

# PARKERVISION, INC.

(NASDAQ: PRKR)

Comments Post the Favorable Markman Ruling: Share Price Remains Well Below Our Estimated Fair Value. Maintaining Price Target of \$8.70

## Company & Market Data (March 7, 2013)

Rating	Buy
Price	\$ 3.94
Price Target (12 Month)	\$ 8.70
52 - Week Range	\$0.91 - \$4.39
Mkt. Capitalization (M)	\$ 315.2
Enterprise Value (M)	\$ 307.0
Diluted Shares Outstanding (M)	80.0
Avg. Daily Trading Vol (000s)	651.6
Book Value per Share	\$ 0.16
Fiscal Year End	December

## Estimates (Actual \$)

	FY 2011 A	FY 2012 E	FY 2013 E
Revenues	\$ -	\$ -	\$ 10,000,000
EBITDA	\$ (11,910,719)	\$ (15,634,594)	\$ (8,550,000)
Q1 non-GAAP EPS	\$ (0.04)	\$ (0.05)	A \$ -
Q2 non-GAAP EPS	\$ (0.04)	\$ (0.05)	A \$ -
Q3 non-GAAP EPS	\$ (0.05)	\$ (0.05)	A \$ -
Q4 non-GAAP EPS	\$ (0.05)	\$ (0.05)	\$ -
Total Cash EPS	\$ (0.19)	\$ (0.21)	\$ (0.11)
P/E	NM	NM	NM
EV/EBITDA	NM	NM	NM

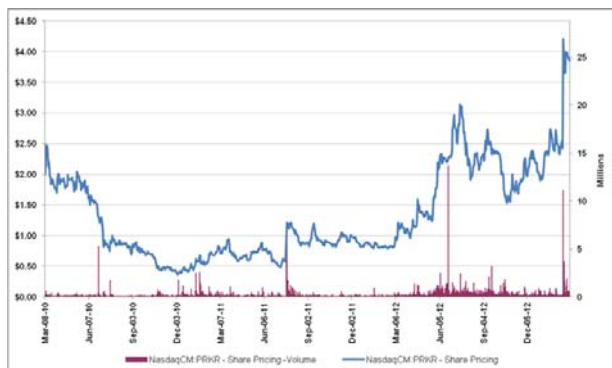


Chart Data: Capital IQ

ParkerVision, Inc. is a small cap, development-stage company engaged in the development of proprietary radio frequency (RF) technologies primarily for use in cellular phone handsets. ParkerVision has developed a novel method for processing RF waveforms, applicable in both the transmit and receive functions of a wireless radio transceiver. Its technology enables multiple simultaneous benefits for cellular handset circuitry including lower noise, less heat production, and longer battery life. ParkerVision intends to sell its integrated RF circuits and license its intellectual property into wireless devices designed by its customers. The company's RF products are also applicable to other wireless products, such as data cards, femtocells, and embedded applications. The company's technology has also developed products for non-cellular radio applications, specifically for military radios. The company was founded in 1989 and is headquartered in Jacksonville, Florida.

## Investment Highlights

- Litigation Comments** – In late February the United States District Court for the Middle District of Florida issued the patent claim construction ruling, or "Markman Order", related to the ongoing patent litigation against Qualcomm (QCOM, \$66.79, Not Rated). Of the 44 terms that were under dispute and included in the Markman Order, the judge sided with ParkerVision's definitions on 40 of the terms and on the remaining four he chose to provide his own definitions. More importantly, coming out of the Markman Order, all 86 infringement contentions underlying the six patents involved in the suit remain active. We understand that it is nearly unprecedented for a plaintiff to have 100% of its claims upheld in a Markman Order. We are particularly pleased to note the ParkerVision prevailed with its definitions related to several key terms including "Transferring Energy", "Lower Frequency Signal", "Impedance Matching" and the term "N = 1".
- Inequitable Conduct** – We also note that on Friday February 15, 2013, the QCOM defense team filed a notice with the Court essentially withdrawing its counterclaim of "Inequitable Conduct" against ParkerVision's actions with the U.S. Patent Office. This is an action that we believe is a notable positive for ParkerVision. This filing eliminated the last of Qualcomm's counterclaims and counter suits against ParkerVision.
- Taylor Patent** – Post the Markman ruling there appears to have arisen a discussion concerning references to prior art that would invalidate the ParkerVision patents related to the Qualcomm litigation. We do not believe the Taylor patent references contemplates/teaches the ParkerVision "Energy Sampling" invention (see the comments below on page 2).
- Our Outlook** – After more than a decade of somewhat tortuous corporate development efforts, ParkerVision now appears to be in the enviable position of nearing commercial deployment of its RF transceiver chip set and now of receiving a very favorable Markman Order in the pending patent litigation. In the past few months ParkerVision's case appears to have been strengthened not only by the Markman ruling, but also with the outcome of the "Inequitable Conduct" counterclaim. We are continuing to estimate revenues of \$10 million in 2013 with GAAP profitability to follow in 2014. Given this earning potential, our outlook for significant royalties in the event of success in the Qualcomm litigation, we are reiterating our Buy rating and maintaining our price target of \$8.70 (see Valuation Section below).

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Disclosures and Analyst Certifications can be found in Appendix A.

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## Thoughts Post the Markman Ruling

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In our opinion, with the overwhelming positive outcome from the Markman Order investor focus regarding ParkerVision is now even more focused on the ongoing patent litigation with Qualcomm and the potential windfall from a successful outcome in infringement suit. In the days following the issuance of the Markman Order ParkerVision's share price spiked to \$4.21 and then sold off back down to the mid \$3.00 range. Currently the stock remains below \$4.00. Given ParkerVision's comprehensive victory (40 out of 44 terms were decided in ParkerVision's favor) in the Markman ruling, we feel this rather muted response in the share price is not indicative of the potential value underlying ParkerVision's "Energy Sampling" intellectual property. Below, we have detailed some thoughts and comments post the Markman ruling that we believe are highly relevant in examining the company's current position and its future value in relation to the ongoing litigation.

### Recent Litigation Events

- **Markman Ruling:** As stated above, it is our opinion that the Markman Order issued by the Court on February 20<sup>th</sup>, 2013 is extremely favorable to ParkerVision's infringement claim against Qualcomm. Of the 44 terms that were under dispute and included in the Markman Order, the judge sided with ParkerVision on 40 term definitions and on the remaining four the Court provided its own definitions. More importantly, coming out of the Markman Order, all 86 infringement contentions underlying the six patents involved in the suit remain active. We understand that it is nearly unprecedented for a plaintiff to have 100% of its claims upheld in a Markman Order. We are particularly pleased to note the ParkerVision prevailed with its definitions related to several key terms including "Transferring Energy", "Lower Frequency Signal", "Impedance Matching" and the term "N = 1".
- **Inequitable Conduct:** In response to ParkerVision's original complaint filed in July 2011, Qualcomm claimed non-infringement and alleged that the ParkerVision patents were invalid and unenforceable. Qualcomm counter sued with 7 various claims including that a QCOM employee had co-invented the technology, and therefore QCOM was a rightful owner. This claim, along with 5 others, had been dropped by QCOM prior to the end of 2012. The one remaining counterclaim, "Inequitable Conduct" (defrauding the patent office) was heard by the Court in early January of this year. On January 22, 2013, the judge Dismissed with Prejudice QCOM's contentions of "Burying" and "Belated Disclosure" allegations, and put the burden of proof on Qualcomm to prove Misrepresentations under the threat of sanctions if this allegation proves specious. On February 15<sup>th</sup>, 2013 QCOM's legal team notified the Court that Qualcomm will no longer allege Inequitable Conduct and voluntarily withdrew the claim of "Misrepresentation". In our opinion, the elimination of Inequitable Conduct countersuit is another significant win for ParkerVision and places the focus of the case solely on the question of infringement – a question that the recent Markman Order makes much easier to prove in the affirmative applicable

### Tayloe Patent

Shortly after the Markman ruling we became aware of a discussion circulating among interested parties (both long and short) in ParkerVision that there is "new" evidence of prior art related to ParkerVision's patents related to the Qualcomm litigation. For several years now there has been a rather active group of individuals who continue to claim that ParkerVision's technology as detailed in its patents (primarily the '551 patent) cannot possibly work as described and is a collection of "fraudulent technical claims"<sup>1</sup>. Following the outcome of the Markman ruling this group has published comments on its site suggesting that Qualcomm can now "easily" prove invalidity of the ParkerVision patents due to two references that amount to "Prior Art"; the Tayloe Patent and a 1990 circuit design by D. H. van Graas. The primary focus of this claim is the Motorola patent submitted in 1998 known as Tayloe, U.S. Patent #6230000. It appears to us that

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<sup>1</sup> This group publishes a web site entitled PV Notes (see <http://www.pvnotes.com/>). The quote "fraudulent technical claims" is found on the Home Page of this site.

the individuals associated with the PV Notes web site are attempting to shift their contention that ParkerVision's technology is essentially worthless, to an argument that though Qualcomm may be actually using this technology, the technology has been in the literature (and well understood) well before ParkerVision's original patent applications and therefore ParkerVision's patents are invalid. We offer the following observations concerning this patent reference:

- We note that this Motorola patent is cited as a reference in three of the ParkerVision patents included in the infringement claims against Qualcomm and, according to the company, the Tayloe patent was known to the Patent Examiner during the original prosecution of the patents.
- Additionally, our reading of the Tayloe patent leads us to the conclusion that this invention does not teach or contemplate ParkerVision's "Energy Sampling" technology, but describes a methodology for sampling "voltage" to down convert a carrier wave. The Tayloe invention aims at maximizing voltage transfer and minimizing the transfer of energy in the sampling circuit. A careful reading of the patent clearly indicates that the Tayloe baseband signal is generated only from voltage and negligible to zero energy (current) is allowed in the creation of output signal. This result is accomplished with the use of a circuit using very high impedance to eliminate the transfer of energy to the output signal. The ParkerVision invention uses a circuit with very low impedance to allow for the sampling of large amount of energy (current) not just voltage to create the output signal. It is well known that voltage sampling is a methodology for down converting a wave, but the quality (dynamic range) of the output signal to the baseband processor is too poor to be commercially useful for cellular carrier waves. The Tayloe invention was designed for use in Ham Radio systems.
- If we are wrong (as is argued by the PV Notes web site) and the Tayloe patent reference so clearly demonstrates prior art and therefore invalidates the ParkerVision '551 patent, we are puzzled as to why the Qualcomm attorneys (there are four separate law firms representing Qualcomm in this litigation) have not already put forth this reference and petitioned the Judge to dismiss the case.

### Three Potential Litigation Outcomes

With the positive outcome of the Markman Order it is our opinion that ParkerVision's infringement claim is sufficiently strong to bring the case to trial (now scheduled for October, 2013). The fact that all of ParkerVision's claims against Qualcomm remain active speaks to the strength of ParkerVision's current position and, we believe, eliminates Qualcomm's ability to ask the Court for a Summary Judgment to dismiss the case. As such, we are now of the belief that there are only three potential outcomes remaining as the litigation proceeds; 1) a win at trial, 2) a loss at trial, or 3) a settlement of some kind before the final outcome of a trial. Below we have detailed some thoughts on each of the three scenarios:

- **A Loss at Trial** – A negative jury verdict for ParkerVision would likely result in the company filing an appeal, but realistically Qualcomm would be able to continue to freely utilize the disputed technology. ParkerVision's financial future would then depend on its ability to commercialize its transceiver technology as described below in the valuation section. The company would also likely be forced to access the capital markets in order to continue to fund operations, further diluting current shareholders. Under this scenario we believe the share price would decline rather significantly from present levels.
- **A Win at Trial** – A positive jury verdict would uphold ParkerVision's claim of infringement and allow ParkerVision to seek an injunction to immediately prevent the further sale of Qualcomm chips inside the U.S. The jury would also likely award ParkerVision monetary damages from Qualcomm for past infringement. We believe that the damage award would range from \$1.0 billion to \$1.5 billion. The threat of an injunction would likely lead to a worldwide license agreement requiring Qualcomm to pay a license fee/royalty for every chip that includes ParkerVision's RF receiver technology. The financial assumptions are presented below:
  - **Damages:** With a positive jury verdict, we are assuming a damage award for compensation of past infringement of roughly \$1.0 billion. This number is based on estimates of the number of chips that Qualcomm has shipped (roughly 2 billion +/-)

with the infringed technology since calendar 2006/2007. After taxes and the payment of the legal fee to McKool Smith the remaining cash should equal about \$7 per share assuming a fully diluted share count of 93 million. This number could go higher if the Jury were to find Qualcomm guilty of willful infringement.

- **Annual Forward Royalties:** We believe that a reasonable, yet conservative expectation for an annual royalty payment would be in the range of 4% to as low as 1.75%. Additionally, we believe that a positive Jury award and the threat of an injunction in the U. S. would provide ParkerVision with significant negotiating leverage and therefore support a license fee in the upper end of the expected range detailed in the table below. We understand that in recent patent litigation cases

Royalty Rates	Chip Shipments (MM)	Sales Price Per Chip	Royalty Value Per Chip	Total Revenue (MM)	Gross Margins	Operating Expenses (MM)	Earnings Per Share
4.00%	700,000	\$ 22.50	\$ 0.90	\$ 630,000	97.00%	20,000	\$ 6.36
3.00%	700,000	\$ 22.50	\$ 0.68	\$ 472,500	97.00%	20,000	\$ 4.71
2.50%	700,000	\$ 22.50	\$ 0.56	\$ 393,750	97.00%	20,000	\$ 3.89
2.00%	700,000	\$ 22.50	\$ 0.45	\$ 315,000	97.00%	20,000	\$ 3.07
1.75%	700,000	\$ 22.50	\$ 0.39	\$ 275,625	97.00%	20,000	\$ 2.66

involving Vringo (VRNG, \$3.02, Not Rated) and VernetX Holdings (VHC, \$34.38, Not Rated) the negotiated royalty rates were in the 3.5% range. Above is a chart<sup>2</sup> presenting potential earnings per share amounts that ParkerVision could generate on an annual basis within a range of royalty fee rates.

- **A Potential Settlement** – Assuming that sometime between the present and the October 2013 trial date Qualcomm and ParkerVision were to come to a settlement agreement, we believe that both the damages for past infringement and ongoing royalty payments would likely be different (lower) than if the case proceeded all the way through a trial. With a settlement, ParkerVision would be trading a negotiated “sure thing” against a “possible” win in Court. As such, ParkerVision would likely be willing to settle for a much smaller damage award (we estimated something in the range of \$500 million) for past infringement and a royalty rate on future chip sales on the lower end of the range outlined above.

## Business Development

We believe the news of the favorable Markman Order has, to a degree, served to cause investors to ignore somewhat the potential of the business development efforts on ParkerVision’s behalf by the two advisory firms; the law firm of Wilson Sonsini and 3LP Advisors. These two firms are working to bring licensing or other business opportunities to ParkerVision. The goal is to interest other potential infringers in licensing the ParkerVision technology or to perhaps purchase ownership in some of the ParkerVision’s large patent portfolio. We believe that with a positive Markman ruling now in hand, the likelihood of another entity apart from Qualcomm wanting to license the technology now is significantly enhanced. Mr. Rivette, the CEO of 3LP Advisors, has stated publically that he believes ParkerVision’s technology is being widely used other than in cellular devices. If the company is successful in its litigation with Qualcomm, it is our opinion that the company will look to other technology segments for additional potential infringers. We know of no eminent transaction, but we do know that these two advisors have been active in approaching companies other than Qualcomm. If a licensing transaction were to take place in the near-term, we believe it would provide an additional incentive for Qualcomm to come to an agreeable settlement with ParkerVision and provide investors with added confidence in the value of the ParkerVision patent portfolio.

<sup>2</sup> The estimates for the annual chip shipments and the average price of the Qualcomm chips were derived from Qualcomm’s 4<sup>th</sup> quarter 2012 financial results and conference call.

## Patent Litigation Statistics

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In our review of the literature surrounding the outcomes of patent litigation in the U.S., we believe that one of the most comprehensive, accurate and detailed overviews on this subject is a recent study conducted by PricewaterhouseCoopers, LLP (PwC). We have vetted this research with another well-known patent consulting firm, 3LP Advisors, headed by Kevin Rivette who is the former Chairman of the USPTO oversight committee and VP of Intellectual Property Strategy for IBM. According to this research from PwC<sup>3</sup> (encompassing the period from 1995 – 2011), the overall average success rate for the patent holders in litigation cases in the U.S. is 33.6%. We note that according to the PwC research, this statistic improves considerably if the patent case makes it past the pre-trial preliminaries and the two parties actually meet at trial. According to the data in the U.S., if a patent case goes to trial, then the overall win rate for the patent holder jumps to 64.6% and furthermore, if the trial is held in front of a jury (the ParkerVision case is slated for a jury trial in October of 2013) the win rate for the patent holder climbs to 76.2%.

Though, in our opinion, ParkerVision appears to have a compelling basis for its infringement claims, at this early stage in the proceedings (even with a favorable Markman ruling) we feel that a conservative approach given the current state of the litigation would be to view ParkerVision's chances of prevailing in its litigation as being no better (and no worse) than the average for a patent plaintiff during the last 17 years. On this basis, we would peg ParkerVision's probability of success in its litigation at 33.6%.

## Financial Discussion

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As a development stage company ParkerVision is not yet selling its RF transceiver product and has yet to produce meaningful revenues. For calendar 2011 the company reported a GAAP loss of \$14.5 million and utilized \$11.4 million in cash from operations. ParkerVision's operating structure remained consistent during Q3 of 2012, as the company reported no revenues and reported expenses of \$5.1 million. The net GAAP loss was \$4.1 million and the cash burn from operations during the quarter totaled just more than \$3 million.

The company has been utilizing \$2 to \$3 million of cash per quarter for the past couple of years and this trend is expected to continue at least through the end of this year. To finance its operations for the next few quarters the company recently (September 2012) completed a \$9.5 million capital raise. This funding comprised the sale of 4.3 million common shares at a price of \$2.30. With this capital raise the company now has approximately 80 million shares outstanding. We note that the trial date is now slated for October of 2013 and by that time ParkerVision's cash reserves would again be quite low. We believe that the company will need to generate additional capital ether from a licensing transaction or another small capital raise to see it through to the end of the litigation.

Longer term we believe the company has the potential to be quite successful in its efforts to market its RF transceiver chip set and will begin to generate meaningful revenues in 2013 and beyond. For calendar 2013 we estimate that revenues will reach \$10 million and result in GAAP net loss of about \$11 million. We believe that with continue revenue growth the company could generate GAAP profits in calendar 2014.

## Valuation

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Currently the company has a market cap of roughly \$315 million (80 million shares outstanding). This value is significant given the fact that the company is still in the development stage and is

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<sup>3</sup> 2012 Patent Litigation Study, PricewaterhouseCoopers, LLP, 2012



unlikely to generate any meaningful product revenues until late in calendar 2013. Additionally, the company is losing about \$15 million per year and burning about \$13 million per year in cash.

Due to the significance of the pending litigation with Qualcomm we believe that a fair valuation requires accounting (to a degree) for both the possibility that ParkerVision prevails in this litigation and the possibility that it is not successful in defending its patent position and loses at trial. Obviously the fortunes of the company and subsequently the resulting valuation should be very different with a positive outcome to the litigation versus a negative result. As such, below we have outlined two valuation scenarios, #1 assumes the company prevails in its claims against Qualcomm and #2, assumes the company is not successful with its litigation efforts, but still continues to market its technology through its partnership with VIA.

### Valuation Methodology #1 (Positive Outcome from Litigation)<sup>4</sup>

Though the outcome of patent litigation is nearly impossible to predict, the potential financial benefit to ParkerVision from a positive verdict in its litigation with Qualcomm would require Qualcomm to license the ParkerVision technology on a go forward basis and potentially result in future royalties that could reach into the hundreds of million dollars. This estimate does not include a potential award for past damages as that would be a one-time gain to ParkerVision and not a recurring payment stream. Currently, Qualcomm controls about 40% of the cellular baseband chip market which equates to shipments of roughly 700 million units annually. A reasonable license fee on the ParkerVision technology could be in the range of 2% to 7% of the price of the baseband chip set which sells for about \$25.00 per unit. At the very low end, a 2% royalty would equate to about \$0.50 per Qualcomm chip or about \$350 million on an annual basis. In our earnings model for calendar 2014 we are assuming that the litigation would be final sometime in early 2014 and that royalty payments could begin by the second quarter of that year, resulting in royalty revenues reaching \$200 million for 2014. Under this scenario, we are assuming that royalties from Qualcomm would be ongoing as the price for continued use of the technology. Though this royalty stream is potentially quite large, the expected future growth rate in this royalty stream would be modest.

If ParkerVision were to win the patent litigation, Qualcomm would face an immediate injunction against the further sale of its infringing chips. In response, Qualcomm could settle the judgment and negotiate an appropriate ongoing licensing arrangement with ParkerVision or appeal the verdict and attempt to delay the required judgment and royalty payments. If Qualcomm were to appeal the judgment the required payments would be delayed, but the clock would have started on future royalties and we believe the market would begin to impute a value of these future revenue streams into the stock price. Additionally, if Qualcomm were granted a stay of the judgment on appeal it would be required to put up a bond for the value of the judgment. This bond guarantees that the monies potentially owed (primarily the awarded damages) to ParkerVision would be available if Qualcomm were to lose on appeal. We note that as of the December 2012 quarterly report, Qualcomm had a cash position in excess of \$13 billion.

As a valuation method assuming that ParkerVision prevails in the litigation and is awarded royalties, we have constructed a discounted cash flow table showing the estimated yearly royalty streams for a period of seven years and the Net Present Value of these payments at various discount rates (see the image at the right). Under this scenario we assume

Year	Estimated Royalty Stream (000s)	NPV	Per Share Value
2014	\$ 200,000		
2015	\$ 350,000		
2016	\$ 358,750		
2017	\$ 367,718		
2018	\$ 376,911		
2019	\$ 386,334		
2020	\$ 395,992		
NPV @ 30% Discount Rate		\$ 1,170,378	\$ 14.63
NPV @ 25% Discount Rate		\$ 1,245,398	\$ 15.57
NPV @ 20% Discount Rate		\$ 1,332,716	\$ 16.66
NPV @ 15% Discount Rate		\$ 1,435,184	\$ 17.94
NPV @ 12.5% Discount Rate		\$ 1,493,217	\$ 18.67
NPV @ 10% Discount Rate		\$ 1,556,512	\$ 19.46

Source: Ladenburg Thalmann & Co., Estimates

<sup>4</sup> See Table 4 on page 14 for earnings models for each valuation scenario.

that royalty stream grows modestly (2.5% per year beginning in 2016). Given the fact that Qualcomm is in a very strong financial position and our belief that the mobile phone industry will remain healthy for the foreseeable future, we believe that risk of not receiving court ordered royalties would be quite low and therefore believe that a 15% discount is an appropriate and reasonably conservative discount rate. Under this scenario, with a victory in the Qualcomm litigation a reasonable NPV/share of the royalty stream would equate to approximately \$18.00.

### Valuation Methodology #2 (Negative Outcome of Litigation)

Assuming that ParkerVision does not prevail with its litigation efforts, our earnings model focuses on the company efforts to market its technology to the other baseband chip set suppliers and mobile handset OEMs. A verdict in the litigation is not expected until late 2013, by which time ParkerVision should already have product on the market with at least one handset manufacturer. A negative outcome to the litigation would essentially leave the company where it is today from a marketing standpoint. Due to the significant cost and performance benefits and the non-trivial nature of independently reproducing the ParkerVision RF solution, we believe that the company has a reasonable opportunity to be successful in expanding its market penetration on into 2014. Though Qualcomm would not be a future customer, Qualcomm's competitors in the industry offer the potential to become significant future customers.

Assuming the company is able to achieve only modest success by calendar 2014 (less than 1% of the expected market) we estimate that the company could still reasonably generate revenues from both product sales and licensing. For 2013 we are estimating revenues of \$10 million which equates to sales of about 2 million chip sets. This estimate is based on the existing market penetration of the large handset manufacturer in the Asian market and management's expectations. For 2014, we are estimating revenues of \$40 million with GAAP earnings of \$0.10 per share. The \$40 million equates to sales of about 12 million chip sets (about 0.6% of the expected market) split between direct sales and licensing. This estimate includes the assumptions that business expands with the existing handset manufacturing partner, which ParkerVision adds another customer to the mix, and that license revenues begin in second half of 2014.

With this earnings power and future market penetration potential we believe it is reasonable to envision the stock being accorded an earnings multiple in line with other companies in the semiconductor market once ParkerVision has a product on the market (see table at the below)<sup>5</sup>.

In the table we have calculated P/E multiples for fiscal 2013 with the mean P/E equating to 29.1X. To compensate for the fact that our model for ParkerVision does not have the company turning profitable until 2014, we believe the 2013 P/E multiple should be adjusted downward by 10% to arrive at an estimated 2014 P/E, accounting for the expected growth rate in the cellular industry<sup>6</sup>. Applying a 26.2 multiple to our 2014 estimate of \$0.10 equates to a stock price of \$2.62

Company Name	Ticker	Price	% of Revenues from Licencing	Estimated Fiscal 2013 EPS	2013 P/E
Aneran, Inc.	ANEN	\$ 19.98	0.0%	\$ 1.32	1.3
Arm Holding, PLC	ARMH	\$ 42.78	100.0%	\$ 1.12	38.2
Avargo Technologies Ltd.	AVGO	\$ 34.97	0.0%	\$ 2.59	13.5
Imagination Technologies	IMG.L	£ 491.0	72.0%	£ 12.86	38.2
InterDigital, Inc	IDCC	\$ 47.80	98.0%	\$ 0.70	68.3
Qualcomm, Inc.	QCOM	\$ 66.79	38.0%	\$ 4.47	14.9
Skyworks Solutions, Inc.	SWKS	\$ 21.04	0.0%	\$ 2.14	9.8
Spreadtrum Comm, Inc.	SPRD	\$ 17.12	0.0%	\$ 1.89	9.1
Supertex, Inc.	SUPX	\$ 22.84	0.0%	\$ 0.33	69.2
TriQuint Semiconductor, Inc.	TQNT	\$ 4.58	0.0%	\$ 0.16	28.6
<b>Mean</b>					<b>29.1</b>

<sup>5</sup> The information in this table was sourced from Yahoo Finance and the respective company filings. The companies in the table are not covered by the research group at Ladenburg Thalmann & Co. and their mention is not a recommendation to buy or sell these securities.

<sup>6</sup> Industry analysts Forester and eMarketer are estimate an approximate growth rate in the low double digits through 2014.

Given the two potential outcomes of the litigation, in our view ParkerVision's shares could have a fair value in the mid \$2.00 range or as high as \$20.62 (\$18.00 from litigation and \$2.62 from product operations) depending on one's outlook on the outcome of the litigation. At the current share price we believe the market is giving little weight to a positive outcome to the litigation. In our view, we believe PRKR has a strong case to win the litigation. However, given the nature of the legal process it is difficult to specifically assess an exact probability of a successful outcome for PRKR. We believe that the best method for determining a potential outcome at the current stage of the litigation would be to utilize the statistics from the PwC 2012 Patent Litigation Study discussed above on page 5. Given the PwC stats we are applying a probability of 33.6% to a successful litigation outcome and a probability of 66.4% to a negative trial outcome. This calculation<sup>7</sup> equates to a price of \$8.70 based on the given probability of the two outcomes. At the current stage of the litigation we believe \$8.70 is a reasonable and defensible target price.

We note that this valuation range for ParkerVision's shares does not include the possibility that ParkerVision might also be granted some level of one-time monetary damages to compensate for past infringement if the company is successful at trial.

## Investment Risks

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As a development stage small cap company with one primary product competing with much larger and well established entities, ParkerVision faces a number of significant risks associated with, but not limited to, managing the company's anticipated transition to a commercial entity with product sales. In our view, the primary risk lies with obtaining the first commercial contract for its RF transceiver technology. Once the product is successfully out in the market, other mobile handset OEMs will be more inclined to begin the processes required to implement the technology. In addition, though the company recently completed a capital raise, we anticipate the company will need additional capital by the end of this calendar year. The inability to raise additional capital would severely impair ParkerVision's efforts to commercialize its RF transmitter technology. Other potential risks to our investment thesis and earnings model include, but are not limited to the following:

- **New Technology Developments:** The cellular handset industry has been subject to rapid technological advances and ParkerVision's commercial products could be rendered obsolete if the company is unable to keep pace with these on-going developments in technology.
- **Product Commercialization:** ParkerVision is currently engaged with one large handset OEM to employ its RF chip solution in one cellular handset model designed for the Asian market. If this engagement were to be delayed or terminated it would materially change our outlook for the timing of product commercialization for the next 12 to 18 months and impact our financial model for 2013 and beyond.
- **Patents and Intellectual Property:** If the company is unsuccessful in protecting the proprietary nature of its technology in the Qualcomm or other future litigation, its competitive position and future commercial opportunities would likely be impaired.
- **Entrenched Competition:** Even if ParkerVision is able to demonstrate to the superiority of its RF solutions, the current competition is well established, with significant financial and marketing advantages could potentially be difficult to supplant. The company will potentially face competition from chip suppliers such as Anadigics, Broadcom, Intel, Qualcomm, and RF Micro Devices.
- **World Economics:** A significant downturn in the world economic climate would likely affect the demand for cellular handset products and limit the willingness of OEMs to introduce new technologies into their products. This type of economic climate would potentially hinder ParkerVision's ability to sell its products and generate the needed revenue to reach profitability.

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<sup>7</sup>  $(\$2.62 \times .664) + (\$20.62 \times .336) = \$8.68$  or rounded to \$8.70



- **CEO, Jeffrey Parker:** The company is highly dependent on Mr. Parker as its chief executive officer. If his services were lost, it could materially adversely impact the leadership and the company's relationships with the industry and by investors.
- **Via Telecom, Inc.:** To commercialize its RF technology ParkerVision needs to integrate its product with a baseband chip. Currently, ParkerVision is closely tied with only one baseband chip supplier, Via Telecom. Any disruption of the relationship with Via could adversely affect ParkerVision's ability to move its RF integrated circuit into the marketplace.
- **Capital Markets:** During 2011 the share price traded below the \$1.00 level for an extended period of time and the company was in default of the listing requirements for the NASDAQ National Market. With continued operating losses and uncertainty surrounding the patent litigation, there is a potential that the company could be delisted in the future and no longer trade on that market or any other national securities exchange.

Table 1: ParkerVision – Quarterly Income Statement

	QUARTERLY INCOME STATEMENT (Actual \$\$)											
	CY Ending 2010				CY Ending 2011				CY Ending 2012			
	3/31/2010	6/30/2010	9/30/2010	12/31/2010E	3/31/2011	6/30/2011	9/30/2011	12/31/2011	3/31/2012	6/30/2012	9/30/2012	12/31/2012E
<i>Product Revenues</i>												
Engineering Services & Licencing revenues	63,735	-	-	-	-	-	-	-	-	-	-	250,000
<b>Total Revenues</b>	<b>\$ 63,735</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 250,000</b>
Cost of revenues	46,401	-	-	10	-	-	-	-	-	-	-	200,000
<b>Gross Profit</b>	<b>\$ 17,334</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (10)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 50,000</b>
<b>Operating Expenses</b>												
Research and development	2,304,323	2,162,826	2,416,216	1,999,365	1,937,721	2,185,942	2,238,872	2,061,148	2,038,523	1,789,313	2,130,977	2,050,000
Marketing and selling	461,104	441,658	424,779	319,238	341,822	337,748	338,529	431,402	395,358	362,715	417,379	500,000
General and administrative	1,204,718	1,208,220	1,157,238	1,045,929	1,107,081	1,046,507	1,196,078	1,452,837	1,640,716	2,929,019	2,480,594	1,850,000
<b>Total Expenses</b>	<b>\$ 3,970,145</b>	<b>\$ 3,812,704</b>	<b>\$ 3,998,233</b>	<b>\$ 3,364,532</b>	<b>\$ 3,386,624</b>	<b>\$ 3,570,197</b>	<b>\$ 3,773,479</b>	<b>\$ 3,945,387</b>	<b>\$ 4,074,597</b>	<b>\$ 5,081,047</b>	<b>\$ 5,028,950</b>	<b>\$ 4,400,000</b>
<b>Operating Profit (Loss)</b>	<b>\$(3,952,811)</b>	<b>\$(3,812,704)</b>	<b>\$(3,998,233)</b>	<b>\$(3,364,542)</b>	<b>\$(3,386,624)</b>	<b>\$(3,570,197)</b>	<b>\$(3,773,479)</b>	<b>\$(3,945,387)</b>	<b>\$(4,074,597)</b>	<b>\$(5,081,047)</b>	<b>\$(5,028,950)</b>	<b>\$(4,350,000)</b>
Interest and other income	4,424	24,713	23,137	56,913	19,088	33,776	20,209	34,977	6,853	23,409	12,114	2,500
Interest expense	(2,404)	(1,755)	(1,568)	(2,699)	(1,297)	(970)	(757)	(2,692)	(309)	(2,889)	(2,460)	(350)
<b>Net Profit (Loss)</b>	<b>\$(3,950,791)</b>	<b>\$(3,789,746)</b>	<b>\$(3,976,664)</b>	<b>\$(3,310,328)</b>	<b>\$(3,368,833)</b>	<b>\$(3,537,391)</b>	<b>\$(3,754,027)</b>	<b>\$(3,913,102)</b>	<b>\$(4,068,053)</b>	<b>\$(5,060,527)</b>	<b>\$(5,019,296)</b>	<b>\$(4,347,850)</b>
Unrealized Gain on Securities held for sale	-	-	11,505	(19,321)	657	14,257	(2,053)	(15,468)	10,450	(32)	-	-
<b>Comprehensive gain (Loss)</b>	<b>\$(3,950,791)</b>	<b>\$(3,789,746)</b>	<b>\$(3,965,159)</b>	<b>\$(3,329,649)</b>	<b>\$(3,368,176)</b>	<b>\$(3,523,134)</b>	<b>\$(3,756,080)</b>	<b>\$(3,928,570)</b>	<b>\$(4,057,603)</b>	<b>\$(5,060,559)</b>	<b>\$(5,019,296)</b>	<b>\$(4,347,850)</b>
Weighted Average Shares fully diluted	41,192,550	41,249,296	41,308,049	52,752,036	59,001,958	59,201,682	67,257,081	67,573,775	67,673,775	75,800,000	78,814,000	75,800,000
<b>EPS - fully diluted</b>	<b>\$ (0.10)</b>	<b>\$ (0.09)</b>	<b>\$ (0.10)</b>	<b>\$ (0.06)</b>	<b>\$ (0.06)</b>	<b>\$ (0.06)</b>	<b>\$ (0.06)</b>	<b>\$ (0.06)</b>	<b>\$ (0.06)</b>	<b>\$ (0.07)</b>	<b>\$ (0.06)</b>	<b>\$ (0.06)</b>
Depreciation and amortization	437,959	435,070	428,719	387,470	333,474	336,095	336,143	322,082	307,366	308,322	303,845	310,000
Stock-based compensation	762,730	801,166	696,762	466,847	455,122	558,293	133,768	289,991	323,116	1,120,482	941,267	550,000
<b>Non-GAAP Cash Earnings (Loss)</b>	<b>\$(2,750,102)</b>	<b>\$(2,553,510)</b>	<b>\$(2,862,815)</b>	<b>\$(2,532,245)</b>	<b>\$(2,598,668)</b>	<b>\$(2,662,522)</b>	<b>\$(3,306,378)</b>	<b>\$(3,351,474)</b>	<b>\$(3,433,974)</b>	<b>\$(3,655,164)</b>	<b>\$(3,786,298)</b>	<b>\$(3,490,350)</b>
<b>Non-GAAP Cash Earnings (Loss) per Share</b>	<b>\$ (0.07)</b>	<b>\$ (0.06)</b>	<b>\$ (0.07)</b>	<b>\$ (0.05)</b>	<b>\$ (0.04)</b>	<b>\$ (0.04)</b>	<b>\$ (0.05)</b>	<b>\$ (0.05)</b>	<b>\$ (0.05)</b>	<b>\$ (0.05)</b>	<b>\$ (0.05)</b>	<b>\$ (0.05)</b>
<b>EBITDA</b>	<b>\$(2,752,122)</b>	<b>\$(2,576,468)</b>	<b>\$(2,872,752)</b>	<b>\$(2,510,225)</b>	<b>\$(2,598,028)</b>	<b>\$(2,675,809)</b>	<b>\$(3,303,568)</b>	<b>\$(3,333,314)</b>	<b>\$(3,444,115)</b>	<b>\$(3,652,243)</b>	<b>\$(3,783,838)</b>	<b>\$(3,490,000)</b>
	<b>% of TOTAL REVENUE</b>											
<b>Gross Margin</b>	27.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Research and development	72.8%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Marketing and selling	3615.5%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General and administrative	723.5%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total Expenses</b>	<b>6229.1%</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>Operating Profit (Loss)</b>	<b>-6201.9%</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>Net Profit (Loss)</b>	<b>-6198.8%</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>Non-GAAP Cash Earnings (Loss)</b>	<b>-4314.9%</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
	<b>% YEAR OVER YEAR INCREASE</b>											
<b>Total Revenues</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total Expenses</b>	-23.3%	-33.8%	-30.4%	-31.1%	-14.7%	-6.4%	-5.6%	17.3%	20.3%	42.3%	33.3%	11.5%
<b>Operating Profit (Loss)</b>	23.7%	33.8%	30.4%	30.2%	14.3%	6.4%	5.6%	-17.3%	-20.3%	-42.3%	-33.3%	-10.3%
<b>Net Profit (Loss)</b>	23.1%	34.2%	30.8%	31.5%	14.7%	6.7%	5.6%	-18.2%	-20.8%	-43.1%	-33.7%	-11.1%
<b>Cash Earnings (Loss)</b>	17.0%	35.4%	29.7%	25.5%	5.5%	-4.3%	-15.5%	-32.4%	-32.1%	-37.3%	-14.5%	-4.1%
	<b>% SEQUENTIAL INCREASE</b>											
<b>Total Revenues</b>	NA	-100.0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Total Expenses</b>	-18.7%	-4.0%	4.9%	-15.8%	0.7%	5.4%	5.7%	4.6%	3.3%	24.7%	-1.0%	-12.5%
<b>Operating Profit (Loss)</b>	17.9%	3.5%	-4.9%	15.8%	-0.7%	-5.4%	-5.7%	-4.6%	-3.3%	-24.7%	1.0%	13.5%
<b>Net Profit (Loss)</b>	18.3%	4.1%	-4.9%	16.8%	-1.8%	-5.0%	-6.1%	-4.2%	-4.0%	-24.4%	0.8%	13.4%
<b>Non-GAAP Cash Earnings (Loss)</b>	19.1%	7.1%	12.1%	11.5%	-2.6%	-2.5%	-24.2%	-1.4%	-2.5%	-6.4%	-3.6%	7.8%

Source: Company Filings, and Ladenburg Estimates

Table 2: ParkerVision – Annual Income Statement

ANNUAL INCOME STATEMENT (Actual \$s)					
	2009	2010	2011	2012E	2013E
<i>Product Revenues</i>					10,000,000
<i>Engineering Services &amp; Licencing revenues</i>	\$ 64,412	63,735	-	250,000	
<b>Total Revenues</b>	<b>\$ 64,412</b>	<b>\$ 63,735</b>	<b>\$ -</b>	<b>\$ 250,000</b>	<b>\$ 10,000,000</b>
<i>Cost of revenues</i>	54,440	46,411	-	200,000	4,000,000
<b>Gross Profit</b>	<b>\$ 9,972</b>	<b>\$ 17,324</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 6,000,000</b>
<b>Operating Expenses</b>					
<i>Research and development</i>	13,504,799	8,882,730	8,423,683	8,008,813	8,000,000
<i>Marketing and selling</i>	2,092,148	1,646,779	1,449,501	1,675,452	2,000,000
<i>General and administrative</i>	5,962,309	4,616,105	4,802,503	8,900,329	7,500,000
<b>Total Expenses</b>	<b>\$ 21,559,256</b>	<b>\$ 15,145,614</b>	<b>\$ 14,675,687</b>	<b>\$ 18,584,594</b>	<b>\$ 17,500,000</b>
<b>Operating Profit (Loss)</b>	<b>\$ (21,549,284)</b>	<b>\$ (15,128,290)</b>	<b>\$ (14,675,687)</b>	<b>\$ (18,534,594)</b>	<b>\$ (11,500,000)</b>
<i>Interest and other income</i>	36,085	109,187	108,050	44,876	10,000
<i>Interest expense</i>	(16,412)	(8,426)	(5,716)	(6,008)	(5,000)
<b>Net Profit (Loss)</b>	<b>\$ (21,529,611)</b>	<b>\$ (15,027,529)</b>	<b>\$ (14,573,353)</b>	<b>\$ (18,495,726)</b>	<b>\$ (11,495,000)</b>
<i>Unrealized Gain on Securities held for sale</i>	-	(7,816)	(2,607)	7,098	-
<b>Comprehensive gain (Loss)</b>	<b>\$ (21,529,611)</b>	<b>\$ (15,035,345)</b>	<b>\$ (14,575,960)</b>	<b>\$ (18,488,628)</b>	<b>\$ (11,495,000)</b>
<b>Weighted Average Shares fully diluted</b>	30,098	44,125,483	60,733,145	73,000,000	75,800,000
<b>EPS - fully diluted</b>	<b>\$ (715.32)</b>	<b>\$ (0.34)</b>	<b>\$ (0.24)</b>	<b>\$ (0.25)</b>	<b>\$ (0.15)</b>
<i>Depreciation and amortization</i>	1,741,199	1,689,218	1,327,794	1,400,000	1,450,000
<i>Stock-based compensation</i>	4,993,656	2,727,505	1,437,174	1,500,000	1,500,000
<b>Non-GAAP Cash Earnings (Loss)</b>	<b>\$ (14,794,756)</b>	<b>\$ (10,618,622)</b>	<b>\$ (11,810,992)</b>	<b>\$ (15,588,628)</b>	<b>\$ (8,545,000)</b>
<b>Non-GAAP Cash Earnings (Loss) per Share</b>	<b>\$ (491.55)</b>	<b>\$ (0.24)</b>	<b>\$ (0.19)</b>	<b>\$ (0.21)</b>	<b>\$ (0.11)</b>
<b>EBITDA</b>	<b>\$ (14,814,429)</b>	<b>\$ (10,711,567)</b>	<b>\$ (11,910,719)</b>	<b>\$ (15,634,594)</b>	<b>\$ (8,550,000)</b>
<b>% of TOTAL REVENUE</b>					
<b>Gross Margin</b>	NA	27.2%	NA	20.0%	60.0%
<i>Cost of revenues</i>	NA	72.8%	NA	80.0%	40.0%
<i>Research and development</i>	NA	13937.0%	NA	3203.5%	80.0%
<i>Marketing and selling</i>	NA	2583.8%	NA	670.2%	20.0%
<b>Total Expenses</b>	NA	23763.4%	NA	7433.8%	175.0%
<b>Operating Profit (Loss)</b>	NA	-23736.2%	NA	-7413.8%	-115.0%
<b>Net Profit (Loss)</b>	NA	-23578.1%	NA	-7398.3%	-115.0%
<b>Non-GAAP Cash Earnings (Loss)</b>	NA	-16660.6%	NA	-6235.5%	-85.5%
<b>% YEAR OVER YEAR INCREASE</b>					
<b>Total Revenues</b>	NA	NA	NA	NA	3900.0%
<b>Total Expenses</b>	NA	NA	NA	NA	-5.8%
<b>Operating Profit (Loss)</b>	NA	NA	NA	NA	N/A
<b>Net Profit (Loss)</b>	NA	NA	NA	NA	N/A
<b>Cash Earnings (Loss)</b>	NA	NA	NA	NA	N/A

Source: Company Filings, Ladenburg Estimates

Table 3: ParkerVision – Balance Sheet

	BALANCE SHEET (Actual \$s)										
	CY 2010				CY 2011				CY 2012		
	3/31/2010	6/30/2010	9/30/2010	4/4/2484	3/31/2011	6/30/2011	9/30/2011	12/30/2011	3/31/2012	6/30/2012	6/30/2012
<b>ASSETS</b>											
Current Assets:											
Cash and cash equivalents	10,687,913	631,527	452,344	213,398	4,362,784	252,041	371,059	213,438	241,547	238,722	648,377
Securities held for Sale	3,689	7,024,924	4,558,025	6,315,911	4,059,104	5,147,687	8,465,842	5,026,398	1,568,700	6,642,573	12,716,005
Prepaid expenses and other current assets	392,513	379,240	257,461	553,976	420,060	340,478	362,009	661,788	626,758	650,670	525,854
<b>Total current assets</b>	<b>\$ 11,084,115</b>	<b>\$ 8,035,691</b>	<b>\$ 5,267,830</b>	<b>\$ 7,083,285</b>	<b>\$ 8,841,948</b>	<b>\$ 5,740,206</b>	<b>\$ 9,198,910</b>	<b>\$ 5,901,624</b>	<b>\$ 2,437,005</b>	<b>\$ 7,531,965</b>	<b>\$ 13,890,236</b>
Property and equipment, net of accumulated depreciation	721,678	692,155	602,711	537,177	468,994	414,677	372,814	351,285	395,158	422,833	400,173
Intangible assets	9,960,446	9,819,186	9,589,472	9,408,093	9,361,486	9,266,002	9,134,559	9,004,263	9,000,400	9,027,147	9,066,974
Other Assets	529,521	528,860	530,241	567,148	567,506	577,572	577,889	584,799	464,286	473,187	475,081
<b>Total assets</b>	<b>\$ 22,295,760</b>	<b>\$ 19,075,892</b>	<b>\$ 15,990,254</b>	<b>\$ 17,595,703</b>	<b>\$ 19,239,934</b>	<b>\$ 15,998,457</b>	<b>\$ 19,284,172</b>	<b>\$ 15,841,971</b>	<b>\$ 12,296,849</b>	<b>\$ 17,455,132</b>	<b>\$ 23,832,464</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>											
Current Liabilities:											
Accounts payable	676,307	326,620	562,141	238,783	344,939	315,856	516,359	613,806	591,130	222,849	769,473
Salaries and wages	382,827	480,141	405,569	306,037	365,030	281,065	408,947	252,928	404,735	317,451	425,283
Professional fees	194,156	278,459	284,633	190,574	329,091	350,054	329,032	404,069	464,619	677,031	817,770
Other accrued expenses	115,858	50,099	85,812	95,510	95,537	31,250	70,838	16,867	34,053	117,559	71,566
Deferred rent, current portion	115,515	159,045	139,047	118,456	97,705	76,999	47,338	75,804	79,962	84,164	88,388
<b>Total current liabilities</b>	<b>\$ 1,484,663</b>	<b>\$ 1,294,364</b>	<b>\$ 1,477,202</b>	<b>\$ 949,360</b>	<b>\$ 1,232,302</b>	<b>\$ 1,055,224</b>	<b>\$ 1,372,514</b>	<b>\$ 1,363,474</b>	<b>\$ 1,574,499</b>	<b>\$ 1,419,054</b>	<b>\$ 2,172,480</b>
Capital lease (net of current portion)	31,349	24,998	18,434	11,649	4,637	-	-	-	-	45,807	39,972
Deferred rent	84,503	49,865	56,350	42,986	70,666	75,235	64,928	137,878	116,218	93,254	69,638
<b>Total liabilities</b>	<b>1,600,515</b>	<b>1,369,227</b>	<b>1,551,986</b>	<b>1,003,995</b>	<b>1,307,605</b>	<b>1,130,459</b>	<b>1,437,442</b>	<b>1,501,352</b>	<b>1,690,717</b>	<b>1,558,115</b>	<b>2,282,090</b>
<b>Stockholders' Equity:</b>											
Common stock	411,925	412,493	413,080	527,520	590,019	592,017	672,571	675,738	676,738	778,469	828,628
Accumulated loss	-	-	11,505	(7,816)	(7,159)	7,098	5,045	(10,418)	32	-	26,319
Warrants outstanding	15,443,357	15,443,357	15,443,357	16,534,516	15,055,053	15,055,053	14,992,759	8,649,786	8,649,786	1,323,305	1,081,050
Additional paid-in capital	221,006,485	221,807,083	222,503,258	226,780,738	232,907,399	233,364,204	240,080,756	246,842,116	247,164,232	264,740,426	275,579,216
Accumulated deficit	(216,166,522)	(219,956,268)	(223,932,932)	(227,243,250)	(230,612,983)	(234,150,374)	(237,904,401)	(241,816,603)	(245,884,656)	(250,945,183)	(255,964,839)
<b>Total stockholders' equity</b>	<b>\$ 20,695,245</b>	<b>\$ 17,706,665</b>	<b>\$ 14,438,268</b>	<b>\$ 16,591,708</b>	<b>\$ 17,932,329</b>	<b>\$ 14,867,998</b>	<b>\$ 17,846,730</b>	<b>\$ 14,340,619</b>	<b>\$ 10,606,132</b>	<b>\$ 15,897,017</b>	<b>\$ 21,550,374</b>
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 22,295,760</b>	<b>\$ 19,075,892</b>	<b>\$ 15,990,254</b>	<b>\$ 17,595,703</b>	<b>\$ 19,239,934</b>	<b>\$ 15,998,457</b>	<b>\$ 19,284,172</b>	<b>\$ 15,841,971</b>	<b>\$ 12,296,849</b>	<b>\$ 17,455,132</b>	<b>\$ 23,832,464</b>

Source: Company Filings, Ladenburg Estimates

Table 4: ParkerVision – Valuation Estimated Earnings Models for Calendar 2014

	Earnings Model #1		Earnings Model #2
<b>ANNUAL INCOME STATEMENT (Actual \$s)</b>			
	<b>2014E</b>		<b>2014E</b>
<i>Product Revenues</i>	15,000,000		35,000,000
<i>Engineering Services &amp; Licencing revenues</i>	200,000,000		5,000,000
<b>Total Revenues</b>	<b>\$ 215,000,000</b>		<b>\$ 40,000,000</b>
<i>Cost of revenues</i>	25,500,000		12,500,000
<b>Gross Profit</b>	<b>\$ 189,500,000</b>		<b>\$ 27,500,000</b>
<b>Operating Expenses</b>			
<i>Research and development</i>	9,500,000		8,250,000
<i>Marketing and selling</i>	2,500,000		3,200,000
<i>General and administrative</i>	9,000,000		7,750,000
<b>Total Expenses</b>	<b>\$ 21,000,000</b>		<b>\$ 19,200,000</b>
<b>Operating Profit (Loss)</b>	<b>\$ 168,500,000</b>		<b>\$ 8,300,000</b>
<i>Interest and other income</i>	10,000		10,000
<i>Interest expense</i>	(5,000)		(5,000)
<b>Net Profit (Loss)</b>	<b>\$ 168,505,000</b>		<b>\$ 8,305,000</b>
<i>Income tax expense</i>	15,000,000		-
<b>Comprehensive gain (Loss)</b>	<b>\$ 153,505,000</b>		<b>\$ 8,305,000</b>
<b>Weighted Average Shares fully diluted</b>	80,000,000		80,000,000
<b>EPS - fully diluted</b>	<b>\$ 1.92</b>		<b>\$ 0.10</b>
<i>Depreciation and amortization</i>	1,450,000		1,450,000
<i>Stock-based compensation</i>	1,700,000		1,550,000
<b>Non-GAAP Cash Earnings (Loss)</b>	<b>\$ 156,655,000</b>		<b>\$ 11,305,000</b>
<b>Non-GAAP Cash Earnings (Loss) per Share</b>	<b>\$ 1.96</b>		<b>\$ 0.14</b>
<b>EBITDA</b>	<b>\$ 171,650,000</b>		<b>\$ 11,300,000</b>
<b>% of TOTAL REVENUE</b>			
<b>Gross Margin</b>	<b>88.1%</b>		<b>68.8%</b>
<i>Cost of revenues</i>	11.9%		31.3%
<i>Research and development</i>	4.4%		20.6%
<i>Marketing and selling</i>	1.2%		8.0%
<b>Total Expenses</b>	<b>9.8%</b>		<b>48.0%</b>
<b>Operating Profit (Loss)</b>	<b>78.4%</b>		<b>20.8%</b>
<b>Net Profit (Loss)</b>	<b>78.4%</b>		<b>20.8%</b>
<b>Non-GAAP Cash Earnings (Loss)</b>	<b>72.9%</b>		<b>28.3%</b>

Source: Company Filings, Ladenburg Estimates



**APPENDIX A: IMPORTANT RESEARCH DISCLOSURES****ANALYST CERTIFICATION**

I, Jon R. Hickman, attest that the views expressed in this research report accurately reflect my personal views about the subject security and issuer. Furthermore, no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views expressed in this research report, provided, however, that:

The research analyst primarily responsible for the preparation of this research report has or will receive compensation based upon various factors, including the volume of trading at the firm in the subject security, as well as the firm's total revenues, a portion of which is generated by investment banking activities.

**COMPANY BACKGROUND**

ParkerVision, Inc. is a small cap, development-stage company engaged in the development of proprietary radio frequency (RF) technologies primarily for use in cellular phone handsets. ParkerVision has developed a novel method for processing RF waveforms, applicable in both the transmit and receive functions of a wireless radio transceiver. Its technology enables multiple simultaneous benefits for a cellular handset circuitry including lower noise, less heat production, and longer battery life. ParkerVision intends to sell its integrated RF circuits and license its intellectual property into wireless devices designed by its customers. The company's RF products are also applicable to other wireless products, such as data cards, femtocells, and machine-to-machine and embedded applications. The company's technology has also developed products for non-cellular radio applications, specifically for military radios. The company was founded in 1989 and is headquartered in Jacksonville, Florida.

**VALUATION METHODOLOGY**

We are establishing a target price range for ParkerVision's shares based on both our 2014 earnings model (model #2) for the company and on a NPV/share calculation of the estimated royalty streams. At the low end of the range we assume a 0% probability that ParkerVision prevails at trial and the valuation is based solely on a P/E of our estimated 2014 earnings of \$0.10 per share and equates to \$2.65 per share. On the high end we are assuming a 100% probability of a win at trial and are basing the valuation on a NPV of the estimated royalty streams along with the potential \$0.10 per share in earnings for 2014. Using this outlook for the two potential outcomes we have applied the patent litigation success statistics supplied by the PwC 2012 Patent Litigation Study. This study indicates that the average success of a patent holder in litigation is 33.6%. Applying this probability to the high end valuation equates to a price of \$8.70.  $(\$2.65 \times .664) + (20.65 \times .336) = \$8.70$

**RISKS**

As a development stage small cap company with one primary product competing with much larger and well established entities, ParkerVision faces a number of significant risks associated with, but not limited to, managing the company's anticipated transition to a commercial entity with product sales. In our view, the primary risk lies with obtaining the first commercial contract for its d2p RF technology. Once the product is successfully out in the market, other mobile handset OEMs will be more inclined to begin the processes required to implement the technology. In addition, though the company recently completed a capital raise, the company is likely to need additional capital by the end of this calendar year. The inability to raise additional capital would severely impair ParkerVision's efforts to commercialize its RF transmitter technology. Other potential risks to our investment thesis and earnings model include, but are not limited to the following:

- **New Technology Developments:** The cellular handset industry has been subject to rapid technological advances and ParkerVision's commercial products could be rendered obsolete if the company is unable to keep pace with these on-going developments in technology.
- **Product Commercialization:** ParkerVision is currently engaged with one large handset OEM to employ its d2p RF chip solution in one cellular handset model designed for the Asian market. If this engagement were to be delayed or terminated it would materially change our outlook for the timing of product commercialization for the next 12 to 18 months and impact our financial model for 2013.
- **Patents and Intellectual Property:** If the company is unsuccessful in protecting the proprietary nature of its technology in the Qualcomm litigation, its competitive position and future commercial opportunities would potentially be impaired.
- **Entrenched Competition:** Even if ParkerVision is able to demonstrate the superiority of its RF solutions, the current competition is well established, with significant financial and marketing advantages and could potentially be difficult to supplant.
- **World Economics:** A significant downturn in the world economic climate would likely affect the demand for cellular handset products and limit the willingness of OEMs to introduce new technologies into their products.
- **CEO, Jeffrey Parker:** The company is highly dependent on Mr. Parker as its chief executive officer. If his services were lost, it could materially adversely impact the leadership and the company's relationships with the industry and by investors.
- **Via Telecom, Inc.:** To commercialize its d2p RF technology ParkerVision needs to integrate its product with a baseband chip. Currently, ParkerVision is closely tied with only one baseband supplier, Via Telecom. Any disruption of the relationship with Via could adversely affect ParkerVision's ability to move its RF integrated circuit into the marketplace.

- **Capital Market:** During 2011 the share price traded below the \$1.00 level for an extended period of time and the company was in default of the listing requirement for the NASDAQ National Market. With continued operating losses and uncertainty surrounding the patent litigation, there is a potential that the company could be delisted in the future.

## STOCK RATING DEFINITIONS

Buy: The stock's return is expected to exceed 12.5% over the next twelve months.

Neutral: The stock's return is expected to be plus or minus 12.5% over the next twelve months.

Sell: The stock's return is expected to be negative 12.5% or more over the next twelve months.

Investment Ratings are determined by the ranges described above at the time of initiation of coverage, a change in risk, or a change in target price. At other times, the expected returns may fall outside of these ranges because of price movement and/or volatility. Such interim deviations from specified ranges will be permitted but will become subject to review.

## RATINGS DISPERSION AND BANKING RELATIONSHIPS (AS OF 2/28/2013)

Buy: 75% (38% are banking clients)

Neutral: 24% (7% are banking clients)

Sell: 1% (0% are banking clients)

## COMPANY SPECIFIC DISCLOSURES

Ladenburg Thalmann & Co. Inc. makes a market in the subject company. Ladenburg Thalmann & Co. Inc. had an investment banking relationship with ParkerVision Inc. (PRKR) and received investment banking compensation from the subject company in the past 12 months. Ladenburg Thalmann & Co. Inc. acted as placement agent in a securities offering for ParkerVision Inc. (PRKR) in the last 12 months. Neither the Analyst, nor members of the Analyst's household own any securities issued by the subject Company, or other companies mentioned in this report.

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assets of at least \$5,000,000, if such issuer has been in continuous operation for less than three (3) years; or (iii) average revenue of at least \$6,000,000 for the preceding three (3) years. Unless such exemption is available, regulations require delivery of a risk disclosure document explaining the penny stock market and the risks associated therewith prior to any transaction involving a penny stock. For stock not quoted on NASDAQ or at any time that the company has less than \$2,000,000 in net tangible assets, the trading in the common stock is covered under Rule 15g-9 under the Securities Exchange Act of 1934 for non-NASDAQ and non-exchange listed securities. Under such rule, broker-dealers who recommend covered securities to persons other than established customers and accredited investors must make a written suitability determination for the purchaser and receive the purchaser's written agreement to a transaction prior to sale. Some securities may not be cleared for sale in all states or other jurisdictions and LTCO assumes no responsibility to apprise you of individual states or jurisdictions' regulatory restrictions. Stocks in the microcap segment of market have risks that are not as common in other segments of market. These risks include, but are not limited to, liquidity risk, which can lead to higher volatility and low trade volume, company specific risks that contribute to lower valuation, higher probability of financial default and distress.

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