



Photon Control Inc.

Management's Discussion and Analysis

For the three and six months ended June 30, 2017

(in Canadian dollars, amounts in thousands except number of shares and per share amounts)

DATED August 17, 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS

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MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis ("MD&A") of Photon Control Inc. ("Photon Control" or the "Company") is dated August 17, 2017. We have prepared this MD&A with reference to National Instrument 51-102 "Continuous Disclosure Obligations" of the Canadian Securities Administrators, and it should be read in conjunction with the condensed interim consolidated financial statements and accompanying notes for the three and six months ended June 30, 2017, and the consolidated financial statements and accompanying notes for the year ended December 31, 2016. The financial data contained in this report and in the condensed interim consolidated financial statements for the three and six months ended June 30, 2017 have been prepared in accordance with International Financial Reporting Standards ("IFRS") and are stated in Canadian dollars, unless otherwise noted.

In addition to the results reported in accordance with IFRS, the Company uses various non-GAAP financial measures, which are not recognized under IFRS, as supplemental indicators of the Company's operating performance and financial position. These non-GAAP financial measures are provided to enhance the user's understanding of the Company's historical and current financial performance and its prospects for the future. Management believes that these measures provide useful information in that they exclude amounts that are not indicative of the Company's core operating results and ongoing operations and provide a more consistent basis for comparison between quarters and years. Details of such non-GAAP financial measures and how they are derived are provided in conjunction with the discussion of the financial information reported.

The Company has reclassified certain balances to conform to the presentation adopted in the current year. In addition, there may be minor differences due to rounding of numbers.

Certain statements in this MD&A constitute forward-looking statements or forward-looking information within the meaning of applicable securities laws. You should carefully read "Cautionary Note Regarding Forward-looking Statements" in this MD&A and should not place undue reliance on any such forward-looking statements.

In this MD&A, unless the context otherwise requires, references to "the Company", "Photon Control", "we", "us" and "our" refer to Photon Control Inc. and its subsidiaries.

Additional information about the Company, including our most recent consolidated financial statements is available on SEDAR at www.sedar.com.

BUSINESS OVERVIEW

Photon Control designs, manufactures and distributes a wide range of optical sensors and instruments to measure temperature, position, and flow. These products are used by original equipment manufacturers (“OEM”) as well as end users in the Semiconductor, Energy, and Manufacturing industries. Photon Control’s products provide high levels of accuracy and reliability in extreme conditions and are supported by a team of experts that offers on-site installation, training, and support. Photon Control also provides engineering services for customized optical measurement systems. Headquartered in an ISO 9001:2008 manufacturing facility in Richmond, British Columbia, Canada, Photon Control is listed on the TSX Venture Exchange (the “TSX-V”), trading under the symbol “PHO”.

RECENT DEVELOPMENTS

- On April 14, 2017, the Company reached an agreement to settle its disputes with Photon Control R&D Ltd. (“Photon R&D”), including a Settlement Agreement with Photon R&D to confirm ownership of the intellectual property, modify the royalty arrangement, and allow the Company to employ all Photon R&D engineering personnel;
- In May 2017, the Company moved into its new state-of-the-art manufacturing facility, significantly increasing its production capacity for continued growth;
- Throughout the quarter, the Company worked to achieve certification of its new facility by its customers. As at the date of this report, the Company achieved provisional certifications to ship products manufactured in the new facility to its customers;
- In June 2017, the Company commenced the restructuring of its Oil and Gas business unit, including appointing a new distributor, Ace Instruments, for its Focus®2.0 Optical Gas Flow Meter product;
- On July 15, 2017, the Company appointed Daniel Lee to the position of Chief Financial Officer of the Company; and,
- On July 27, 2017, the Company received \$0.6 million of funds previously held in escrow by the Supreme Court of British Columbia in conjunction with the litigation with Photon R&D.

PRODUCTS, DISTRIBUTION AND INDUSTRIES

Photon Control is a leader in fiber optic temperature, position and gas flow measurement technology.

Semiconductor Industry: Temperature and Position Sensors

The semiconductor capital equipment industry offers a number of significant and growing applications for our technology and has become the primary source of revenue and growth for our business. The Company designs and produces precision temperature and position sensors used by semiconductor Wafer Fabrication Equipment (“WFE”) manufacturers. The manufacturing of silicon wafers for microchips involves a multitude of complex processes in harsh environments; monitoring and maintaining correct position and temperature is critical to this process and to achieving the highest possible yield of product. Fiber Optic sensors are both electromagnetic and radio frequency signal immune allowing them to operate in the harshest environments. Photon Control’s precision temperature and position sensors meet these customer requirements while providing precise measurement and are manufactured according to “Copy Exact” standards in an ISO certified facility.

Our fiber optic sensor technology is uniquely qualified to measure temperature and position in semiconductor manufacturing environments such as wafer etching, atomic layer deposition (“ALD”), chemical vapour deposition (“CVD”) and physical vapour deposition (“PVD”). The need for increasing geometric granularity drives the number of measurement points required as well as the need for the highly accurate measurements provided by fiber optic sensors. In addition, as semiconductor capital equipment has gone from 28nm to 10nm linewidth for leading edge applications over the last 10 years, the number of

desirable measurement points has increased more than four-fold. Similarly, the proliferation of connected devices and 3D chip designs are becoming more and more mainstream taking significant market share in many applications. These factors have driven and are expected to continue to drive demand for our products.

Oil and Gas Industry: Flow Rate Sensors

Based on the “laser-two-focus” method, our optical gas flow meter technology is used in industrial gas flow metering applications. Laser-2-Focus Velocimetry uses laser beams to measure the gas flow by sensing the velocity of microscopic particulates naturally occurring in gas. Being indifferent to gas composition, our solution has less sensitivity than competing alternatives in gas velocity and volumetric flow rate measurements for flare and vent gas applications.

Other Products

We offer a comprehensive range of spectrometer accessories and software to make OEM integrations and complex experiments easier. We also provide stable ultraviolet (“UV”) and broadband light sources, reflectance probes, transmission stages, and collimating lenses.

SALES, MARKETING AND DISTRIBUTION

Photon Control sells its semiconductor products globally with sales to OEMs primarily in the United States who in turn sell their products to end users in the United States, Asia and Europe. We also sell through a network of distributors in Asia who sells our products to OEMs in their home markets. The Company’s Oil and Gas and other products are sold directly and through distributors.

MARKET LANDSCAPE

Semiconductor Industry (Optical Sensors)

Semiconductors have revolutionized the way we work, communicate, travel, entertain, and live. As a building block of technology, semiconductors will continue to enable innovation and transform industries. With the accelerating pace of new chip capabilities and more applications, chip makers will need to increase production to meet this growing market. Simultaneously, semiconductor companies are transitioning to new design and production technologies, specifically multi-patterning, 3D NAND and FinFET. Many of these technologies increase the number of process steps requiring more overall WFE production capacity. The combination of overall semiconductor growth and increased demand for equipment is expected to in turn drive growth for the Company. Photon Control’s primary vertical in this market is in “Etch” one of many manufacturing steps in the process of creating semiconductors. The Company works in and is developing business plans to meet demand in several other process steps including Deposition as well as extending its product reach into the processes involved in the manufacturing of Organic LED panels and other sophisticated display panel technologies.

Oil and Gas Industry – Emissions Regulations (Optical Flow Meters)

Recent oil and gas regulations require measurement and reporting of gas emissions on flare stacks and we anticipate that the regulation of emissions will continue to become more stringent. In addition to meeting regulatory standards, energy companies are likely to require detailed breakouts of the composition of emissions in order to participate in carbon capture revenue incentive programs. The Company’s Focus® 2.0 Optical Gas Flow Meter has applications for flare gas monitoring, natural gas monitoring, biogas and digester gas output.

Other

The Company sells spectrometers and fiber optic temperature sensors to universities, research labs and others. As well, the Company has provided a limited number of fiber optic temperature sensors to be used in medical devices such as magnetic resonance imaging machines and in power industry for hot-spot monitoring in switch gears and dry-transformers.

SELECTED QUARTERLY INFORMATION

The following table highlights key financial information for the three and six months ended June 30, 2017 as compared to the prior comparable periods.

	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2017	2016	(\$)	(%)	2017	2016	(\$)	(%)
Revenue	\$ 8,877	\$ 7,237	\$ 1,640	23%	\$ 20,756	\$ 14,428	\$ 6,328	44%
Cost of sales	4,208	3,674	534	15%	8,971	7,062	1,909	27%
Gross profit	4,669	3,563	1,106	31%	11,785	7,366	4,419	60%
Gross profit %	52.6%	49.2%			56.8%	51.1%		
Operating expenses								
General and administrative	3,217	991	2,226	225%	6,839	1,589	5,250	330%
Engineering	823	359	464	129%	1,628	578	1,050	182%
Sales and marketing	282	249	33	13%	499	459	40	9%
Total operating expenses	4,322	1,599	2,723	367%	8,966	2,626	6,340	521%
Operating income	347	1,964	(1,617)	-82%	2,819	4,740	(1,921)	-41%
Finance income	38	21	17	81%	68	42	26	62%
Foreign exchange loss	(778)	(95)	(683)	719%	(918)	(751)	(167)	22%
	(740)	(74)	(666)	800%	(850)	(709)	(141)	84%
Net (loss) income before tax	(393)	1,890	(2,283)	-121%	1,969	4,031	(2,062)	-51%
Income tax (recovery) expense	(62)	493	(555)	-113%	602	1,047	(445)	-43%
Net (loss) earnings and total comprehensive (loss) income	\$ (331)	\$ 1,397	\$ (1,728)	-124%	\$ 1,367	\$ 2,984	\$ (1,617)	-54%
Basic (loss) earnings per share	\$ (0.00)	\$ 0.01	\$ (0.01)	-100%	\$ 0.01	\$ 0.03	\$ (0.02)	-67%
Diluted (loss) earnings per share	\$ (0.00)	\$ 0.01	\$ (0.01)	-100%	\$ 0.01	\$ 0.03	\$ (0.02)	-67%

Financial Position	June 30,		December 31,		Variance	
	2017	2016	(\$)	(%)	(\$)	(%)
Cash	\$ 25,053	\$ 32,508	\$ (7,455)	-23%		
Total assets	50,821	43,191	7,630	18%		
Total liabilities	9,616	4,319	5,297	123%		
Total shareholders' equity	41,205	38,872	2,333	6%		

The following table provides the details of our Adjusted EBITDA for the three and six months ended June 30, 2017 and 2016.

	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Net (loss) income for the period	\$ (331)	\$ 1,397	\$ 1,367	\$ 2,984
Add (deduct)				
Finance income	(38)	(22)	(68)	(42)
Income tax (recovery) expense	(62)	493	602	1,047
Depreciation of property and equipment	161	38	227	71
Amortization of intangible assets	9	14	16	27
Foreign exchange loss	778	96	918	751
Corporate Changes	945	384	2,953	384
Photon R&D settlement	594	-	951	-
Facility Move	411	-	411	-
Adjusted EBITDA⁽¹⁾ for the period	\$ 2,467	\$ 2,400	\$ 7,377	\$ 5,222

(1) Adjusted EBITDA is a non-GAAP measure and is therefore not universally defined. The Company defines Adjusted EBITDA as earnings before finance income, income tax (recovery) expense, depreciation, amortization, foreign exchange loss and non-recurring items.

The Company considers the following items as non-recurring:

- Corporate Changes – the Company made significant changes to its Board of Directors, management team and business structure in the prior twelve months. Additionally, the Company restructured its Oil and Gas business model from direct sales to a distributor model. One-time expenditures as a result of these changes include legal, consulting and recruiting fees, as well as severance and related payments.
- Photon R&D settlement – the Company took actions following the unauthorized transfer of \$4.5 million to Photon R&D on June 3, 2016 (the “Unauthorized Transfer”), as more particularly described under the heading “*Litigation with Photon R&D*” resulting in a Settlement Agreement on April 14, 2017. One-time expenditures related to this matter include settlement costs, legal, consulting and advisory fees.
- Facility Move – the Company successfully relocated and moved into a new manufacturing facility in the current quarter. One-time expenditures include third-party services, labour costs and the cost of dismantling and restoring the vacated premises.

OVERALL PERFORMANCE AND DISCUSSION OF OPERATIONS

Revenue

The following tables provide a summary of our revenues by segment:

	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2017	2016	(\$)	(%)	2017	2016	(\$)	(%)
Semiconductor	\$ 8,741	\$ 6,843	\$ 1,898	28%	\$ 20,562	\$ 13,741	\$ 6,821	50%
Oil and Gas	99	149	(50)	-33%	105	220	(115)	-52%
Other	37	245	(208)	-85%	89	467	(378)	-81%
Total	\$ 8,877	\$ 7,237	\$ 1,640	23%	\$ 20,756	\$ 14,428	\$ 6,328	44%

Semiconductor revenues for the three and six months ended June 30, 2017 grew 28% and 50% over the prior comparable periods. The increase is attributable to continued robust market conditions persisting in the semiconductor industry. Oil and Gas and Other revenues for the three and six months ended June 30, 2017 decreased over the prior comparable periods, as the Company commenced restructuring efforts on Oil and Gas during the quarter.

The following tables provide a summary of our revenues by territory:

	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2017	2016	(\$)	(%)	2017	2016	(\$)	(%)
United States	\$ 5,437	\$ 4,594	\$ 843	18%	\$ 12,683	\$ 9,850	\$ 2,833	29%
Asia	3,374	2,353	1,021	43%	7,973	4,114	3,859	94%
Europe	39	32	7	22%	48	65	(17)	-26%
Canada	27	258	(231)	-90%	52	399	(347)	-87%
Total	\$ 8,877	\$ 7,237	\$ 1,640	23%	\$ 20,756	\$ 14,428	\$ 6,328	44%

For the three and six months ended June 30, 2017, the Company's revenues generated from customers located in the United States increased over the prior comparable periods due to the overall growth in the semiconductor segment. The increased revenues in Asia reflect market share gains made with new OEM customers as well as semiconductor segment growth. Revenues in Canada for the quarter and year-to-date decreased over the prior comparable periods as a result of the Oil and Gas product segment, while revenues in Europe remained flat over the comparable periods in 2016.

Gross Profit

Gross profit for the three and six months ended June 30, 2017 increased over the prior comparable periods as a result of higher overall revenues.

Gross margin improved to 52.6% and 56.8% for the three and six months ended June 30, 2017 compared to 49.2% and 51.1% in the prior year comparable periods. Gross margin benefited from a change in accounting for the royalties paid to the former Photon R&D which are now accounted for as a business acquisition cost rather than cost of sales as had been the case with the higher royalties paid under the prior arrangement with R&D. Offsetting this positive impact was the fact that the Company's manufacturing facility was idle for the majority of the three months ended June 30, 2017 as the Company moved to its new location and worked to have it certified by its customers.

Operating Expenses

	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2017	2016	(\$)	(%)	2017	2016	(\$)	(%)
Operating expenses, as reported	\$ 4,322	\$ 1,599	\$ 2,723	170%	\$ 8,966	\$ 2,626	\$ 6,340	241%
Deduct								
Depreciation of property and equipment	(59)	(6)	(53)	883%	(74)	(12)	(62)	517%
Amortization of intangible assets	(9)	(14)	5	-36%	(16)	(27)	11	-41%
Share-based payments	(366)	(207)	(159)	77%	(585)	(309)	(276)	89%
Corporate Changes	(826)	(384)	(442)	115%	(2,834)	(384)	(2,450)	638%
Photon R&D settlement	(594)	-	(594)	0%	(951)	-	(951)	0%
Facility Move	(411)	-	(411)	0%	(411)	-	(411)	0%
Operating expenses, adjusted	\$ 2,057	\$ 988	\$ 1,069	108%	\$ 4,095	\$ 1,894	\$ 2,201	116%

Total operating expenses for the three and six months ended June 30, 2017 were \$4.3 and \$9.0 million compared to \$1.6 and \$2.6 million in the prior comparable periods, respectively. When adjusted for non-cash charges and non-recurring items such as Corporate Changes, Photon R&D settlement and the Facility Move, operating expenses totaled \$2.1 and \$4.1 million compared to \$1.0 and \$1.9 million in the prior comparable periods.

General and Administrative

	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2017	2016	(\$)	(%)	2017	2016	(\$)	(%)
General and administrative expenses, as reported	\$ 3,217	\$ 991	\$ 2,226	225%	\$ 6,839	\$ 1,589	\$ 5,250	330%
Deduct								
Depreciation of property and equipment	(59)	(6)	(53)	883%	(74)	(12)	(62)	517%
Amortization of intangible assets	(7)	(11)	4	-36%	(12)	(22)	10	-45%
Share-based payments	(325)	(207)	(118)	57%	(535)	(309)	(226)	73%
Corporate Changes	(730)	(384)	(346)	90%	(2,738)	(384)	(2,354)	613%
Photon R&D settlement	(594)	-	(594)	0%	(951)	-	(951)	0%
Facility Move	(411)	-	(411)	0%	(411)	-	(411)	0%
General and administrative, adjusted	\$ 1,091	\$ 383	\$ 708	185%	\$ 2,118	\$ 862	\$ 1,256	146%

General and administrative expenses totaled \$3.2 and \$6.8 million for the quarter and year-to-date compared to \$1.0 and \$1.6 million in the prior comparable periods. When adjusted for non-cash charges and non-recurring items as described elsewhere, adjusted cash expenses totaled \$1.1 and \$2.1 million for the three and six months ended June 30, 2017 compared to \$0.4 and \$0.9 million in the prior comparable periods. The increase in adjusted cash expenses resulted from the effect of increased headcount costs throughout the preceding 12 months. Headcount costs for the three months ended June 30, 2017 were consistent with such expenses for the preceding three months ended March 31, 2017.

Engineering

Engineering expenses totaled \$0.8 and \$1.6 million for the quarter and year-to-date compared to \$0.4 and \$0.6 million in the prior comparable periods. Although the increase in engineering expenses are primarily driven by the impact of the Settlement Agreement with Photon R&D, the overall costs including royalties calculated as a percentage of revenues for the three and six months ended June 30, 2017 decreased 7% and 9% over the prior comparable periods in 2016.

Sales and Marketing

Sales and marketing expenses were \$0.3 and \$0.5 million for the three and six months ended June 30, 2017, consistent with the comparable periods in 2016.

Foreign Exchange Loss

The Company is subject to foreign exchange risk as its products are priced in United States (“US”) dollars, while the majority of its expenses and assets are denominated in Canadian dollars. The Company does have a partial “natural hedge” against foreign exchange risk, as some of its component parts and accounts payable are priced and or valued in US dollars. Foreign exchange losses of \$0.8 and \$0.9 million for the three and six months ended June 30, 2017 are due to the rapid strengthening of the Canadian dollar relative to the US dollar throughout the period.

Net (Loss) Income Before Tax

Net loss before tax for the quarter was \$0.4 million compared to net income before tax of \$1.9 million in 2016. Net income before tax for the year-to-date was \$2.0 million compared to \$4.0 million in 2016.

Income Taxes

Income tax (recovery) expense for the three and six months ended June 30, 2017 was \$(0.1) and \$0.6 million compared to \$0.5 and \$1.0 million in the comparable periods in 2016.

Adjusted EBITDA

Adjusted EBITDA is defined as earnings before finance income, income tax (recovery) expense, depreciation, amortization, foreign exchange loss and non-recurring items. Non-recurring items include Corporate Changes, Photon R&D settlement and the Facility Move as described elsewhere.

Adjusted EBITDA for the three and six months ended June 30, 2017 amounted to \$2.5 and \$7.4 million compared to \$2.4 and \$5.2 million in the comparable periods in 2016.

Order Backlog

Order backlog was approximately \$11.9 million on June 30, 2017, an increase of 8% and 35% compared to March 31, 2017 and December 31, 2016, respectively. Order backlog represents the unfulfilled value of sales orders received and scheduled for fulfillment in the remaining rolling 12-month period.

SUMMARY OF QUARTERLY RESULTS

The global semiconductor industry is fast paced, competitive and constantly innovating to increase processing speed and power. The ability to anticipate these technology changes and innovate to meet them without compromising quality, is a key competitive advantage in this market. As a supplier of componentry to semiconductor capital equipment manufacturers, Photon's key strengths include our ISO certified production facility and CE methods, and our ability to manufacture to our customer's exacting standards with our highly trained workforce. In the addition to our high-quality manufacturing strengths, our products include unique proprietary characteristics which both differentiate our products and allow us to outperform competitive offerings.

The following table provides a summary of the Company's financial results for the eight most recently completed quarters.

	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017
Revenue	\$ 5,966	\$ 5,803	\$ 7,191	\$ 7,237	\$ 8,733	\$ 9,011	\$ 11,879	\$ 8,877
Gross profit	\$ 3,218	\$ 2,905	\$ 3,803	\$ 3,563	\$ 4,569	\$ 4,285	\$ 7,116	\$ 4,669
Gross margin %	54%	50%	53%	49%	52%	48%	60%	53%
Net income	\$ 1,964	\$ 1,710	\$ 1,587	\$ 1,397	\$ 2,181	\$ 1,351	\$ 1,698	\$ (331)
EPS (Basic)	\$ 0.02	\$ 0.02	\$ 0.01	\$ 0.01	\$ 0.02	\$ 0.01	\$ 0.02	\$ (0.00)
EPS (Diluted)	\$ 0.02	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.02	\$ 0.01	\$ 0.02	\$ (0.00)
Cash	\$ 25,001	\$ 26,227	\$ 27,300	\$ 23,538	\$ 31,139	\$ 32,508	\$ 32,112	\$ 25,053

Our financial results vary quarter to quarter less due to seasonality than to overall industry growth as we respond to our OEM customer orders, which in turn are driven by orders from their end user customers. While our most recent results were positively impacted by continued robust market conditions in the semiconductor industry, net income reflects the non-recurring items as described elsewhere.

The Company has achieved generally consistent growth in its revenue over the past eight quarters as its primary segment, the semiconductor industry, has grown. The Company's net income for the most recently completed five quarters were negatively affected by the non-recurring items as described elsewhere.

LIQUIDITY AND CAPITAL RESOURCES

The Company had working capital of \$31.7 million as at June 30, 2017, compared to working capital of \$37.0 million as at December 31, 2016. The decrease was the result of capital expenditures incurred for the new manufacturing facility.

Cash at June 30, 2017 was \$25.1 million, compared to \$32.5 million at December 31, 2016. The decrease in cash was primarily due to non-recurring capital expenditures and associated moving costs incurred on the new manufacturing facility in Richmond, BC, and costs incurred on Corporate Changes and Photon R&D settlement as described elsewhere. Additionally, the Company maintained a high level of inventories to ensure a smooth transition to the new facility.

The Company follows a "Copy Exact" standard in providing its products to its customers, and is required to maintain adequate inventory on hand to fill purchase orders from its customers. As a result, and due to the fact that the timing and quantum of such purchases orders cannot be forecasted with complete accuracy, the Company must also have available an adequate quantity of inventories on hand. In addition, it may have to add contract staff to its production team to meet large orders. These variances in demand and revenue can have a short-term effect on the Company's liquidity from time to time.

As at June 30, 2017, the Company's accounts payable and accrued liabilities, which fall due for payment within 12 months of the balance sheet date, were \$5.9 million, compared to \$2.0 million as at December 31, 2016; the increase is attributable to the timing of capital expenditures relating to the new Richmond facility and inventory purchases made near the end of the quarter.

Management believes the Company will be able to continue to meet its liabilities and commitments as they become due and will generate sufficient amounts of cash from the continued manufacturing and distribution

of existing products and the commercialization of new products. This cash will be used to maintain capacity, meet planned growth and development activities. The Company continues to monitor all expenditures and implement cash management strategies to ensure that it has adequate cash reserves to fund identified expenditure requirements.

LITIGATION WITH PHOTON R&D

As described in the “Litigation” note to the interim condensed consolidated financial statements for the three and six months ended June 30, 2017, the Company was engaged in litigation with Photon R&D in the latter half of 2016.

In June 2016, the Company became aware of an unauthorized transfer of funds to Photon R&D, and the Company’s then CEO and Director, Christopher Weston resigned. He was and continues to be a shareholder of Photon R&D. David Dueck, who was Chair of the Company’s Board at that time and a shareholder and director of Photon R&D also resigned in connection with the unauthorized transfer. On July 25, 2016, the \$4.5 million plus interest was paid back to the Company by Photon R&D.

Following the resignations of Christopher Weston and David Dueck, the Board consisted of three independent members. These directors, all of whom were directors prior to and at the time of the unauthorized transfer, appointed Board member, Michael Goldstein to Chair of the Board and soon afterwards, interim CEO.

In August 2016, the Company commenced litigation proceedings against Photon R&D in order to clarify ownership of certain intellectual property (“IP”) and as a result of an alleged breach of the terms of royalty arrangements related to that IP. The Company also began the process of building its own in-house engineering capabilities and terminating certain other non-arm’s-length arrangements including agreements with DCD Management Ltd. (“DCD”), a company controlled by former Board Chair David Dueck, whereby DCD provided financial, payroll and IT services according to a services agreement, the costs of which were reported as an operating expense.

Following the unauthorized transfer, the Company added three new independent directors to the Board: Ronan McGrath on July 21, 2016, and Michael Torok and Neil McDonnell on November 3, 2016. At the earliest meeting of the expanded Board it was determined to be in the best interests of the Company to attempt to resolve the litigation issues with Photon R&D through settlement in order to avoid long term negative effects on the Company’s staff, customers and financial results. It was also determined that a search for a permanent CEO should be commenced, with the new independent directors tasked with this responsibility.

In April 2017, following a period of negotiation, all disputes with Photon R&D and its directors and officers were resolved with the Company clarifying the ownership of 100% of the IP, and acquiring the assets, inventory and engineering personnel of Photon R&D. All transferred personnel are now employed by the Company under new employment agreements.

Just prior to the settlement of the dispute with Photon R&D, the Company underwent the following Corporate Changes to its Board and management team: (i) on March 31, 2017, two of the members of the Board at the time of the unauthorized transfer resigned from the Board; (ii) the Interim CEO who was also a director at the time of the unauthorized transfer resigned from both positions effective April 1, 2017; and (iii) on March 31, 2017, the Company appointed Chuck Cargile as a director, and Scott Edmonds a director as well as President and CEO.

BUSINESS COMBINATION

Historically, the Company had relationships with Photon Control R&D Ltd. and DCD Management Ltd., both considered related parties whereby the companies had directors and shareholders in common. These relationships involved the Company outsourcing its research and development to Photon R&D and certain administrative functions to both Photon R&D and DCD Management Ltd.

As a result of these relationships, there were certain amounts owing between the Company and these related parties at December 31, 2016, including a note receivable and associated deferred revenue. All of these amounts and transactions occurred in the normal course of business and have been settled as at June 30, 2017.

On April 14, 2017 (the "Acquisition Date"), following a period of litigation and as part of a Settlement Agreement, the Company completed the acquisition of certain tangible and intangible assets of Photon Control R&D Ltd. for cash consideration of \$770 and estimated contingent consideration of \$4,196.

The acquisition included inventories, property and equipment, the transfer of all technical personnel, trademarks and intellectual property to the Company as well as the clarification of the rights of ownership and exploitation of intellectual property. The Settlement Agreement also provided for the settlement of all amounts owing and payable, including the note receivable, between the Company and Photon R&D and certain other terms and conditions.

The contingent consideration relates to a royalty agreement included in the Settlement Agreement, which provides for quarterly royalties of 4.25% on revenues earned from defined products from January 1, 2017 to December 31, 2021. This royalty agreement replaces a previous arrangement.

The following summarizes the fair value of consideration paid on the Acquisition Date and a preliminary allocation of the estimated purchase price to the assets and liabilities acquired:

Cash on closing	\$	770
Fair value of contingent consideration		4,196
Total consideration	\$	4,966
Preliminary allocation to identifiable net assets:		
Inventories	\$	130
Property and equipment		640
Intangible assets (provisional)		4,196
Total allocated net assets	\$	4,966

The acquisition has been recorded as a business combination in compliance with IFRS 3. While the tangible liabilities and assets acquired have been accounted for at their estimated fair values at the Acquisition Date, the value of the intangible assets is still subject to change, which may be material, upon finalization of a complete valuation.

The contingent consideration is payable in cash and has been recorded as a liability on the interim consolidated statements of financial position at fair value based on management's best estimate of future revenues. The estimate uses a discount rate which is reflective of the inherent risk of the Company achieving these future revenues. For the three and six months ended June 30, 2017, the Company recorded \$63 in accretion expense related to the contingent consideration.

The table below presents the contingent consideration as at June 30, 2017 recorded on the interim consolidated statements of financial position:

Current portion	\$	994
Long-term portion		2,680
Total	\$	3,674

The estimated amounts payable related to the contingent consideration could be higher or lower depending on the related future revenue outcome. Significant increases or decreases in related revenue would result in a higher or lower fair value of the contingent consideration liability, while significant increases or

decreases in the discount rate and performance risk would result in a lower or higher fair value of the liability.

With the Settlement Agreement and the hiring of the personnel of the former Photon R&D, the Company has acquired the ability to completely serve the growing needs of its customer base, provided assurance and stability to its key stakeholders, and obtained a talented, highly skilled technical engineering workforce.

It is not practicable to estimate the revenue or profit of Photon R&D since the acquisition date as the business combination represents the integration of an external service provider, resulting in lower royalty costs and elimination of engineering support fees partially offset by increased staffing costs.

As at June 30, 2017, directly attributable acquisition-related costs incurred of \$594 and \$951 have been expensed and are included in general and administrative expenses on the consolidated statements of comprehensive income for the three and six months ended June 30, 2017.

In addition to the arrangements described above, the Company severed its relationship with DCD Management Ltd. settling all amounts owing and bringing all previously outsourced administrative functions in-house.

OFF BALANCE SHEET ARRANGEMENTS

The Company had no off-balance sheet arrangements in the second quarters of 2017 and 2016.

RELATED PARTIES TRANSACTIONS

The Company's key management have authority and responsibility for overseeing, planning, directing and controlling the activities of the Company and consist of the Company's Board of Directors and executive officers.

Total compensation expense for key management personnel is as follows:

	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	June 30, 2017	June 30, 2016
Cash-based payments	\$ 613	\$ 73	\$ 1,104	\$ 150
Share-based payments	310	31	504	74
Total	\$ 923	\$ 104	\$ 1,608	\$ 224

Cash-based payments include salaries, bonuses, consulting fees, severance and other benefits.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of the condensed interim consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the condensed interim consolidated financial statements is included in the following:

(a) Business combinations and goodwill:

Acquisitions have been accounted for using the acquisition method required by IFRS 3. The cost of an acquisition is measured as the aggregate of the consideration transferred, which is measured at acquisition date fair value. The Company uses its best estimates and assumptions to accurately value assets and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, and these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, the Company records adjustments to the assets acquired and liabilities assumed with a corresponding offset to goodwill. On conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded in profit or loss. Transaction costs the Company incurs in connection with a business combination are expensed as incurred.

Any contingent consideration to be transferred by the acquirer will be recognized at fair value at the acquisition date. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of IAS 39, Financial Instruments: Recognition and Measurement, is measured at fair value with the changes in fair value recognized in the consolidated statements of comprehensive income.

Goodwill arising on acquisition is measured as the fair value of the consideration transferred less the net recognized amount of the estimated fair value of identifiable assets acquired and liabilities assumed (subject to certain exemptions to fair value measurement principles such as deferred tax assets or liabilities), all measured as of the acquisition date.

FINANCIAL INSTRUMENTS

Risk Management:

The Company manages its exposure to financial risk, including credit and interest rate risk, liquidity risk, and foreign exchange risk. The Company's Board of Directors oversees management's risk management practices. The following describes the types of risks that the Company is exposed to and its objectives and policies for managing those risk exposures.

(a) Credit risk:

The following table provides information regarding the aged trade and other receivables as at June 30, 2017:

	Neither past due nor impaired	Aged 31 - 60 days	Aged 61 - 90 days	Aged 90 days +
As at June 30, 2017	88%	5%	6%	1%
As at December 31, 2016	94%	2%	2%	2%

The Company is exposed to credit risk associated with its trade and other receivables. Credit risk is minimized substantially by ensuring the credit worthiness of the entities with which it carries on business. As at June 30, 2017, 12% (December 31, 2016 – 6%) of the Company's trade and other

receivables was past due. The definition of items that are past due was determined by reference to the Company's standard credit terms, net of any provisions for losses. At each period end, the Company reviews the collectability of outstanding receivables. Specific accounts are only written off once all collection efforts have been explored or when legal bankruptcy has occurred. During the three and six months ended June 30, 2017, the Company incurred \$10 of bad debts expense (2016 - \$2).

(b) Market and foreign exchange risk:

The majority of the Company's revenues and trade receivables are denominated in United States dollars. As such, the Company may be subject to material, realized and unrealized exchange gains or losses resulting from above average changes in exchange rates between the Canadian and the United States dollar.

At June 30, 2017, the Company held net current monetary assets in US dollars equal to \$28,910 (December 31, 2016 - \$8,433). The Company estimates the impact of a 10% change in the Canadian dollar exchange rate on its net current monetary assets to be \$2,891 (December 31, 2016 - \$843).

(c) Interest rate risk:

The company is not subject to significant interest rate risk as at June 30, 2017 or December 31, 2016.

(d) Liquidity risk:

As at June 30, 2017, the Company had access to a credit facility of \$1,000, which was unutilized (December 31, 2016 - unutilized).

The company was not subject to significant liquidity risk as at June 30, 2017 or December 31, 2016.

COMMITMENTS

As at June 30, 2017, the Company had entered into premises leases requiring the following future minimum lease payments and related costs as follows:

Remainder of 2017	\$ 167
2018	334
2019	334
2020	297
2021 and onwards	1,139
Total	\$ 2,271

SUBSEQUENT EVENT

Subsequent to June 30, 2017, the Company received \$599 in garnisheed funds which were previously held in escrow by The Court in conjunction with the litigation with Photon R&D.

OUTSTANDING SHARE DATA

As at June 30, 2017 and as at the date of this report, a total of 109,957,218 common shares were issued and outstanding.

As at June 30, 2017, the Company had stock options outstanding to purchase 4,145,000 common shares. As at the date of this report, the Company had 4,055,000 share options outstanding.

As at June 30, 2017 and as at the date of this report, the Company had restricted stock units outstanding for 516,000 common shares.

RISKS AND UNCERTAINTIES

Our business is subject to significant risks and uncertainties and past performance is no guarantee of future performance. The risks and uncertainties in the Company's Management's Discussion and Analysis for the year ended December 31, 2016 which is available on SEDAR at www.sedar.com are those that we currently believe to be material, and do not represent all of the risks that we face. Additional risks and uncertainties, not presently known to us, may become material in the future or those risks that we currently believe to be immaterial may become material in the future. If any of the following risks actually occur, alone or in combination, our business, financial condition and results of operations, as well as the market price of our common shares, could be materially adversely affected.

The risk factors which should be taken into account in assessing the Company's activities, include, but are not necessarily limited to, those set out in the Company's MD&A for the year ended December 31, 2016.

CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This MD&A contains certain statements and information that are not based on historical facts and constitute forward-looking statements or forward-looking information within the meaning of Canadian securities laws (collectively, “forward-looking statements”), including our business outlook for the short and longer term and statements regarding our strategy, plans and future operating performance. Forward-looking statements are provided to help you understand our views of our short and longer-term plans, expectations and prospects. We caution you that forward-looking statements may not be appropriate for other purposes.

Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, identified by words or phrases such as “expects”, “is expected”, “anticipates”, “believes”, “plans”, “projects”, “estimates”, “assumes”, “intends”, “strategy”, “goals”, “objectives”, “potential”, “possible” or variations thereof or stating that certain actions, events, conditions or results “may”, “could”, “would”, “should”, “might” or “will” be taken, occur or be achieved, or the negative of any of these terms and similar expressions) are not statements of historical fact and may be forward-looking statements. Forward-looking statements are not promises or guarantees of future performance; they represent our current views and may change significantly. Forward-looking statements are based on a number of material assumptions, including, but not limited to, those listed below, which could prove to be significantly incorrect:

- our ability to develop, manufacture and sell new products that meet the needs of our customers and gain commercial acceptance;
- our ability to continue to sell our products in line with quantity, price and delivery expectations;
- our ability to attract new business;
- our production being adversely affected by development, operating and regulatory risks;
- our ability to successfully complete new purchase orders along the timelines expected;
- continued and future demand for the Company’s products;
- continued sales to the Company’s major customers;
- continued financial health of the semiconductor industry;
- our ability to continue and further enhance revenue diversification and open new market opportunities; and
- our expectations regarding market risk, including interest rate changes, tax changes and foreign currency fluctuations.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any results, performance or achievements expressed or implied by the forward-looking statements. Such uncertainties and factors include, among others:

- risks associated with the completion and certification of our new manufacturing facility;
- risks associated with compliance with regulatory bodies’ quality system regulations;
- risks associated with the Company’s ability to retain major customers;
- risks associated with shifts in demand for the Company’s products and the Company’s ability to expand its manufacturing capacity;
- risks associated with continuous technological change, evolving industry standards, shifting customer needs and new product introductions and enhancements;
- uncertainty relating to the timing of product development and commercial launch;
- risks associated with competition;
- uncertainty relating to operating results;
- risks associated with product liability claims;
- risks related to product pricing;

- risks associated with the Company's intellectual property;
- uncertainty related to potential legal proceedings involving the Company;
- operational risks associated with manufacturing;
- uncertainty relating to general economic conditions and the cyclical nature of the semiconductor industry;
- uncertainty relating to fluctuations in currency exchange rates, particularly between the Canadian and U.S. dollars;
- uncertainty related to international operations, including additional development projects and other business opportunities;
- risks related to the volatility of the trading price and volume of the Company's common shares;
- risks associated with attracting and retaining qualified personnel;
- risks related to managing and storing proprietary information and sensitive or confidential data relating to the Company's operations electronically; and
- risks associated with compliance with various federal, provincial, local and international laws governing the environment.

This list is not exhaustive of the factors that may affect any of our forward-looking statements. Forward looking statements are statements about the future and are inherently uncertain, and our actual achievements or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, including, without limitation, those referred to in this report under the heading "Risks and Uncertainties".

The Company's forward-looking statements are based on beliefs, expectations and opinions of management on the date the statements are made. For the reasons set forth above, readers should not place undue reliance on forward-looking statements. The Company undertakes no obligation to update or revise any forward-looking statements included herein if these beliefs, estimates and opinions or other circumstances should change, except as otherwise required by applicable law.