

Introduction

Today we would like to discuss two M&A options in the connected camera and the home protection market segments. Both have relatively short fuses in terms of timing. We believe these opportunities could greatly accelerate our efforts and increase our odds of success at competing in these segments. The home protection market segment includes all manner of cameras (indoor/outdoor/doorbell), sensors (door/window, motion, etc.), and subscription services (CV-based detection, professional monitoring). This is a sizable segment that Amazon should participate in and is a strong adjacency to the smart home of the future – 26MM households in the US are expected to spend \$12BN on professional security monitoring in 2017 (Appendix A). Furthermore, this market segment appears ripe for disruption. Traditional players such as ADT and Vivint¹ have EBITDA margins in excess of 50%, driven by their ability to charge customers upwards of \$50-\$70 per month, despite centralized professional monitoring costs of ~\$1.25 per customer per month. The healthy margins and recurring revenue, along with a business model whereby customers largely only get value if something goes wrong, leads us to believe there is an opportunity to provide a meaningfully better yet lower cost service to customers. Cameras and computer vision can deliver a higher value proposition to customers – fewer false alarms and missed events, advanced analytics, community safety (e.g. identification and sharing of suspicious activity in a neighborhood), and additional smart home functionality (e.g. when did the kids arrive home, who is at the front door, did the repairman come). And we believe this can be offered at a much more reasonable price than current professional security offerings. We expect that subscription-based security solutions will expand as DIY home monitoring camera sales continue to grow. Monitoring camera unit sales are on track for 13.2MM in 2017 (58% wired cameras, 29% wire-free, 13% doorbell) and we project 2020 total unit sales of 27.5MM (30%+ CAGR), composed of 33% wired, 45% wire-free, and 23% doorbell (Appendix B). The larger proportion of security cameras vs. doorbells is driven by the fact that the average customer may buy 2-3 security cameras, but typically only 1 doorbell camera.² Given that customers highly value monitoring the perimeter and exterior access points to their home, we project that over 80% of monitoring camera sales (excl. doorbells) in 2020 will be for outdoor-capable cameras.

Both cameras and home protection are strategic segments for Amazon as we look for ways to grow our presence in the home. Security is a primary reason cited by consumers for adopting smart home technology. And is a segment where we can use our investments

while providing an attractive business model with recurring revenue and high gross margins. Security can also feed our flywheels (Prime, Alexa) while being a large, profitable business in its own right. Based on smart home technology adoption, we see camera sales as the top-of-funnel customer acquisition step for driving subscription services.

To fully serve customers in the home protection segment and drive towards a leading position, we need to invest in four key areas:

- 1.
- 2.
- 3.
- 4.

However, we are late to this market segment (both cameras and DIY security) by years, and there are numerous competitors in this space. Our existing camera product portfolio and roadmap timing does not put us in a position to win – we have one wired/indoor camera today (Pie) and will not have a wire-free/outdoor-capable camera until Q3'19 at the earliest, given current resourcing. Getting a wire-free camera into our product lineup is critical given the continued shift to wire-free cameras driven by the benefits of placement flexibility. We are late to the segment and need to leapfrog forward in terms of our position.

While sensors have historically been the core of security systems, cameras are increasingly promoted to customers given the user value and stickiness to the provider. We believe that over time cameras and computer vision can become the cornerstone of home security and increasingly important for both self-monitored (e.g. notification-based) and professionally monitored systems.

² For example, Blink averages 2-3 cameras per customer. Ring currently averages 1.1.

Evaluating our Alternatives

Our options at this stage are to: (i) double down on our internal build efforts and dramatically increase our investment; (ii) work with an ODM to expand our product portfolio faster; or (iii) utilize M&A to accelerate progress. Absent committing to one of these paths aggressively, it is questionable as to whether we would be on a path to win. While we could choose to maintain our current POR, or even exit the segment, we believe the size and strategic fit is attractive enough to continue to pursue home protection

However, given the nascent stages of those efforts, this would be expensive, take significantly longer than other options, and we run the risk of not materially improving our chances of success with this alone (we may be too late, may not have the right product, etc.). The timing and invention risk as it relates to competing in this market segment is heightened by the rapid pace of growth in this segment and aggressive expansion in products and services from companies such as Netgear/Arlo, Nest, Ring and Canary, among others. For example, on the hardware side, Nest recently expanded its portfolio to include a video doorbell and an outdoor security camera. Google’s latest connected camera device, Nest Cam IQ, will have Google Assistant built in and is expected to launch with several computer vision-powered features such as Sightline, which identifies significant events captured by the camera, and Person Alert for recognizing specific people like a friend or family member. These hardware companies are also targeting the broader home protection segment. On the services side, in September, Nest announced ‘Nest Secure’, a DIY home security solution that includes a base station, keypad, and motion/door/window sensors. The starter kit costs \$499 for the base, two sensors, and two arm/disarm tags. Customers can also add 24/7 professional monitoring (pricing not yet disclosed).

As it relates to providing security service to customers, both wholesale professional monitoring and sensors are largely commoditized (multiple companies offer each), but work is still required to integrate into a customer-facing subscription service. The fragmented nature of the professionally monitored home security space (whether self-installed or professionally installed) leads us to believe there may be multiple paths to success.

Nonetheless, we are unlikely to catch up to alternative offerings by only building ourselves, and believe that M&A is required to improve our odds of success. The two options presented below, Ring and Blink, represent two very different approaches (in terms of market segment position and tech/IP) to accelerate our efforts in this market segment. Both are actionable and have a very limited window of opportunity to pursue.

Blink

Company Overview:

Blink is a provider of low-cost indoor/outdoor wire-free security cameras. Our interest in pursuing an acquisition of the company is driven by their proprietary technology for enabling long battery-life, low capture latency cameras at a low cost. The company is based in Andover, MA (30 minutes outside of Boston) and has 54 FTEs (25 engineers). The Company, previously known as Immedia Semiconductor, was founded in 2009 as a fabless semiconductor company developing integrated HD video encoder and ISP chips for consumer video products. In 2014 they pivoted from selling chips to launching a battery powered security camera utilizing their in-house chip technology. The predecessor company raised \$21MM in total capital, but was recapped with new investors when it pivoted to selling the Blink camera. Blink has raised ~\$11MM since the recap.

Product and Technology Overview:

The original Blink indoor camera is ~2/3rds the size of a deck of cards and claims over a 2-year battery life (50,000 active recording seconds, or about fourteen 5-second video clips per day on two AA batteries). Blink utilizes a separate Sync module that acts as a hub between the cameras (up to 10) and the cloud. The Sync module’s proprietary low-frequency 900 MHz radio (LFR) is utilized to wake up the camera on demand, and video is streamed directly from the camera via Wi-Fi. The company’s latest camera is the Blink XT outdoor camera, which began shipping in April 2017. Similar in form factor to the original Blink camera except in a black case, it is IP-65 rated for water-resistance, records video in 1080p, has an infrared night vision sensor (vs. white light), and maintains the 2-year battery life claim of the indoor camera. The Blink indoor and outdoor products have both garnered 4.0 star ratings on Amazon.com with over 2,000 reviews.

We know Blink well and have conducted diligence on multiple occasions, most recently hosting the company at Lab126 in August for a diligence session with our Pie hardware, computer vision, supply chain, and product teams. Blink has also worked

with our unattended delivery team, and is expected to launch as the first third party camera partner. We have been impressed with the Blink team’s technical expertise and believe they are missionary about solving camera problems. Blink’s key IP is their custom ASIC and system architecture (dual radio using a proprietary 900Mhz LFR) that is optimized for power efficiency, low cost, and low latency to first frame capture. This allows Blink to deliver best-in-class battery life at the lowest cost.

[REDACTED] Blink expects an updated ASIC in Q1 2018 that doubles battery life, further extending their advantage in the area of power-optimized video capture.

Acquisition Thesis:

We see wire-free cameras as critical for home protection (particularly CV-driven), and ultimately the largest monitoring camera segment by unit sales. The flexible placement enabled by being wire-free reduces the friction to set-up and extends the CV/security opportunity to more locations around the home. Blink's technology combined with our planned subscription services would give us an opportunity to compete effectively with the current leader in wire-free cameras (Arlo – which we project will sell over 2MM wire-free cameras this year). Blink also has doorbell, sensors, and other home protection devices on their roadmap for Q1’18, but are not as far along as Ring. We value Blink’s technology (long battery life, low latency), which our diligence indicates is best-in-class for wire-free cameras, as well as the cost advantage provided by their custom ASIC and system design. Despite no retail presence and minimal marketing budget, Blink outsold Canary and Ring’s wire-free camera for the TTM period March 2017 (281K units to Ring’s 243K units and Canary’s < 30K; a differential that has held up through the 1st half of 2017). We view Blink as complementary to our current efforts around CV and subscription services. The company directly addresses our highest priority gap (wire-free cameras), and provides the underlying technology to address outdoor use cases, doorbell cams, and other cases for which flexible placement is valued by customers. We will note that compared to Ring, Blink does not get us much scale in installed base (~140,000 active households), product portfolio, or subscriptions (which they have not rolled out yet).

Financials and Valuation:

[REDACTED] (Appendix E). An acquisition of Blink’s products, team and technology would accelerate our entry into the wire-free and outdoor category by over two years, and deliver to our customers the wire-free camera with the best battery life and the lowest cost. We believe there is invention and schedule risk to developing a wire-free outdoor camera with competitive battery life and cost (and likely requires a custom ASIC). To value Blink, [REDACTED]

[REDACTED] We expect that we would continue selling the existing Blink cameras post-acquisition, while working to integrate services (app, subscriptions, CV) and within 1-year launch an Amazon-branded wire-free camera base on Blink’s technology.

Situation Update

We know Blink well and have completed a relatively extensive amount of diligence to-date, covering both the proprietary ASIC and the camera itself. The company has recently received acquisition interest from two other parties, both of which have submitted term sheets and are actively negotiating. Blink has told us that they are targeting a sale of the company prior to year-end, and could enter into exclusivity as early as the end of this week. We believe we will need to submit a non-binding term sheet by October 11th or 12th to ensure we have an opportunity to enter into exclusivity and conduct secondary diligence. We believe it will require [REDACTED] to acquire Blink and retain key personnel, a range we are supportive of based on our build vs. buy model.

Ring

Company Overview:

Ring is a do-it-yourself (DIY) home security company with a mission to reduce crime in communities. Founded in 2011, Ring is based in Santa Monica with development centers in Pennsylvania, Argentina, and Ukraine, and customer service operations in Scottsdale, Arizona. Ring has approximately 1,300 employees including 1,000 customer service associates. To date, the company has raised \$170MM of venture funding, including a \$70MM Series D in December 2016 led by Goldman Sachs and Draper Fisher Jurvetson at a post-money valuation of \$460MM. Other investors in the company include True Ventures, Kleiner

[REDACTED]

Perkins, Upfront Ventures, and Shea Ventures. Jamie Siminoff (CEO) is the largest common shareholder with [REDACTED] of fully diluted equity. The Amazon Alexa Fund invested \$1MM in the company in April 2016.

Product Overview:

Ring’s primary products are a suite of video doorbells – including the original 720p Video Doorbell (\$179), an updated 1080p Video Doorbell 2 (\$199) and more advanced Pro model (\$249). The Pro model foregoes a battery and requires hardwiring to an existing doorbell. The Original and Doorbell 2 models have a rechargeable battery as well as an option for hardwiring. The doorbell streams live audio and video of a home’s front doorstep directly to a smartphone or tablet through a companion application. These devices have built-in motion sensors to detect activity at the front door and trigger instant mobile alerts. The company launched its first non-doorbell camera, Stick Up Cam, in early 2016 for \$179. It is a wire-free camera that can be mounted indoors or outdoors with the same video and audio features as the original Video Doorbell. Ring is deprecating the Stick Up Cam, in favor of the Floodlight Cam (\$249) and Spotlight Cam (\$199), two outdoor mountable cameras that launched in 2017. The Floodlight Cam is a hardwired device with a 270 degree field of view camera, a 110 decibel siren and two LED floodlights. The Spotlight Cam is a miniaturized version of the Floodlight Camera with a smaller field of view (140 degrees), but comes in three different version – hardwired, battery powered (with swappable battery packs) and solar powered (using the solar power accessory). Ring also sells several accessories including the Chime (for wireless doorbell notifications), Chime Pro (serves as a Wi-Fi extender) and Solar Panel (for battery powered outdoor cameras).

Unlike Blink, Ring has not optimized its portfolio of camera devices to offer a wire-free camera with the lowest BOM and longest battery life. Instead, the company believes that a combination of wired cameras (doorbell and floodlight) and wire-free cameras with replaceable battery backs (spotlight) is more than adequate to provide customers with a reliable security solution and the feature set that customers want – video monitoring, motion detection, and two-way audio. This approach appears to be resonating as all of Ring’s products have at least 4 stars on Amazon.com, with the company’s most recent wired cameras being the highest rated – Floodlight (4.5 stars) and Video Doorbell Elite (4.4 stars).

For users who want access to missed notifications, Ring offers a cloud recording subscription service on a per camera basis for \$2.99 per month or \$30 per year. This October, Ring announced Protect, a DIY home security system with 24/7 professional alarm monitoring and unlimited video cloud storage for \$10 per month or \$100 per year. Ring’s starter pack, the Ring Protect Kit, will retail for \$199 and includes a base station, keypad for arming and disarming the alarm, one contact sensor for a door or window, one motion detector and one range extender. Additional sensors will be available for \$20 to \$30 per unit.

Acquisition Thesis:

Our interest in pursuing an acquisition of Ring stems from the company’s market segment leadership position in video doorbells, its portfolio of outdoor camera products (floodlight and spotlight), strong subscription business model, and recently announced DIY home security solution. We have gotten to know the company well over the past three years – we evaluated Ring in the early days of our camera efforts, invested in the company via the Alexa Fund in April 2016, and worked with the company to define our Camera APIs for the Echo Show. The company has executed well against its plan to date. It has gone from inventing the video doorbell market segment to establishing itself as a market segment leader while building a large install base (1.6MM active cameras, 1.4MM households). Ring has also has built a robust video monitoring subscription business – 1.0MM subscribers at the end of August, [REDACTED]

[REDACTED] And with the company’s recent announcement of a fully monitored security solution, an acquisition of Ring would provide Amazon with the four key areas that we believe will allow us to fully serve customers in the home protection segment and drive towards a leading position in this segment.

Financials and Valuation:

[REDACTED]
The company has achieved this growth through continued investment in marketing and its product roadmap.

[REDACTED]
[REDACTED] See Ring Financial Summary in Appendix G for additional detail. Given the company’s nascent

Protect subscription business and our limited access to due diligence materials (consistent with an investment), we do not have a rigorous financial model or strong point of view on valuation. Instead we have created a preliminary 5-year discounted cash flow model as well as looked at comparable company trading multiples as a way to triangulate on valuation. For the DCF, we looked at a “what do you have to believe” analysis in order to get to a [redacted] valuation [redacted]

[redacted] The [redacted] Protect subscriber base is best compared to the US subscription monitoring market segment which is at 26MM households today³. Ring’s valuation is highly sensitive to the number of households added and the mix of subscribers (basic vs. Protect) (See Appendix H for key sensitivities). Giving Ring full credit for 2018E results, a sum-of-the parts comparable company analysis can support a valuation of range of [redacted] based on forward revenue (2018E) multiples. Comparatively, applying 2017E revenue multiples to Ring’s 2017E results (no material credit for Protect rollout) implies a range of [redacted]

Situation Update:

On September 28th, Ring signed a Series E investment term sheet with [redacted] [redacted] We have been in discussions with Ring about making a sizable investment [redacted] as part of this round as well as some additional partnership opportunities – we are looking at unattended package delivery use cases as well as the creation of an Alexa Doorbell API. Discussions have pivoted recently as Jamie (CEO) has expressed interest in pursuing an acquisition with Amazon. He has been consistent from the beginning of our relationship that he sees Amazon as the preferred home for his company, with the only other path being an IPO. Based on conversations with the company, we believe there is a path to acquiring Ring for [redacted] or less, and perhaps even at a slight discount to the [redacted]. Should we decide to pursue an acquisition of Ring, we will need to move quickly. [redacted] and in order to pre-empt the closing of the Series E round, we will likely need to agree on acquisition terms with Ring in the next few weeks. As part of an acquisition term sheet, we may need to commit to making an investment [redacted] that converts into the next round of funding should we fail to close the acquisition. This may be required for two reasons: (i) Ring needs to raise capital by the end of the year, otherwise they will have to fund all of Q4 with their revolver (projected to draw down \$32MM by the end of November), and (ii) we will have to put some skin in the game to get them to walk away from the Series E investment.

Recommendation

We will need a full suite of camera products as well as more traditional security products to succeed in the home protection market segment. Given our current position and desire to get a complete solution in a short amount of time, we believe that M&A is the best option to accelerate our progress. No single company would put us in a leadership position in the all of the areas where we are behind and need to accelerate. However, Ring and Blink each provide an opportunity to expand our offering and increase the likelihood of succeeding in cameras and home protection. We think that both have merit and are worth pursuing independently, as either would put us in a meaningfully better position than we are today (and we would not want to stake our chances in the segment on closing any one opportunity). We also believe they are potentially complementary assets. Blink provides proprietary low-cost, long life wire-free camera IP that differentiates our offering, while Ring provides a more complete solution today and a head start via the larger existing installed base. We would ideally play out both of these acquisition opportunities over a longer period of time. Unfortunately, each has a short fuse requiring action this week.

We would like to move forward on a deeper evaluation of Ring, which will entail committing resources towards product, tech and financial diligence over the coming weeks, at which point we would plan to come back to you with an updated set of diligence findings and recommended next steps (targeting the week of October 23rd). Our current expectation is that there may be a path to acquiring Ring at a valuation in the range of [redacted]

Given the short timeline on Blink, we would like to seek term sheet approval and put an acquisition offer in front of the company this week. We believe that an [redacted] is most likely where we could prevail, although we will test lower. While this is expensive for a tech/team acquisition, we are paying for increased

³ For reference, the current leader in home security (ADT) has 6.5MM residential subscribers, with the next largest (Vivint and Monitronics) having ~1.2MM subscribers each as of mid-2017. We project the overall segment could grow to 34MM households by 2022.



certainty around the tech and product (e.g. an in-market 1080p outdoor camera that is well reviewed; proof points around wire-free cameras given existing sales traction; a near-term upgrade to their ASIC that further improves their battery life lead). Regardless of how things turn out with Ring, we believe Blink's wire-free capabilities will be a key component of our strategy to win in this market segment. In parallel to pursuing Blink, we would look to further supplement Blink's camera technology with a more traditional home security company that has the basic components (sensors, professional monitoring) already built.⁴

[REDACTED]

[REDACTED]

Home Protection Options Review
Appendix A: Security Segment Sizing and Growth

October 10th, 2017

The majority of households (93%) have a professionally installed system, with the remainder having a self-installed but professionally monitored system from providers such as Simplisafe, Frontpoint, and Protect America. Industry analysts estimate that professionally installed systems grow at 1-2% per year (net of attrition), but expect nearly 50% YoY growth for self-installed but professionally monitored solutions. That said, we believe that any growth estimates for the self-installed / professionally monitored segment are highly speculative given the nascent stage of this segment. Overall, the US professional monitoring segment is expected to see revenue grow from \$12BN in 2017 to \$14BN in 2020. The segment is large and has attractive margin dynamics given the relatively low cost of 24/7 monitoring (< \$2 per subscriber per month at wholesale for sensors) as compared to high monthly customer fees of up to \$70/mo.

The professionally monitored home protection category is highly fragmented and competitive. ADT is the current leader with 27% share of households, the next 9 largest companies have 17% of households, and thousands of smaller alarm companies comprise the remaining 56% of the segment.

US Home Security			
	2016	2017	2018
Revenue (\$BNs)			
Professional Monitoring	\$11.7	\$12.2	\$12.8
Other Fees (E.g. Installation)	\$2.7	\$2.9	\$3.1
Device Sales	\$3.6	\$3.8	\$4.0
Total US Revenue	\$18.0	\$18.9	\$19.8
% YoY Growth		5.0%	5.0%
US Households (MMs)			
Total US Households	125.8	127.1	128.3
Broadband Households	102.4	104.2	105.2
Professionally Monitored			
Professionally Installed	24.2	24.5	24.9
YoY Growth		1.5%	1.5%
Self-Installed	1.2	1.8	2.7
% of Monitored Homes	4.8%	6.9%	9.6%
YoY Growth		50.0%	45.0%
Total Monitored Households	25.4	26.4	27.6
% of Total Households	20.2%	20.8%	21.5%
YoY Growth		3.8%	4.5%
Avg. Monthly Monitoring Fee	\$38.38	\$38.69	\$38.75

Notes

Source: Parks Associates (Security industry research organization).

Per Parks Associates (2016), devices are ~20% of industry revenue.

Output of Parks Associates estimate growth rates.

Source: Census Bureau (2016). Projected based on 20 year historical avg. growth.

Source: Census Bureau

Based on Park Associates, Citigroup 2015, ADT subscriber figures and segment share estimates.

Implied Subs (MMs) given MSS of:

- 3%
- 6%
- 9%

Source: Estimates based on data from Park Associates, Citigroup 2015 report, ADT subscriber figures and SDM Magazine.

⁵ Estimates of segment share are typically incomplete and unreliable and may not accurately represent a company's position within a segment.

Projected Camera Unit Sales by Segment

	2017	2018
Segment Units		
Wired Units	7.7	8.0
YoY Growth		4%
Wire-free Units	3.8	5.6
YoY Growth		50%
Doorbell Units	1.8	2.8
YoY Growth		57%
Total Units (MMs)	13.2	16.4
YoY Growth		24%

Appendix C: Selected Standalone Company Financials and Projections

<i>Financial Summary (\$MMs)</i>	2015	2016	2017P	2018P	Notes
Ring					
Revenue					
Product	\$36.7	\$158.0	\$365.3		
Subscription	\$0.6	\$9.3	\$34.6		
Revenue	\$37.3	\$167.3	\$399.9		
YoY Growth		348.6%	139.0%		
EBITDA	(\$18.5)	(\$50.5)	(\$95.5)		
% Margin	-50%	-30%	-24%		
Arlo					
Revenue	\$91.6	\$188.5	\$361.4	\$475.0	2018 per Guggenheim report. Subscription rev. not available.
YoY Growth		105.7%	91.8%	31.4%	
EBITDA	(\$3.9)	(\$15.0)	\$1.1	\$22.6	Includes corporate allocations based on Arlo % of Netgear revenue
% Margin	-4%	-8%	0%	5%	
Blink					
Revenue	\$0.5	\$17.7	\$41.0		
YoY Growth		3635.0%	131.7%		
EBITDA	(\$5.4)	(\$1.8)	\$3.7		
% Margin	-1148%	-10%	9%		

Camera Unit Sales (000's)	2015	2016	2017B	2018P	
Ring					
Video Doorbell	283	1,009	1,664	2,503	
Wire-Free Cameras		211	363	497	Stick Up Cam, Ring Cam Battery (Q4 2017 and 2018)
Wired Cameras		0	539	1,432	Floodlight (Outdoor); Indoor Camera. Primarily 2H 2017 and 2018.
Ring (Total)	283	1,220	2,566	4,433	2015 figures not provided; based on implied ASP and revenue
Arlo	658	1,353	2,594	3,410	Majority (90%+) wire-free
Blink	0	258	572	913	Blink indoor/XT cameras + doorbell cam in 2018 (~115k units)

BOM, battery life and image quality for Pie V-next contenders and existing wire-free cameras.



[Redacted]

Appendix E: Blink Standalone Financial Summary

	Annual		
	FY 2015	FY 2016	FY 2017
<i>(\$MMs)</i>	Actual	Actual	Budget
Revenue	\$ 0.5	\$ 17.7	\$ 41.0
<i>YoY Growth</i>		3635%	132%
Product COGS	\$ 0.9	\$ 10.4	\$ 21.0
Gross Profit	\$ (0.4)	\$ 7.3	\$ 20.1
<i>% Margin</i>	N/A	41%	49%
OPEX	\$ 5.2	\$ 9.2	\$ 16.2
<i>% of Revenue</i>	N/A	52%	39%
EBITDA	\$ (5.6)	\$ (1.9)	\$ 3.9
Net Income	\$ (5.4)	\$ (1.8)	\$ 3.7
<i>% Margin</i>	N/A	-10%	9%
Free Cash Flow	\$ (5.5)	\$ (2.2)	\$ (1.0)
<u>Other Metrics</u>			
Sync Units Sold		93,661	228,053
Cameras Sold		257,925	571,884
<i>YoY Growth</i>			
Installed Base (Sync Units)		93,661	321,714
Installed Base (Cameras)		257,925	829,809

Appendix F: Blink Build vs. Buy Analysis

Key Assumptions:

- Close acquisition 1/1/2018. 3 year forecast period [REDACTED]
- [REDACTED] to integrate services and to launch Amazon-branded wire-free product. Sell Blink products in interim.
- Revenue is only captured for Blink products and a rebranded wire-free/outdoor product. No future products modeled.
- Uses Pie V2 assumptions for other COGS, variable OPEX, fixed marketing and corporate allocations.

Acquisition Value

Assuming build timeline of:	18 months	24 months	30 months	36 months
After-tax PV of Acquisition	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Increase	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Notes:

- 15% discount rate.
- Includes PV of cost savings from Blink's chip/architecture we would not have in a build scenario (est. \$18/unit)
- Includes build cost to develop Pie V2 over relevant time period. Average HC of 100. Excludes cost to develop custom ASIC.

BUY CASE – 3 Year Projection

Year	2018	Note
1 Unit Sales (000's)	772	(1)
2 Device Revenue (\$MMs)	\$ 85.4 \$	
<i>Contribution Profit (\$MMs)</i>		
3 Device CP	[REDACTED]	
4 Subscription and Other DSI	[REDACTED]	(2)
5 Total PPU, Subscription and DSI Impact	[REDACTED]	
6 Less: Blink OPEX	[REDACTED]	(3)
7 Less: Integration Costs	[REDACTED]	(4)
8 Less: Taxes	[REDACTED]	(5)
9 Total after-tax Cash Flow	[REDACTED]	

Appendix G – Ring Financial Summary

	2015A	2016A	2017E	2018E
1 (in MM)				
2				
3 Net Product Revenue	\$ 36.7	\$ 158.0	\$ 365.3	
4 Net Subscription Revenue	0.6	9.3	34.6	
5 Total Net Revenue	\$ 37.3	\$ 167.3	\$ 399.9	
6 YoY Growth - Product		331%	131%	
7 YoY Growth - Subscription		1360%	271%	
8 YoY Growth - Total		349%	139%	
9				
15 Gross Profit:				
16 Product				
17 Subscription				
18 Total Gross Profit				
19				
20 Gross Margin:				
21 Product				
22 Subscription				
23 Overall Gross Profit				
24				
25 Operating Expenses:				
26 Sales & Marketing				
27 G&A				
28 R&D				
29 Total Operating Expense				
30 OpEx as % of Net Revenues				
31				
32 EBITDA				
33 EBITDA Margin				
34				
35 Key Metrics:				
36 Active Cameras Sold, Net (Device Basis)	N/A	1.0	2.6	
37 YoY Growth		N/A	162%	
38 Cumulative Active Camera Units (Device Basis)	0.1	0.8	2.9	
40 CAC Per Active Cameras Sold (1)				
41				
42 Cumulative Subscriber Households	0.1	0.5	1.5	
43 CAC Per Net New Subscriber (2)				
44				
46 (1) Total sales & marketing expense divided by active cameras sold, net of returns.				
47 (2) Total sales & marketing expense divided by net new subscriber households (adds less churn). Gross subscriber				
48 adds not readily available but are expected as due diligence proceeds.				

Appendix H: Ring DCF and Sensitivities

- 2018E based on Ring forecast; 2019E-2022E reflect Amazon forecast
- Valuation date as of 12/31/17
- Only annual subscriptions (no monthly subscriptions) modeled for simplification
- Case presented is illustrative to understand assumptions to get to \$1B valuation

	2018E
1 (in millions, except per unit data)	
2 Assumptions:	
3 Households Added	3.0
4 Cumulative Households	5.9
5 % BB Household Penetration	2.3%
6 Camera SKUs Sold	3.9
7 Other SKUs Sold	1.1
8 Total SKUs Sold	5.0
9 YoY Growth Rate	70.6%
10 Blended Net ASP (1)	\$ 132.05
11 YoY Growth Rate	5.8%
12 Subscriber Attach Rate	70%
13 Basic Annual ARPU	\$ 30.00
14 Protect Annual ARPU	\$ 100.00
15 Protect Annual Subscriber Mix	20%
16 Subscribers, BOP	1.5
17 Subscribers Added	2.1
18 Subscriber Churn	(0.2)
19 Subscribers, EOP	3.4
20 P&L:	
21 Net Product Revenue	
22 Net Subscriber Revenue	
23 Total Net Revenue	
24 Gross Profit:	
25 Product (includes Other COGS)	
26 Subscriber	
27 Total Gross Profit	
28 Gross Margin:	
29 Product	
30 Subscriber	
31 Total Gross Margin	
32 OpEx:	
33 Sales & Marketing	
34 G&A	
35 R&D	
36 Total OpEx	
37 OpEx as % of Net Revenues	
38 EBITDA	
39 EBITDA Margin	
40 Free Cash Flow	
41 FCF Margin	
42 (1) Inclusive of shipping revenues. Net of returns, marketing and other. Reflects blended average of all product SKUs.	

Appendix H: Ring DCF and Sensitivities (continued)

Operational Sensitivities:			
Valuation (EV) (1)			
		Domestic MSS (2)	Dom + Intl MSS (3)
Households Added (^{'18E-'22E})	8.0	10.0%	3.6%
	10.0	11.8%	4.3%
	13.9	15.3%	5.6%
	18.0	19.1%	7.0%
	20.0	20.9%	7.6%
Protect Subscribers Added (MM)			
		Domestic MSS (2)	Dom + Intl MSS (3)
Households Added (^{'18E-'22E})	8.0	10.0%	3.6%
	10.0	11.8%	4.3%
	13.9	15.3%	5.6%
	18.0	19.1%	7.0%
	20.0	20.9%	7.6%

(1) Assumes 13.0x FCF terminal multiple and 12% discount rate (4.0% implied perpetuity growth rate).
 (2) Market share of domestic broadband households estimated at 110MM in FY 2022E.
 (3) Market share of domestic and international broadband households estimated at 300MM in FY 2022E.

