

## WRHAMBRECHT+CO

July 23, 2007

#### **SEMICONDUCTOR DEVICES**

Daniel Amir damir@wrhambrecht.com 415.551.3139

WR HAMBRECHT + CO www.wrhambrecht.com

Please see the Important Disclosures Section at the end of this report.



NASDAQ: DSPG PRICE: \$18.50 RATING: BUY

## DSPG: DISAPPOINTING Q3 OUTLOOK - ALL EYES ON COMPLETION OF NXP DEAL

Investment Conclusion: Before the market open today, DSP Group reported Q2:07 results of pro forma EPS of \$0.25 on revenue of \$52.4M. Revenues were mostly in line with the Street's and our estimate of \$52M and \$0.25. The highlight of the call was the disappointing Q3 guidance of \$45-49M, much lower than consensus at \$58M largely because of declining unit sales in the 2.4GHz US market and a drop off in one of DSP Group's major US 5.8GHZ OEM customers. While guidance is disappointing and the company continues to face pressures in both its 2.4GHz and 5.8GHz markets, we believe that the completion of the NXP acquisition and the potential positive financial impact is a strong selling point to owning the stock at these levels. With the acquisition expected to be completed in late Q3, we believe that it will have a positive impact as: 1) NXP is very strong in both DECT and Analog – two areas which are seeing strength in the market currently; 2) Strong Opex and product development synergies as both companies are the two leaders in the cordless phone market; 3) Additional customer base like Vtech which currently is gaining market share in the 5.8Ghz US market and Siemens provides new customer penetration opportunity for the combined company; and 4) Significant expected financial accretion in 2008 on the heels that NXP has a much stronger operational model than DSPG. We are maintaining our BUY rating on DSPG and our \$24 price target.

- In-Line Q2 results though disappointing Q3 outlook. Before the market open today, DSP Group reported Q2:07 results of pro forma EPS of \$0.25 on revenue of \$52.4M. The revenue growth in the quarter was largely associated with the European DECT and the US DECT (6.0) markets. Nevertheless, we were disappointed in management's guidance for Q3 at revenues of \$45-49M compared to our and street estimates of \$58M. Management commented that the falloff in revenues was due to three major issues: 1) The company's 5.8GHz business is falling off as one major OEM customer has reduced its exposure to this market as it is having difficulty competing in the US market; 2) The unit falloff in 2.4GHz continues to be greater than expected as customers are shifting to 5.8GHz and to DECT 6.0; 3) The challenging US digital market there has been surprisingly some market share gains in Analog, to which DSPG has little exposure.
- Reducing Q3 and 2007 Estimates. The company provided a revenue range in Q3:07 of \$45-49M with GM essentially flat with that of Q2. As a result of the company's revised guidance range, we are cutting our Q3:07 revenue estimate to \$47M (-10% Q/Q growth) compared to our previous estimate of \$58M (+11% Q/Q); we are also cutting our pro forma EPS estimate to \$0.18 (from \$0.27). We are disappointed in the company's guidance

Stock Data		Revenues				
12-Month Price Target	\$24.00	FY ends December	2006A	2007E	2008E	
52-Week Range	\$25.74 - 17.69	Revenue (MM)	\$216.9	\$193.2	\$221.8	
10-Day Avg. Daily Volume	217,566	Previous Estimate (MM)	\$216.9	\$208.3	\$232.8	
		Price/Revenue	2.4x	2.7x	2.4x	
		EV/Revenue	0.9x	1.0x	0.9x	
		Secular Growth Rate			NA	
Capitalization		Earnings Per Share*				
Shares Outstanding (MM)	28.5	Q1	\$0.26	\$0.19 A	\$0.18	
Market Capitalization (MM)	\$526.7	Q2	\$0.34	\$0.25 A	\$0.26	
Enterprise Value (MM)	\$191.8	Q3	\$0.37	\$0.18	\$0.35	
Debt/Total Cap. (6/30/07)	4.8%	Q4	\$0.16	\$0.15	\$0.21	
Cash (6/30/07) (MM)	\$353.7	Fiscal Year EPS	\$1.13	\$0.77	\$1.01	
Cash/Share (6/30/07)	\$12.42	Previous Estimate	\$1.13	\$0.90	\$1.11	
		P/E	16.3x	24.0x	18.4x	

NC indicates no change from current estimate. NE indicates no estimate. NM indicates not meaningful.

Sources: WR Hambrecht + Co estimates and company reports

considering that Q3 tends to be the strongest quarter of the year. Overall, 2007 is coming down to be a year of rapid product transition away from 2.4GHz, in which the company was not well prepared to deal with. Our 2007 revenue and EPS estimates are \$193M and \$0.77, respectively. Nevertheless, as the acquisition of NXP is expected to be completed at the end of this quarter, both Q3 and 2007 numbers are likely to change significantly and become more accretive.

- All eyes on the NXP acquisition. As the acquisition is expected to be completed at the end of this quarter, we believe that investors should see the NXP transaction as very positive for the following reasons: 1) make DSP Group a much stronger vendor in Europe where NXP has traditionally been quite dominant (we estimate the combined company will likely have ~60% share in the DECT segment); 2) add new important OEM customers such as VTech and Siemens, one of the few OEMs whom DSP had not had access to in the past. Vtech has been gaining 5.8GHz share in the US; 3) potential leverage in the combined entity's operating model based on management's comments that NXP has a similar level of revenues and GM but a "materially" lower overall opex run-rate which should make the deal immediately accretive on a pro forma basis; 4) give the combined company a total of 300 R&D personnel as well as the addition of R&D centers in Switzerland, Germany, France, and India; and 5) As part of this purchase DSP Group will also gain access to 90nm technology from NXP for future VOIP products that could save the company time, effort, and money.
- Maintaining Buy rating as NXP should make the story look brighter. Despite the disappointing guidance and the lack of growth, we recommend long-term investors take any pullback in the stock to build their long-term positions in DSPG shares as we believe that: 1) potential leverage in the model given the cost savings that are to be derived from the combined entity with NXP makes this deal accretive on a pro forma basis; 2) the possibility for further revenue expansion and GM improvement beyond current DSP Group's standalone estimates in 2008 from new products; 3) potential growth opportunities with its new COIP phone, which is shipping to Europe and the new VoIP Panasonic products; and 4) remaining buy back program (13% of outstanding shares before dilution) provides support to the stock at these levels. We are maintaining our Buy rating and \$24 price target, based upon 12x forward CY:08E pro forma EPS estimate of \$1.01 plus ~\$12.00 of cash per share before the close of the transaction.

### **DSP Group Inc. (DSPG)**

Historical & Projected Income Statement (\$ thousands, except per share data)

Daniel Amir (415) 551-3139, damir@wrhambrecht.com

Last Updated: July 23, 2007

DSP Group Inc. (DSPG) FY ENDS DECEMBER	Q1:06 Mar	Q2:06 Jun	Q3:06 Sep	Q4:06 Dec	Q1:07 Mar	Q2:07 Jun	Q3:07E Sep	Q4:07E Dec	Q1:08E Mar	Q2:08E Jun	Q3:08E Sep	Q4:08E Dec	2006A	2007E	2008E
REVENUE	\$51,952	\$60,737 \$	63,875	\$ 40,383	\$49,288	\$52,436	\$47,000	\$44,500	\$48,000	\$55,800	\$64,500	\$53,500	\$216,947	\$193,224	\$221,800
COST OF REVENUE	30,277	35,502	37,563	24,756	29,835	31,067	27,542	25,810	27,600	32,085	37,088	30,763	128,098	114,254	127,535
% of revenues	58.3%	58.5%	58.8%	61.3%	60.5%	59.2%	58.6%	58.0%	57.5%	57.5%	57.5%	57.5%	59.0%	59.1%	57.5%
GROSS PROFIT	21,675	25,235	26,312	15,627	19,453	21,369	19,458	18,690	20,400	23,715	27,413	22,738	88,849	78,970	94,265
% of revenues	41.7%	41.5%	41.2%	38.7%	39.5%	40.8%	41.4%	42.0%	42.5%	42.5%	42.5%	42.5%	41.0%	40.9%	42.5%
OPERATING EXPENSES:															
Research & development	9,679	10,706	10,589	10,197	10,669	10,536	10,900	11,300	11,900	12,000	12,200	12,400	41,171	43,405	48,500
% of revenues	18.6%	17.6%	16.6%	25.3%	21.6%	20.1%	23.2%	25.4%	24.8%	21.5%	18.9%	23.2%	19.0%	22.5%	21.9%
Sales & marketing	3,538	3,716	4,013	3,720	3,997	3,910	4,000	4,000	4,200	4,300	4,500	4,500	14,987	15,907	17,500
% of revenues	6.8%	6.1%	6.3%	9.2%	8.1%	7.5%	8.5%	9.0%	8.8%	7.7%	7.0%	8.4%	6.9%	8.2%	7.9%
General & administrative	1,875	1.724	1,917	1,631	1,896	1,916	1,900	1,900	1,900	2,000	2,150	2,150	7,147	7,612	8,200
% of revenues	3.6%	2.8%	3.0%	4.0%	3.8%	3.7%	4.0%	4.3%	4.0%	3.6%	3.3%	4.0%	3.3%	3.9%	3.7%
	15,092	16,146	16,519	15,548	16,562	16,362	16,800	17,200	18,000	18,300	18,850	19,050	63,305	66,924	74,200
Total operating expenses % of revenues	29.0%	26.6%	25.9%	38.5%	33.6%	31.2%	35.7%	38.7%	37.5%	32.8%	29.2%	35.6%	29.2%	34.6%	33.5%
PRO FORMA OPERATING INCOME (EBIT)	6,583	9,089	9,793	79	2,891	5,007	2,658	1,490	2,400	5,415	8,563	3,688	25,544	12,046	20,065
% of revenues	12.7%	15.0%	15.3%	0.2%	5.9%	9.5%	5.7%	3.3%	5.0%	9.7%	13.3%	6.9%	11.8%	6.2%	9.0%
70 of revenues	12.7 70	13.070	13.370	0.270	5.570	9.570	3.7 /0	3.370	3.070	3.1 /0	13.370	0.576	11.070	0.270	9.070
Other income (expense):															
Interest and other Income	3,109	3,351	3,372	3,366	3,652	2,927	3,700	3,800	3,850	3,900	3,950	4,000	13,198	14,079	15,700
Income after financial and other:	9,692	12,440	13,165	3,445	6,543	8,930	6,358	5,290	6,250	9,315	12,513	7,688	38,742	27,121	35,765
PRO FORMA PRETAX INCOME	9,692	12,440	13,165	3,445	6,543	8,930	6,358	5,290	6,250	9,315	12,513	7,688	38,742	27,121	35,765
% of revenues	18.7%	20.5%	20.6%	8.5%	13.3%	17.0%	13.5%	11.9%	13.0%	16.7%	19.4%	14.4%	17.9%	14.0%	16.1%
Benefit (provision) for income tax	1,648	2,115	2,262	(1,295)	1,210	1,760	1,144	952	1,125	1,677	2,252	1,384	4,730	5,067	6,438
Tax rate	17.0%	17.0%	17.2%	(37.6%)	18.5%	19.7%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	12.2%	18.7%	18.0%
PRO FORMA NET INCOME	\$8,044	\$10,325	\$10,903	\$4,740	\$5,333	\$7,170	\$5,214	\$4,338	\$5,125	\$7,638	\$10,260	\$6,304	\$34,012	\$22,054	\$29,327
% of revenues	15.5%	17.0%	17.1%	11.7%	10.8%	13.7%	11.1%	9.7%	10.7%	13.7%	15.9%	11.8%	15.7%	11.4%	13.2%
GAAP NET INCOME	5,638	7,088	8,052	1,600	1,364	4,870	2,914	2,038	2,825	5,338	7,960	4,004	22,378	11,185	20,127
% of revenues	10.9%	11.7%	12.6%	4.0%	2.8%	9.3%	6.2%	4.6%	5.9%	9.6%	12.3%	7.5%	10.3%	5.8%	9.1%
PRO FORMA EPS	\$ 0.26	\$ 0.34 \$	0.37	\$ 0.16	\$ 0.19	\$ 0.25	\$ 0.18	\$ 0.15	\$ 0.18	\$ 0.26	\$ 0.35	\$ 0.21	\$ 1.13	\$ 0.77	\$ 1.01
GAAP EPS	\$ 0.18	\$ 0.23 \$	0.27	\$ 0.06	\$ 0.05	\$ 0.17	\$ 0.10	\$ 0.07	\$ 0.10	\$ 0.18	\$ 0.27	\$ 0.14	\$ 0.74	\$ 0.39	\$ 0.69
Basic shares outstanding	29.477	29,871	29,279	28,746	28,455	28,257	28,357	28,457	28,657	28,857	29,057	29,257	29,343	28,382	28,957
Fully diluted shares outstanding	30,784	30,632	29,748	29,031	28,691	28,469	28,569	28,669	28,869	29,069	29,269	29,469	30,049	28,600	29,169
Y/Y % CHANGE															
REVENUE	29.4%	23.8%	14.9%	(4.8%)	(5.1%)	(13.7%)	(26.4%)	10.2%	(2.6%)	6.4%	37.2%	20.2%	15.9%	(10.9%)	14.8%
GROSS PROFIT	21.0%	9.4%	0.5%	(17.7%)	(10.3%)	(15.3%)	(26.0%)	19.6%	4.9%	11.0%	40.9%	21.7%	3.1%	(11.1%)	19.4%
PRO FORMA OPERATING INCOME (EBIT	74.7%	22.1%	(3.0%)	(98.0%)	(56.1%)	(44.9%)	(72.9%)	1,786.1%	(17.0%)	8.1%	222.1%	147.5%	0.8%	(52.8%)	66.6%
PRO FORMA NET INCOME	60.7%	25.2%	3.7%	(17.0%)	(33.7%)	(30.6%)	(52.2%)	(8.5%)	(3.9%)	6.5%	96.8%	45.3%	15.4%	(35.2%)	33.0%
PRO FORMA EPS	54.5%	21.4%	4.9%	(14.3%)	(28.9%)	(25.3%)	(50.2%)	(7.3%)	(4.5%)	4.3%	92.1%	41.4%	14.7%	(31.9%)	30.4%
Q/Q % CHANGE															
REVENUE	22.5%	16.9%	5.2%	(36.8%)	22.1%	6.4%	(10.4%)	(5.3%)	7.9%	16.3%	15.6%	(17.1%)			
GROSS PROFIT	14.2%	16.4%	4.3%	(40.6%)	24.5%	9.8%	(8.9%)	(3.9%)	9.1%	16.3%	15.6%	(17.1%)			
PRO FORMA OPERATING INCOME (EBIT	63.1%	38.1%	7.7%	(99.2%)	3,559.5%	73.2%	(46.9%)	(43.9%)	61.1%	125.6%	58.1%	(56.9%)			
PRO FORMA NET INCOME	40.9%	28.4%	5.6%	(56.5%)	12.5%	34.4%	(27.3%)	(16.8%)	18.1%	49.0%	34.3%	(38.6%)			
PRO FORMA EPS	37.2%	29.0%	8.7%	(55.5%)	13.8%	35.5%	. ,	, ,	17.3%	48.0%	33.4%	(39.0%)			
PRU FURIMA EPS	37.2%	29.0%	8.7%	(55.5%)	13.8%	ახ.5%	(27.5%)	(17.1%)	17.3%	48.0%	33.4%	(39.0%)			

#### IMPORTANT DISCLOSURES SECTION

To view a list of companies that WR Hambrecht + Co makes a market in, please click here: http://www.wrhambrecht.com/ind/research/disclosures.html

To view a list of companies that WR Hambrecht + Co managed or co-managed a public offering of securities and/or received compensation for investment banking services, click here:

http://www.wrhambrecht.com/ind/research/disclosures.html#underwriter

To view a list of companies, their subsidiaries, or affiliates from which WR Hambrecht + Co and/or its affiliates expects to receive or intends to seek compensation during the next three months for investment banking services, click here:

http://www.wrhambrecht.com/ind/research/disclosures.html#expected\_compensation

To view a list of companies that WR Hambrecht + Co has a beneficial ownership of greater than 1% in the common equity securities, click here:

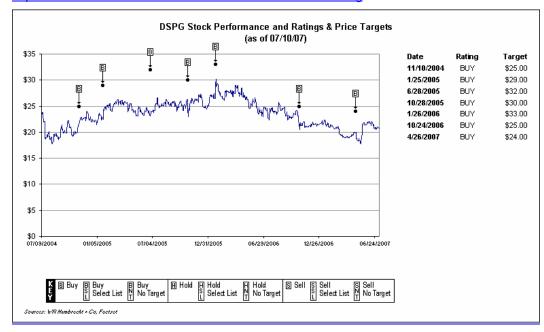
http://www.wrhambrecht.com/ind/research/disclosures.html#beneficial\_ownership

To view a list of analyst investment positions, click here:

http://www.wrhambrecht.com/ind/research/disclosures.html#analyst\_positions

To view a percentage of all subject companies assigned a "buy," "hold/neutral," or "sell" rating and the percentage of subject companies within each of these three categories for whom WR Hambrecht + Co has provided investment banking services within the previous twelve months, click here:

http://www.wrhambrecht.com/ind/research/disclosures.html#rating



#### MARKET MAKING AND INVESTMENT BANKING DISCLOSURES

At the time this report was published, WR Hambrecht + Co made a market in the securities of DSP Group, Inc. (DSPG).

#### STOCK RATING SYSTEM

The WR Hambrecht + Co stock ratings system reflects the investment decisions our clients face every day, and is meant to assist clients in making these decisions by recommending a specific action to take with each stock we cover. All of the ratings correspond to a specific investment action that we recommend taking on the date the research is published. Thus, "Buy" ratings are reserved only for stocks that we would be actively buying at the time the research is published. "Hold" ratings are reserved for stocks that we recommend holding. "Sell" ratings are assigned to stocks where the analyst anticipates stock price declines for any reason. None of our ratings are qualitative in nature (e.g., "Strong Buy") because these recommendations do not correspond to an investment action (investors cannot "Strong Buy" a stock). Please note also that the price expectations that determine the rating are in absolute dollar terms, not in terms of relative performance to a sector or an index. Therefore, analysts will not use the Buy rating for stocks that are expected to perform well relative to their sector but only for stocks that are expected to appreciate in actual dollar returns.

#### WR Hambrecht + Co uses the following rating system (last updated July 11, 2007):

Rating	Definition	% of companies under coverage with this rating	% for which Investment Banking services have been provided in the previous twelve months
BUY	Stocks rated Buy are those we recommend actively buying; these stocks are expected in absolute dollar terms to appreciate at least 10% over the next 6 months.	60	8
HOLD	Stocks rated Hold are those stocks we would continue to hold in our portfolio; these stocks are expected to appreciate or depreciate in absolute dollar terms less than 10% over the next 6 months.	37	2
SELL	Stocks rated Sell are those we would be actively selling; these stocks are expected to depreciate in absolute dollar terms at least 10% over the next 6 months.	4	0

#### **PRICE TARGET RISKS**

Investment risks associated with the achievement of the price target include, but are not limited to, the company's failure to achieve our earnings and revenue estimates, unforeseen macroeconomic and/or industry events that adversely impact demand for the company's products or services, product obsolescence, changes in investor sentiment regarding the specific company or industry, intense and rapidly changing competitive pressures, the continuing development of industry standards, the company's ability to recruit and retain competent personnel, and adverse market conditions. For a complete discussion of the risk factors that could affect the market price of the company's shares, refer to the most recent form 10-Q or 10-K that the company has filed with the SEC.

#### **VALUATION METHODS TO DETERMINE PRICE TARGET**

Our DSP Group (DSPG) \$24 price target is based on 12x forward CY:08E pro forma EPS estimate of \$1.01 plus \$~12.00 of cash per share before the close of the transaction.

#### **OBTAINING CURRENT DISCLOSURES**

Applicable current disclosures can be obtained by calling the toll-free telephone number listed below or by writing to the address listed below.

WR Hambrecht + Co Compliance Department 539 Bryant Street Suite 100 San Francisco, CA 94107

1 (877) 828-5200

http://www.wrhambrecht.com/ind/research/disclosures.html

#### **ANALYST CERTIFICATION**

The research analyst(s) whose name(s) appear(s) on the front cover of this report certify that the views expressed in this research report accurately reflect their personal views about the subject securities and issuers. No part of their compensation is or will be directly or indirectly related to the specific recommendations or views contained in the research report.

#### WRH+CO RESEARCH DISSEMINATION POLICY

WRH+Co research reports are made available simultaneously to institutional and retail clients and WRH+Co employees within the Sales and Trading area through email and through the WRH+Co website. All WRH+Co research reports are posted on the WRH+Co website at the time of their initial distribution and are available to the public. Anyone may view WRH+Co research through the WRH+Co website.

WRH+Co may also disseminate its research through other distribution channels such as First Call or news organizations, which generally occurs on a delayed basis. Typically, WRH+Co will distribute research to First Call approximately two hours after the research has been distributed to clients, employees and through the WRH+Co website. WRH+Co may not be able to control the timing or channels of any distribution of a research report subsequent to the release of the research report to its clients, employees and through its website. WRH+Co is under no obligation to continue to distribute WRH+Co research through First Call or any other news organizations and may discontinue such distribution at any time without further notice.

#### **IMPORTANT NOTE**

The information contained herein about the companies under research coverage is based on sources believed to be reliable but is neither all-inclusive nor guaranteed by WR Hambrecht + Co, LLC ("WRH+Co"). The information contained herein relative to WRH+Co's and the analyst's involvement with the issuer is accurate. Any opinions expressed in this report reflect our judgment at this time, are subject to change without notice, and may differ or be contrary to opinions expressed by other business areas or groups of WRH+Co as a result of using different assumptions and criteria. WRH+Co does not undertake to advise you of changes in its opinion or information. Most of the companies WRH+Co follows are emerging growth companies whose securities typically involve a higher degree of risk and more volatility than the securities of more established companies. The securities discussed in the reports included in WRH+Co Research may be unsuitable for investors depending on their specific investment objectives and financial situation and needs. No report included in WRH+Co Research is a recommendation that any particular investor should purchase or sell any particular security in any amount or at all, and is not a solicitation of any offer to purchase or sell from or to any particular investor. WRH+Co research analysts are compensated out of general firm revenues, which include fees earned in investment banking transactions. For additional information that may be available on the securities mentioned, please contact WRH+Co. Copyright 2007, WR Hambrecht + Co. All rights reserved. Member NASD/SIPC.

# EQUITY RESEARCH DIRECTORY WR HAMBRECHT+CO

Consumer		Technology continued	
Consumer		Enterprise Software	
Melissa Otto	212-313-5961	Robert Stimson, CPA	617-892-6114
motto@wrhambrecht.com		rstimson@wrhambrecht.com	
Jenny Zhang	212-313-5965	Jason Ko	212-313-5993
jzhang@wrhambrecht.com		jko@wrhambrecht.com	
Healthcare		IT Hardware and Storage	
Medical Technology	_	Matthew H. Kather, CFA	203-975-6616
Emily Johnson	212-313-5934	mkather@wrhambrecht.com	
ejohnson@wrhambrecht.com			
		Networking and Data Infrastructure	
Specialty Pharmaceuticals		Ryan Hutchinson	415-551-8627
Andrew Forman	703-279-6442	rhutch@wrhambrecht.com	
aforman@wrhambrecht.com		Semiconductor Devices	
John Kwon	703-279-6443	Communications and Memory	
jkwon@wrhambrecht.com		Daniel Amir	415-551-3139
		damir@wrhambrecht.com	410-001-0109
Technology		danii @wriaiibi echt.com	
China Internet and Technology			
James Lee	617-892-6123		
jameslee@wrhambrecht.com			
Xiaofan Zhang	617-892-6126		
xzhang@wrhambrecht.com			

#### For Additional Information

Tim Mahon Director of Equity Research 203-975-6613 tmahon@wrhambrecht.com

San Francisco, CA 539 Bryant Street Suite 100 San Francisco, CA 94107 Tel: 415-551-8600

Philadelphia, PA 555 Lancaster Avenue Suite 200 Berwyn, PA 19312 Tel: 610-725-1150 New York, NY 420 Lexington Avenue Suite 1825 New York, NY 10170 Tel: 212-313-5900

Stamford, CT 5 Stamford Landing 78 Southfield Avenue Stamford, CT 06902 Tel: 203-975-6600 Boston, MA 45 Milk Street Floor 5 Boston, MA 02109 Tel: 617-892-6100 Chicago, IL 225 West Washington Street Suite 2200 Chicago, IL 60606 Tel: 312-924-2843