

Implantable Chips Market

Supplemental Information for Sale of
US Patents 5,499,626 and 5,322,034

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Individual descriptive record system

- Featured Assets:
 - 5,499,626 Individual descriptive record system
 - 5,322,034 Livestock record system
- Fundamental claims cover all aspects of implantable chips in animals and humans: the chips, communication devices to the chips, systems and methods
 - Furthermore, they cover reading, writing, antennas, data integrity, sensors, medical and other applications
- Over 27 forward citations

Animal Implants Facts

- Standards already developed that the patents address
 - ISO 11784, 11785 and 14223
 - Adopted by ANSI (American National Standards Institute)
- NAIS (National Animal Identification System) in the US has a goal of tagging (implantable and otherwise) 100% of all cattle (only 45% are currently tagged)
 - Huge growth in number of implants
- “Of the estimated 60 million dogs and 70 million cats privately owned in the United States, it is thought that 3 to 5 percent are microchipped”.
 - Source: USDA Report on Regulation of Pet Microchipping, July 2008

Human Implant Market

- US Food & Drug Administration (FDA) approved an RFID tag for implantation in humans in 2004 for VeriChip Corporation
- **“VeriChip Corp. does not, in fact, advocate universal chipping for medical purposes. The company’s vice president of medical applications, Richard Seelig, estimates a U.S. market for VeriMed of 43 million to 45 million people—less than one-sixth of the population. This group is made up of people who are more likely than others to wind up in the emergency room. These include cancer patients undergoing chemotherapy; people with pace-makers or other medical implants; and those who might be suffering some sort of cognitive impairment or loss of consciousness due to epilepsy, diabetes, or Alzheimer’s disease.”**
 - **Source: IEEE Spectrum, March 2007.**

Potential Revenue from Pets

- For the Chips ONLY
 - Revenue Already realized on Pets Today:
130 Million Pets x 5% Microchipped x \$6.25 per chip = **\$40M**
 - Revenue over the next 3 years:
130 Million Pets x 10% Microchipped x \$6.25 per chip x 1.2 = **\$97.5M**
- Using a simple model that an average of 10% of all pets will be microchipped within the next 3 years and that there is a 20% replacement in pet population. Also for past revenue, assuming to replacement. Reality is that the pet population will grow. So the revenue should be much higher even as the price of the microchips drop. Also, the numbers above are only for the chips and don't take into account the reader sales and revenue from the services which could easily double the number. Our estimate is that the reader/computer/system business will be equal to the above number and the "methods" are generating 50% of the above number.
- For the entire Pet Market
 - Revenue Already realized = \$40M x 2.5 = \$100M
 - Revenue over the next 3 years = 97.5M x 2.5 = \$244M
 - Total = \$344M
 - **Purely for illustration purposes, even using a licensing percentage as low as 1% would yield:**
 - **License/Damages = \$3.44M**

Potential Revenue from Livestock



Chip Revenue Only (in 000s)	Cattle	Sheep	Pigs	Total
2007 Total Head US	96,700	6,055	65,110	
2007 Slaughtered	34,300	1,470	58,953	
Past Revenue (~10 years) simply assume 20% of current animals are microchipped	120,875	7,569	81,388	\$209,831
Revenue over the next 3 years assuming only 20% microchipped and number of slaughtered animals doesn't change	\$128,625	\$5,513	\$221,074	\$355,211
Total Chip Revenue				\$565,043
Total (use 2.5 factor) Chip+Readers+Systems+Methods				\$1,412,606

Head Count Source: United States Department of Agriculture official statistics (www.usda.gov)

- Total for entire Livestock Market
 - **\$1.4 Billion**
 - **Purely for illustration purposes, even using a licensing percentage as low as 1% would yield:**
 - **License/Damages = \$14M**

Potential Revenue from Humans

- Market is somewhat ambiguous to assess
- VeriChip Corporation has FDA approval for implant
 - “We believe that our VeriMed system, which utilizes our implantable microchip, may make a significant contribution to our revenue in the future. As part of our growth strategy, we are dedicating the operating cash flows generated by our healthcare security systems and industrial products, as well as a significant portion of the proceeds of our initial public offering, to our efforts to create markets for the VeriMed system, as well as our other systems that utilize the implantable microchip,” SEC 10-K filing, 3/28/2008.
- Breakthrough is implanted sensor technology (e.g. Glucose meter device)
 - “Number of people with diabetes in the US increases to 24Million,” June 2008, CDC Press release
- Human chip and services are much costlier
- Simple revenue formula (just for diabetics):
 - $\$200/\text{Chip} \times 10\% \times 24\text{M Diabetics} \times 2.5 \text{ factor (System and Methods)} = \3B
 - **Purely for illustration purposes, even using a licensing percentage as low as 1% would yield: License = \$30M**
- Using VeriChip prediction of 43Million implanted yields revenue of \$21B!!
- Huge revenue potential for human microchip

Summary for Implantable Chips

- Pet and Livestock licenses and damages are potentially \$17 Million using a very low licensing percentage. The licensing fees negotiated are potentially double or triple that.
 - Standards and government are spearheading the adoption
- Human implant revenue potential is much higher (on the order of \$30M using the same low percentage assumptions and the licensing fees negotiated are potentially double or triple that) but the revenue risks are also higher due to the required FDA approvals and the human medical requirements

Supporting Material Data Vault

Charts, Companies, Claims and
Survey Data

Introduction

- The tables on the following slides are a result of 3Q'08 research and analysis on potential infringement (companies and products)
 - It represents about \$200,000 of effort
- Please Note: The table entries in the following slides are descriptions of what the actual entries are
- The supporting material documents are contained in a 33MByte data vault
 - Data clearly organized by each potential infringing company
 - The entries in the “Supporting Materials Included” column is the actual document names included in data vault
 - Product overviews, company statements, company presentations, product descriptions, datasheets, web pages, press releases, press articles
- For more details on the complete chart and the data vault material contact lot42@trachip.com

Companies/Claims Summary Chart

Company	Company Web Site	Ticker Symbol/Company Info	Possible Infringing Products Names/Numbers	Infringement Analysis	Claims	Supporting Material Included	Comments
Company 1		Public Multi-National	Three Product families including RFID chips and Readers/Writers used in many implantable products.	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) 	Patent '034: Claims: 1 through 6 8, 9, 11, 13, 15, 16 22, 23	Seven documents: product datasheets, corporate presentation on the technology and law suit press	Brief analysis
Company 2		Private. Over \$1Billion annual revenue	Three Product families including RFID chips and Readers/Writers used in many implantable products.	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) 	Patent '034: Claims: 1 through 6 8, 9, 11, 13, 15, 16 22, 23	Ten documents: product descriptions, datasheets and law suit press article	Brief analysis
Company 3		Public Multi-National	Three families of RFID modules and three reader families	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) - Human - Sensor 	Patent '034: Claims: 1 through 6 8, 9, 11, 12, 13, 15, 16 22, 23 Patent '626: Claims: Several human claims based on highlighted comments column.	Four documents: product overview; product descriptions, sample datasheet.	Brief analysis and quote
Company 4		Private	Chip and reader products	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) - Display - Method 	Patent '034: Claims: 1 through 11 13, 15, 16 22, 23	Six document: product documents; descriptions; product overviews; product pricing; press articles.	

Companies/Claims Summary Chart (continued...)

Company	Company Web Site	Ticker Symbol/Company Info	Possible Infringing Products Names/Numbers	Infringement Analysis	Claims	Supporting Material Included	Comments
Company 5		Public. NASDAQ	Six product families	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) - Sensor - Display - Method 	Patent '034: Claims: 1 through 12 13, 15, 16 22, 23	Four documents: Product family description; datasheets	Brief analysis
Company 6		Public. NASDAQ	Two products	<ul style="list-style-type: none"> - Human - Implantable - Chip - Health & Medical - Sensors - Transmitting & Receiving - Antenna - Wakeup Circuitry - Handheld - Permanent ID (storage) - Display - Method 	Patent '626: Claims: 1 through 12 14 through 19 21 through 23	Nine documents: product and entire system/methodology overview; sensors document; press articles	Brief analysis
Company 7		Foreign Company with Offices in USA. Crystal Imports markets and sells their products in USA.	Seven products: two chips and five reader/recorder	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) - Display - Method 	Patent '034: Claims: 1 through 11 13, 15, 16 22, 23	Eight documents: product datasheets; press article	
Company 8		Private. Sells foreign product in the US	Seven products	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) - Display - Method 	Patent '034: Claims: 1 through 11 13, 15, 16 22, 23	Eleven documents: product offerings; product datasheets; press articles	Brief analysis

Companies/Claims Summary Chart (continued...)

Company	Company Web Site	Ticker Symbol/Company Info	Possible Infringing Products Names/Numbers	Infringement Analysis	Claims	Supporting Material Included	Comments
Company 9		Private. International with sales in the US	Five products: Four chips and reader/recorder	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) 	Patent '034: Claims: 1 through 6 8, 9, 11, 13, 15, 16 22, 23	Six documents: product overviews and descriptions.	Brief analysis
Company 10		Private. US distributor for international company	Five products	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) 	Patent '034: Claims: 1 through 6 8, 9, 11, 13, 15, 16 22, 23	Eight documents: product offerings; overviews; descriptions	
Company 11		Foreign large corporation with sales in the US	Six product families	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) - Sensor - Display - Method 	Patent '034: Claims: 1 through 12 13, 15, 16 22, 23	Four documents: Product overview; datasheets	Brief analysis
Company 12		Private	Two products: Chips and readers	<ul style="list-style-type: none"> - Animal - Implantable - Chip - Health & Medical - Read and Write (record) - Transmitting & Receiving - Antenna - Wakeup Circuitry - Permanent ID (storage) - Display - Method 	Patent '034: Claims: 1 through 11 13, 15, 16 22, 23	One document describing product offerings.	Quote.

2008 Governmental Animal RFID Survey

Company	RFID	Portable Reader/Writer	Other Option	Other Option	Other Option
Company A	YES	YES	YES	NO	NO
Company B	YES	YES	YES	NO	NO
Company C	YES	YES	NO	YES	YES
Company D	YES	YES	YES	YES	NO
Company E	YES	YES	NO	NO	NO
Company F	YES	YES	YES	NO	NO
Company G	YES	YES	YES	YES	NO
Company H	YES	YES	YES	YES	NO
Company I	YES	YES	YES	YES	NO
Company J	YES	NO	NO	YES	NO
Company K	YES	YES	YES	NO	NO
Company L	YES	YES	YES	NO	YES

- The actual data features are:
 - Company names
 - Source of survey
 - Every entry is a Hyperlink leading to responses by each Company to the survey