

High-tech

Due Diligence: Broadcom acquires Alphamosaic, attractive returns for VCs

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The recent acquisition of Alphamosaic by US-based Broadcom for \$120 million and a cash payment of \$2.7m highlights the fact that fabless startups still represent one of the best opportunities for HNWI's (high net worth individuals), Angels and VCs. The Chilli published a detailed due diligence report about [Alphamosaic in June 2004](#). Here, we examine this deal and provide a perspective on the lucrative fabless semiconductor sector.

Broadcom's acquisition of Alphamosaic values the deal at \$120.3 million. It will acquire all outstanding shares and stock options, and as usual a portion of these will be held in escrow for 18 months. Broadcom will issue 4.17 million class A common stock valued at \$28.86 on September 17, 2004. It will also issue 140,000 shares as a replacement for existing stock options and incentive plans. Alphamosaic currently employs 57 people, mostly in Cambridge, UK, and will join Broadcom's existing r & d staff, dealing with DSP architecture, compilers and embedded software, also in Cambridge.

Broadcom is well known for its growth strategy via acquisition from its inception in 1991, when it was a networking company, and branched out into the fabless model for set top boxes (STBs) and modems. In the year 2000, at the height of the tech bubble, it had acquired 12 new companies, including Vision Tech, which dealt with STBs, and SiByte. At that time Broadcom's share price was a giddy \$250 a piece. It has taken a while for it to overcome this indigestion, when it took a massive write-off of \$1.76 billion to repair its balance sheet. With a revenue base of \$1.6 billion in 2003 and earnings of \$151.7 million as measured on a US GAPP basis (on a non GAPP basis it declared a loss of \$ 540 million), Broadcom has gone through some recent changes. These include the resignation of co-founder Henry Nicholas as CEO and appointment of industry veteran Lanny Ross as the new CEO; Henry Samuel, the other co-founder, still remains with the company as CTO and co-chairman.

Alphamosaic was a Cambridge, UK-based post-[Chilli R3](#) fabless chip startup. It was founded in April 2001 as a spinout from Cambridge Consultants Limited (CCL).

Alphamosaic had developed an integrated multimedia processor with embedded software and tool set. Its product was targeted primarily at high end mobile feature phones which enable multimedia messaging (MMS), video, audio and polyphonic ringtones. The company had been on its second generation product and was in the midst of design wins with several customers in Asia, with Samsung already signed up as a tier one volume

customer.

A healthy IRR for the original investors

Before the acquisition, Alphamosaic had raised a total of \$31.4 million (£16 million) from Prelude Trust, ACT, TTP Ventures and Doughty Hanson, in the now familiar classical milestones as defined in The Chilli benchmarks and [definitions](#).

2001 Chilli S3 \$ 2.9 million

2002 Chilli R1 \$ 7.5 million

2003 Chilli R2 \$ 12.0 million

2004 Chilli R3 \$ 9.0 million

Total \$ 31.4 million

In our opinion, \$31.4 million represents an under-investment of \$5 to \$8 million for a post Chilli R2 company, representing the lower appetite for risk by European VCs compared to the US. Nevertheless Alphamosaic's acquisition at this level still represents a lucrative return for the original investors. It would have been an interesting scenario to see how much higher the returns could have been had Alphamosaic been able to capture a slightly bigger R3 round. It would have more time, bandwidth and runway space to garner a higher revenue and customer base, and hence better multiples. But we suspect with all the different constituents of investors and stakeholders, it is difficult to hold out when there aren't that many princes looking for their princesses.

Prelude Trust: does an early bird always catch the fattest worm?

Prelude, which started out in 1997 with a fund size of £21m and a further injection of £30 million at the height of the tech boom in March 2000, was an early investor in Alphamosaic with Cambridge Consultants. Its total investment in Alphamosaic of £5.1 million produced a return of £13.6 million, representing a respectable multiple of 2.7x. This figure has an upside potential after the escrow expires.

Prelude's GPs and LPs would be very pleased with the Alphamosaic results as it continues to add more successful exits to its list, the most recent one being Fillfactory, where a £1.0 million investment at the beginning realised £10.6 million, a 10x return over a five year period (see our ['Summer investment fever'](#) article - for more details on Fillfactory exits and when nCipher exited via an IPO). We expect that the good results will make Prelude open up its purse strings for more S3, R1 and R2 investments in the tech sector.

TTP Ventures, a small corporate venture fund, based near its parent company TTP in Cambridge, UK, had a return of 3.5x on its original investment of £1.7 million representing a fantastic IRR of 100 %.

Doughty Hanson, which co-invested in a Chilli R2 of \$12 million and led the most recent R3 round \$9.0 million in March 2004, less than six months ago, is also in line for a relatively healthy return for its short exit cycle. Another investor which also received good returns was ACT, an Irish VC tech fund, whose third fund raised 170 million euros in January 2003.

The Chilli perspective

A large fabless company the size of Broadcom needs to feed its massive infrastructure with new products and new markets. It already has product lines addressing the STB, modem and cellphone markets. Alphamosaic's acquisition, creates a further opportunity for Broadcom to address the high end multimedia and wireless handset market as well as leverage from its sales, distribution, customer service, support and supply side relationship with foundries, assembly and test houses.

On the other hand, Alphamosaic would have faced a whole gamut of growth related challenges, namely investment required to build a global sales, support, and supply chain, and would have been limited by some large handset makers' reluctance to buy from a young, small startup without a strong, stable, financial partner. There is never a right time for a fabless startup exit, as there are too many stars that are inter-dependent and unlikely to all line up at the same time – except when there is a blue moon.

The decision as to when to sell out is always difficult to call, as one never knows if a fabless company will run out of runaway (cash) before it is cash generative. On the other hand, being part of a larger organisation brings issues, structures and management processes which can act as a brake on the free innovative spirit of a startup. Whether waiting a bit longer could have garnered a better than the average 4x return is a difficult call, as the semiconductor industry is softening a little and overall investor sentiment could turn the other way very easily.

The other major beneficiaries from this exit will be Alphamosaic's 57 employees and original founders, who jointly owned over 20 percent of the stock. One just hopes that the lockup periods and restrictions are not too stringent, in order to justly reward the employees' efforts so far.

The acquisition also sends out the right signals to the marketplace, as this will re-trigger and renew interest in new and existing fabless startups in Europe. This region currently represents less than two percent of the world's fabless startups, partly due to regular acquisitions by US-based fabless companies and partly due to lack of good exit stories, role models, lack of early stage funding, misguided government policies and programmes.

Nevertheless, we believe that despite the handicaps there is ample talent, domain expertise in telecoms, wireless, digital consumer, health, transportation and the education sectors in Europe for a viable ecosystem and opportunities for fabless startups. We look forward to the day when Europe is able to sustain a startup that is equally on par with the likes of Qualcomm, nVidia, S3, Acer and Broadcom. It may just take a little longer for a whole new generation to plough back some of the gains and put something back into the ecosystem.

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