

# Initiation Report

FOCUS UNIVERSAL INC.



Company Sponsored Research  
Initiation of Coverage  
10/11/2018

## Focus Universal Inc.

### Innovative IoT Manufacturer Developing Affordable Universal Smart Sensor Device

#### Investment Highlights:

- Focus Universal (FCUV) operates within the large and growing industrial control and factory automation market, which is expected to reach \$239.11 billion by 2023<sup>1</sup>. Focus Universal is uniquely positioned as a developer of universal instruments and its patented wireless data logger Ubiquitor. The company's Universal Smart Instrumentation Platform ("USIP") utilizes a mobile device or computer to communicate with any smart device such as sensors, probes, and controllers to monitor and control any functions, thus replacing traditional, one dimensional, and expensive instruments
- There is a significant opportunity for USIP to grow, as more sensors are able to be embedded into different instruments, which is further fueled by the strong demand for automation and the growing adoption of IoT. With most traditional instruments serving only one narrow purpose, the market is now demanding universal instruments with compatibility between various industrial instrument types. The Ubiquitor appears positioned to cut production costs, reduce clutter, and reduce the effort required to develop a new sensor product
- The company has benefited from its strategic acquisition of Perfecular Inc. and its long-term cooperative relationships with manufacturing facilities in China. Focus Universal manufacturing and marketing is well positioned to continue capturing market share. With a long history of developing electronic measurement devices and many existing customers, the company appears well positioned to launch a new internal sales team. The company's application to list on NASDAQ and an increasing investor relations effort from management are likely to bode well for increasing awareness of the company and lifting the current tepid liquidity
- We view Focus Universal as a unique high risk, high reward investment opportunity based on the current development stage of Ubiquitor. Based on an equal weighting of a discounted cash flow and comparable company analysis model. *Our Valuation models indicate a fair value for the shares of \$5.00*

#### Company Description

Focus Universal, Inc. engages in the development of a Universal Smart Instrumentation Platform (USIP) and universal smart devices. The company also provides traditional handheld meter and filter products. The company was founded on 2012 and is headquartered in Walnut, CA

#### Technology

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#### Price-Volume History



#### Key Statistics

Closing Price (As Of 10/10/2018)	\$7.03
Valuation	\$5.00
52 Week Range	\$.25-\$9.00
Average Daily Volume	400
Shares Outstanding (M)	41.2
Market Capitalization (M)	\$287.2
Number of Analysts Covering	1
Enterprise Value/Revenue	N/A

#### Revenue (\$ in millions)

Dec. FY	2017A	2018E	2019E
1Q	.27A	.07A	2.11E
2Q	.63A	.04A	4.20E
3Q	.22A	.36E	6.29E
4Q	(.22)A	.45E	8.39E
FY	.90A	.92E	20.99E

#### EPS (\$)

Dec. FY	2017A	2018E	2019E
1Q	(.00)A	(.01)A	(.05)E
2Q	(.00)A	(.03)A	(.04)E
3Q	(.00)A	.00E	(.00)E
4Q	(.01)E	.01E	.02E
FY	(.02)A	(.02)E	(.08)E

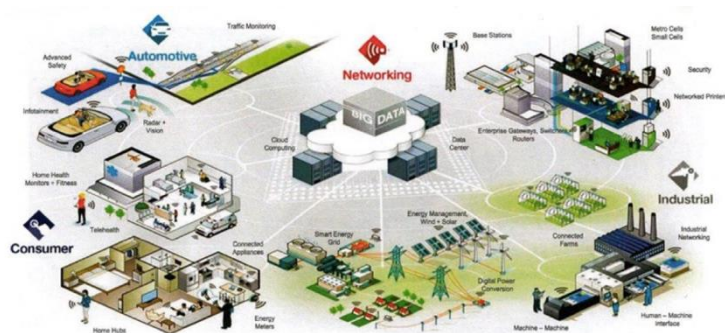
<sup>1</sup>- Markets and Markets. (n.d). Industrial Control and Factory Automation Market Growth at CAGR of 7.4%, 2017-2023: Market to Reach \$239.11 Billion. Retrieved from <https://www.marketsandmarkets.com/PressReleases/factory-automation.asp>

## Investment Thesis

Focus Universal Inc. offers investors a high-risk high-reward opportunity to profit from an innovative smart device developer and manufacturer with a large addressable market. The company provides an advanced and universal solution for testing and measurement made up of off-the-shelf parts targeting numerous high growth markets including educational, environmental, commercial, and medical applications. The company's products include their Universal Smart Instrumentation Platform (Ubiquitor) their Universal Smart Controller, and sensors which are the size of a usb stick. Compared with providers of traditional hardware-centered instrumentation systems, which are easily misread, not permanently stored on servers, and hard to operate, Focus Universal's product offering will have numerous competitive strengths. Focus Universal believes it can achieve hardware cost savings in the range of 70% to 90%, providing a distinct competitive advantage. According to a 2018 research conducted by MarketWatch, the North America market is expected to experience significant growth and the projected to be the largest share of the global market by 2023 due to the well-established and sustainable economies and well-established infrastructure in the region. Moreover, Focus Universal has attracted senior management with extensive research and development experience, who can contribute substantially to the development of advanced IoT products. The company first plans to focus on existing instruments and convert them to smart devices, while marketing them to existing customers. Focus will distribute its products to distributors and retailers and then sell its versatile devices to traditional instrument manufacturers directly through its relationships with Chinese manufacturers, while also establishing a marketing division in China. Focus Universal closed a \$10 million PIPE offering in July 2018 and intends to use the net proceeds of the offering for business development, strategic acquisitions, and general corporate purposes, which we believe is sufficient to achieve near term milestones. Any significant adoption by larger companies could significantly boost shareholder value, we also note the IoT sector is very active in acquisitions and that Focus could become a potential acquisition target once they scale production and acquire further IP. If focus can garner widespread adoption of their products, we see significant upside for shareholders. **Overall, Focus Universal appears to be a unique, high risk small capitalization IoT investment opportunity with significant upside if the company can successfully commercialize their products.**

*FCUV offers investors the opportunity to invest in a unique smart device developer targeting a huge addressable market, which is expected to reach approximately \$239 billion by 2023*

*FCUV raised \$10 million via a PIPE offering in July 2018, with the funding to be used to expand the business around their patented IoT technology*



Role of Sensors in IoT Source: KernelSphere



Source: Focus Universal Website

## Company Overview

Focus Universal is a developer and manufacturer of universal smart instrumentation platforms and devices, and is also a wholesaler of various air filtration system and handheld meters. The company strives to be technology pioneer, which integrates Internet of Things (IoT) to the traditional sensor and measurement industry. As defined by the company, universal smart technology is a commercial technology with an integrated platform, which provides universal solutions to different industries for testing and measurement with off-the-shelf parts. The company was incorporated in Nevada in 2012 and is based in the city of Walnut, California. The company currently trades publicly on the OTCQB® Venture Market. On July 26th, 2018, the company submitted its formal application to list the company's common stock on the NASDAQ exchange.

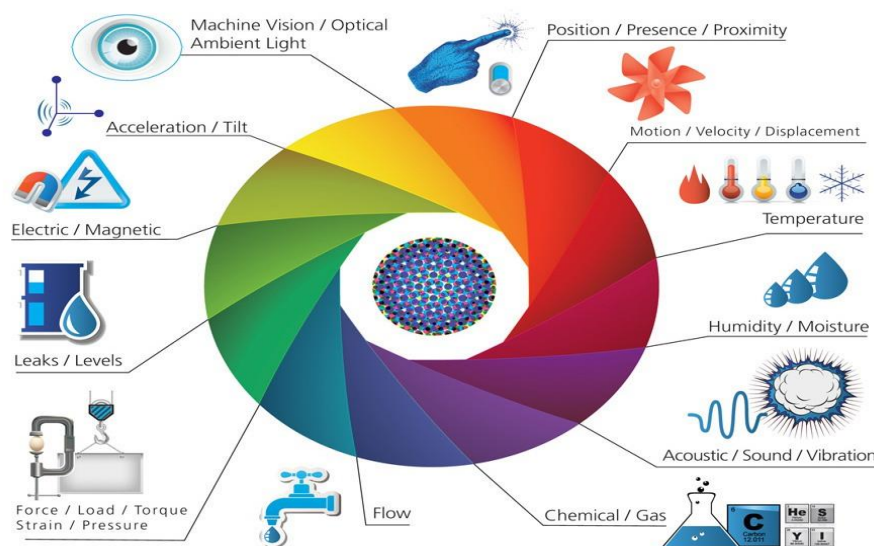
*Focus Universal is developing a universal smart instrumentation platform which may change traditional measurement industry rules*



Source: IT Analysis Business Insight

Focus Universal is developing and testing a Universal Smart Instrumentation Platform (USIP). USIP utilizes a terminal (a smartphone or a computer) to communicate with smart devices (sensors, probes, and controllers) to monitor and control functions. This platform can be compatible with thousands of sensors and probes through a product called Ubiquitor. Ubiquitor is a handheld, fully modular system with a universal sensor node and a gateway which bridges the sensors and probes with the output display model such as a smartphone. The company has already completed an initial production run of 1,000 devices and sent them to industry users for beta test. The company plans to commercialize and start full-scale production of Ubiquitor at the end of 2018.

*The Ubiquitor can be compatible with thousands of sensors, offering an all in one solution*



Universal Instrument with Compatibility Source: IT Analysis Business Insight

*Building applications for industrial instruments on smartphones and tablets is unconventional but necessary, as these devices have significant advantages such as constant real time access, perfect portability, and lower cost*

Focus Universal wants to change the traditional measurement industry by introducing an affordable, universally compatible sensor device. Traditional instruments are expensive and are designed to do one or more *specific tasks*. Furthermore, most traditional instruments have their own connectivity technologies and do not support connectivity and inter-operability with instruments from other brands. Ubiquitor, on the other hand, is designed to combine individual instrument functions, sensors, and probes in a single unit. It is also able to interoperate with other instruments. Ubiquitor will be compatible, versatile, interoperable, connectable and scalable. The physical hardware for Ubiquitor consists of sensor probes, which are in hundreds of different varieties in the format of a USB stick and the main hardware gateway, which is a small device with integrated circuits. The platform can collect data up to 100hz per second, thus allowing it to be utilized within numerous industries. The company focuses on developing matching application software on smartphones and tablets because they see superior advantages inherent to mobile platforms compared to traditional platforms. Smartphones and tablets have high network connectivity, allowing remote monitoring and measurement. In addition, smartphones high processing power and their small size make them attractive for data analysis. With just a smartphone a user could perform over 256 kinds of sensor readings. With Perfecular's technology, a user only needs a sensor head to collect and analyze data in real time. We also note Focus Universal currently has a legacy business of selling traditional meters through their wholesale distribution platform, including filtration devices and handheld traditional meters. We view the legacy handheld meter business as a positive, as it provides an existing customer base and demonstrates the company's ability to develop and market products.

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## Focus Universal USIP (left) and Ubiquitor (right)



Source: Focus Universal Financial Filings

Focus Universal wants to continue with their Chinese manufacturer relationships, thereafter distributing their product directly to distributors and retailers from the manufacturers. As an increasing number of companies adopt the Ubiquitor platform, the platform can become an industry standard in universal wireless sensors. It is extremely expensive and difficult to develop industrial instrument sensors for medium and small companies. These companies consider the cost first when deciding whether to develop smart wireless technologies and implement them in their products, with current instruments prohibitively expensive. There are hundreds of thousands of small companies producing industrial instruments in China alone, let alone globally. The Ubiquitor platform can fit their demands well with its cost advantage, compatibility and interoperability. As a first mover, the company expects to seize sizable market share by leveraging its technology advantages and existing relationships. The company plans to open a sales department in China dedicated to promoting its technologies to local instrument manufacturers. The company also plans to market and sell the Ubiquitor directly to consumers via internet marketing, using channels such as Amazon and other online retail websites.

*Focus Universal plans to target small Chinese instrument manufacturers first to promote its Ubiquitor platform. The company wants its product to become an industry standard*

*Focus Universal has years of experience in producing handheld sensors and filtration products. In addition to producing revenue, these products are bases for USIP integration*

### Focus Universal Three-Year Goals

- Secure additional capital to enable full scale manufacturing and production of Ubiquitor
- Partner with manufacturers and promote the adoption of the Ubiquitor platform
- Grow market share within wireless sensor device market and wholesale distribution
- Use internet marketing to market filters and sensors

Source: Focus Universal Corporate Material

## Corporate Timeline

- 09/17/2018 Focus Universal announces presenting at upcoming investment conferences
- 07/26/2018 Focus Universal submitted an application to list on NASDAQ
- 07/17/2018 Company closed \$10 million PIPE financing
- 06/08/2018 Focus Universal Inc. adds four new members to the Board of Directors
- 03/06/2018 Focus Universal executed acquisition of Aloha Island Cable, Inc DBA CableMasters
- 03/05/2018 USPTO issued an Issue Notification for U.S. Patent entitled “Universal Smart Device”, covering “Ubiquitor”
- 12/30/2016 Focus Universal acquired Perfecular Inc.
- 10/21/2015 Xu Tang, the President, sold 49.5% of the Company outstanding common stock to eight unrelated persons. Edward Lee served as President after Xu Tang and Yan Chen resigned from President and Senior Vice President roles respectively
- 12/29/2014 Xu Tang and Desheng Wang acquired over 90% of the Company’s ownership. Desheng Wang was appointed as the CEO and secretary after the CEO Tatyana Popova resigned. Xu Tang was appointed as the President after Elena Ignatenko, the CFO and secretary resigned. Yan Chen was appointed as the Senior Vice President
- 12/04/2012 Focus Universal Inc. was incorporated in Nevada

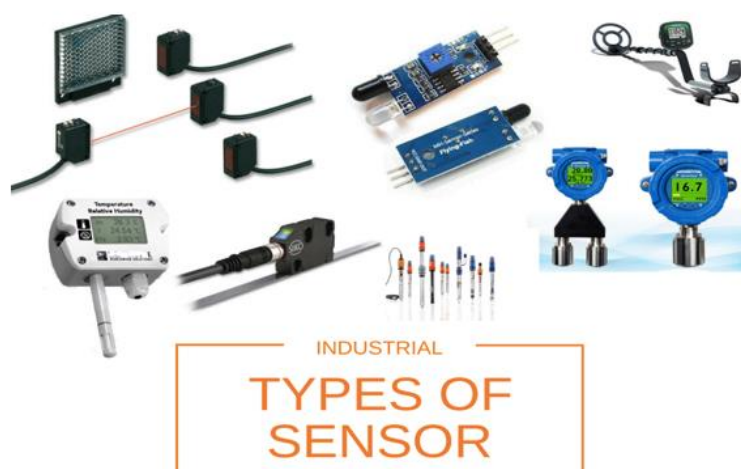
## Potential Catalysts

- Up-listing on NASDAQ provides greater investor exposure and more liquidity. The listing also makes it easier for the company to pursue attractive financing
- New strategic partnerships announced
- Successful acquisitions expanding the company’s technologies offering
- Increased corporate and product visibility via management outreach, including conference attendance and other marketing strategies
- Increasing customer base and demand by exploring more application fields of USIP
- Reporting quarterly revenue growth demonstrating market acceptance of Ubiquitor
- Developing new products for marketing
- Larger financing at attractive terms, removing dilution risk
- Successful acquisition at attractive terms by a larger strategic or financial acquirer

## Large Market Opportunity

Focus Universal entered into the scientific instrument industry through its acquisition of Perfecular, Inc. In the last decade, the instrument industry has made significant progress through new computer technology used within measuring and monitoring instruments. Traditional hardware-centered instrumentation systems are made up of multiple stand-alone instruments interconnected to operate, which are expensive and cumbersome with fixed functionality and which require large power. In contrast, Focus Universal's Universal Smart Instrumentation Platform offers a needed innovation to the field of instrumentation, measurement, control, and automation, as well as offering lower costs.

*Focus Universal's Universal Smart Instrumentation Platform offers a needed innovation to the field of instrumentation, measurement, control, and automation, as well as offering lower costs*

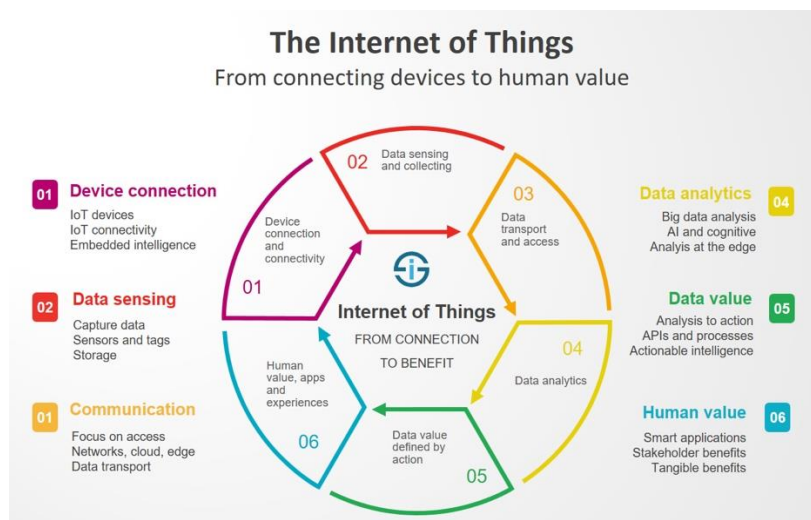


Industrial Types of Traditional Sensors Source: THEAUTOMIZATION.COM

To help industrial instrument manufacturers take advantage of these smart devices, Perfecular Inc. has dedicated many years of research and development efforts into designing, manufacturing, marketing and promoting wireless smart technology and products for industrial measuring instruments. Through its acquisition of Perfecular Inc., Focus Universal strategically expanded its services to the manufacturing and marketing of high-tech electronic devices. The company is focused on existing devices and instruments and then converts them to universal smart devices and markets them to the existing customers. They believe that traditional instrument manufacturers will adopt this technology since their wireless data logger (Ubiquitor) is intended to consolidate various other sensors. Focus Universal is also developing an anti-counterfeit authentication technology that they believe could address the problem of counterfeit production by attempting to authenticate consumer goods. The company also sees the education sector and research sector as a large market opportunity, given these segments high sensitivity to pricing.

*Focus Universal strategically acquired Perfecular to expand their services and develop new technology*





Source: I-Scoop.EU

The world is becoming more data driven with billions of sensors embedded into different instruments from various fields such as industrial operations, education, and healthcare. According to the new market research from Marketsandmarkets, the smart sensor market size is expected to grow to USD 57.7 Billion by 2022, at a Compound Annual Growth Rate (CAGR) of 18.1%. The market has huge potential to grow, driven by the growing adoption of the Internet of Things (IoT) and the strong demand for automation. With many instruments serving only one purpose, the market is now demanding a universal instrument that combines a variety of functions, sensors, and probes in one unit and features all in one capabilities, upgradability, and modularity. The compatibility refers to the compatibility between not only the same types of industrial sensor instrument from different manufacturers but also various industrial instrument types. Focus Universal listened to the market demands and created the Focus Universal Smart Instrumentation Platform (USIP) primarily based on these principles. Therefore, universal smart devices are expected to experience growing demand in order to connect different sensors and smart devices to replace the expensive traditional instruments with fixed functionality.

*Focus Universal's  
USIP is well designed  
to meet the increasing  
demand of a universal  
smart instrument in the  
large and growing IoT  
market*

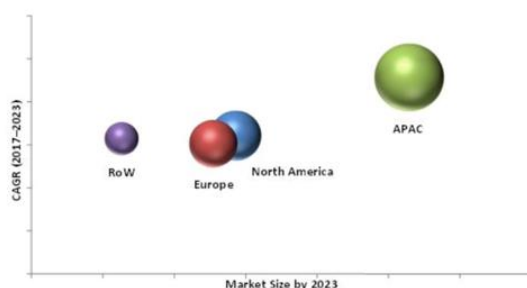


Source: Allied Market Research

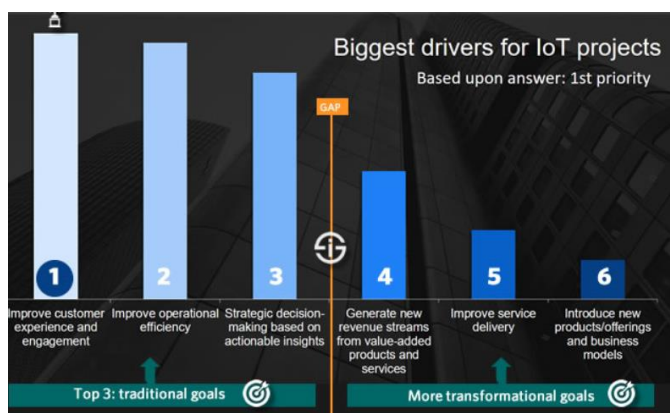
In addition to developing their Universal Smart Instrumentation Platform, Focus Universal has designed, manufactured, marketed and distributed its electronic measurement and control devices, such as temperature humidity meters, digital meters, pH meters, and CO2 monitors for many years and has developed a loyal customer base. According to research from Marketsandmarkets, the industrial control and factory automation market is expected to grow from USD 155.26 Billion in 2017 to USD 239.11 Billion by 2023, at a Compound Annual Growth Rate (CAGR) of 7.4% between 2017 and 2023. Industrial Internet of Things (IIoT) will hold the largest share via enabling technology supporting the manufacturing industry by 2023. The largest geographic market will be APAC, followed by North America. Focus Universal sources its traditional products from manufacturers in China and then sells to major U.S. distributors, who resell products directly to consumers through retail distribution channels. We see numerous market drivers for IoT providers such as Focus Universal, including ways to improve operation efficiency, making better data driven decisions, and generating additional revenue from value added services.

*Focus Universal operates within a large and addressable industrial control and factory automation market which is expected to grow to USD 239.11 Billion by 2023*

**Industrial Control and Factory Automation Market, by Region, 2023**  
(USD Billion)



Source: Press Release, Investor Relation Presentations, Annual Reports, Expert Interviews, and MarketandMarkets Analysis



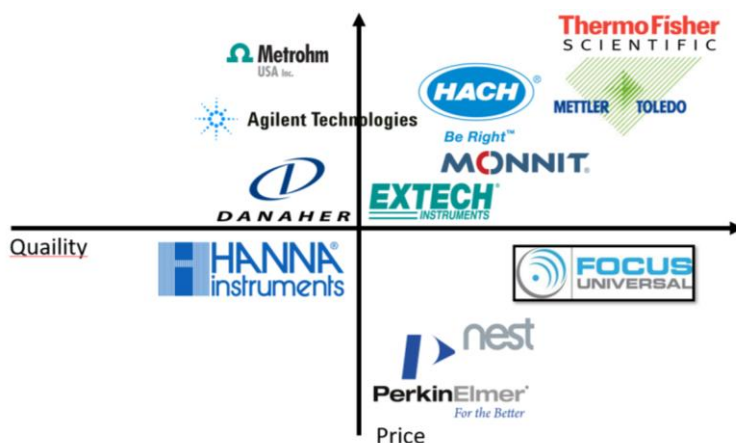
Source: Biggest Drivers for IoT projects according to Alexandra Rehak Internet of Things Worldwide 2016

*Focus Universal is well positioned via its manufacturing, technical knowledge and marketing to continue capturing market share*

## Competition

Focus Universal, operates in two core segments, as the provider of a universal smart instrument platform and the wholesaler of handheld sensor devices and air filters. The instrument sensor industry the company operates in is extremely competitive with numerous global companies and start-ups competing. Businesses compete on numerous criteria, accuracy is a key component of the industry, as well as portability and price. The company's product, Ubiquitor, not only should offer accurate performance, but also offers inter-operability and connectivity to work with other instruments designed by various vendors. Focus Universal's advanced technology, intellectual property, experienced management team and focus on compatibility enhance its competitive position. According to the company and industry research, the major specific competitors include Hanna Instruments, Extech Instruments, Hach company, Monnit Corporation, Thermo Fisher Scientific, Danaher Corporation, Mettler Toledo, Metrohm USA, Agilent Technologies, and Perkin Elmer. Hach has created and distributed its SC1000 Multi-parameter Universal Controller, which allows 8 SC sensors but is not compatible with smartphones as far as we are aware and seems prohibitively expensive. We believe Focus Universal is well positioned in the marketplace with its smart phone focus, proven technology and strong management team. Focus Universal is looking to position itself as a pioneer, integrating Internet of Things (IoT) with the traditional sensor and measurement industry and is not competing with traditional instruments or device manufacturers because its universal smart device, Ubiquitor, will be a completely different product category. *We view Focus Universal's pricing and overall product suite quality in combination distinctly positioning the business.*

*We view Focus Universal as well positioned with its unique innovative product within the sensor and IoT industry*



Source: Diamond Equity Research Analysis

## Valuation

*Focus Universal is an early-stage technology company with few direct comparable companies. It is challenging to value Focus Universal using a single method of traditional valuation. In our comparable company analysis, we screened for small capitalization companies within the scientific instruments and IoT industry. We used a blend of these companies to arrive at a median enterprise value to revenue multiple. From our analysis, we have found the shares to be undervalued with significant upside if the company executes on the top line growth management anticipates. We arrive at a valuation of \$5 per share valuation using our forecasted 2025 revenue and median enterprise value revenue multiple of 3.74x times revenue of Focus Universal's peer group, discounted at the respective WACC to the present.*

*We valued Focus Universal using both comparable company analysis and discounted cash flow valuation methods*

### Comparable Company Analysis

Valuation	MCAP (USD)	EV (USD)	EV / Sales			EV / EBITDA			EV / EBIT			Price / Earnings		
			LTM	2016	2017	LTM	2016	2017	LTM	2016	2017	LTM	2016	2017
ACFN	Acom Energy	9	7	1.54x	-	1.64x	-	-	-	-	-	(5.0x)	-	-
BEW-CA	BeWhere Holdings	14	13	7.04x	-	9.51x	-	(10.8x)	-	-	-	(6.9x)	-	-
SW-CA	Sierra Wireless	750	676	0.92x	1.08x	1.00x	20.4x	15.2x	12.8x	-	22.2x	17.6x	(33.8x)	30.2x
ITOX	IIOT-OXYS	29	28	273.03x	-	-	-	-	-	-	-	(12.9x)	-	-
SRMC	Sierra Monitor	20	17	0.81x	0.89x	-	19.1x	-	-	26.3x	-	68.9x	32.5x	-
SBRT	Solbright Group	172	176	14.62x	-	-	-	-	-	-	-	(1.5x)	-	-
ORBC	ORBCOMM	853	1,062	3.74x	5.69x	4.18x	30.0x	22.5x	23.7x	-	(73.3x)	(26.0x)	(12.6x)	-
Mean				43.10x	2.55x	4.08x	23.2x	18.8x	8.6x	26.3x	(25.6x)	(4.2x)	(0.5x)	31.4x
Median				3.74x	1.08x	2.91x	20.4x	18.8x	12.8x	26.3x	(25.6x)	(4.2x)	(6.9x)	20.5x

Source: Diamond Equity Research Analysis/ Factset Data Systems

Margins	FactSet Industry	Gross Income			EBITDA			EBIT			Net Income		
		LTM	2016	2017	LTM	2016	2017	LTM	2016	2017	LTM	2016	2017
ACFN	Acom Energy	Information Technology Se	58.5%	-	-	-41.1%	-	-	-42.6%	-	-	-36.2%	-
BEW-CA	BeWhere Holdings	Other Metals/Minerals	-20.3%	-	-	-70.0%	-	-88.2%	-	-	-79.4%	-	-
SW-CA	Sierra Wireless	Telecommunications Equip	30.3%	33.3%	34.0%	4.5%	7.1%	7.8%	-0.4%	4.9%	5.7%	-3.0%	3.6%
ITOX	IIOT-OXYS	Wholesale Distributors	23.4%	-	-	-1856.2%	-	-	-1856.2%	-	-	-1986.8%	-
SRMC	Sierra Monitor	Industrial Specialties	59.8%	-	-	4.3%	-	-	3.1%	-	-	1.3%	-0.5%
SBRT	Solbright Group	Information Technology Se	6.1%	-	-	-52.6%	-	-	-57.3%	-	-	-131.0%	-
ORBC	ORBCOMM	Wireless Telecommunication	24.0%	50.2%	40.9%	12.4%	25.3%	17.6%	-4.2%	-7.8%	-16.1%	-22.7%	-12.6%
Mean			26.0%	41.8%	37.5%	-285.5%	16.2%	-20.9%	-290.7%	-1.4%	-5.2%	-322.5%	-3.2%
Median			24.0%	41.8%	37.5%	-41.1%	16.2%	7.8%	-42.6%	-1.4%	-5.2%	-36.2%	-0.5%

Source: Diamond Equity Research Analysis/ Factset Data Systems

Comparable Company Analysis	
Median Enterprise Value to Revenue	3.74x
2025E Revenue	\$ 158.27
Enterprise Value	\$ 207.43
Add: Cash and Equivalents	\$ 13.72
Less: Total Debt	\$ -
Equity Value	\$ 221.15
Outstanding Shares	40.91
Valuation Per Share	\$ 5

Source: Diamond Equity Research Analysis/ Factset Data Systems

Given the uniqueness of Focus Universal's business model and the limited number of public companies to compare it to, we have built a standalone discounted cash flow analysis to value the business (full assumptions in the appendix). Given Focus Universal Inc. has a limited operating history, we built a bottom-up model to value the business projecting revenue from their universal sensor candidate "Ubiquitor". *Our discounted cash flow model indicates a fair value per share of \$5.*

PARTICULARS (\$ in M)	FY16A	FY17A	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E	FY25E
Operating Income (EBIT)	(0.47)	(0.52)	(0.76)	(3.28)	(0.90)	5.39	18.59	40.95	64.95	86.95
Less: CAPEX	0.01	0.00	0.00	0.31	0.48	0.88	1.43	2.21	2.95	3.94
Add: D & A	0.00	0.08	0.00	0.03	0.08	0.16	0.28	0.48	0.72	1.05
Current Assets excl. cash	0.11	0.08	0.08	1.80	2.75	5.03	8.14	12.38	16.55	22.12
Less: Current Liabilities	0.43	0.48	0.61	6.89	9.24	14.83	21.78	31.01	36.34	48.53
Working Capital	(0.32)	(0.40)	(0.53)	(5.08)	(6.48)	(9.80)	(13.64)	(18.63)	(19.79)	(26.41)
Increase/(Decrease) in Working Capital:		(0.08)	(0.13)	(4.56)	(1.40)	(3.31)	(3.84)	(4.99)	(1.16)	(6.62)
Less: Taxes	0.00	0.00	0.00	0.00	0.00	1.13	3.90	8.60	13.64	18.26
Free Cash Flow for the Firm/Equity =		(0.36)	(0.64)	0.99	0.10	6.85	17.37	35.62	50.25	72.41
Terminal Value =										621.20
Present Value of Free Cash Flows =			(0.60)	0.81	0.07	4.20	9.26	16.51	20.25	243.06

Source: Diamond Equity Research Analysis/ Focus Universal Financials

(\$ in million except per share data)	
Total Present Value of Free Cash Flows =	\$ 176.55
Add: Cash & cash equivalents =	\$ 13.72
Less: P.V. of Total Debt o/s (as per latest filings) =	\$ -
Less: Preferred Shares	-
Less: Minority Interest	-
Equity Value (Present Value) =	\$ 190.27
Number of Shares outstanding (in M)=	40.91
<b>Fair Value per Share (\$)=</b>	<b>\$ 5</b>

Source: Diamond Equity Research Analysis/ Factset Data Systems

Given the inherent assumptions in valuation models, we selected to use an average of our discounted cash flow valuation and our comparable company analysis valuation, which were relatively consistent. **We arrive at a valuation of \$5.00 per share.**

We also note that the IoT sector is very active in acquisitions. For example, Cisco Systems Inc. acquired Jasper Technologies Inc., another technology company within IoT industry for \$1.4 billion in Cash in 2016, at an enterprise value to revenue multiple of 20.9x. We feel Focus could become a potential acquisition target at a much higher multiple than the comparable multiples suggest once they scale production and acquire further IP. Thus we note the \$5.00 valuation is not based on a take out valuation method.



## Experienced Management Team

*Focus Universal's management team and board of directors bring years of experience in the development and manufacture of general-purpose smart devices from working at both established companies and start-ups. We are encouraged especially by the blend of investment and related operational experience that the team brings.*

**Desheng Wang (Chief Executive Officer, Chief Financial Officer, and Secretary):** Dr. Wang was appointed as Chief Executive Officer, Secretary, and is a director nominee effective as of December 29th, 2014 with over 20 years of professional experience in mobile technology. Dr. Wang earned his bachelor's degree from Hebei Normal University, Physics Department in 1985 and earned his Master's degree from Dalian Institute of Chemical Physics at the Chinese Academy of Science in 1988. After that, Dr. Wang earned his Ph.D. in Chemistry at Emory University in 1994. Dr. Wang served as a senior research fellow at California Institute of Technology from 1994-2011. Over the last five years, Dr. Wang has served as president of Vitashower Corporation and as President of Perfecular Inc.

*Focus Universal's management team and board of directors bring years of experience in the development and manufacture of general-purpose smart devices from working at both established companies and start-ups*

**Edward Lee (President and Director):** Dr. Lee worked as an assistant professor at Tsinghua University in 1986 and National University of Singapore in 1992. Dr. Lee currently serves as CEO of AIDP. AIDP is a leading supplier of dietary supplement ingredients, focusing on research & development and marketing and sales of proprietary ingredients like Magtein, KoACT, Predtic X, Long Jax etc. Dr. Lee is also serving as the Vice President of the American Chinese Medicine Association. He received his Bachelor's degree in Mathematics at Lanzhou University in 1983, his Master's degree at University of Science and Technology of China in 1985, and his Ph.D. in Mathematics at University of Florida in 1991.

**Jennifer Gu (Vice President of Research & Development):** Dr. Gu is currently serving as the Vice President of Research & Development at AIDP. Dr. Gu received her Bachelor's degree in biology from the University of Florida in 1990 and earned her Ph.D. in Experimental Pathology at University of California, Los Angeles in 1997. She also completed post-doctoral research at the California Institute of Technology in 2004.

### Recent Additions to Board of Directors

Focus Universal is supported by a strong Board of Directors. The company recently added four new members to the Board of Directors in June 2018, Sheri Lofgren, Sean Warren, Michael Pope and Carine Clark, each of whom are experienced leaders in their respective fields. We believe this board will be useful in helping Focus Universal move towards becoming a global industrial automation and IOT company. Each team member brings unique backgrounds and operations and investor experiences which will help Focus Universal disrupt the IoT market.

## Risk Factors

- FCUV has a limited operating history and there is no assurance the company can achieve consistent revenue and profits
- A large amount of funding is required to fund the manufacturing and marketing of the Ubiquitor wireless sensor. FCUV may require roughly \$20 million to sell their product in the small device market initially. If they fail to do so, they may never enter the high-end market.
- FCUV's future success depends on key personnel, specifically their Chief Executive Officer Desheng Wang and President Edward Lee. If the directors decide to vacate their positions, the companies operational plans may be delayed because of the lack of financial and technical support
- FCUV is sourcing their manufacturing in China. Without direct control of the manufacturing process, the quality of goods cannot be guaranteed, and the production rate could be disrupted
- Demand for FCUV's product is uncertain, and thus FCUV's future operations involve major risk. Demand may fluctuate according to a) FCUV team's marketing ability; b) world market conditions and demand for sensor devices and webservices; c) production schedules; d) intellectual property registration; e) FCUV team's ability to maintain a good business structure with regular clients and motivated employees
- It is possible that future sales of FCUV may decline. Possible driving factors include: a) lack of market acceptance; b) lack of product supply; c) delay in product manufacturing; d) increasing competition in the market; e) decline in the demand for sensor devices; and f) possible intellectual property related disputes
- FCUV uses the smartphone as their platform. If the market fails to adopt their smartphone technology, then FCUV's business model may fail because of the incompatibility
- Members of FCUV have limited experience in managing a public company, which could impair their ability to comply with reporting requirements
- One of FCUV's directors owns more than 49% of the outstanding common stock, and the corporate decisions can be largely influenced by that director. Other stockholders could be put in a disadvantageous position
- Investors may have difficulty liquidating their position in Focus, as the shares are currently thinly traded
- Cybersecurity risks are inherent to Focus's products, as the company relies on not fully secured Wi-Fi and Bluetooth

***These Risk Factors Are Not Comprehensive. For Full List of Risk Factors Please Read Focus Universal, Inc.'s Latest Prospectus and/or Annual Filings***

## Appendix

### Income Statement:

#### Income Statement FCUV

FY Ends on December 31

(\$ in M)	FY15A	FY16A	FY17A	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E	FY25E
<b>REVENUE</b>											
Revenue	0.02	1.12	0.89	0.91	10.97	19.58	35.49	57.81	88.72	118.44	158.22
Revenue - Related Party	-	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.05
Revenue from Cont Ops	0.02	1.12	0.90	0.92	10.99	19.60	35.51	57.83	88.76	118.48	158.27
Cost of Revenue	0.01	0.87	0.73	0.56	6.59	10.78	17.75	26.03	35.50	47.39	63.31
Gross Profit	0.01	0.26	0.17	0.36	4.39	8.82	17.75	31.81	53.25	71.09	94.96
<b>Operation Expenses</b>											
Compensation - officers	0.00	0.12	0.12	0.11	1.05	1.58	2.49	3.64	5.05	5.89	7.84
Research & Development	0.00	0.20	0.21	0.17	1.42	2.30	3.82	5.94	8.41	10.66	14.20
Professional Fees	0.10	0.14	0.11	0.59	2.00	2.94	4.26	5.78	7.10	7.11	9.50
General & Administrative	0.05	0.26	0.26	0.25	1.65	2.55	3.91	5.21	7.99	8.29	11.08
Total Operating Expenses	0.15	0.72	0.69	1.12	6.11	9.37	14.48	20.56	28.55	31.95	42.61
Adj.EBIT	(0.14)	(0.47)	(0.52)	(0.76)	(1.72)	(0.55)	3.28	11.24	24.71	39.14	52.35
D&A	0.00	0.00	0.08	0.00	0.02	0.05	0.09	0.17	0.29	0.44	0.63
Adj.EBITDA	(0.14)	(0.47)	(0.44)	(0.76)	(1.70)	(0.51)	3.37	11.42	25.00	39.57	52.98
Interest Expense, net	0.00	(0.00)	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Income / (other Expenses)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. PBT	(0.14)	(0.47)	(0.63)	(0.76)	(1.72)	(0.55)	3.28	11.24	24.71	39.14	52.35
Income Tax Expenses (Benefits)	0.00	0.00	0.00	0.00	0.00	0.00	0.69	2.36	5.19	8.22	10.99
Adj. Net Profit/(Loss) from Continuing operations	(0.15)	(0.47)	(0.63)	(0.76)	(1.72)	(0.55)	2.59	8.88	19.52	30.92	41.36
Loss attributable to non-controlling interest	-	-	-	-	-	-	-	-	-	-	-
Adj. Net Income Attributable To Common Shareholders	(0.15)	(0.47)	(0.63)	(0.76)	(1.72)	(0.55)	2.59	8.88	19.52	30.92	41.36
Reported Net Income Attributable to the Company	(0.15)	(0.47)	(0.63)	(0.76)	(1.72)	(0.55)	2.59	8.88	19.52	30.92	41.36
<b>Earnings per Share (Reported) from Cont Ops (in \$)</b>											
Basic	(0.02)	(0.01)	(0.02)	(0.02)	(0.04)	(0.01)	0.04	0.13	0.27	0.43	0.57
Diluted	(0.02)	(0.01)	(0.02)	(0.02)	(0.04)	(0.01)	0.04	0.13	0.27	0.43	0.57
<b>Earnings per Share (Adjusted) from Cont Ops (in \$)</b>											
Basic	(0.02)	(0.01)	(0.02)	(0.02)	(0.04)	(0.01)	0.04	0.13	0.27	0.43	0.57
Diluted	(0.02)	(0.01)	(0.02)	(0.02)	(0.04)	(0.01)	0.04	0.13	0.27	0.43	0.57
<b>Weighted Average no. of Shares outstanding (in M)</b>											
Basic	6.68	34.57	34.57	41.64	43.64	68.64	69.64	70.64	71.14	71.64	72.14
Diluted	6.68	34.57	34.57	41.64	43.64	68.64	69.64	70.64	71.14	71.64	72.14

## Financial Model Assumptions:

### Revenue:

For the forecast period in our financial model, we have derived revenue based on

#### (i) Expected revenue from the Ubiquitor each year

According to [BCC Research](#) (Jul'18), the global market for sensors should total \$283.4 billion in 2023 increasing from \$152.2 billion in 2018 at a compound annual growth rate (CAGR) of 13.2% from 2018 through 2023, and the product is estimated to sell for \$1,000 per unit. Based on this trend, we have forecasted the average price of Ubiquitor at a 7-year CAGR of 3% from \$1,000.00 in FY19 to \$1,194.05 by FY25.

We expect the company will start to produce Ubiquitor by FY19. Based on the potential market size, and the market growth benchmark, we expect the company to increase production of the Ubiquitor at a rate of 50% in FY20 and the growth rate will be close to 30% in FY25, which will likely be attributable to the rapidly rising demand of the Company's unique and diversified product in the global sensor market.

Thus, we project Ubiquitor's top line sales growth will approximately be 55% YoY in FY20 and close to 34% YoY in FY25.

#### (ii) Expected revenue from the wholesale of filters and handheld meters

We expect revenue from the wholesale business will keep increasing at an annual rate of 7% from \$0.97 million in FY19 to \$1.11million by FY21 and then at a substantially lower rate of 4% to \$1.30 million by FY25 as the company will focus more on the production and sales of its own product Ubiquitor in the future.

Based on sales and price forecasts, we project the total revenue to increase from \$10.97 million in FY19 to \$158.22 million in FY25.

	FY15A	FY16A	FY17A	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E	FY25E
<u>Ubiquitor</u>											
Ubiquitor Prices/unit					\$ 1,000.00	\$ 1,030.00	\$ 1,060.90	\$ 1,092.73	\$ 1,125.51	\$ 1,159.27	\$ 1,194.05
y/y growth						3%	3%	3%	3%	3%	3%
Total Quantity Sold (unit)					10,000	18,000	32,400	51,840	77,760	101,088	131,414
y/y growth						80%	80%	60%	50%	30%	30%
Revenue of Ubiquitor (\$ in M)	\$ -	\$ -	\$ -	\$ -	\$ 10.00	\$ 18.54	\$ 34.37	\$ 56.65	\$ 87.52	\$ 117.19	\$ 156.92
						85%	85%	65%	55%	34%	34%
<u>Filter and Handheld Meter (Wholesale)</u>											
Growth Assumption		6154%	-20%	2%	7%	7%	7%	4%	4%	4%	4%
Revenue of Filter and Handheld Meter(\$ in M)	\$ 0.02	\$ 1.12	\$ 0.89	\$ 0.91	\$ 0.97	\$ 1.04	\$ 1.11	\$ 1.16	\$ 1.20	\$ 1.25	\$ 1.30
REVENUE (\$ in M)	\$ 0.02	\$ 1.12	\$ 0.89	\$ 0.91	\$ 10.97	\$ 19.58	\$ 35.49	\$ 57.81	\$ 88.72	\$ 118.44	\$ 158.22

Source: Diamond Equity Research Analysis/ Focus Universal Financials

## Gross Margins:

We have assumed gross margins to be very close to 60% during the forecasting period. Our assumptions for each year are outlined below:

### Gross Margin (as a percentage of sales)

Year	Margin
FY18	39.1%
FY19	40.0%
FY20	45.0%
FY21	50.0%
FY22	55.0%
FY23	60.0%
FY24	60.0%
FY25	60.0%

## Operating Expenses:

### i. General & Administration (G&A) Expenses:

For FY18, we expect the G&A expenses (as a % of sales) to be close to 27.6%, substantially lower than fiscal 2017 results. It is expected to decline to 7.0% by FY25, as the company further optimizes its infrastructure.

### G&A Expenses (as a % of Sales)

Period	Assumption rate
FY18	27.6%
FY19	15.0%
FY20	13.0%
FY21	11.0%
FY22	9.0%
FY23	9.0%
FY24	7.0%
FY25	7.0%



## ii. Research & Development (R&D) Expenses:

We have assumed the Company's R&D expenses (as a % of sales) for FY18 to be 18.6% and it is expected to decline to 9.0% by FY25, as the company will launch Ubiquitor in 2019 and improve its efficiency creating new products.

**R&D Expenses (as a % of Sales)**

Period	Assumption rate
FY18	18.6%
FY19	12.9%
FY20	11.7%
FY21	10.8%
FY22	10.3%
FY23	9.5%
FY24	9.0%
FY25	9.0%

## iii. Depreciation & Amortization

We assume that D&A will average approximately 10% of property, plant, and equipment (PP&E) during the forecast period.

## iv. Financial Expenses:

We have calculated cost of debt by considering LTM interest expenses and short-term debt and convertible bonds (short-term) outstanding on the balance sheet.

### Tax rate:

From FY18 onwards, we have assumed an effective tax rate of 21%.

### Capex:

For the forecast period, we assume the company's capital expenditure requirement to be close to 3.77 of depreciation.

### Days Inventory Held:

We have assumed inventory days held to keep 20.0 days from FY19 to FY25 as similar products arrive in the market.

### Short-Term Debt:

In our model, we have assumed the Company will raise funds primarily via short-term debt.

### WACC in DCF:

**Risk premium:** We have used S&P500 Technology Select Sector Index as the best proxy of the market index for Focus Universal Inc.

- Risk free rate: We have used 10-year US Treasury rate.
- Beta: 0.77. Based on the average of the comparable companies.

Cost of Debt: Interest rate on debt has been assumed at 10.0% in line with the effective interest rate mentioned in the company's most recent financials.

## Disclosures

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