

Tri-Vision International Ltd.

Special Situations

October 15, 2004

TSX:TVL \$1.51
Recommendation: STRONG BUY
12-Month Target: \$2.35 (was \$1.40)

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Tri-Vision to Capitalize on FCC Ruling

Event:

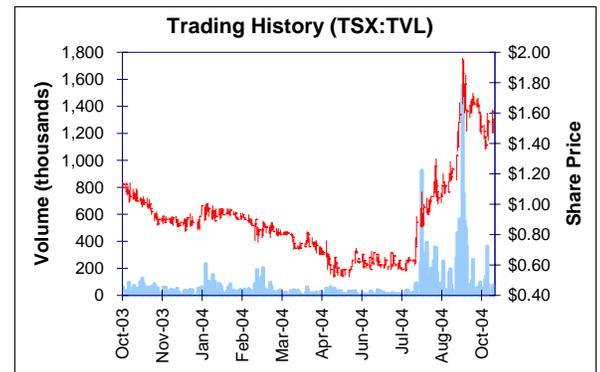
- TVL is planning to capitalize on the recent ruling by the Federal Communications Commission (FCC) mandating the use of V-chip technology in all digital television devices sold in the US.

Highlights:

- **FCC Ruling:** Federal Communications Commission Report and Order issued September 8, 2004 requires every electronic digital device that is capable of receiving a digital television signal to include a programmable "Open V-chip", for which TVL has a patent. TVL expects to receive royalty-licensing fees from the television manufacturers until 2016, when its patent expires.
- **Digital TV Market:** We are assuming that digital television sales will accelerate over the next five years based on the recent report issued by the Consumer Electronics Association (CEA). There is plenty of room for growth because approximately 14% of US homes have digital televisions. CEA forecasts digital television sales to be 5.7 million in 2005, 9.7 million in 2006, 16.2 million in 2007, 23.9 million in 2008 and 31.6 million in 2009.
- **InnVision Contract:** TVL has sold over \$4 million of proprietary data/video distribution and control system products to InnVision Networks to be used by its customer IdleAire. IdleAire has installed its system in 22 travel centre locations.
- **Undervalued share price:** Our target price is based on a DCF analysis. **We continue to rate TVL as a STRONG BUY with a one-year target of \$2.35.**

52-week High-Low	\$1.96-\$0.52
Shares outstanding	
– Basic	53.8 million
– Fully Diluted	56.6 million
Market capitalization	\$81.2 million
Cash	\$5.6 million
Long Term Debt	\$1.7 million
Fiscal year end	March 31
Major shareholders:	Management & Directors: 31.7%

	2003	2004E	2005E	2006E
Revenue (000)	\$14,421	\$11,271	\$13,966	\$17,527
EPS (FD)	\$0.01	\$0.02	\$0.04	\$0.05
P/E	151.0x	75.5x	37.8x	30.2x



Source: Bloomberg

Company Description

Founded in 1986, and headquartered in Toronto, TVL is a full service manufacturer and distributor of consumer, commercial and industrial electronic products used in the cable television industry and the holder the V-chip patent for televisions used by parents to protect their children from violent and sexual programming.

Investment Opinion Definition

STRONG BUY:	NSI expects the share price to appreciate 30% or more over the next 12 months.
BUY:	NSI expects the share price to appreciate 10% to 30% over the next 12 months.
HOLD:	NSI expects the share price to appreciate 10% or less over the next 12 months.
SELL:	NSI expects the share price to have a negative rate of return over the next 12 months.
SPECULATIVE BUY:	NSI expects the share price to appreciate substantially over the next 12 months, but with a high level of inherent risk.

Note: Percentages are approximate and ratings are at the analyst's discretion.

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The Company

Tri-Vision International Ltd. (“TVL” or “the Company”) designs, develops, manufactures and supplies electronics products to the cable television (“CATV”), multimedia and consumer electronics industries. TVL is a supplier of CATV products (such as hand-held remote control devices and cable converters) to major CATV operators in 32 countries, including Canada and the United States. Through its own research and development programs, TVL has become a market leader in infrared hand-held remote control technology and continues to commit resources to the research and development of new technologies.

TVL has also been providing contract research and development services over the years to customers for design, development and engineering of their products. On May 22, 2002, TVL established Tri-Vision Technologies International Inc. (“TVT”) to take advantage of TVL’s international experience and established contacts. TVT was established to assist North American technology companies in the marketing of their products internationally, with a focus on companies and technologies in the Internet, medical and pharmaceutical, environmental, electronics and electric power industries. TVL’s research and development department supports partner companies, provides manufacturing capabilities in the Far East and offers an experienced and professional marketing team.

Digital Television Market

The six-year transition of television broadcasting from an analog to a digital platform is bringing new profit opportunities to the manufacturers of televisions in particular, as well as all the peripheral product manufacturers of DVD, video and set-top-box devices. Consumers are replacing old analog televisions or adding new big screen sets to their home theatre systems. Buyers are opting to purchase displays capable of better resolution and higher frequency scan rates of digital television (DTV) signals and to take advantage of the improved video quality offered by popular DVD players. Many viewers are also personalizing their viewing experience with new interactive peripheral products that allow them to control programming and even record from the Internet.

DTV is an umbrella term for new class of television sets and monitors that accept the higher frequency scan rates of digital television broadcast formats to produce images with more than twice the resolution of traditional analog televisions. CEA defines a DTV product as an integrated set or monitor capable of presenting a picture with at least 480 progressively scanned active vertical lines (480p). A DTV can be classified as high-definition television (HDTV) display, capable of presenting up to 1,080 interlaced (1080i) or 780 progressively scanned lines (720p) on the screen. Most HDTV broadcasts also contain multi-channel (5.1) Dolby Digital surround sound to complete the realism of the viewing experience within the home theatre system.

The year 2004 is being viewed as the transition year for DTV, as more DTV products move into mainstream distribution channels and digital broadcasts multiply across the country. An influx of new manufacturers and brands from the Far East is pulling down the price of DTV products, making them affordable for more consumers. In addition, DTV purchases continue to shift from high-end custom installers and specialty electronics stores to volume-oriented regional and national electronics chains, mass merchants and warehouse clubs, including the retail giant Wal-Mart.

The Consumer Electronics Association (CEA) announced on September 28, 2004 that unit sales of DTVs for the month August 2004 were 328,838 units, up 10% from the

same period in 2003. Dollar sales, which totaled over US\$479 million (average price of US\$1,457 per unit), were up 7% from August 2003. In year-to-date terms, unit sales have reached 2.38 million and dollar sales were more than US\$3.3 billion (US\$1,386 per unit). Close to 60% of television sales are made in November and December each year. CAE forecasts DTV factory revenue to climb by 33% to more than US\$8 billion by the end of 2004 and DTV product sales to climb more than 39% to 5.7 million units. It is noteworthy that factory sales of DTV displays exceeded CAE forecasts in 2003, with wholesale volume growing by 41% to nearly US\$6 billion. New display technologies are boosting DTV growth, with sales of plasma televisions projected to reach 550,000 units or US\$2.2 billion (average US\$4,000 per unit) in factory dollars, following sales of US\$1.5 billion in 2003, up from US\$515 million a year earlier. Liquid Crystal Display (LCD) television sales are forecast to climb to 1.67 million units on factory sales of more than US\$1 billion, following 2003 that saw US\$651 million in wholesale revenue.

The Federal Communications Commission (FCC) in the US has planned a gradual phasing in of DTV stations leading to the end of analog broadcasting by 2006 and/or when 85% of US households have digital television receivers. The FCC granted each television station one additional 6 Mhz channel slot to continue broadcasting their current analog channels, while simultaneously replacing digital versions during the transition period. In 2006 and/or when 85% of the US receives DTV signals, each broadcaster must return a channel used for analog broadcasting to the FCC. These returned channels then will be put up for auction to wireless service providers and other private parties (including the military) to help pay down the nation's debt.

V-chip Technology

V-chip technology enables the television viewer/parent to block the display of television programs based on specified criteria selected by the viewer/parent. The technology can be incorporated into a stand-alone decoding device or built into consumer electronics products such as televisions, cable converters, VCRs, DVDs and computer monitors.

V-chip technology is based on the encoding of television programs at the point of transmission, with an identifying electronic signal designating program content in terms of such matters as violence, coarse language, sexuality, nudity, audience age and mature themes. A classification system has been adopted in Canada, the United States and Jamaica and is being finalized in Brazil, pursuant to which television program broadcasts will be rated in terms of one or more of these classifications. V-chip technology permits a device to be programmed, to read the signal on a given program, compare it to the level pre-authorized by the viewer/parent and then either block or allow viewing of the program. The device incorporating the V-chip technology will be programmable to allow the viewer/parent to select the available tolerance levels in each available classification category and should the program exceed these pre-set levels, the program will be blocked. When a program is blocked, program information will be displayed on the screen identifying program title and ratings in each of the classification categories. If a viewer/parent wants to remove the blocking function, it can easily be done by entering an assigned personal identification number (PIN).

In addition to using the rating system as a basis for television control, V-chip technology can allow a viewer/parent to block the display of television programs on the basis of other parameters, including channel, time of day, maximum daily viewing time and title of program. V-chip technology is also capable of providing a viewer with a list of program alternatives based upon the preferences selected by the viewer.

V-chip technology is adaptable to any of the existing television formats and is capable of accommodating multiple classification systems. The technology can easily accommodate changes in classification formats as well as add new classification systems without the need to make any hardware or software changes.

Business Operations

V-chip Technology Licensing

TVL's strategy to commercialize its technology is to license the V-chip to manufacturers on a royalty basis. Over the base three years, TVL has concluded licensing agreements with 21 television manufacturers selling products in Canada and the United States. There are over 100 manufacturers selling TVL's products in the US marketplace.

TVL has entered into licensing arrangements for the V-chip technology with the following manufacturers (plus one unnamed OEM), including:

2000/2001

- Sharp Corporation, Japan (Canada & United States)
- OEM Unnamed (USA)

2002

- Pioneer Corp., Japan (Canada)
- Hitachi America Ltd., USA (Canada & United States)
- Sanyo Electric Company Ltd., Japan (Canada)
- Hansol Electronics Co. Ltd., Korea (Canada & United States)
- Ajinvision Co. Ltd., Korea (Canada & United States)
- LG Electronics Inc., Korea (Canada)

2003

- Orion America Inc. (Canada & United States)
- Sony Electronics Inc., Japan (Canada)
- Funai Corporation, Japan (Canada & United States)
- Apex Digital Inc., USA (Canada)
- Cosmo Communications Canada Inc. (Canada)
- Samsung Electronics Inc., Korea (Canada)
- Eastern Asia Technology Ltd., Singapore (Canada & USA)

2004

- Koninklijke Philips Electronics, Netherlands (Canada)
- Matsushita Electric Industrial Co., Japan [Panasonic] (Canada)
- Victor Company of Japan Ltd., Japan [JVC] (Canada)
- Toshiba of Canada Limited, Japan (Canada)
- Orion Group of Companies (Canada & United States)

TVL estimates that it could receive royalties of between US\$1.00 and US\$2.00 per digital television device sold over the next 12 years until its patent expires in 2016. The Consumer Electronics Association forecasts annual digital television sales of 5.7 million units in 2004, 9.7 million in 2005, 16.2 million in 2006 and 23.9 million in 2007.

Digital Television Sales

	Unit Sales (000)	Unit Growth Rate	Dollar Sales (million)	Dollar Growth Rate	Avg. Unit Price	Avg. Unit Growth Rate
1999	121		\$295		\$2,438	
2000	648	436%	\$1,426	383%	\$2,201	-10%
2001	1,460	125%	\$2,648	86%	\$1,814	-18%
2002	2,536	74%	\$4,281	62%	\$1,688	-7%
2003	4,102	62%	\$6,520	52%	\$1,589	-6%
2004E	5,704	39%	\$8,022	23%	\$1,406	-12%
2005E	9,740	71%				
2006E	16,200	66%				
2007E	23,900	48%				

Source: CEA Market Research January 2004

The United States has the largest number of PCs in use with 175 million at the end of 2001. According to the Computer Industry Almanac, the US PC market will grow only 6.2% annually to reach about 251 million units in 2007. In addition, approximately 40 million computers are sold in the US annually, but the annual number of PCs in use will grow by only 13% per year because of PC replacement rates of more than 70%. Television video cards are becoming a standard feature for many of these computers, which will enable DTV reception. This means that under FCC rules these computers will require a V-chip and TVL could then receive royalties from the manufacturers of these computers.

Approximately 280 million analog televisions are in working condition in the US. The FCC is planning to phase out analog TV programming over 2006 and 2007. On August 8, 2002 the FCC mandated that all TV models with a screen size greater than 13 inches and receivers such as VCRs and DTV recorders be able to receive DTV signals no later than July 1, 2007. These analog televisions will require over the air (OTA) digital to analog set top boxes (STBs) to receive the digital signals that will become the standard sometime in 2007. Each of the OTA digital to analog STBs will be required to have a V-chip.

Data/Video Distribution and Control System (Truck Stops)

InnVision Networks LLP, which was started 8 years ago to design and develop proprietary products for commercial companies, has purchased over \$4.0 million of proprietary data/video distribution and control system products. InnVision signed an agreement with IdleAire Technologies Corp. ("IdleAire") to provide IdleAire with a solution involving TVL's technology. IdleAire wanted to provide long haul truckers with electric "shore" power for cab heating and air conditioning, to power equipment in the cab such as televisions, computers or engine block heaters and to power trailer refrigeration units (reefers), which are carried by approximately 18% of long haul truckers. Generally, most truck drivers park their trucks and leave the engine idling for heating and cooling and to use various accessories in the cab.

IdleAire's solution was Advanced Travel Center Electrification (ATE) technology, which provides each parking space at a truck stop with shore power and an external, individual thermostatically controlled, high capacity heating and air conditioning unit. The unit connects to the truck via a window-mounted service module, which also provides local telephone, television and Internet access, and 110-volt outlets for appliances, oil heaters, and engine heaters. TVL provided the proprietary data/video distribution and control system over a fibre optic network for IdleAire. Why does this product work? Because the cost of services to the truck owner are less than the cost of the diesel fuel used to idle. In addition, the system reduces much of the noise and exhaust emissions in nearby neighbourhoods associated with travel centres and large-vehicle parking areas. Recent independent studies have shown that the IdleAire

filtration and air-handling system improves air quality beyond just turning off the truck. Using the IdleAire system, provides drivers with air that is on average 50% cleaner than the air outside the truck.

IdleAire studies showed that there are 4.2 million large diesel trucks in the US, of which 1.3 million are long haul trucks with sleepers. Drivers of these trucks have traditionally idled their engines during required rest periods (8 hours for every 10 hours on the road) or while waiting for loads. The IdleAire solution, as one would expect, is strongly supported by US federal and state government authorities.

IdleAire recently entered into a strategic partnership with Parson Brinckerhoff (PB) to be the program manager for the national deployment of IdleAire's ATE system. Parson Brinckerhoff is a leading engineering firm in the world with over 9,000 employees and 200 offices on six continents, of which 150 are in the US. PB will manage the deployment of the IdleAire system in more than 200,000 truck parking spaces in travel centre locations across the US. The agreement between IdleAire and PB includes a substantial investment by PB in IdleAire.

IdleAire has installed the system in about 22 sites and plans to have the system installed in over 1,000 sites in the next 4 to 5 years. Truck driver use of the IdleAire system has exceeded 2.1 million hours. The system hit the 2 million hour mark in August 2004 and is now delivering more than 50,000 hours of service each week. Truck drivers using the IdleAire system have already saved more than 2 million gallons of fuel in the same period and repeat drivers using the system exceed 70% each day. To date, TVL has sold and delivered about \$4 million in equipment to IdleAire.

Hand-held Remote Control Devices

These wireless hand-held devices operate using either infrared technology or radio frequency or a combination of both. TVL has developed remote control technology for both dedicated and universal hand-held remote control units for both OEM and replacement markets. Most of the remote control products are used for television viewing. In addition, TVL has manufactured products used to program other electronic devices such as alarm and lighting systems. Recently, TVL has developed products for interactive and multimedia applications.

Cable TV Converters

Set-top box converters are produced under both TVL's own brand name and for OEM private brands. Recently, TVL developed new 860 MHz converters which are available in both volume and non-volume versions with additional features including favourite channel recall and parental lock. In the last five years, converter sales averaged over \$2 million per year.

Addressable Pay TV and Pay Per View System

TVL has developed a low-cost addressable Pay TV and Pay Per View system with high signal security to guard against loss of revenue resulting from signal piracy, for both wired and wireless CATV systems, private CATV installations and hotel/motel use. The system is a complete turn-key system, which includes all hardware and software to perform cable system control room video scrambling, transmission and reception functions, including TVL's own addressable converters and decoders for subscriber descrambling operation. The system is available in a number of languages and the video scrambling and descrambling system covers all major television standards including NTSC (North America), PAL-B/G (Western Europe and Asia), PAL-N (South America) PAL-D/K (Eastern Europe and China) and SECAM (France). The system has the capability of enabling cable companies to offer Pay Per View without the need for a two-way interactive system.

The hotel/motel system also has the additional benefit of telecom network access through local area networks (LAN) and wide area networks (WAN) and permits the system operator to also provide local advertising, messaging, billing and other guest services through the system.

Distribution of Third Party Products

TVL also distributes CATV products manufactured by other firms. These products include: CATV distribution equipment, line amplifiers and a cable system for thinly populated areas. While these products do not represent a significant portion of TVL's revenues, they enable TVL to provide its customers with a full line of CATV products.

Legislation and Regulation

On September 8, 2004, TVL announced that the Federal Communications Commission (FCC) issued a Report and Order entitled "The Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television". This FCC Report and Order standardizes the way program information is delivered, requiring broadcasters who include content advisory data to provide it in the Program System Information Protocol (PSIP), which accompanies every digital television program. The PSIP must contain any available content advisories (ratings) for broadcast programming and digital television (DTV) receivers must be designed to be able to respond to changes in the content advisory system. TVL's Open V-chip allows ratings to be changed as per FCC requirements.

Electronics manufacturers must be in compliance with the new FCC rules by March 15, 2006 for all digital televisions measuring at least 13 inches diagonally or 7.8 inches high for the 16:9 aspect ratio. The FCC ruling will also cover all computer monitors capable of OTA television reception, OTA digital to analog STBs, cable and satellite STBs, digital video recorders, VCRs, media PCs and PC-based tuner cards. Essentially, every electronic device that is capable of receiving a digital television signal is included in the FCC Report and Order.

FCC mandated integrated DTVs in response to demands by the broadcast industry. The FCC ordered all television sets 13 inches and larger, and other products that normally carry television tuners (now computers) to include terrestrial (DTV) tuners, by July 1, 2007. The mandate outlined a phase-in approach over five years starting with larger screen sets. The FCC timetable calls for DTV tuners to be included in the following:

- 50% of TV sets measuring 36 inches and larger by July 1, 2004 and 100% by July 1, 2005;
- 50% of TV sets measuring 25-36 inches by July 1, 2005 and 100% by July 1, 2006;
- And 100% of the TV sets measuring 13-24 inches by July 1, 2007.

The mandate also calls for 100% of other television interface devices that receive television signals – such as VCRs, DVDs and personal video recorders (PVRs) – to include DTV tuners by July 1, 2007.

Revised Forecast

We have revised our forecast for 2005 through to 2007 to include the potential licensing revenue (royalties) from V-chip and the expected improvement in IdelAire revenue.

We have assumed the following sales of TV units using the Consumer Electronics Association forecast for U.S. and our forecast for Canada:

Millions of Units	2005E	2006E	2007E	2008E	2009E
Digital Television Sales in US	5.7	9.7	16.2	23.9	31.6
Licensed in US	0.9	2.9	7.3	14.3	23.7
% Penetration	15%	30%	45%	60%	75%
Television Sales in Canada	1.8	1.9	2.0	2.1	2.2

Source: Consumer Electronics Association (US figures) and NSI

(000s, except per share data)	Years Ended March 31						
	2003A	2004A	2005E	2006E	2007E	2008E	2009E
V-chip licensing & decoder	\$7,559	\$5,908	\$7,336	\$9,473	\$14,629	\$23,273	\$34,922
Converters & transmitters	2,361	458	504	555	610	671	738
IdleAire	140	1,380	2,500	4,000	5,000	6,000	7,000
Cable Equipment	3,905	2,854	2,926	2,999	3,074	3,151	3,229
Other income	456	671	700	500	500	500	500
Total Revenue	\$14,421	\$11,271	\$13,966	\$17,527	\$23,813	\$33,595	\$46,390
Cost of Sales	7,641	4,037	6,005	7,537	10,240	14,446	19,948
Gross profit	\$6,780	\$7,234	\$7,961	\$9,990	\$13,573	\$19,149	\$26,442
Gross margin %	47.0%	64.2%	57.0%	57.0%	57.0%	57.0%	57.0%
Interest income	64	67	50	50	50	50	50
Gross revenue	6,844	7,301	8,011	10,040	13,623	19,199	26,492
Selling & administration	3,113	2,780	2,421	3,177	4,340	6,471	9,283
Research & development	720	892	981	1,079	1,187	1,306	1,436
EBITDA	\$3,011	\$3,630	\$4,609	\$5,784	\$8,096	\$11,422	\$15,772
EBITDA Margin %	20.9%	32.2%	33.0%	33.0%	34.0%	34.0%	34.0%
Depreciation & amortization	1,611	1,583	1,730	1,903	2,093	2,303	2,533
Interest expense	15	20	0	0	0	0	0
Foreign Exchange (loss)/gain	(548)	(503)					
Net income before extraordinary	\$836	\$1,524	\$2,879	\$3,881	\$6,003	\$9,120	\$13,240
Extraordinary & unusual items	0	0	0	0	0	0	0
Income Taxes	(465)	(341)	(720)	(970)	(1,501)	(2,280)	(3,310)
Net Income	\$372	\$1,183	\$2,159	\$2,911	\$4,502	\$6,840	\$9,930
Tax rate	55.6%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Cash Flow	2,002	2,837	5,561	7,167	10,029	14,617	20,649
Selling expenses/revenue %	21.6%	24.7%	17.3%	18.1%	18.2%	19.3%	20.0%
Avg. shares o/s	53,580	53,582	53,804	53,804	53,804	53,804	53,804
Avg. shares o/s (fully diluted)	56,130	54,484	55,415	55,415	55,415	55,415	55,415
Earnings per share	\$0.01	\$0.02	\$0.04	\$0.05	\$0.08	\$0.13	\$0.18
Earnings per share (fully diluted)	\$0.01	\$0.02	\$0.04	\$0.05	\$0.08	\$0.12	\$0.18
Cash flow per share	\$0.04	\$0.05	\$0.10	\$0.13	\$0.18	\$0.26	\$0.37
Revenue per share	\$0.26	\$0.21	\$0.25	\$0.32	\$0.43	\$0.61	\$0.84
EBITDA/Share	\$0.05	\$0.07	\$0.08	\$0.10	\$0.15	\$0.21	\$0.28

Source: Company reports and NSI estimates

We have forecasted the revenue using the Consumer Electronics Association forecast of digital television sales for the next five-year period. We have assumed that royalty revenue will be phased in over time, based on the ability of TVL to convince the majority of television manufacturers to agree to royalty payments, notwithstanding the recent ruling by FCC. We have assumed that television manufacturers will take longer to enter into royalty licensing agreements than TVL expects.

It should be noted that we have not included a forecast of the potential royalty revenue from computer television monitor manufacturers (PC-TV tuners) or digital terrestrial set top boxes. Digital set top boxes will be used by millions of television viewers who will still have analog televisions after 2007. As previously mentioned, the FCC is planning to phase out analog TV programming over 2006 and 2007. FCC will require broadcasters to discontinue broadcasting analog signals and viewers with analog televisions will need to purchase digital set top boxes. It is very difficult at this time to estimate how many of the over 280 million analog televisions will be in use by the end of 2007. If we had

included the above, the forecast for royalty licensing revenue for 2008 and 2009 would have been significantly higher.

Valuation

We have valued TVL using a DCF analysis over a 5-year period. Our DCF analysis was driven by our income statement projections. We have forecast free cash flows for 2005 to 2009 and discounted these back to September 30, 2005, to determine the enterprise value in 12 months. Our terminal value assumes 5% growth in free cash flows from 2009 into perpetuity and we have used a discount rate of 16%. Using these assumptions, our DCF analysis results in a 12-month target price of \$2.35 per fully diluted share.

We continue to believe that TVL is an opportunity for investors interested in benefiting from the expected strong growth in the digital television industry, by investing in a technology company with a strong research and development group and developing pipeline of products and technologies. With its patent protection, TVL should benefit from the trend of consumers to upgrade to digital televisions, which offer consumers a clearer picture and better sound quality than today's analog television sets. The best digital television sets are high-definition, which are about 5 times sharper than analog televisions, with surround sound capability.

Our target price is driven off our DCF analysis (shown on page 11). **We continue to rate the stock a STRONG BUY with our one-year target at \$2.35, an increase from \$1.40.**

Risk Factors

TVL's future prospects are substantially dependent upon the successful utilization of the V-chip technology. This in turn is subject to risks involving intellectual property protection, competition, market acceptance and government support.

The success of the commercialization of V-chip based products is dependent on the establishment by governments of requirements for the adoption of rating systems compatible with V-chip technology and the encoding of such ratings in television signals. While Canada, the United States, Jamaica and Brazil have adopted ratings systems, any material delay in the encoding of ratings information in television signals would have a materially adverse effect on the success of the products incorporating the V-chip technology.

The market for TVL's technology is characterized by rapidly changing technology, evolving industry standards and frequent new competitive product introductions. TVL needs to focus on research and development to maintain product superiority and introduce state-of-the-art products that are competitively priced.

TVL has significant dependence on large customers and key distributors for its conventional CATV products. This largely due to the fact that, both in Canada and the United States, the cable television industry is composed of a few large corporations. TVL is dependent on third party manufacturers for the bulk of its products.

TVL carries a significant portion of its business outside Canada. Therefore, TVL is exposed to the risk of currency fluctuations, which may impact earnings and cash flows. However, the risk of decreased revenues and earnings for TVL resulting from a decrease in the value of the US\$ relative to the CDN\$ is mitigated to some extent by the fact that a significant portion of the Company's manufacturing costs are denominated in US\$.

Discounted Cash Flow Analysis							
(CDN \$000s)							
Free Cash Flow	2004E	2005E	2006E	2007E	2008E	2009E	Terminal Year
Net operating profits after tax	2,837	5,561	7,167	10,029	14,617	20,649	
- increase in working capital	(442)	(1,300)	(1,525)	(1,750)	(1,975)	(2,200)	
- capital expenditures	(2,150)	(150)	(175)	(200)	(225)	(250)	
- other adjustments							
Firm free cash flow (FFCF)	244	4,111	5,467	8,079	12,417	18,199	19,109
Sample DCF Calculation							
Terminal Growth Rate	5.0%						
Discount Rate	16.0%						
Terminal Value							173,720
Present Value of FFCF		4,111	4,713	6,004	7,955	10,051	95,944
Sum of Present Value of FFCF	32,834						
Present Value of Terminal Value	95,944	75% of total value derived from terminal value					
Adjustments	-						
Enterprise Value	128,778						
Subtract total debt	(1,696)	As at June 30, 2004					
Add cash	5,998	As at June 30, 2004					
Value of equity	133,080						
Value per common share	\$2.35						
Sensitivity Analysis - 12 Month Target Price							
		Terminal Growth Rate					
		3.0%	4.0%	5.0%	6.0%		
12.5%	\$ 2.92	\$ 3.18	\$ 3.51	\$ 3.94			
14.5%	\$ 2.38	\$ 2.55	\$ 2.74	\$ 2.99			
16.5%	\$ 2.01	\$ 2.12	\$ 2.24	\$ 2.40			
18.5%	\$ 1.73	\$ 1.81	\$ 1.89	\$ 2.00			
20.5%	\$ 1.52	\$ 1.58	\$ 1.64	\$ 1.71			

Assumptions and Notes for DCF Calculation:

- Financial projections based on Northern Securities estimates
- All cashflows are assumed to take place mid-year and are discounted back to **September 30, 2005**
- Terminal growth rate reflects long-term growth potential of industry, which we expect will be higher than Canada's projected GDP growth



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