



## GeoVision (3356 TT)

Security Surveillance

BUY

Initiation

## ML Research Team

## Non-Tech Analyst

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## Recommendation

BUY

Date: 13 September 2005

Share Price (NT\$): 99.2

Price Target (NT\$): 117.4

Percent Change: 18.34%

52-wk range (NT\$): 51.3-107.0

TWSE: 6163.37

## Company Data

Capital Size (NT\$): 481.25mn

Market Cap (NT\$): 4.77bn

Market Cap (US\$): 145.92mn

Outstanding Shrs: 48.3mn

Free Floating Shrs: 20.85mn

PER ('06E): 10.99x

PBR ('06E): 3.75x

Foreign Ownership: 20.69%

Major Shareholder: Board members and the affiliated parties: 43%

Performance	1-m	3-m	6-m
Absolute (%)	(7.29)	30.00	13.93
Relative to TAIEX	(4.03)	29.63	10.80

Key Changes	Current	Prev.
Recommendation	BUY	NA
Price Target (NT\$)	117.4	NA
'06 Rev. (NT\$ mn)	1,177	NA
'06 Gross Margin (%)	63.00	NA
'06 Oper. Margin (%)	44.00	NA
'06EPS (NT\$)	9.03	NA

## Price Catalysts (+,-)

- (+) High-end solution provider with own brand
- (+) Steady sales growth + high earning margin
- (-) Competition from big international players

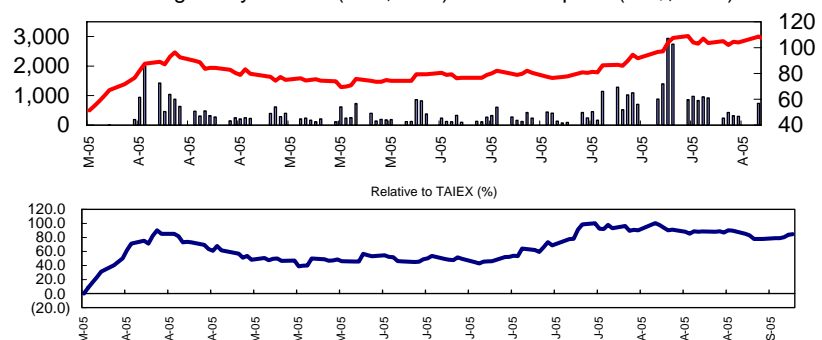
## Related Research

AV Tech (8072 TT) August 26,2005

## Taiwan's answer for the high-end surveillance market

- **Booming industry outlook** Video surveillance system is a subsector of the global security industry with a market revenue size of US\$6-7bn in 2005, estimated by Frost & Sullivan. According to the research company's latest estimate the sector will continue to grow at a CAGR of 12.4% from 2005 to 2008.
- **PC-based DVR, the choice for the high-end surveillance solution** Digital video recorder (DVR) was introduced to digitalize the analog format of image captured by surveillance cameras. Moreover, PC-based DVR is the choice for the high-end surveillance market due to its high flexibility to upgrade whether for hardware or for application software.
- **GeoVision, the flagship for Taiwan's PC-based DVR industry** GeoVision develops and sells the digital surveillance system under its own brand name. After the astonishing sales buildup from the previous years, the company is now growing with the global DVR market's pace. Nevertheless, as a high-end system provider, GeoVision is still maintaining the superior earning margins.
- **World-class technology standing** GeoVision's DVRs have achieved the highest industry standard with the recording speed of 480 FPS (Frames per Second) in a 16-cameras system and the best compression performance with its proprietary GV MPEG4. In addition, several value-add systems have successfully developed to bring up the DVRs' functionalities, especially to the big corporate users.
- **Buy with NT\$117.4 target** We believe GeoVision merit a higher investment value for being a high-end surveillance solution provider that brings in outstanding earning margins. We thus give GeoVision 13.0x one-year-forward-looking PE multiple, higher than the valuation for AV Tech (8072 TT, NT\$132.0, HOLD), Taiwan's number one stand-alone DVR maker, and derive a target price of NT\$117.4 based on our 2006 EPS, implying 18.34% upside.

Average daily volume ('000, LHS) and share price (NT\$, RHS)



## Investment Keynotes

### GeoVision Tech Company Overview

Founded in 1998 by two local engineers, GeoVision successes in developing and selling PC-based DVRs, the GV series, and related value-add application systems used in global high-end surveillance market under its own brand name

Figure 1: GeoVision Sales Mix

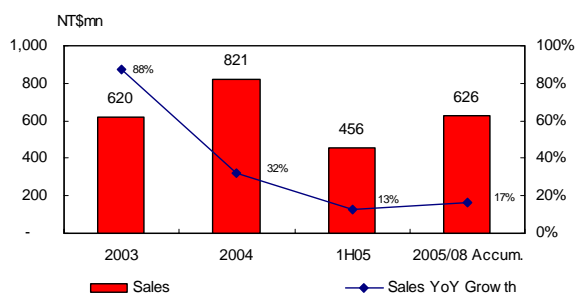
	2004	1H05
DVR		
Image Capture Cards	94.90%	91.69%
Accessories	3.70%	6.63%
Value-add application system	1.40%	1.69%
Sales (NT\$m)	821	456

Source: Company Data, MasterLink Securities

Newly listed in TAIEX in March 2005, total paid-in capital amounted to NT\$481mn after NT\$100mn stock dividend (10mn shares) for 2004 fiscal year. Company management and the major institutional shareholders currently control 68% equity stake that is still in the lockup period. However, the free holding shares should increase to 43.33% (20.84mn shares) after the release of stock dividend scheduled by the end of September 2005, as stock dividends are not subject to lockup requirement.

In light of increase demands on security surveillance system, the company has been experiencing strong growth, together with other Taiwan surveillance makers, since 2002. Total sales revenue for 1H05 closed at NT\$455.69mn, up by 12.86%, and the business continued to thrive in July and August and concluded 16.52% YoY growth for the first eight months in 2005 to NT\$ 626.48mn.

Figure 2: GeoVision YoY Sales Trend



Source: TEJ, MasterLink Securities

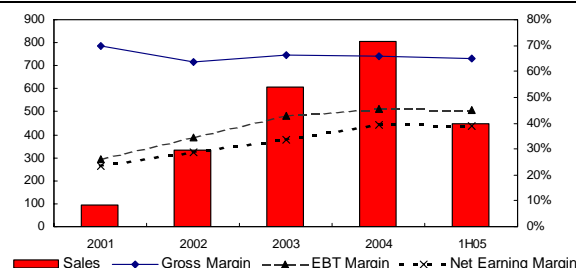
Figure 3: Taiwan Video Surveillance Makers YoY Sales

Taiwan CCTV Makers	2003	2004	2005/08 Accum.	2005/08 Accum. (NT\$m)
3356 GeoVision	87.54%	32.38%	16.52%	626.48
8072 AV Tech (surveillance only)	71.58%	23.32%	18.02%	1,288.95
3297 Hunt	17.42%	44.08%	13.35%	653.09
5484 Everfocus	12.69%	53.50%	-5.13%	1,107.79
6131 YoKo	52.90%	21.22%	23.75%	1,346.58
Total	43.60%	33.07%	12.58%	5,022.87

Source: TEJ, MasterLink Securities

As a high-end surveillance system provider, GeoVision has been able to generate rich profitability with >60% gross margin, >45% operating earning, and >40%EBT margin.

Figure 4: GeoVision Earning Margins



Source: TEJ, MasterLink Securities

### Company Products - The GV Series

GeoVision's DVR system, the GV series, is a total solution surveillance system, which supports image recording, digitalization, backup, replay, and most importantly data analysis function under PC platform.

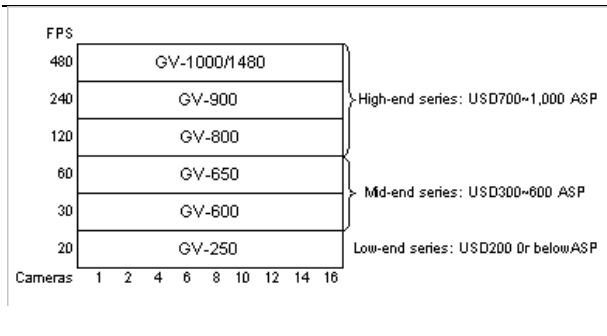
Different from stand-alone DVR, which is a closed-end system, PC-based DVR is an image capture card that operates under PC platform and comes with application software for analysis and data management purposes. An image capture card records analog video (measured in frames per second, FPS) captured by cameras. In general, 30 FPS is qualified for real-time video quality. A high-end card can offer a total of 480 FPS covering a 16-cameras surveillance system. GeoVision's GV series include low-end to high-end PC-based DVR systems that cover 20-480 FPS for system with up to 16 cameras.

To enable video viewing either in on-site monitors or remote display through TCP/IP network transmission and

data backup, video recorded by GV series is further converted to digital format by the most-advanced compression technology, chosen among the open source Microsoft's MPEG4, Wavelet, or GeoVision's proprietary GV MPEG4.

Finally all digital video data can be further retrieved, searched, and analyzed with its proprietary application software that has evolved to the 7<sup>th</sup> version.

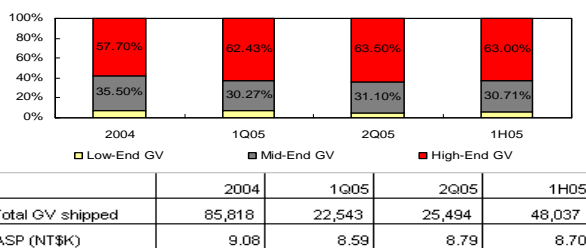
Figure 5: The GV Series



Source: Company Data, MasterLink Securities

GeoVision has been successfully pushing up the high-end shipments. For 2Q05, sales on high-end GV lines accounted to 63.5% total GV shipments. Accordingly, ASP also move up to NT\$8.79K during the same period.

Figure 6: GV Series Shipment Breakdown



Source: Company Data, MasterLink Securities Estimate

**Company Products - Other Value-Added systems**

GeoVision has also created several unique added-on systems to bring up GV series' product functionalities, especially to the big corporation users.

- POS (Point-of Sale Surveillance System), introduced in 2004, displays cashier transaction details alongside the surveillance video. The system has been installed in some supermarkets in N. America, according to the company.

- GV-LPR (License Plate Recognition), first came out in 2003, reads the plate number through surveillance video to register the vehicle identity at parking area for any controlling or security purpose. The system is still in customer training period and expects to begin shipment in early 2006.
- Center V2: enables a central monitoring station setup that supports up to 800 cameras and 500 DVRs.

Sales on these systems only accounted for 1.69%, as the company intends to price down the added-on accessories and software to inspire purchase on DVRs.

Figure 7: GeoVision's Value-Added Systems



Source: Company Data, MasterLink Securities

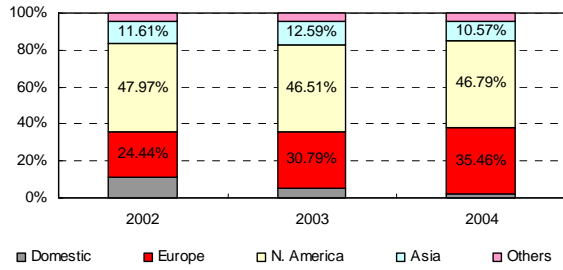
**Company Products – Video Server**

With its maturity in PC-based DVR technology, the company's next move is to offer simpler and more economical DVR systems, still PC-based, targeting less sophisticated and price-sensitive users. Accordingly, video server, which can supports up to 4 cameras without PC platform on site and transmit the video back to controlling site for monitoring, is the next in the product pipeline to be introduced.

**World-Wide Diversified Customer Base**

More than 95% of GeoVision products are shipped to over 560 customer accounts consisting of 80% distribution agents and 20% system integrators internationally with highest concentration in N. America. To serve customers better, the company has set up two 100%-owned sales subsidiaries in USA and Japan, who accounted for 38% and 3% of total sales, respectively in 1H05. As there is no big customer account, except for the subsidiaries, most customer payments are made before the shipment aboard; hence, customer credit risk is minimized.

Figure 8: GeoVision Customer Geographic Location

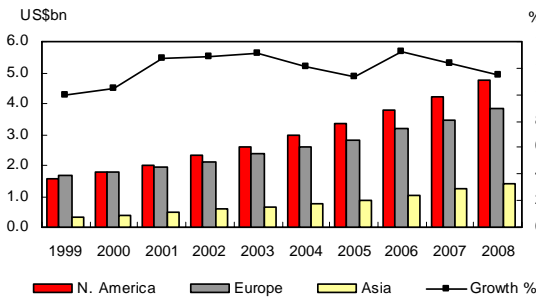


Source: Company Data, MasterLink Securities Estimate

Surveillance System Market Overview

The global security industry consists of two major segments: 1) security technology development & equipment manufacturing, and 2) security guarding services. Video surveillance or CCTV (Close Circuit Television) system is a subsector of the first segment with a global market size of US\$6~7bn in 2005, estimated by Frost & Sullivan. According to the research's latest estimate, the sector will continue to grow at a CAGR of 12.4% from 2005 to 2008 with more than 85% demand driven from N. American and European regions.

Figure 9: Global Video Surveillance Market Growth



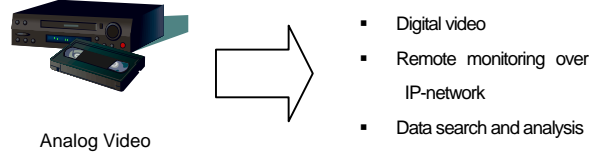
Source: Frost & Sullivan, MasterLink Securities

Big international brands in this sector include Tyco, GE, Pelco, Bosch, Honeywell, Verint, and Panasonic. Nevertheless, half of the sector is participated by smaller companies coming from Japan, Korea, Taiwan, and China lately.

The emerging trend within the CCTV industry has been the on-going transition from analog to digital to enable video image transmission and management over IP-networks to achieve remote monitoring capability with

better picture quality. Moreover, demands for adding in analysis functions are also increasing rapidly, especially from the enterprise side.

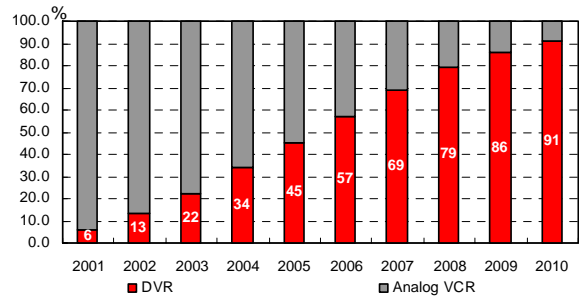
Figure 10: Video Surveillance Emerging Trend



Source: Company Data, MasterLink Securities

To digitalize image captured, digital video recorder (DVR) was introduced to replace traditional tape-based VCR for video data storage, and to integrate image processing and web server function in one device to streamline the surveillance system structure. According to JF Freeman & Security World International's recent study, DVRs are replacing VCRs rapidly and will be applied in 92% global CCTV systems in 2010.

Figure 11: World DVR Conversion Rate



Source: JF Freeman & Security World International, MasterLink Securities

There are two types of DVR systems; software driven PC-based type versus stand-alone type.

Figure 12: DVR System Comparison

- PC-Based**
  - Software driven system
  - An add-on image capture card that operates on PC and use Windows or Linux operation system.
  - High expansion flexibility through software upgrade and add-on card replacement
  - More sophisticated operation, mostly controlled by IT personnel
  - Good for customized surveillance system planning, especially to big enterprises who look for centralized surveillance departments
- Stand-Alone**
  - Hardware driven system
  - A closed-end system that operates on equipment makers' proprietary operating software
  - Easier to use for non-PC users, especially for the traditional VCR users

Source: Company Data, MasterLink Securities

### GeoVision SWOT Analysis

Based on our study above, we have concluded a SWOT analysis that lead us to believe that GeoVision is in a world-class competitive position, in terms of the

technology and product offerings, that draws for good investment value.

**Figure 13: SWOT Analysis**

**Strengths**

- Proprietary software that augment the company's competitive advantages
- High-end solution system gives better margin sustainability
- Compared with stand-alone DVR, PC-based makers should enjoy better margin
- The GV series come with 14 different language versions, implying a broad-base customer potential
- Self-brand strategy is successful

**Opportunities**

- Booming security surveillance market
- Centralized and integrated surveillance solution is in high demands for large corporations nowadays.
- Value-added systems, such as POS, LPR, and Center V2, should help to further penetrate into enterprise-solution market

**Weakness**

- No direct customer accounts, customer orders are grossly rely on distribution agents who carry several brands and are apt to make price comparison
- Single business risk

**Threats**

- As a high-end solution provider, GeoVision is facing more competition from industrial giants from well-known brands, such as Honeywell, GE, and Tyco

Source: MasterLink Securities

### Financial Forecast

We forecast the company's top line will grow a bit higher than the industry's CAGR of 12.4% for 2005 to 2008. We also assume minimal margin cut to factor in promotion possibility.

**Figure 14: GeoVision Earning Assumption**

	2003	2004	2005E	2006E
Net Sales Growth	84.10%	32.39%	16.00%	15.00%
Gross Margin	66.27%	65.89%	64.50%	63.00%

Source: MasterLink Securities

### Risk Concern

Our major concern for GeoVision is the pressure to lower down selling price to compete with big international brand names, such as Honeywell, GE, and Tyco. Nevertheless, we believe in order to enhance the brand exposure and to grab larger market, pricing strategy is inevitable.

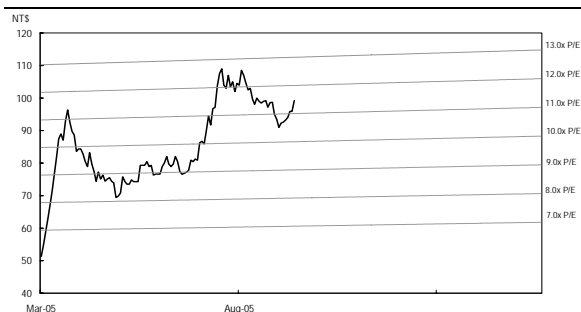
We are also concerned about company's investment efficiency to use the cash assets, NT\$707.79mn as of June 2005, to establish sales offices on the overseas customers' sites

### Valuations and Recommendation

**Buy with a target price of NT\$117.4**

As a five-month-old listing stock, GeoVision's share fluctuated within a range of 8.0x~12.6x one-year forward looking PE multiple based on our earning forecast and is trading at 11.0x multiple now. Compared with our recent coverage on AV Tech (8072 TT, NT\$131.0, HOLD), Taiwan's number one stand-alone DVR maker, we believe GeoVision merit a higher investment value for its ability to generate in-house technology in high-end surveillance solution that brings in outstanding earning margins. We thus give GeoVision 13.0x one-year-forward-looking PE multiple, versus 11.0x for AV Tech, and conclude a buy rating with target price of NT\$117.40 based on our 2006 EPS estimate of NT\$9.03.

**Figure 15: GeoVision P/E Band**



Source: TEJ; MasterLink Securities

Figure 16: GeoVision P/B Band



Source: TEJ; MasterLink Securities

GeoVision Key Ratios					NT \$mn
Year to December	2002	2003	2004	2005E	2006E
Net Sales Growth	246.44%	87.54%	32.38%	16.00%	15.00%
Gross Margin	63.46%	63.22%	62.87%	64.00%	63.00%
Operating Margin	35.94%	41.59%	46.57%	45.00%	44.00%
EBT Margin	35.00%	40.24%	43.02%	47.16%	44.11%
EBT Growth	353.76%	115.65%	41.52%	27.17%	7.55%
Net income Margin	28.62%	32.98%	38.51%	42.45%	39.70%
Net income Growth	325.94%	116.06%	54.57%	27.88%	7.55%
ROAA	56.30%	52.34%	47.28%	39.29%	31.72%
ROAE	72.28%	64.23%	54.75%	46.12%	37.93%
Inventory T/O (days)	63	121	63	72	72
AR T/O (days)	21	33	28	32	32

GeoVision P&L					NT \$mn
Year to December	2002	2003	2004	2005E	2006E
Net Sales	331	620	821	952	1,095
Cost Of Goods Sold	(121)	(228)	(305)	(343)	(405)
SG&A	(91)	(134)	(134)	(181)	(208)
Operating Income	119	258	382	429	482
Net Investment Income	(2)	(7)	(11)	(2)	2.00
Other Non-Operating Income (net)	(2)	(1)	(18)	23	(1)
Pre-Tax Income	116	250	353	449	483
Income Tax Expense	21	45	37	45	48
Net Income	95	205	316	404	435
EPS(NT\$)	8.09	10.11	8.31	8.40	9.03
DPS(NT\$)	0.00	0.00	3.30	3.75	3.61
Payout Ratio	0.00%	0.00%	39.71%	40.00%	40.00%
Common Stocks	117	202	381	481	481

GeoVision Balance Sheet					NT \$mn
Year to December	2002	2003	2004	2005E	2006E
Cash & Equivalent	190	342	555	948	1,177
Receivable	19	57	63	83	96
Inventories	21	75	53	68	80
Long-term Investment	6	29	106	102	104
Total Fixed Assets	6	7	7	6	5
Other Assets	17	12	31	36	37
Total Assets	260	522	815	1,243	1,499
Current Liab.	43	89	55	190	192
L-T Liabilities	1	12	27	33	33
Common Stocks	117	202	381	481	481
Capital & Legal Reserve	4	14	34	74	118
Retained Earnings	95	205	322	466	677
Adjustment	-	1	(3)	(3)	(3)
Total Liab. & Equity	260	522	815	1,243	1,499
BV(NT\$)	18.44	20.82	19.28	21.18	26.46

GeoVision Cashflow					NT \$mn
Year to December	2002	2003	2004	2005E	2006E
Net Income	95	205	316	404	435
Depreciation & Amortization	1	2	2	2	2
Net Working Capital Change	(21)	(72)	(3)	(52)	(23)
Other	10	51	(6)	166	-2
Operating Cashflow	85	185	310	521	413
Sale (Purchase) of L-T Inv.	(6)	(29)	(93)	-	-
Sale (Purchase) of F.A.	(2)	(3)	(2)	1.50	1.50
Other	2	(1)	(1)	1.00	1.00
Investment Cashflow	(5)	(33)	(96)	2.50	2.50
Dividend Paid	-	-	-	(126)	(181)
Debt Change	(10)	-	-	-	-
Other	75	-	-	-	-
Financing Cashflow	65	-	-	(126)	(181)
Total Cash Change	145	152	213	393	229

**MasterLink Securities – Stock Rating System**

**BUY:** Total return expected to appreciate 10% or more over a 3-month period.

**HOLD:** Total return expected to be between 10% to –10% over a 3-month period.

**SELL:** Total return expected to depreciate 10% or more over a 3-month period.

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Additional Information Available on Request

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