

Zacks Small-Cap Research

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O2Micro International Ltd (NASDAQ: OIIM)

O2Micro Misses Guidance Due to Supply Chain Issues, and Revenues Slip into 2022

Using an industry average value to trailing 12-month sales of 10.6 times and OIIM's \$100 m trailing 12-month revenue, we would calculate an enterprise value of \$1 billion, a market cap of \$1.1 billion and a price of **\$35.80 per share**.

OUTLOOK

O₂Micro International is a fabless semiconductor firm that designs, develops and markets high performance integrated circuits primarily for power management and battery management for TV backlighting, LED lighting, and portable tools, appliances and ebikes. It is profitable with an EBITDA margin of 18.1% YTD and trades at an **enterprise value of \$89 million well below its peers**. The surge in demand for high end TVs and battery-operated devices is accelerating its growth and producing higher margins with only supply chain woes currently throttling sales.

Current Price (01/04/21) \$4.51
Valuation **\$35.80**

SUMMARY DATA

52-Week High \$10.60
52-Week Low \$4.48
One-Year Return (%) -50.4
Beta 0.7
Average Daily Volume (sh) 204,405

ADS Outstanding (mil) 28.5
Market Capitalization (\$mil) \$129
Short Interest Ratio (days) 1.8
Institutional Ownership (%) 44
Insider Ownership (%) 8

Annual Cash Dividend \$0.00
Dividend Yield (%) 0.00

5-Yr. Historical Growth Rates
Sales (%) 9.8
Earnings Per Share (%) N/A
Dividend (%) N/A

P/E using TTM EPS 9.6
P/E using 2021 Estimate 11.0
P/E using 2022 Estimate 7.6

Risk Level Above Average
Type of Stock Small-Value
Industry Elec Comp-Semis

ZACKS ESTIMATES

Revenue

(in millions of \$)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2019	12.8 A	14.3 A	16.0 A	17.9 A	61 A
2020	15.6 A	17.3 A	22.2 A	23.2 A	78 A
2021	23.2 A	26.2 A	27.3 A	24.0 E	101 E
2022					118 E

Earnings Per ADS

(non-GAAP EPS before non-recurring items)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2019	-\$0.13 A	-\$0.08 A	-\$0.02 A	\$0.05 A	-\$0.18 A
2020	-\$0.00 A	\$0.03 A	\$0.12 A	\$0.13 A	\$0.29 A
2021	\$0.09 A	\$0.12 A	\$0.13 A	\$0.07 E	\$0.41 E
2022					\$0.59 E

Zacks Projected EPS Growth Rate - Next 5 Years % **15**

WHAT'S NEW

O2Micro Misses Guidance Due to Supply Chain Issues

O2Micro is now saying Q4 revenues should now be approximately \$24 million in Q4 primarily due to short term supply chain issues with one of the wafer suppliers supporting its Intelligent Lighting (TV backlighting) product lines. O2Micro had expected revenues between \$25.5 million and \$26.5 million or a midpoint of \$26.0 million, which would have been growth of 12% year over year. At \$24 million, that is reduced to growth of 3%. We believe this supplier could be in Xi'an, a city that is locked down. In December Micron and Samsung both warned that their sales could be disrupted as they source DRAM memory chips and flash nand chips there. We do not expect that these sales are lost by O2Micro, rather have slipped into 2022.

In the third quarter O2Micro was affected by plant shutdowns due to COVID from TV manufacturing customers in Malaysia and Viet Nam. These plants are now up and running. It was also hit by capacity constraints at assembly plants in China that had been affected by a lack of electricity. It had already given lower sequential guidance entering its seasonally soft fourth quarter which is typically impacted by a slow down in garden and power tool demand. The company continues to invest in capacity to meet this demand by adding testing capabilities and second and third source fabs.

We are reducing the 2021 estimate to \$101 million with non GAAP ADSPS of \$0.41. We leave 2022 estimates unchanged.

VALUATION

Company Has Significant Upside As Operating Margins Improve

The company trades at a fully diluted **enterprise value of \$89 million** and is generating cash. At the end of Q3 2021, the company had \$50.7 million (or \$1.78 per ADS) in cash and equivalents, no debt, and valuable real estate in China and California. In California it owns a 37,180 square foot building where it has its USA operations, which was bought for \$4.6 million in May 2004 and believe it is now easily worth more than \$10 million. Plus it also owns other real estate in China and Taiwan.

Were we to use the current average enterprise value to trailing twelve-month sales of 10.6 times and apply it to OIIM's trailing 12-month \$100 million revenues, we would calculate an enterprise value of \$1.06 billion. Adding to it \$50.7 million in cash and equivalents gives us a market cap of \$1.11 billion or **\$35.80 per share** using fully diluted shares.

	Competitors	EV	TTM Sales	EV/Sales
Monolithic Power Systems	MPWR	21,900	1,100	19.9
Microchip Technology	MCHP	56,480	6,040	9.4
Texas Instruments	TXN	174,169	17,590	9.9
Cirrus Logic	CRUS	5,020	1,520	3.3
	Average			10.6

As it is now generating profits, we can also look at the stock on a PE basis. It currently trades at 10.4 times 2022 estimated EPS and we expect 39% EPS growth from 2021 to 2022 or a PE to growth of 0.3 times. At only a 20 multiple that is double where it is now. Even on an EBITDA basis it is undervalued. This year it could generate an EBITDA of \$18 million. At 10xs EBITDA its market value would be \$230 million.

Looking at O2 Micro from an M&A prospective we can look at other fabless semiconductor transactions.

On August 26th, Analog Devices closed the acquisition of Maxim Integrated Products for an enterprise value of \$68 billion. With trailing revenues of \$2.63 billion that is a multiple of 25.9 times.

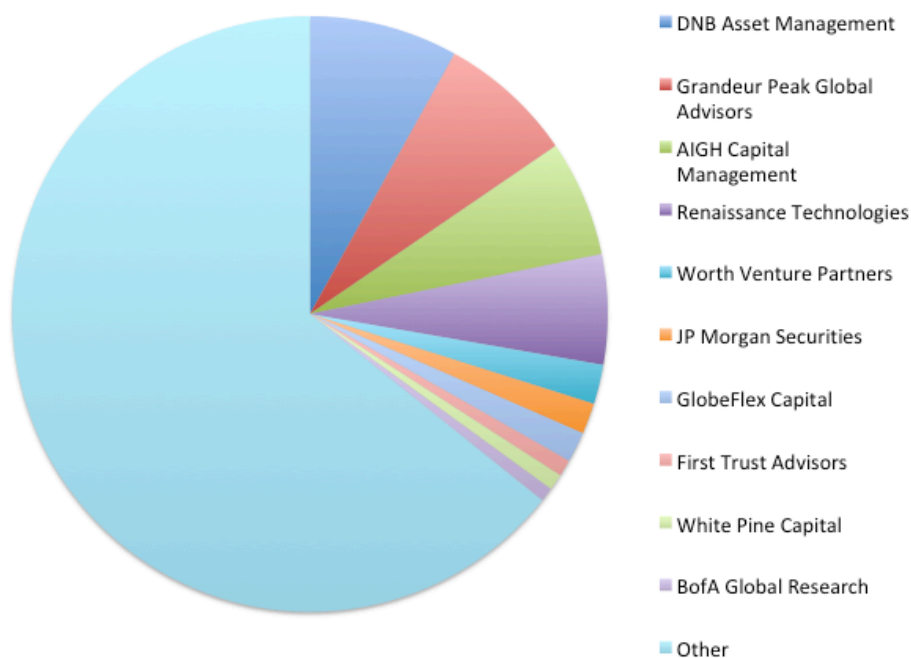
On February 8, 2021, Japan's Renesas Electronics bought Dialog Semiconductor for €4.9 billion (\$5.9 billion) in cash. In its last 12 months it generated \$1.4 billion in sales making that 4.2 times sales. Last year Dialog bought Adesto for \$500 enterprise value when it was expected to report FY2019 sales of \$118 million, also at 4.2 times sales.

This year, AMD plans to buy Xilinx for [\\$35 billion](#) in stock. In its most recent four quarters it did \$3.47 billion in sales making this 10.1 times sales.

In May 2018, Microchip Technology bought Microsemi for \$10.15 billion, which was a valuation of 5.5 times its trailing twelve-month revenues of \$1.845 billion. Two other comparable companies we had been using, Intersil and Linear Technology, were acquired at very high valuations. Intersil was acquired by Renesas for \$3.2 billion at a valuation of 5.9xs the company's trailing \$542.1 million in revenue. Analog Devices acquired Linear Technology for \$14.8 billion. This was 9.9 times its trailing four quarters of revenue of \$1.5 billion.

OWNERSHIP

As of December 31, 2020, the aggregate number of ordinary shares beneficially owned by directors and management was 269,445,850 (5,388,917 ADS). This number includes options to purchase 94,339,350 ordinary shares (1,886,787 ADS) under the 2005 Share Option Plan and 2015 Share Incentive Plan exercisable within 60 days of December 31, 2020.



RISKS

- O₂Micro has high exposure to the global demand for TVs, particularly those sold in China. It is dependent on free dimming and high power LED lighting, 4K and 8K and other high end TVs and monitors, lithium ion battery powered tools and appliances, and IoT to give it revenue and margin growth.
- In 2020, two customers accounted for 25% of revenues and their loss could cause a meaningful decline in revenues. 90% of revenues were from China.
- The company is still affected by the proliferation of the coronavirus in China as their production and most of their customers are located in China and sell to the Chinese market. As China reopens for business is affected by supply chain issues as well as electrical blackouts both inhibiting production.
- Recently the company has been affected by business shutdowns in Malaysia and Viet Nam due to the pandemic where it has TV manufacturer customers.
- There are chip shortages in throughout the industry, which could affect O2Micro's customers' ability to complete building products, which could suppress orders for O2Micro's products.
- Given its large number of patents, litigation risk is a possibility as the company enforces its patents.

INCOME STATEMENT

	March Q1 20	June Q2 20	Sept Q3 20	Dec Q4 20	March Q1 21	June Q2 21	Sept Q3 21	Dec Q4 21E	2019	2020	2021E	2022E
REVENUE												
Net Revenue	15.6	17.3	22.2	23.2	23.2	26.2	27.3	24.0	60.9	78.3	100.7	118.0
Yr-to-yr Gr.	22%	21%	39%	30%	49%	52%	23%	3%		29%	29%	17%
OPERATING EXPENSES												
Cost of goods sold	7.5	8.4	10.7	11.3	11.2	12.7	13.1	11.8	29.0	38.0	48.8	57.8
Gross Margin	8.1	8.9	11.5	11.9	12.0	13.5	14.2	12.2	32.0	40.4	51.9	60.2
% of Sales	51.9%	51.2%	51.8%	51.3%	51.6%	51.5%	52.0%	51.0%	52.5%	51.6%	51.5%	51.0%
R&D	4.1	4.1	4.1	3.9	4.6	4.7	5.1	5.3	19.1	16.2	19.7	20.0
SG&A	4.5	4.3	4.3	4.4	5.1	5.5	5.4	5.4	19.3	17.5	21.4	22.7
One-time expenses & Adj.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tot Operating Exp.	8.7	8.4	8.4	8.3	9.6	10.2	10.6	10.7	38.4	33.7	41.1	42.7
Operating Income	(0.6)	0.5	3.1	3.7	2.4	3.3	3.6	1.5	(6.4)	6.7	10.8	17.5
Operating margin	-4%	3%	14%	16%	10%	13%	13%	6%	-10%	9%	11%	15%
Interest income	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.5	0.5	0.2	0.2
Net gain recognized on LT investments	(1.1)	1.1	(0.2)	0.1	0.0	0.0	0.0	0.0	0.8	(0.1)	0.0	0.0
Foreign exchange loss	0.0	(0.1)	(0.1)	(0.1)	0.0	(0.1)	0.1	0.0	(0.2)	(0.2)	0.0	0.0
Gain on sale of real estate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Government grants	0.0	0.0	0.0	0.7	0.1	0.0	0.1	0.0	0.2	0.8	0.3	0.0
Other (rent) - net	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.6	0.5	0.4	0.4
One-time charge	0.0	(1.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(1.2)	0.0	0.0
Total other Income	(0.764)	0.2	0.1	0.9	0.4	0.1	0.3	0.1	2.5	0.4	1.0	0.6
Pretax Income	(1.3)	0.6	3.2	4.6	2.7	3.4	4.0	1.7	(3.9)	7.1	11.8	18.1
Pretax margin	-8.6%	3.7%	14.3%	19.7%	11.7%	13.0%	14.5%	7.0%	-6.3%	9.0%	11.7%	15.4%
Taxes	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	1.2	0.9	1.0	1.2
Tax Rate	-15.4%	40.8%	8.0%	4.7%	9.0%	7.4%	7.1%	16.0%	-30.3%	13.3%	8.9%	6.6%
GAAP Net Income	(1.5)	0.4	2.9	4.4	2.5	3.2	3.7	1.4	(5.0)	6.1	10.7	16.9
Non-GAAP Net Income	(0.0)	0.8	3.4	4.0	2.9	3.6	4.1	2.0	(4.8)	8.2	12.6	18.4
GAAP ADSPS-Basic	(\$0.06)	\$0.01	\$0.11	\$0.16	\$0.09	\$0.11	\$0.13	\$0.05	(\$0.19)	\$0.23	\$0.38	\$0.59
GAAP ADSPS-Fully dil.	(\$0.06)	\$0.01	\$0.10	\$0.14	\$0.08	\$0.10	\$0.12	\$0.05	(\$0.19)	\$0.21	\$0.35	\$0.55
Non-GAAP	(\$0.00)	\$0.03	\$0.12	\$0.13	\$0.09	\$0.12	\$0.13	\$0.07	(\$0.18)	\$0.29	\$0.41	\$0.59
Yr-to-yr Gr.	-99%	-135%	-677%	148%	-5813%	299%	12%	-50%	-1%	-255%	42%	46%
ADS Out	26.7	27.0	27.0	27.2	28.0	28.4	28.5	28.5	26.3	27.0	28.3	28.8
Fully diluted ADS	26.7	27.7	28.9	30.7	31.4	31.1	31.0	31.0	26.3	28.7	31.1	31.0
Yr-to-yr Gr.	-1%	5%	10%	13%	18%	12%	7%	1%	-1%	9%	8%	0%
Net cash generated	(4.52)	(1.40)	(1.10)	\$5.60	1.10	3.60	4.30	\$2.00	(4.32)	(1.42)	11.00	
EBITDA	\$0.45	\$1.83	\$4.63	\$5.10	\$3.87	\$4.76	\$5.26	\$3.34	(\$3.53)	\$12.01	17.23	\$24.73
Margin	2.9%	10.6%	20.8%	22.0%	16.7%	18.2%	19.3%	13.9%	-5.8%	15.3%	17.1%	21.0%

BALANCE SHEET

	Sept 30, 2021	June 30, 2021	Qtr-to-Qtr % Change	Sept 30, 2020	Yr-to-Yr % Change
CURRENT ASSETS					
Cash and cash equivalents	\$22,073	\$21,856	1.0%	\$11,032	100.1%
Restricted cash	38	38	0.0%	36	5.6%
Short-term investments	28,661	25,497	12.4%	29,732	-3.6%
Accounts receivable, net	16,693	16,555	0.8%	16,797	-0.6%
Inventories	18,001	16,005	12.5%	12,919	39.3%
Prepaid expenses and other current assets	3,423	4,229	-19.1%	1,666	105.5%
Total current assets	88,889	84,180	5.6%	72,182	23.1%
LONG-TERM INVESTMENTS	992	992	0.0%	2,507	-60.4%
PROPERTY AND EQUIPMENT, NET	22,407	22,113	1.3%	15,888	41.0%
OTHER ASSETS	3,858	4,397	-12.3%	4,975	-22.5%
Total other assets	27,257	27,502	-0.9%	23,370	16.6%
TOTAL ASSETS	116,146	111,682	4.0%	95,552	21.6%
CURRENT LIABILITIES					
Notes and accounts payable	10,295	10,132	1.6%	7,935	29.7%
Income tax payable	376	220	70.9%	421	-10.7%
Lease liabilities	977	1,018	-4.0%	692	41.2%
Accrued expenses and other current liabilities	5,355	5,317	0.7%	5,414	-1.1%
Total current liabilities	17,003	16,687	1.9%	14,462	17.6%
OTHER LONG-TERM LIABILITIES					
Accrued pension liabilities	144	152	-5.3%	191	-24.6%
Deferred tax liabilities	690	651	6.0%	689	0.1%
Lease liabilities	1,965	1,979	-0.7%	1,772	10.9%
Other liabilities	69	69	0.0%	67	3.0%
Total long-term liabilities	2,868	2,851	0.6%	2,719	5.5%
Total liabilities	19,871	19,538	1.7%	17,181	15.7%
SHAREHOLDERS EQUITY					
Ordinary shares	33	33	0.0%	33	0.0%
Additional paid-in capital	142,974	142,569	0.3%	143,213	-0.2%
Accumulated deficits	(37,951)	(41,628)	-8.8%	(51,101)	-25.7%
Accumulated other comprehensive income	5,777	5,925	-2.5%	5,149	12.2%
Treasury stock	(14,558)	(14,755)	-1.3%	(18,923)	-23.1%
Total shareholders equity	96,275	92,144	4.5%	78,371	22.8%
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	116,146	111,682	4.0%	95,552	21.6%
Cash and equivalents	\$50,734	\$47,353	7.1%	\$40,764	24.5%
Change in cash and equivalents	3,381	(277)	-1320.6%	(596)	-667.3%
DSO	55	58	-5.2%	58	-5.2%
Inventory Days	117	109	7.3%	106	10.4%

ANNUAL CASH FLOW

	2020	2019	2018	2017
OPERATING ACTIVITIES				
Net loss	\$ 6,127	\$ (5,039)	\$ 2,088	\$ (6,145)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation and amortization	3,225	1,780	1,641	1,667
Stock-based compensation	1,414	1,462	1,421	1,589
Other income - government grants	(817)			
Loss on asset write-off		0	0	0
Inventory write-downs	405	1,359	1,328	642
Net gain recognized on LT investments	79	(788)	(9,916)	0
Gain on sale of long-term investments	0	(500)	0	(20)
Impairment loss on long-term investments	0	0	0	0
Gain on disposal of property & eqt, net	(189)	2	(6)	(137)
Deferred income taxes	(5)	(133)	(155)	40
Other, net	0	0	0	0
Changes in operating assets and liabilities:				
Accounts receivable, net	(6,095)	1,053	(2,204)	(1,979)
Inventories	(4,197)	133	(2,286)	(697)
Prepaid expenses and other current assets	(1,276)	981	(1,031)	(139)
Deferred charges	(3,836)	(571)	(983)	(553)
Operating lease right of use assets	(169)	(1,477)	0	0
Notes and accounts payable	3,128	285	2,122	(1,869)
Income tax payable	(339)	198	72	161
Government grants	817			
Accrued expenses and other current liabilities	808	661	(105)	186
Operating lease liabilities	197	1,494	0	0
Accrued pension liabilities	(33)	(42)	(20)	13
Other liabilities	3	3	(1)	3
Net cash used in operating activities	(753)	861	(8,035)	(7,238)
Acquisition of:				
Short-term investments	(4,491)	(34,649)	(11,197)	(8,505)
Long-term investments	0	0	0	0
Property and equipment	(2,476)	(1,672)	(1,272)	(704)
Decrease (increase) in:				
Restricted assets	0	0	0	0
Restricted cash	0	0	0	0
Other assets	(47)	6	(12)	22
Proceeds from:				
Sale of short-term investments	11,418	4,953	22,540	12,635
Sale of long-term investments	3,124	7,061	2,582	0
Return of capital from LT investment	0	0	0	1,163
Sale of real estate	0	2,169	0	
Disposal of property and equipment	331	1	16	145
Net cash provided by investing activities	7,859	(22,131)	12,657	4,756
FINANCING ACTIVITIES				
Acquisition of treasury stock	(146)	(510)	(451)	(708)
Proceeds from:				
Exercise of stock options	476	7	10	29
Issuance of ordinary shares under the ESP Plan	77	109	86	84
Net cash used in financing activities	407	(394)	(355)	(595)
EFFECTS OF CHANGES IN FOREIGN EX RATE	545	(53)	(374)	268
NET CHANGE IN CASH AND CASH EQUIV.	8,058	(21,717)	3,893	(2,809)
CASH & CASH EQUIV. AT BEGINNING OF YR	10,731	32,448	28,555	31,364
CASH & CASH EQUIVALENTS AT END OF YR	18,789	10,731	32,448	28,555
Cash paid for tax	\$ 1,223	\$ 1,171	\$ 1,218	\$ 818
Cash Flow	10,239	(1,857)	(3,599)	(2,364)
Free cash flow	8,094	(3,528)	(4,855)	(3,068)

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