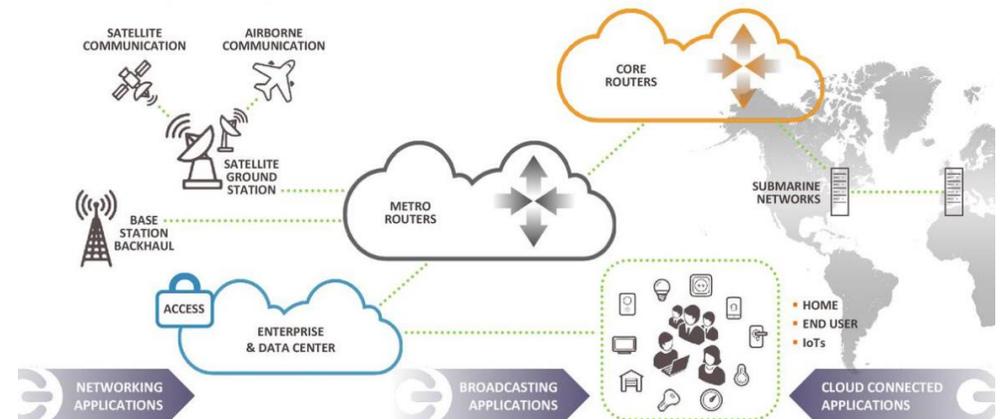
The company also has a limited number of third-party manufacturers, located in China, Japan, the Philippines, Taiwan, Thailand, and the United States. Keeping good relationships with these companies is instrumental to the sales' well-being.

These risks caused by potential disruptions in the sale of its products would gravely impact GIG's stock price and would cause the company damage.

Summary

GigPeak is a BUY because of its growth potential in the future and its current strategy of growth through acquisitions and through developing new products in new areas. It is the leader in certain markets and is the only supplier for products that will have to hit the market early next year. It has the potential and lack of debt that would allow it to even further develop across the industry.

To conclude, the below image is a summary of their focused mission.



GigPeak, Inc. (GIG)

CENTER FOR GLOBAL FINANCIAL STUDIES

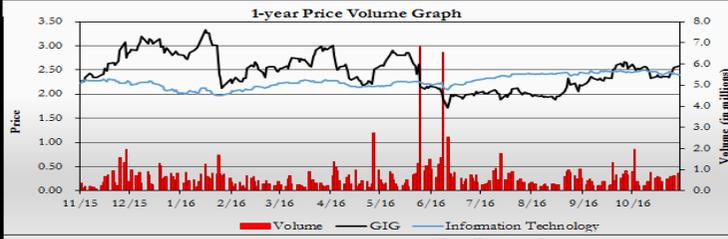
BULLISH

Analysis by Audrey Barrucand
11/17/2016

Current Price: \$2.80
Divident Yield: 0.0%

Intrinsic Value: \$2.74
Target Price: \$3.54

Target 1 year Return: 26.29%
Probability of Price Increase: 99.8%



Description
GigPeak, Inc. provides semiconductor ICs and software solutions for high-speed connectivity and video compression over the network and the cloud.

General Information
Sector: Information Technology
Industry: Semiconductors and Semiconductor Equipment
Last Guidance: November 3, 2015
Next earnings date: February 8, 2017
Estimated Country Risk Premium: 8.84%
Effective Tax rate: 25%
Effective Operating Tax rate: 25%

Market Data

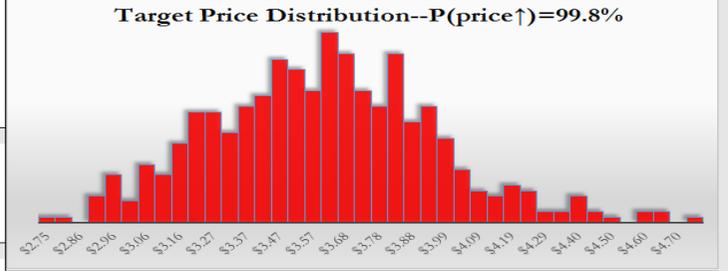
Market Capitalization	\$189.66
Daily volume (mil)	0.52
Shares outstanding (mil)	67.74
Diluted shares outstanding (mil)	55.60
% shares held by institutions	74%
% shares held by investments Managers	25%
% shares held by hedge funds	9%
% shares held by insiders	5.20%
Short interest	4.03%
Days to cover short interest	5.10
52 week high	\$3.42
52-week low	\$1.61
Levered Beta	2.05
Volatility	65.47%

Past Earning Surprises

Quarter ending	Revenue	EBITDA
9/27/2015	0.84%	-42.68%
12/31/2015	-0.29%	-67.36%
3/27/2016	1.45%	-77.35%
6/26/2016	1.11%	-47.69%
9/25/2016	1.26%	-48.90%
Mean	0.87%	-56.80%
Standard error	0.3%	6.6%

Peers

GSI Technology Inc.	-7.65% per annum over 5y
Pixelworks, Inc.	-7.65% per annum over 5y
Intermolecular, Inc.	153.33% per annum over 1y
CEVA Inc.	N/M
Inphi Corporation	N/M
Sigma Designs, Inc.	N/M
Monolithic Power Systems, Inc.	N/M
Exar Corp.	N/M



Management

Katz, Avishay	Co-Founder, Chairman, Chief
Betti-Berutto, Andrea	Founder, Chief Technical Off
Dinu, Rabuca	Chief Operating Officer
Ma, Darren	Chief Financial Officer and
Chaudhry, Anil	Vice President of Government
Choate, Steve	Vice President of Operations

Profitability

	GIG (LTM)	GIG (5 years historical average)	Industry (LTM)
ROIC	12.1%	4.32%	12.27%
NOPAT Margin	15%	4.08%	20.3%
Revenue/Invested Capital	0.79	1.06	0.60
ROE	10.4%	2.87%	13.82%
Adjusted net margin	14%	3.50%	18.5%
Revenue/Adjusted Book Value	0.72	0.82	0.75

Invested Funds

	GIG (LTM)	GIG (5 years historical average)	Industry (LTM)
Total Cash/Total Capital	23.4%	26.1%	41%
Estimated Operating Cash/Total Capital	18.1%	21.5%	N/A
Non-cash working Capital/Total Capital	6.8%	8.2%	8%
Invested Capital/Total Capital	49.1%	66.0%	54%

Capital Structure

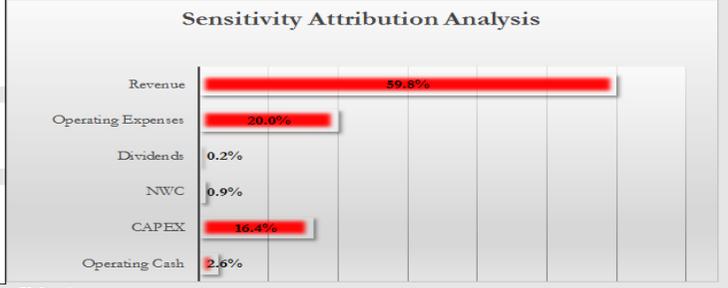
	GIG (LTM)	GIG (5 years historical average)	Industry (LTM)
Total Debt/Common Equity (LTM)	0.09	0.06	0.16
Cost of Existing Debt	12.09%	6.05%	3.17%
Estimated Cost of new Borrowing	4.77%	5.60%	3.17%
CGFS Risk Rating	CC	C	CC
Unlevered Beta (LTM)	2.04	2.25	1.23
WACC	22.05%	23.59%	14.51%

Total return to shareholders

Period	Revenue growth	Valuation
Base Year	39.7%	15.2%
9/25/2017	23.7%	30.7%
9/25/2018	18.4%	27.7%
9/25/2019	16.8%	27.9%
9/25/2020	15.2%	27.9%
9/25/2021	13.6%	27.9%
9/25/2022	12.1%	28.0%
9/25/2023	10.5%	28.1%
9/25/2024	8.9%	28.1%
9/25/2025	7.3%	28.2%
9/25/2026	5.7%	28.2%
Continuing Period	4.1%	28.2%

ROIC/WACC

Period	Invested Capital	Net Claims	Price per share
Base Year	\$22.45	\$5.11	\$2.68
9/25/2017	\$42.28	-\$5.58	\$3.45
9/25/2018	\$50.16	-\$19.26	\$4.30
9/25/2019	\$56.60	-\$36.03	\$5.25
9/25/2020	\$67.47	-\$55.95	\$6.29
9/25/2021	\$80.47	-\$79.54	\$7.41
9/25/2022	\$100.23	-\$107.14	\$8.60
9/25/2023	\$118.08	-\$138.95	\$9.85
9/25/2024	\$137.42	-\$175.04	\$11.12
9/25/2025	\$157.83	-\$215.35	\$12.41
9/25/2026	\$179.05	-\$259.61	\$13.67
Continuing Period			



Porter's 5 forces (scores are out of 100)

