

Integrated Device Technology, Inc.

NASDAQ: IDTI

Analyst: Austin Bitzas

Sector: Technology

BUY

Price Target: \$23.91

Key Statistics as of 4/08/2016

Market Price:	\$19.26
Industry:	Semiconductor - Broad Line
Market Cap:	\$2,772.44M
52-Week Range:	\$14.50-29.04
Beta:	2.15

Thesis Points:

- Due to IDT's innovative wireless technology and consistent partnerships they have effectively been gaining value, supported by their strong growth margins
- Recent acquisition with ZDMI expands IDT's product portfolio allowing additional revenue in the growing automotive and industrial sectors
- IDT shows growth potential even after analysts over optimistic outlooks are accounted for
- Management strongly believes in IDT's ability to be able to adapt and remain ahead of their competitors with any direction the technology industry takes

Company Description:

Integrated Device Technology, Inc., or IDT, produces a broad range of semiconductor solutions that optimize their customer's applications in key markets. IDT's products are used in future development areas such as 4G infrastructure, network communications, cloud datacenters, mobile devices, and power management for computing. IDT was founded in 1980. Headquartered in San Jose, California is where IDT designs, develops, manufactures, and markets its semiconductor solutions worldwide.



Thesis

Integrated Device Technology, Inc., or IDT, is a value creating semiconductor company. This is supported by their increasing revenue and strong margins. IDT is also out performing its semi-conductor competitors. With acquiring Zentrum Mikroelektronik Dresden AG, or ZMDI, it has expanded its markets to the highly growing automotive and industrial sectors. IDT also remains innovative with their consistent new product releases. IDT is gaining a competitive advantage by partnering with industry leaders. The company's high ROIC/WACC margin shows IDT is increasing value at a higher rate than its competitors. The company plans to be at the leading end of the market in wireless mobile communication charges. IDT shows potential for future success no matter what direction the technology market takes. Even after analyst over optimistic projections were accounted for IDT has a target value of \$23.91. And after its latest earnings call on February 1st, 2016 IDT stock price plunged from \$25.50 to \$16.56. The stock only rose to about \$19 making it an opportune time for a long position buy.

Industry Outlook

The semiconductor industry is a constantly changing and adaptive industry. The industry has been expanding through billions of dollars invested in Research and Development. In addition, the semiconductor industry has a top tier importance in today's modern digital based lifestyle. The growth of the industry comes with issues in obsolete products with the average life cycle of a product lasting no longer than two years before a new generations come out. A short life cycle makes this industry so dependent on large amounts of capital. IDT has many well-known competitors of similar size and revenue which are included in the analysis as shown below.

COMPETITORS	SYMBOL
Cavium, Inc.	NasdaqGS:CAVM
Cirrus Logic Inc.	NasdaqGS:CRUS
Silicon Laboratories Inc.	NasdaqGS:SLAB
Intersil Corporation	NasdaqGS:ISIL
Skyworks Solutions Inc.	NasdaqGS:SWKS
Microsemi Corporation	NasdaqGS:MSCC
Lattice Semiconductor Corporation	NasdaqGS:LSCC
Fairchild Semiconductor International Inc.	NasdaqGS:FCS

Table 1:

ROIC /WACC			ROIC W/O GW		
	History	LFY	History	LFY	
IDTI	0.45	1.54	13.9%	55.1%	
Competitors	0.76	0.94	17.7%	21%	
ROIC			WACC		
	History	LFY	History	LFY	
IDTI	9.6%	33.8%	18.6%	21.9%	
Competitors	12.1%	13.7%	14.9%	14.6%	
Unlevered Beta			Capitalization (Debt/Equity)		
	History	LFY	History	LFY	
IDTI	1.63	2.15	-	0.07	
Competitors	1.38	1.34	0.05	0.06	
Capital Usage			EBITA Margin		
	History	LFY	History	LFY	
IDTI	1.83	3.1	12.2%	23.5%	
Competitors	1.42	1.4	16.4%	19.3%	
COR/Revenue			SGA/Revenue		
	History	LFY	History	LFY	
IDTI	44.2%	38.2%	19.3%	18.8%	
Competitors	51.6%	50.3%	15.0%	13.0%	
OOC/Revenue					
	History	LFY			
IDTI	20.0%	16.7%			
Competitors	12.3%	11.7%			

Table 1 shows how IDT is fundamentally compared to its competitors. IDT outperforms its competitors in ROIC/WACC margin. This shows that the company is gaining value unlike its competitors. Thanks to IDT's innovative wireless technology and consistent partnerships they have remained top of class. This allows them to effectively gain value supported by their strong growth margins. Furthermore, as shown in Table 1, IDT is out performing its competitors significantly when each ROIC and WACC are broken down. Especially when ROIC is conveyed excluding goodwill. This could be due to their recent acquisition with ZMDI attributing \$27m to goodwill. However, IDT illustrates a relatively high beta when compared to its competitors, which shows that there is more risk for investors to purchase IDT. This could be a result of the uncertainty in a growing company. Although, IDT has a relatively low D/E ratio when compared to its competitors proves IDT has been relatively timid in its approach to finance growth with debt. As a result, IDT is in a comfortable financial position. It was only with its recent acquisition in December that IDT has acquired any amount of debt. This expresses IDT is less risky in its endeavors. Capital usage for IDT has nearly doubled over the past year. When compared to its competitors in Table 1 it articulates that IDT is working at the top of its class for efficiency. This is further supported by a lower working capital. Whereas, competitors have stayed constant IDT has been able to decrease operating cost and produce nearly three times

the revenue per one dollar asset. Also, EBITA margin is higher than the company's competitors due to their lower operating cost. Thanks to closely working with industry leaders such as Dell, Intel, and Micron they have been able to qualify their components to meet Intel Xeon processor based system standards. This partnership among others such as Samsung mobile communication platform will enable IDT to be consistent with their high EBITA margins and low operating cost. Sales, general and administrative expense is a topic for improvement for IDT. As shown the companies SGA/Revenue is much higher than its competitors. This can be a positive result of the capital they are not spending in operating costs. This allows IDT to put more money into their business model. Either way, this leaves room for improvement in the future.

ZMDI acquisition

On December 7th, 2015 Integrated Device Technology, Inc. completed its acquisition of privately held primary German company, Zentrum Mikroelektronik Dresden AG, or ZMDI, for \$307million. \$279.14million was in net cash, and the extra \$27m counted for goodwill, which was incurred through bank loans. The acquisition of ZMDI expands IDT's product portfolio. This allows IDT to have positions in the growing markets of automotive, industrial business, high-performance programmable power devices, and signal conditioning solutions. ZMDI was well known and had well known customers of:

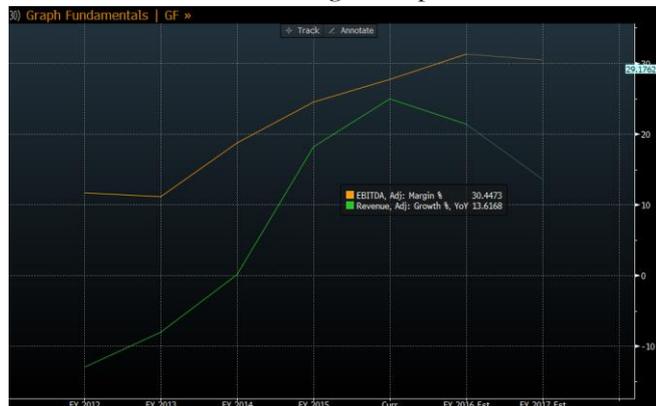


Financials

On February 1st, 2016 Integrated Device Technology, Inc. announced its third quarter results. IDT generated a third quarter fiscal total revenue of \$177.6million (\$3.4m from ZMDI), a 17.5% increase from a year ago. Revenue is also expected to increase to \$187m (+/- \$5m) a year from now. Earnings per share increased \$0.10 to reach \$0.35 per share. In the operating model of the company the new automotive and industrial

business is expected to contribute to revenue and earnings per share increases. However, on February 2nd IDT's stock price plummeted about 29% due to less impressive guidance provided during their conference call. IDT fell short of analysts' estimates predicting significantly higher fiscal fourth quarter revenue of \$196.7 million. Thus, resulting in a drastic drop in stock price. Some of this revenue decrease was a result of seasonal declines in communications and computing. Although, there was a 38% increase in the consumer market. Thanks to wireless power customer product ramps. An increase of about \$14million in revenue from their new automotive and industrial segment was noted. In addition, IDT has 48% of total sales from communication infrastructure business. Thanks to IDT's promising product differentiation in wireless charges and 4.5 and 5G services it provides IDT with opportunity for improvement. Also, communications and infrastructure has also grown 18% in the past year and projected to continue growing. This sharp drop was unwarranted since IDT is still growing in revenue and earnings. Gross margin has steadily been growing since 2011 from 54.9% to 62.6% in the last 12months. This signals greater efficiency in percent of total sales revenue. Thus, IDT retains more after direct costs when producing their products. According, to IDT's latest earnings call gross margin is to remain above 61% in the coming year. With the addition of nine quarters of consecutive revenue growth the company set an all-time high free cash flow margin of about 31.52% for 2015. Also, IDT is ahead of their business model by executing their target of 30% operating income and 30% free cash flow. They will continue to realize further gains as synergies with ZMDI are realized. During the fiscal third quarter, IDT's board announced another increase in share repurchase of \$300m. This was done at an accelerated pace of \$255m this quarter, or approximately 10.1m shares. In Q2 there was also 570,000 shares repurchased. This is a good signal that management believes the company's shares are currently undervalued. Further, with a growing EBITDA margin of 18.7x for 2014 and 27.7x in the last 12months signals value for the company. EBITDA is also growing at a faster rate than IDT's competitors. It also may be noted that EBITDA has increased in 2015 at a rate of about 24.6%. This is faster than revenue that increased by 18.2%. EBITDA and revenue are projected to continue to increase with EBITDA increasing at a faster rate than revenue. This represents that the

company is increasing in value. As shown in the graph below the “yellow” line is EBITDA growth percent and the “Green” line is revenue growth percent.



Valuation

As mentioned, IDT had a recent decline in par with the macro market at the start of 2016. Indeed, IDT stock price plunged from \$25.50 to \$16.56. The stock only rose to about \$19. IDT has begun to recover with the market since mid-February. An intrinsic value of \$18.37, and a 1 year target value of \$23.91 was projected using the proforma. When evaluating IDT a less optimistic approach was taken. This was due to analyst reports on projected EBITDA being over estimated by 13.46% over the past 5 quarters. This overestimate in EBITDA was accounted for by using the low analyst estimates rather than the median estimates. Thus, taking a more realistic approach when valuing IDT. Therefore, projected operating cost/revenue was also adjusted. Operating cost/revenue was projected by analysts to converge down to 55% in 2023 from their current 73.8%. Due to analyst over optimistic projections of EBITDA operating cost/ revenue was estimated to converge to 60%. Thanks to the company’s ROA at 9.9% for the last year this advocates IDT’s high operating returns are able to be maintained. Even after these adjustments are made there is a 99.5% chance that IDT will increase in price a year from now warranting a long buy position.

Future

IDT has produced a number of state-of-the-art and award-winning products. They have especially been focusing on the hardware and software enabling devices to be charged through wireless technology. IDT has just announced that it has partnered with Samsung to deliver wireless charging for the Galaxy S7, among other Samsung products. This wireless technology enables both companies to have a competitive advantage. This is done through higher

efficiency, allowing users to charge up to 1.4 times faster than normal. IDT has strengthened their power management product segment enabling customers to optimize, monitor, and control high-power supply systems through a high-performance dual-phase digital power controller. The markets of telecommunications, server, storage, and infrastructure have been growing in demand for new innovative products. IDT has consistently supplied the demand. The second-generation device, ZSPM1363 digital pulse-width modulation controller, allows design time to be reduced. This done while simplifying the product use, and lowering system costs. The most recent product release for IDT is their three part chipset. IDT has been working with industry leaders such as Dell, Intel, and Micron, which has allowed vast performance gains in IDT’s product mix. IDT’s new chipset has a wide range of benefits. The system delivers industry-leading performance per watt, memory capacity, and signal integrity. This allows operations to take place at the highest possible speeds. IDT has been consistently providing competitive chip chipsets, and best in class products. They have meet performance, power, and memory requirements in a competitive ever changing industry.

Summary

Integrated Device Technology, Inc.’s management, according to the last earnings call, is in support of the company expanding towards the latter half of 2016 leading into 2017. Even after yearly seasonal shifts, and a hostile macro environment IDT has still has performed in the top tier of the semiconductor industry. IDT’s recent stock decline was due to analysts expecting greater gains in revenue then reported in the most recent earnings call. IDT is gaining a competitive advantage by partnering with industry leaders. Management sees opportunity in their new products and believes no matter what direction the technology sector goes they have the resources and ability to adapt to remain top of their class. With a projected target price of \$23.91 IDT is a long position buy. IDT has a promising future supported by their margins with their consistent release of innovative products maintaining their top of class position.

Integrated Device Technology, Inc. (IDTI)

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BULLISH

Analysis by Austin Bitzas

Current Price: \$19.26

Intrinsic Value: \$18.39

Target Price: \$23.91

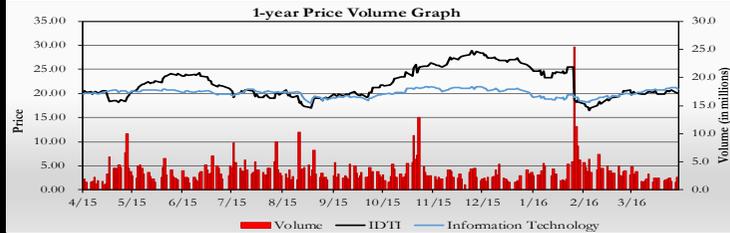
Target 1 year Return: 24.14%

Probability of Price Increase: 99.5%

4/9/2016

Divident Yield: 0.0%

Target Price: \$23.91



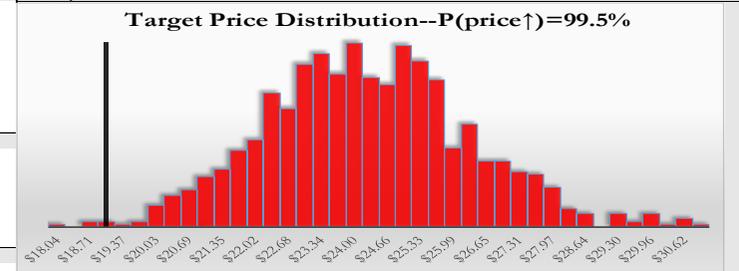
Description
Integrated Device Technology, Inc. designs, develops, manufactures, and markets a range of semiconductor solutions for the communications, computing, and consumer industries worldwide.

Market Data	
Market Capitalization	\$2,607.29
Daily volume (mil)	3.96
Shares outstanding (mil)	135.37
Diluted shares outstanding (mil)	151.52
% shares held by institutions	101%
% shares held by investments Managers	81%
% shares held by hedge funds	11%
% shares held by insiders	0.44%
Short interest	5.07%
Days to cover short interest	1.97
52 week high	\$29.04
52-week low	\$14.50
Levered Beta	2.15
Volatility	41.29%

General Information	
Sector	Information Technology
Industry	Semiconductors and Semiconductor Equipment
Last Guidance	November 3, 2015
Next earnings date	May 4, 2016
Estimated Country Risk Premium	8.54%
Effective Tax rate	25%
Effective Operating Tax rate	14%

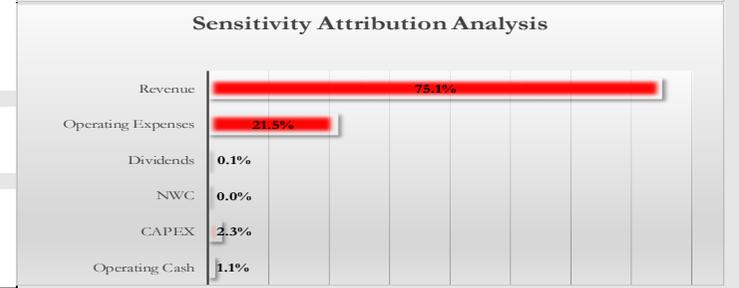
Past Earning Surprises	
Quarter ending	Revenue
12/28/2014	5.94%
3/29/2015	0.29%
6/28/2015	0.40%
9/27/2015	1.80%
1/3/2016	1.82%
Mean	2.05%
Standard error	1.0%

Peers	
Cavium, Inc.	
Cirrus Logic Inc.	
Silicon Laboratories Inc.	
Intersil Corporation	
Skyworks Solutions Inc.	
Microsemi Corporation	
Lattice Semiconductor Corporation	
Fairchild Semiconductor International Inc.	



Management	
Waters, Gregory	Chief Executive Officer, Pre
White, Brian	Chief Financial Officer and
Chitupeddi, Sailesh	Chief Technology Officer and
Fan, Xianzhi	Vice President and General M
Naghavi, Arman	Consultant
Brandalise, Matthew	Vice President, General Coun

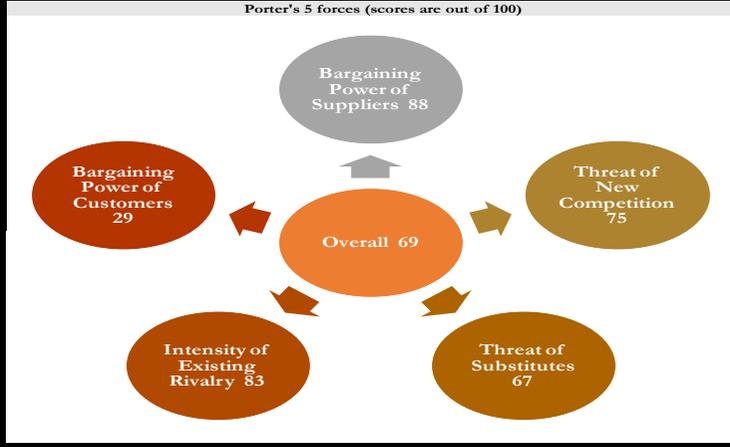
Total compensations growth	
198.42% per annum over 1y	
148.34% per annum over 1y	
N/M	
38.9% per annum over 1y	
20.76% per annum over 5y	
N/M	



Profitability	
ROIC	37.2%
NOPAT Margin	26%
Revenue/Invested Capital	1.42
ROE	19.4%
Adjusted net margin	26%
Revenue/Adjusted Book Value	0.75

Industry (LTM)	
EBITDA	-9.66%
	-6.46%
	-14.57%
	-7.55%
	-29.08%
	-13.46%
	4.1%

Valuation	
NOPAT margin	1.75
	0.97
	0.99
	1.17
	1.32
	1.52
	1.80
	2.11
	2.41
	2.59
	2.79
	3.03



Revenue growth	
Base Year	25.0%
1/3/2017	16.2%
1/3/2018	8.8%
1/3/2019	15.0%
1/3/2020	14.5%
1/3/2021	14.0%
1/3/2022	13.2%
1/3/2023	12.2%
1/3/2024	11.2%
1/3/2025	8.5%
1/3/2026	5.7%
Continuing Period	3.0%

Net Claims	
	\$132.50
	\$99.01
	-\$5.57
	-\$84.28
	-\$224.59
	-\$360.81
	-\$554.82
	-\$822.84
	-\$1,161.46
	-\$1,572.28
	-\$2,055.28

Invested Capital	
Base Year	\$459.11
1/3/2017	\$460.33
1/3/2018	\$531.45
1/3/2019	\$457.04
1/3/2020	\$468.47
1/3/2021	\$822.23
1/3/2022	\$957.14
1/3/2023	\$1,022.65
1/3/2024	\$1,148.24
1/3/2025	\$1,289.98
1/3/2026	\$1,446.83
Continuing Period	