

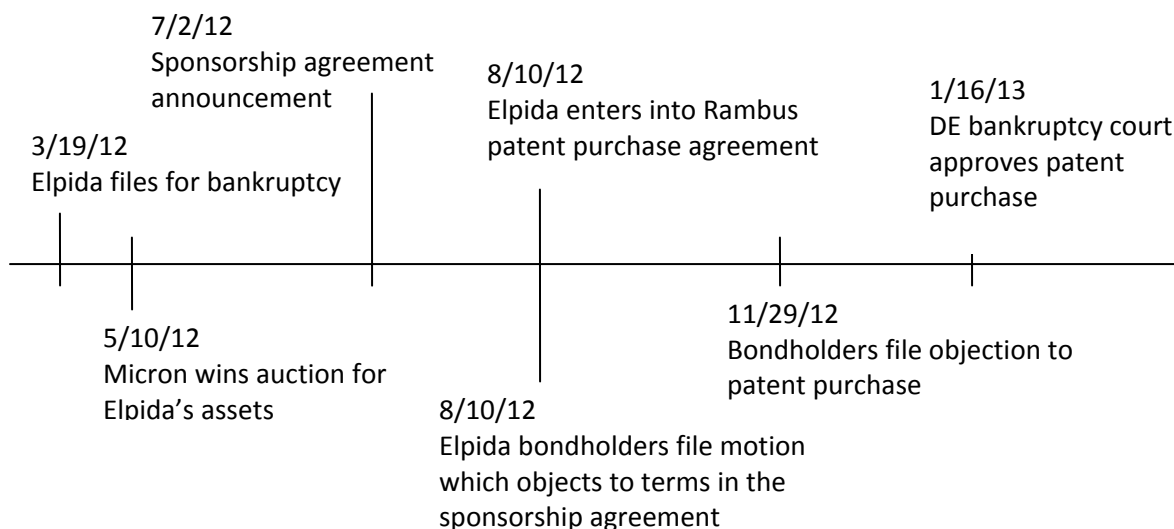


Is Micron's bid for Elpida the Deal of the Century?

Analysis of Elpida Memory Inc.'s Intellectual Property Portfolio

March 14, 2013

Elpida Memory, Inc. (Elpida) filed for Chapter 15 protection from U.S. creditors in Delaware's bankruptcy court on March 19, 2012, after it filed for company reorganization in the Tokyo District Court at the end of February. On July 2, 2012, Micron Technology, Inc. (Micron) announced a planned sponsorship agreement for \$2.5 billion in order to purchase Elpida.¹ An Ad Hoc group of Elpida bondholders filed a motion which objected to terms in the sponsorship agreement, stating that the agreement did not reflect the true value of Elpida.



Elpida's trustees are Mr. Yukio Sakamoto, Elpida's President and Chief Executive Officer and Mr. Nobuaki Kobayashi, outside counsel to Elpida. Under their leadership, Elpida sought a financial sponsor to emerge from bankruptcy. Due to the terms of Micron's sponsorship agreement, the trustees are precluded from discussing alternate transactions or disclosing material information without Micron's consent. As a result, Elpida's bondholders have argued they are unable to propose viable alternatives. Elpida's restructuring options are additionally curtailed since Elpida cannot sell any of its patents without Micron's consent.²

On August 10, 2012, Elpida and Rambus entered into a patent purchase agreement in lieu of Elpida making licensing payments from a preexisting contract.³ Rambus offered \$15 million for 40 of Elpida's patents. The purchase price was based on the revenues expected from asserting the patents against Hynix, who was at one time in the process of bidding on Elpida. Elpida has an additional 1,000 patents which may be equally valuable to the key patents offered to Rambus. The Rambus deal reflects a narrow view of the possible opportunities available to Elpida's intellectual property (IP) portfolio. The price offered does not necessarily fairly represent the true value inherent in the commercial Elpida patents, which could be much larger under a different monetization strategy.

¹ <http://www.sec.gov/Archives/edgar/data/723125/000072312512000079/form8k-elpidasponsoragr.htm>

² <http://www.deb.uscourts.gov/sites/default/files/opinions/judge-christopher-s.sontchi/opinion.11.20.12.pdf>

³ <http://www.deb.uscourts.gov/sites/default/files/opinions/judge-christopher-s.sontchi/elpida-findings-fact-and-conclusions-law-court-version1.16.13.pdf>

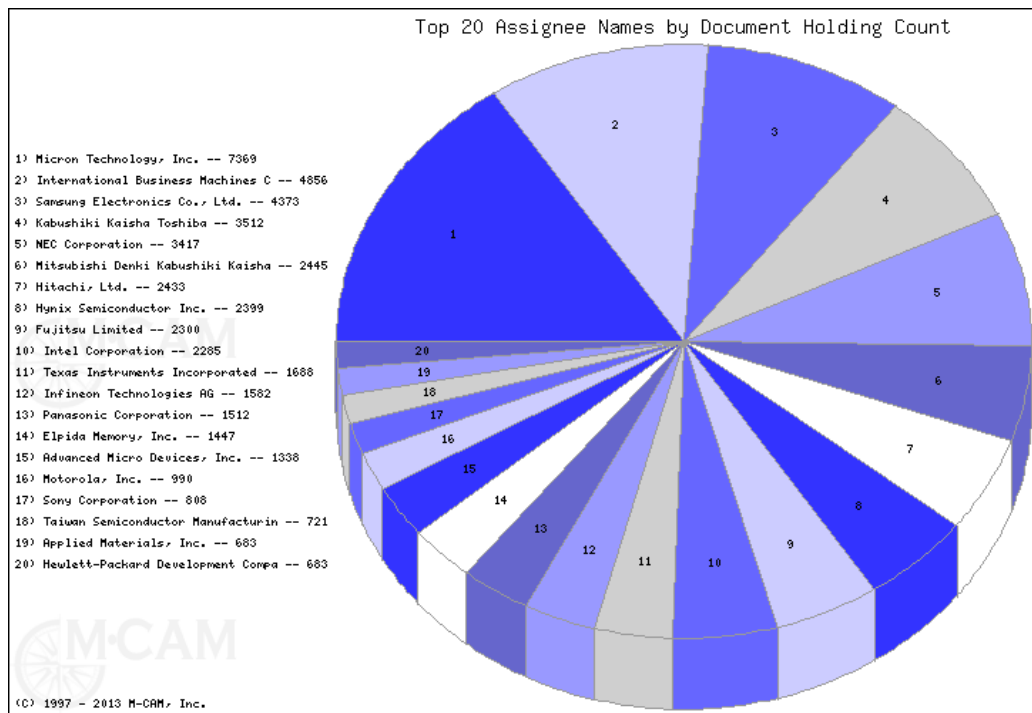
Regarding the sponsorship agreement, the bondholders' main concern is that the proposed sale will transfer enterprise value from Elpida to Micron at the expense of current creditors. This echoed the bondholders' argument in May during an auction for Elpida's assets which ended when Micron and Mr. Sakamoto initiated discussions for the sponsorship agreement. Micron's advantage in this deal is their offer to pay \$750 million to Elpida of the \$2.5 billion originally named in the agreement. The remaining \$1.75 billion owed to Elpida's creditors will be paid by Elpida when it is a subsidiary of Micron. This amount is expected to be generated by Elpida's operations.

This opportunistic pricing tactic by Micron has led Elpida's bondholders to assert the price of the proposed sale is too low. As previously mentioned, Elpida must obtain Micron's consent for the sale of its patents. This presents bondholders with an interesting conundrum. Given the growing investor awareness in the collateral value of IP (think Nortel), would it make sense for bondholders seeking to maximize their potential return to out-bid the \$750 million Micron is offering for innovation assets that Micron suggests will be instrumental in supporting a business that will generate in excess of \$1.75 billion? In an industry where protracted litigation seems to have been the only way to extract value for IP, are there other pathways to maximize Elpida's shareholder value?

Commercial Quality

We assessed Elpida's IP portfolio and commercially scored its U.S. granted patents using M•CAM's commercial asset underwriting systems. This assessment measured the commercial strength and transferability of each patent. Commercial patents are linked directly with cash flows and may have a basis for licensing. Non-commercial patents have little chance of being licensed, lack market relevance, or are direct liabilities to the holder due to prosecution impairments.

87.4% of Elpida's IP portfolio scored as commercial versus 12.6% being non-commercial. When comparing the portfolios of multinational corporations, the majority of portfolios score below 50% commercial. Portfolios which are above 40% commercial are considered better than average. 87.4% is an extremely high commercial score and the quality of IP should garner recognition by the courts of Tokyo and Delaware.



Not only is Micron gaining the operations of Elpida, but they also have a technology transfer and licensing agreement tying themselves to Elpida's IP portfolio. The fact that these agreements were reportedly arranged at the same time the sponsorship agreement went public⁴ implies they may have been aware of the high value of Elpida's IP and were attempting to block others from gaining use of Elpida's IP without their consent.

Innovation Space

To the left is an exemplary graphical display of the entities

in the innovation space surrounding the patents which scored as commercial in Elpida's IP portfolio. This display reveals the top twenty intellectual property holders by percentage of volume.

Since Elpida was initially created from a merger of the NEC and Hitachi's DRAM business,⁵ it is not surprising to see them in the space. In 2003, Elpida absorbed Mitsubishi's DRAM business⁶ and one expects to see them included in the list as well.

Most importantly, Micron is at the top of the list. Micron likely needs the IP in addition to the assets to strength its commercial controls in the DRAM market. This acquisition, if fulfilled, would make Micron the number 2 supplier of DRAM integrated circuits in the world.⁷ To protect their marginal cash flows however, they need to integrate Elpida's proprietary controls. This IP can also be used to expand into adjacent markets of memory chips for smartphones and tablets, a market that Elpida has not been able to successfully penetrate, but for which their IP likely affords certain market options.

Elpida's bondholders could propose alternative transactions with Elpida's IP which include players in the above display. Because of the high quality of its IP, a fully informed competing transaction may significantly defend the bondholder assertions that the Micron deal is not a fair value transaction.

Elpida could effectively transact with every entity in the above space. Samsung or Toshiba (who was at one point an interested buyer of Elpida) could be likely purchasers of this IP. Not only would they have an incentive to keep Micron from gaining more of the DRAM market, but they would also gain excellent proprietary controls which would allow them to expand their business operations.

Conclusion

Elpida's quest to emerge quickly from bankruptcy has clouded the value of its assets to the likely detriment of its bondholders. It appears their fears of the loss of enterprise value to Micron will be realized if they are not able to present a viable alternative for cash. Fully informed and yield-oriented bondholders could construct a competing IP transaction.

M-CAM's Patent Glossary

Aligned Sector: The business sector in which the product(s) resulting from the patent(s) is currently or intended to be sold.

⁵ <http://www.elpida.com/en/news/2000/09-28.html>

⁶ <http://www.elpida.com/en/news/2002/10-03.html>

⁷ <http://www.reuters.com/article/2013/02/28/microntechnology-idUSL4N0BS66I20130228>

<u>Applicant:</u>	The person or corporation that applies for a patent with the intent to use, manufacture or license the technology of the invention; under U.S. law, except in special situations, the applicant(s) must be the inventor(s).
<u>Application:</u>	Complete papers submitted to the U. S. Patent and Trademark Office seeking a patent including oath, specification, claims, and drawings. This usually does not signify a Provisional Patent Application, but only a regular patent application.
<u>Art:</u>	The established practice and public knowledge within a given field of technology. This also identifies a process or method used to produce a useful result. A term used in consideration of the problem of patentable novelty encompassing all that is known prior to the filing date of the application in the particular field of the invention.
<u>Assignee:</u>	The person(s) or corporate body to whom the law grants or vests a patent right. This refers to the person or corporate entity that is identified as the receiver of an assignment.
<u>Business Method Patent:</u>	
	A patent that controls the way a business process is undertaken. The issuance of these patents by the United States Patent and Trademark Office (USPTO) is new and controversial, since many allege that it is unfair to allow a patent on a way of doing business.
<u>Citation:</u>	This may include patents or journal articles that the applicant or examiner deems relevant to a current application. A reference to legal authorities or a prior art documentation are examples of a citation.
<u>Claim:</u>	The language in a patent application that defines the legal scope of the patent. Most patents have numerous claims. This is typically the single most important section in the application.
<u>Concurrent Art:</u>	Concurrent art occurs when related patent applications are being examined by the USPTO at the same time. It is difficult for any company or inventor to know, at the time they file for a patent, whether a “related” patent application exists.
<u>Filing Date:</u>	The date when a properly prepared application reaches the patent office in complete form.
<u>Innovation Cycle:</u>	A description of the commercialization timeframe for the intellectual property.
<u>Innovation Space:</u>	M-CAM’s representation of the innovation(s) that occur before, during, and after the pending period of the subject patent. The innovation space is the first place to look for patents that are closely related to the subject patent and that may impact the defensibility of the subject patent or create opportunities for patent licensing.
<u>Issue Date:</u>	Not to be confused with the filing date, which is the date the patent application was physically received by the U.S. Patent and Trademark Office. This is the date on which the patent actually issues.
<u>Non-Aligned Sector:</u>	Any sector in which the patent can be used or sold, other than the sector for which the patent or resultant product was invented or intended.
<u>Pod:</u>	A group of patents owned by a company that should be treated as a single unit of innovation (e.g., a certain group of patents that comprise a single product or multiple related products).
<u>Prior Art:</u>	Any relevant patent that was issued before the patent being analyzed. If this previous patent was specifically mentioned in the new patent’s application, the previous patent is referred to as “cited prior art”. If it was NOT mentioned, then that previous patent is referred to as “uncited prior art”.
<u>Subsequent Art:</u>	Any patent that has a filing date with the USPTO that is after the issuance date of the subject patent. This subsequent art patent may or may not have cited (see “Citation” above) the subject patent. As subsequent art represents more recent innovation than the subject patent, it has great potential to shrink the market opportunity for the subject patent.

A Brief Primer on the Patent System

In recent years, the importance of patents and intellectual property rights as an important variable in the marketplace has come to the forefront of the public consciousness as world leaders declare their country's lead in the innovation race. Damaging intellectual property litigation is becoming increasingly common across all industries. This is exacerbated when patent rights are granted for non-novel ideas. A vast amount of precedent innovation is unconsidered by patent-granting authorities in the creation of new IP rights. Patent granting authorities including the United States Patent and Trademark Office (USPTO), European Patent Office (EPO), Japanese Patent Office (JPO), Chinese State Intellectual Property Office (SIPO), Korean Intellectual Property Office (KIPO) and many others are constrained by the use of patent classification systems which are routinely circumvented by patent applicants.

There is a two-way social contract underlying the patent system. In the United States, patent terms are generally limited to 20 years from the date of application. By statutory intention, once a patent has expired, the patent holder loses the right to exclude others from fully utilizing any innovation described in the patent. A large number of patents enter the public domain when they are "abandoned" – when owners discontinue paying patent maintenance fees. Patents also only provide an exclusionary right in the country for which the patent is filed. As demonstrated by the Global Innovation Commons⁸ (G.I.C.), using intellectual property available in the public domain eliminates the need to pay licensing fees on those innovations in countries where the patent was never registered, or worldwide, if abandoned.

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⁸ <http://www.globalinnovationcommons.org/>