

## Sonomax Technologies Inc. (TSX-V: SHH C\$0.085)

#### **FEATURED NOTE**

#### New Sonomax- a reinvented company and a novel coretechnology paradigm

#### **Company update:**

Sonomax is a Canadian based company that develops hearing protection technology and custom-fitted hearing devices. While historically, the complex fitting process hampered its product acceptance, Sonomax's new V4 earpiece technology is the platform that could bring meaningful order flow across Consumer, Industrial, Military and Medical verticals.

**Back to the future**. Sonomax has largely exited manufacturing, slashed costs and returned to its core strength in R&D where it hopes to grow sales through licensing its technology and royalty fees.

**Novel technology paradigm.** Sonomax's novel V4 technology is a self-fitting system that results in a better fitted, cost effective ear-piece with a shorter delivery time as it removes cost-layer of a trained technician.

**High-potential Consumer Market opportunity.** With its V4 technology Sonomax gains greater access to a massive Consumer Market opportunity. We believe the announced relationship with Levin Consulting will increase Sonomax's visibility among the likes of Apple, RIM, Nokia or Monster.

**Financial Position:** Sonomax's cash position appears slightly better due to recent warrant exercise. We feel that in order to execute on its ambitious strategy and gain credibility as a partner with OEMs, Sonomax may require additional liquidity.

**Growth strategy:** Management estimates its addressable market at ~100m units in select Consumer, Industrial, Military and Medical opportunities and Sonomax has approached both the key OEMs and ODM suppliers to offer the brand, and the technology in return for a per unit royalty in the C\$2.50-5.00 range. This business model, if successful, could result in very high margins as revenues fall almost directly to the bottom line.

**High risk/reward outlook:** While the company has massive IP in the hearing protection field, moving the stock rests on the market's perception of Sonomax's ability to rapidly negotiate high volume deals with key partners. If management is successful, it is not hard to envision significant stock appreciation or a possible take-out scenario.



#### **Company Description**

Sonomax, a public company since 2001, was established to develop hearing protection technology for industrial and consumer applications which prevent noise induced hearing loss. The company designs custom-fitted, calibrated hearing protection components that can be manufactured on a mass scale.

Over the years Sonomax's acceptance has been hampered by costly and time consuming product fitting that required trained technician to execute. In 2010, Sonomax accelerated development of its V4 technology into a platform that will allow users themselves to custom fit earplugs within minutes.

Sonomax currently holds 50 patents and trademarks for its technologies with over 100,000 users among companies such as: BHP Billiton, Nestle, Coca Cola and Bombardier.

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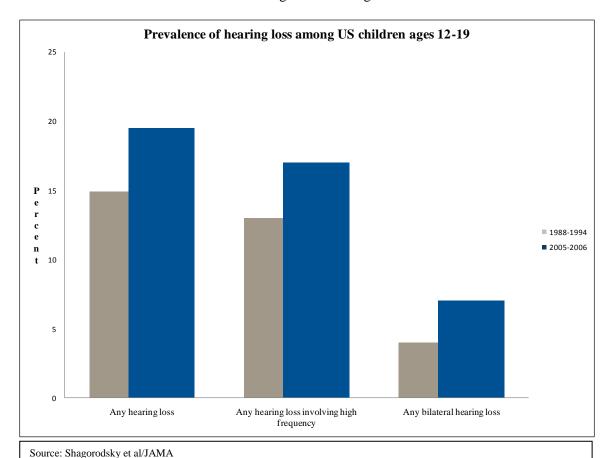
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#### **CORE BUSINESS**

#### **TECHNOLOGY:**

**Issue the technology addresses** – Current ear phones and earpieces are uncomfortable, fall out and leak sound. Users typically increase volume to overcome these challenges which in turn contributes to hearing loss. Custom fitted devices provide an "acoustic seal" that keep the earpiece firmly in place and unwanted noise out. According to Sonomax, the "seal" of a customized earplug allows users to reduce the volume by 30%. This would reduce the strain on the inner ear and likely reduce the toll on hearing after many years of using personal music devices.

O Journal of American Medical Association suggested in August 2010 that hearing loss is on the rise among U.S. teenagers compared with the rates seen in the 1980s and 1990s. Although the study is not exclusively pointing to the impact of music playing devices (other factor is genetics), it provides sufficient data to suggest that prolonged exposure to loud noise contributes to gradual hearing loss.





**Existing standard:** The traditional moulding of a customized earbud involves injecting silicone into the ear, removing the silicone, creating a plaster mould and creating the earpiece. This process is expensive and can take several weeks.

**Sonomax V4- User can fit own Intra-Ear Device**: Sonomax develops intra-ear devices primarily for Consumer and Industrial Applications. The company divides its technology into two platforms:

- a) "The Outside" (custom fitted earplugs) and
- b) "The Inside" (application-specific multiple components).

The new V4 technology allows an earpiece to be easily customized by the user (in 4 minutes actually) to the exact shape of their ear using a specialized "headband".

### The Solution: "custom-fit by sonomax"

 Earpieces can be customshaped by the wearer in minutes, using this disposable headband fitting system.



The Outside: Using this device, consumers insert a set of silicon-filled buds into their ear canal, and allow headband to custom-fit the buds inside the ear canal. After the headband is removed, the moulded buds are released.

# 3 STEPS to perfect fitting earpieces



**The Inside:** Following the release of the buds, earplugs are fitted with "the inside" part of the equation: 1) filters to muffle noise, 2) amplifiers for use in hearing aids or 3) speakers for headphones. Picture below indicates the company's IP and components:



#### **KEY MARKETS:**

**Consumer** – The most lucrative potential for Sonomax with over a billion units of MP3 players, iPods, cell phones and other smart phones sold every year. The company plans to offer the product directly to OEMs or ODMs under licensing agreements and negotiated per unit royalties. Sonomax management is currently involved in two proposals.

**Industrial** – Noise induced hearing loss is a significant issue among what the management believes is a market niche of 100m workers in the industrialized world. Furthermore, a U.S. and Canadian limit of the sound level inside workers' earplugs (to 75-80 decibels) is a solid demand driver for the company's technology. Sonomax has established relationships with key distributors.

Military – Hearing loss is a serious problem for soldiers returning from Afghanistan and Iraq. Sonomax legacy V3 pieces are already used by the Armed Forces of Germany, Sweden, UK and Australia. While Sonomax does not have a relationship with Motorola, the most dominant provider of hearing and communications solutions to the military, management has a development agreement with Racal Acoustics which has a 20-25% market share in the same market.

**Health** – According to WHO there are 278m hearing impaired people mostly in the developing world and there exists a need for 35m hearing aids per year to adequately service this market. Sonomax believes its moulding technology makes it easier to fit patient's ears resulting in more affordable ear pieces than present systems.

#### **COMPETITION**

Three systems compete with V4 custom fit ear pieces

- Technician fitted solutions: Westone, Phonak, Etymotic Research, Ultimate Ears and ACS
- Companies offering multiple choices of inserts: Klipsch, Sennheiser, Monster, Koss, SHURE and YURBuds
- Self-moulding solutions: Radians

#### BUSINESS MODEL AND MARKET POTENTIAL

#### TWO-PRONGED BUSINESS STRATEGY:

Sonomax's business model has a two-pronged strategy. First, a "licensing approach", in which Sonomax will target OEMs and offer brand and technology in return for a licensing fee. To achieve this, management has retained Levin Consulting a reputable U.S. consultant with a strong reputation for validating technologies, and production processes for large OEM clients. Second,



for certain customers Sonomax will engage in a "virtual manufacturing" strategy, outsourcing production to Asia in return for a margin and a royalty fee.

#### **CONSUMER MARKET – THE KEY OPPORTUNITY:**

According to Sonomax management and data from various industry sources, based on size and demand Consumer Market represents the company's greatest business opportunity. Out of ~1.5b Cell phones, Smartphones and MP3 units sold each year, Sonomax believes it can target a 60m-unit premium earphone and Bluetooth market. Management counts on a \$2.50-5.00 royalty per unit. This suggests that even with 1m units captured, revenues would have significant impact on profitability given the company's low cost structure.

Note that in December 2009 Apple fought-off a hearing loss lawsuit. As the explosive growth of iPods, iPhones and other smart phones continues, the risk to OEMs of future litigation should not be discounted. This presents them with some urgency in their demand for high quality volume-reducing earpieces to go along with their products.

#### INDUSTRIAL MARKET

The Industrial space represents a smaller market of 100m units where Sonomax faces somewhat less competition. Management expects a long term addressable market of 10m units, with 500,000 as a short-term target (at C\$5 of revenues per unit). Given that the market for industrial safety products is smaller, and Sonomax has contacts with key players in the US and the UK, we are more comfortable with management's plan. Sonomax has already signed an agreement with Dynamic Ear Company of the Netherlands but we are awaiting more deals and product launches before our confidence in the revenue prospects increases.

#### MILITARY AND MEDICAL MARKETS

In the Military and Medical spaces, Sonomax sees a market of 3m and 1m units at ~C\$5.00 - 7.50, and \$2.50 per unit respectively. With several entrenched players in both verticals, and the fact that changes in procurement in government-related sectors are typically very slow, we are inclined to see this opportunity as having the least certain immediate rollout and revenue potential. However, note that Sonomax reached an agreement in August with Racal Acoustics (part of Easterline Technological Corp, NYSE:ESL) to develop communication products for the military based on V4 earpiece technology. Similar agreement was signed in August with a hearing aid company from Brazil.

#### **OUR ASSESMENT**

Sonomax has approached the right customers, retained reputable external help (Levin Consulting) and is involved in several promising proposals that could lead to home-runs on the Consumer side. However, we see a risk that timing of such orders may be slow and the initial volumes modest. We also note that the competition among those that chase a component-supplier moniker to the Apples, RIMs and Nokia's is a cutthroat business. Finally, despite the patents held by Sonomax there is an ever present risk of reverse engineering in all its target markets. This could



expose company's vulnerability in coping with massive volumes of cheaper products from Asia. We consider management's progress in the other three market verticals as respectable.

#### **COMPARABLES**

		Last Price	ce	EV/Sales	P/Sales	EV/EBITDA	P/E		Gross	ЕВПДА	1 Year Sales	Arm 5 Voor
Name	Ticker	26-Nov-10	Market Cap	NFY	NFY	NFY	CFY	NFY		Margin TTM		Avg. 5 Year Sales Growth
WI-LAN INC	WIN	4.63	479	6.3	6.3	6.3	50.3	6.3	N/A	57.4	N/A	31.9
MOSAID TECHNOLOGIES INC	MSD	27.55	325	2.6	2.6	2.6	9.9	2.6	86.6	58.2	8.6	13.7
IPICO INC	RFD	0.08	4	N/A	N/A	N/A	N/A	N/A	30.9	-105.6	179.0	79.3
QUALCOMM INC	QCOM	47.70	77,165	4.9	4.9	4.9	17.4	4.9	69.0	35.9	15.7	5.5
RAMBUS INC	RMBS	20.27	2,265	4.6	4.6	4.6	N/A	4.6	97.6	-67.0	-0.5	-20.7
Average				4.7	4.7	51.1	26.9	15.8	71.0	-4.2	7.9	22.0
Median				4.7	4.7	16.0	17.4	16.1	77.8	35.9	8.6	13.7
SONOMAX TECHNOLOGIES INC	SHH	0.09	25	N/A	N/A	N/A	N/A	N/A	-7.8	-321.8	-39.0	N/A

Source: First Call. Bloomberg

#### WARRANT AND DEBENTURE CONVERSION

■ The company announced on October 26 that 77% of its warrant holders exercised their warrants and 85% of the maturing debentures were converted into common stock. Sonomax debentures debt has been reduced to less than \$1m, down from over C\$8m with both moves improving its working capital position by C\$1.4m.

#### **RISK PROFILE**

#### **Financing Risk**

While Sonomax cash needs have eased somewhat, there is a risk that the company will not be able to raise or generate cash to meet its obligations while focusing on growth.

#### **Market Acceptance Risk**

Sonomax faces the risk that its reinvented V4 technology will not be able to generate sufficient contracts to bring about significant lift to the performance. However, the management has maintained key personnel and brought in reputable external help to improve access to key OEM and ODM clients. Note that management and insiders own ~10% of the outstanding stock.

#### **Dilution Risk**

While the company has 28 million of outstanding warrants, benefit of a cash infusion can be reversed by dilution and money fleeing the stock due to "investor fatigue".

#### **Litigation Risk**

Sonomax could be vulnerable to reverse engineering attempts from the cheaper Asian producers. Licensing companies are frequently at a risk of spending large amounts of resources to defend their patents. While the company is not currently involved in litigation, an emergence of such situation could be adverse to the management's focus on core business.

#### **SUMMARY**

We believe that Sonomax management understands its markets and has an appropriate strategy to pursue development, and manufacturing agreements. If management can come up with a string of successive deals, given its current cost structure, revenues could quite rapidly lift the stock and bring about substantial profitability. For those investors with an appetite for risk, the reward at the current stock price could be substantial.



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**Buv**: The stock is expected to deliver a return between 9% and 13% over the next 12 months.

Hold: The stock is expected to deliver a return between 5% and 9% over the next 12 months.

**Sell**: The stock is expected to deliver a return lower than 5% over the next 12 months.

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Rating	Coverage Universe		
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Strong Buy	38%		
Buy	16%		
Speculative Buy	16%		
Hold	9%		
Tender	0%		
Not Rated	21%		
Sell	0%		
	100%		

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Issuer Company	Ticker	Applicable Disclosures		
Sonomax Technologies Inc.	TSX-V: SHH	9		

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