



AV Tech (8072 TT)

Security Surveillance

HOLD

Initiation

ML Research Team**Equity Analyst**

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Recommendation

HOLD

Date:	26 August 2005
Share Price (NT\$):	134.00
Price Target (NT\$):	135.50
Percent Change:	1.12%
52-wk range (NT\$):	77.40-134.00
TWSE:	6136.55

Company Data

Capital Size (NT\$):	709mn
Market Cap (NT\$):	9.50bn
Market Cap (US\$):	296.89mn
Outstanding Shrs:	70.89mn
Free Floating Shrs:	70.59mn
PER ('06E):	11.00x
PBR ('06E):	3.38x
Foreign Ownership:	0.08%
Major Shareholder:	Board members and the affiliated parties 66.73%

Performance	1-m	3-m	6-m
Absolute	7.38%	41.92%	38.26%
Relative to TAIEX	12.28%	38.08%	37.78%

Key Changes	Current	Prev.
Recommendation	HOLD	NA
Price Target (NT\$)	135.50	NA
'06 Revenue (NT\$ mn)	3,671	NA
'06 Gross Margin (%)	33.30	NA
'06 Oper. Margin (%)	27.30	NA
'06 EPS (NT\$)	12.34	NA

Price Catalysts (+,-)

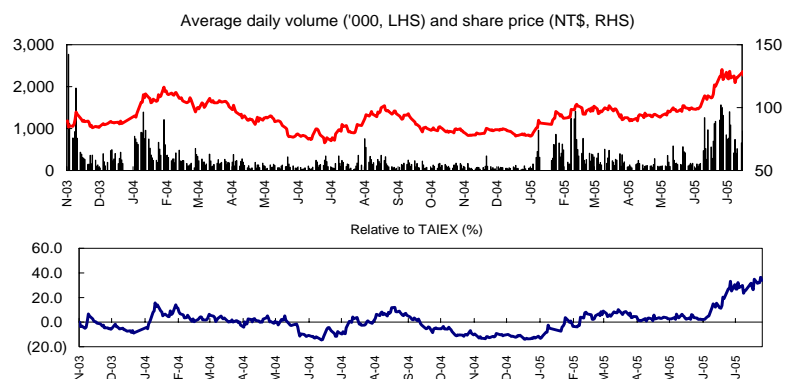
- (+) Prosperous industry outlook
- (+) Introduction of new DVR model
- (-) Price war due to competition

Related Research

N/A

Taiwan's CCTV Leader

- **Booming industry outlook** CCTV (Close Circuit Television) system is with a global revenue size of US\$6~7bn in 2005, estimated by Forst & Sullivan. According to the research's latest estimate, the industry will continue to grow within a CAGR of 12.4% from 2005 to 2008.
- **From analog to digital** The emerging trend within the CCTV industry has been the on-going transition from analog to digital. Digital video recorder (DVR) was introduced to digitalize image captured. According to JF Freeman & Security World International's study, DVRs are replacing VCRs rapidly and will penetrate 79% global CCTV systems by 2008.
- **Robust CCTV sales growth and superior gross margin** AV Tech's CCTV has been enjoying strong sales enhancement, within a range of 16.7%~71.6% since 2002, together with a gross margin range of 44.7%~50.6%.
- **Leading position among Taiwan's CCTV makers** AV Tech competes in camera and stand-alone DVR markets. The company is the first Taiwanese maker to offer MPEG 4 (the most advanced image compression format) DVRs and expects to receive orders for the new product starting from 3Q05.
- **Risk factors** Our major concern for AV Tech is the share's low trading turnover. For the past three months, the average daily turnover is 1.16% of total share circulation. As the board members and the affiliated parties have no plans to lower the holding, the liquidity issue will still persist within short to mid term.
- **Hold with NT\$135.50 target price** We are comfortable with the current valuation, 11.0x one-year-forward-looking PER, the highest valuation since IPO, given the prosperous industry outlook, along with the company's introduction of new DVR model, sound profitability and ability to pay cash dividend. Our target price is NT\$135.50, based on 11.0x PER of estimated 2006 EPS at NT\$12.34, suggesting 1.12% upside.



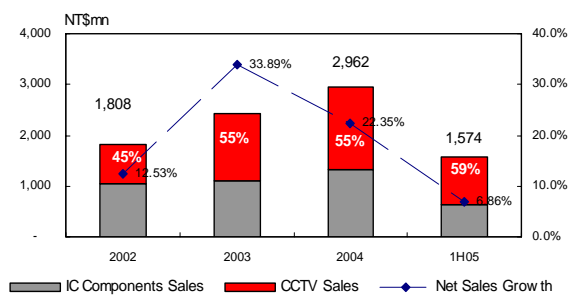
Investment Keynotes

AV Tech Company Overview

Established in 1996, AV Tech started as a semiconductor component distributor and stepped into CCTV (Close Circuit Television) system design, manufacturing and distribution during 1998. Total company capital amounted to NT\$709mn after stock dividend for 2004 fiscal year. Board of directors and the affiliated parties currently control 66.73% equity stake and has no plans to lower down the holdings in the short to mid term.

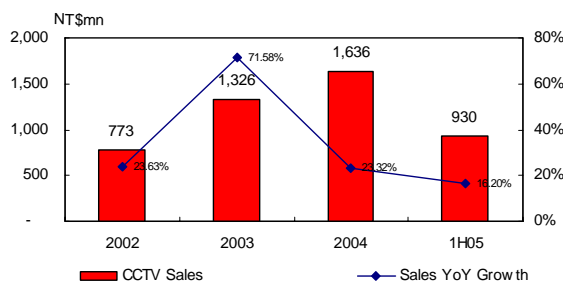
In light of strong demands on security surveillance system, the company has been enjoying robust sales enhancement, together with other Taiwan peers, since 2002. 1H05 revenue came in at NT\$1.57bn with a sales mix of 59.17% CCTV and 40.83% IC components.

Figure 1: AV Tech Sales Mix and YoY Growth



Source: TEJ, MasterLink Securities

Figure 2: AV Tech CCTV Sales Growth



Source: TEJ, MasterLink Securities

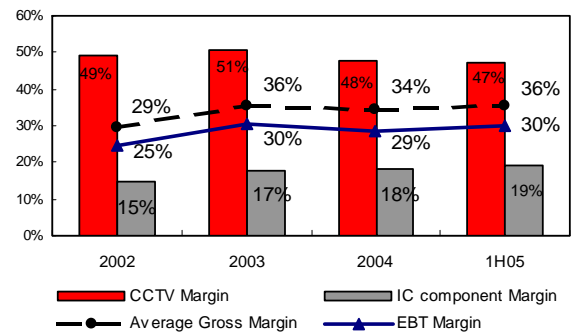
Figure 3: Taiwan CCTV Makers Historical YoY Sales Trend

Taiwan CCTV Makers	2003	2004	2005/07 Accum.	2005/07 Accum. (NT\$mn)
8072 AV Tech (CCTV only)	23.32%	71.58%	7.17%	1,872
3356 Geo Vision	32.38%	87.54%	15.00%	541
3297 Hunt	44.08%	17.42%	14.12%	557
5484 Everfocus	53.50%	12.69%	-7.26%	947
6131 YoKo	21.22%	52.90%	23.28%	1,168
Total	43.60%	33.07%	36.48%	5,084

Source: TEJ, MasterLink Securities

The company has been generating 30%~35% gross margin with a EBT margin range of 25%~30%, attributed to CCTV's rising sales and its gross margin of 45~50%.

Figure 4: AV Tech Operating Margin

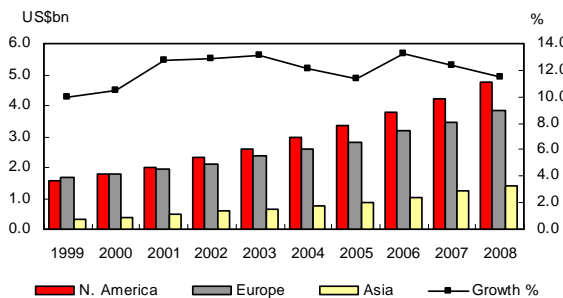


Source: TEJ, MasterLink Securities

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 system is a subsector of the first segment with a global market size of US\$6~7bn in 2005, estimated by Forst & Sullivan. According to the research's latest estimate, the sector will continue to grow within a CAGR of 12.4% from 2005 to 2008 with more than 85% demand driven from N. American and European regions.

Figure 5: Global Video Surveillance Market Growth



Source: Forst & 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, such as AV Tech, coming from Japan, Korea, Taiwan, and China lately.

According to A&S Magazine, a CCTV system generally includes three types of devices listed in Figure 6.

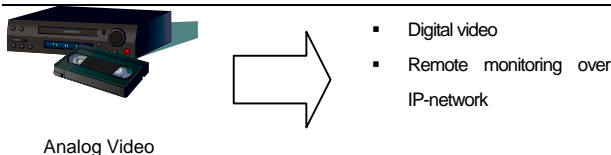
Figure 6: CCTV System Structure

Device Function	Device Name
Image Capture	<ul style="list-style-type: none"> Color or black& white surveillance cameras or advanced programmable cameras
Image Processing	<ul style="list-style-type: none"> Quad processor and multiplexer, which compress multiple cameras' image, in order to display the image in fewer monitors
Image Storage	<ul style="list-style-type: none"> DVR or VCR, used to record, store, and play the image data

Source: Company, MasterLink Securities

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

Figure 7: CCTV Emerging Trend



Source: MasterLink Securities

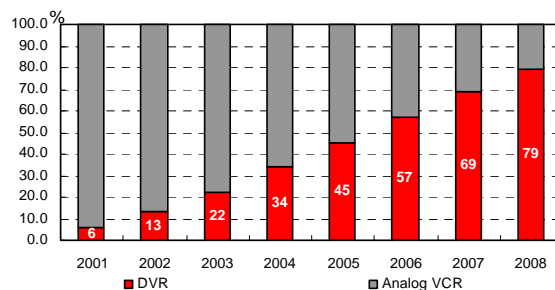
Key benefits from digitalized video data include:

- Enabling real-time remote surveillance capability, which will save cost for on-site personnel

- Better picture quality and easier to store with less memory requirement
- Improving image searching, in terms of accuracy and speed

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 79% global CCTV systems in 2008.



Figure 8: 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 types.

Figure 9: DVR System Comparison

 <p>PC-Based</p>	<ul style="list-style-type: none"> Software driven system An add-on card that operates on PC and use Windows or Linux operation system. High system expansion flexibility through software upgrade and add-on card replacement
 <p>Stand-Alone</p>	<ul style="list-style-type: none"> Hardware driven system A complete separate device that operates on equipment makers' proprietary operating software Easier to use for non-PC users, especially for the traditional VCR users

Source: Company, MasterLink Securities

Company Core Business: CCTV

AV Tech competes in camera and stand-alone DVR markets. The company is the first Taiwanese maker to offer MPEG 4 (the most advanced image compression format) on its DVRs and expects to receive orders for the new product starting from 3Q05. Current sales mix

between cameras and DVRs is 56:44. Monthly shipments are disclosed as the followings:

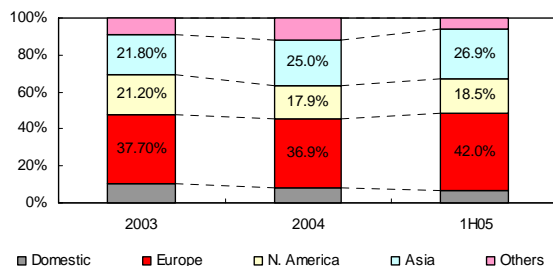
Figure 10: AV Tech CCTV Monthly Shipments

Product Lines	Cameras	DVRs
Monthly Shipment (K)	50~60	10~15
ASP (NT\$)	1,400~1,700	4,000~7,000

Source: Comapny, MasterLink Securities

In terms of customer location, more than 90% of AV Tech's CCTV systems are shipped to overseas market with highest concentration in European continent, especially orders from Russia and some European countries have been vigorous in the recent quarters, according to the company. Customer profile is fairly de-concentrated with no single customer contributing more than 5% sales and consists of distribution agents accounts mostly (70%~80% sales) and three OEM customers from Japan and N. America.

Figure 11: AV Tech CCTV Customer Location



Source: Company Data, MasterLink Securities Estimate

Production for CCTV is mostly outsourced to external assembly lines, and AV Tech only handles surface mount

Figure 13: AV Tech CCTV Customer Location

Strengths

- First Taiwan manufacturer to offer MPEG 4 stand-alone system
- Extensive international channels over seven-year customer relationship
- Healthy financial, with rich cash assets and zero debt

Opportunities

- Booming security surveillance market
- Stand-alone system should have a bigger market than PC-based system as it is a better option for previous VCR users
- Fragmented market which offers plenty business opportunities for small business, like AV Tech

(SMT) procedure and final assembly and testing in its two production plants. Company indicated under such a production structure, it is able to control the inventory level and react to urgent orders as short as seven days. To facilitate the shipment growth, expansion plan to construct the 3rd plant is in preparation and might begin to operate in 4Q05. It is estimated the cost to build the new facility will be around NT\$ 30mn on a rental site.

Company Core Business: Components Distribution

AV Tech's sells IC components to local electronic companies business for various applications, including handset, scanner, and etc.. Company manager indicated that regardless a stronger trend in CCTV, it will keep the business as the component sales act as a stable revenue stream that should contribute no more than 40% sales in the future.

Figure 12: AV Tech IC Component Business Snapshot

Vendors	IC Components	Application
▪ Allegro	▪ Hall Sensor	▪ Handset
▪ SII	▪ Motor Driver	▪ Scanner
▪ Analog Devices	▪ ADC/DAC	▪ DSC
▪ Aimtron	▪ OP Amplifier	▪ KVM
	▪ Li Battery	▪ TFT Panel
	▪ Projection IC	▪ LCD/DLP Projector
	▪ DSP	▪ LNB
	▪ DC/DC Converter	

Source: Company, MasterLink Securities

AV Tech SWOT Analysis

Our SWOT analysis conclude that AV Tech should continue to grow with the robust industry trend albeit competition from existing and new players.

Weakness

- No proprietary technology or pattern, current products are developed from open technologies
- Low customer order visibility

Threats

- China manufactures have tapped in the industry and might stir price war soon, first to hit is the lower-end lines in commodities category
- Low entry barrier for new players with good capital to star

Source: MasterLink Securities

Earning Forecast

Although we believe the company's CCTV shipments will continue the healthy momentum, low customer visibility and possible price cut, especially on surveillance cameras and low-end DVRs, led us to a conservative sales projection and downward gross margin shown below.

Figure 14: AV Tech Earning Assumption

	2003	2004	2005E	2006E
IC Component YoY Growth	5.66%	21.27%	1.00%	1.00%
IC Component Gross Margin	17.49%	18.03%	18.00%	17.00%
CCTV YoY Growth	71.58%	23.32%	15.00%	16.00%
CCTV Gross Margin	50.56%	47.78%	45.44%	43.44%

Source: MasterLink Securities

Risk Factors

Our major concern for AV Tech is the share's low trading turnover. For the past three months, the average daily turnover is 821K shares, about 1.16% of the total share circulation. As the board members and the affiliated parties have no plans to lower its 66.73% holding, we think the liquidity issue will still persist for the short to mid term.

We are also concerned about company's investment efficiency to use the cash assets, NT\$1.32bn as of June 2005, to establish sales offices on the overseas customers' sites.

Valuations and recommendation

Hold with the current price of NT\$135.50

AV Tech is currently trading at 11.0x one-year-forward-looking PER that is at the highest valuation since its IPO in 2003. In fact, given the prosperous security surveillance industry outlook, along with the company's introduction of advanced DVR model, sound profitability and ability to pay cash dividend, we are comfortable with the current valuation. Hence, our target price is NT\$135.50, based on 11.0x PER of our estimated 2006 EPS at NT\$12.34, implying 1.12% upside and thus deriving a "HOLD" rating.

Figure 15: AV Tech P/E Band



Source: TEJ; MasterLink Securities

Figure 16: AV Tech P/B Band



Source: TEJ; MasterLink Securities

AV Tech Key Ratios					NT \$mn
Year to December	2002	2003	2004	2005E	2006E
IC Components Grwoth	5.46%	5.66%	21.27%	1.00%	1.00%
CCTV Grwoth	23.63%	71.58%	23.32%	15.00%	16.00%
Net Sales Grwoth	12.53%	33.89%	22.35%	8.73%	14.00%
Gross Margin	29.44%	35.62%	34.45%	34.00%	33.30%
Operating Margin	23.27%	30.33%	28.99%	28.00%	27.30%
EBT Margin	24.76%	30.42%	28.53%	29.14%	27.53%
EBT Growth	-6.31%	64.53%	14.73%	11.07%	7.69%
Net income Margin	18.94%	24.88%	24.31%	24.98%	23.70%
Net income Growth	22.89%	75.81%	19.55%	11.75%	8.17%
ROAA	30.41%	37.67%	35.02%	29.55%	24.96%
ROAE	38.63%	45.88%	39.68%	34.95%	30.76%
Inventory T/O (days)	46	52	55	63	63
AR T/O (days)	56	51	47	55	55

AV Tech P&L					NT \$mn
Year to December	2002	2003	2004	2005E	2006E
Net Sales	1,808	2,421	2,962	3,220	3,671
Cost Of Goods Sold	(1,276)	(1,558)	(1,941)	(2,126)	(2,449)
SG&A	(112)	(128)	(162)	(193)	(220)
Operating Income	(421)	(734)	(90)	(113)	(128)
Other Non-Operating Income (net)	22	1	(14)	5	5
Pre-Tax Income	448	736	859	939	1,011
Income Tax Expense	112	139	129	134	141
Net Income	343	602	720	804	870
EPS(NT\$)	10.78	13.30	11.91	12.22	12.27
DPS(NT\$)	1.00	3.79	4.50	4.89	4.91
Payout Ratio	9.28%	28.50%	37.78%	40.00%	40.00%
Common Stocks	318	453	608	709	709

AV Tech Balance Sheet					NT \$mn
Year to December	2002	2003	2004	2005E	2006E
Cash & Equivalent	204	177	800	1,361	1,817
Receivable	276	336	380	486	554
Inventories	161	224	294	366	422
Long-term Investment	20	21	20	-	-
Total Fixed Assets	81	91	102	109	87
Other Assets	581	1,025	643	885	885
Total Assets	1,323	1,874	2,238	3,208	3,765
Current Liab.	290	282	195	628	662
L-T Liabilities	-	-	6	12	12
Common Stocks	318	453	608	709	709
Capital & Legal Reserve	63	97	158	238	325
Retained Earnings	652	1,042	1,345	1,695	2,131
Adjustment	-	-	(75)	(75)	(75)
Total Liab. & Equity	1,323	1,874	2,238	3,208	3,765
BV(NT\$)	32.52	35.18	33.50	36.21	43.60

AV Tech Cashflow					NT \$mn
Year to December	2002	2003	2004	2005E	2006E
Net Income	343	602	720	804	870
Depreciation & Amortization	3	5	8	21	23
Net Working Capital Change	(109)	(109)	(185)	-110	(97)
Other	14	6	(1)	323	7
Operating Cashflow	250	505	541	1,038	802
Sale (Purchase) of L-T Inv.	-	-	-	22	-
Sale (Purchase) of F.A.	(10)	(15)	(18)	(30)	-
Other	(214)	(446)	382	(196)	-
Investment Cashflow	(224)	(461)	364	(204)	-
Dividend Paid	(38)	(32)	(170)	(273)	(347)
Debt Change	20	(20)	-	-	-
Other	(11)	(18)	(113)	-	-
Financing Cashflow	(29)	(70)	(283)	(273)	(347)
Total Cash Change	(3)	-26	622	561	456

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.

Additional Information Available on Request

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