Re-vitalizing Audio Industry:Music and Health

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I am honored to be with you today. I am very enthusiastic about 1 bit audio technology and offer my congratulations and appreciation to Yamasaki-san on this occasion, and to those companies who are seriously trying to improve the audio world.

The audio industry has always been driven by love of music. The things that connect us to love of music build our business. When we create enthusiasm for music reproduction, we nourish the force that has driven the audio world since Thomas Edison, You may remember, he was hard of hearing and would bite on the piano lid in order to get the vibrations into his head.

We all know that the music business is in crisis. In order to fix problems, we need to understand the causes. I hope to contribute some additional understanding, with the hope that it may lead to better solutions.

A medical doctor in the U.S. did a lot of research on PCM digital and shared his findings with me during the last five years. I would like to share with you some testing methodology that shows that PCM affects people physiologically. These physiological effects are beyond the level of personal taste. The good news is that 1 bit technology produces no physiological effects,.when used properly.

I'd like to do some testing and then suggest some steps We Can take to make improvements which will be good for our customers and good for our business.

I ask Murakami-san, a fine Professional recording engineer, to join me on

which identifies the presence of stress. Normally, people test strong (test Murakami). I ask Murakami to say something he knows to be true, "I love music." He tests strong which is normal.

I ask him to say the reverse, "I hate music." He tests weak. Something has caused the strength in his body to diminish so it cannot push energy into his deltoid muscle. So we have a way to test for unconscious stress. Even if we are not aware of the stress, our bodies are aware of it.

Now I test Murakami-san and he is strong (normal). Now, I play a 1 bit track from the Red Rose Music sampler (track 2). He tests strong. Now, I play the same track in PCM. He tests weak. So we can say that something in the PCM signal is affecting him physiologically.

Now, we will play the recording for 1 minute and test him again. After 1 minute, he tests strong. But now, let him say "I love music." He tests weak. He says, "I hate music." He tests strong. So now his responses are reversed. Something in the PCM technology is affecting him so that his responses are reversed. Clearly, this is not a good indication.

I propose six steps:

1. Using these health care tests as a Starting point, we need to develop electronic tests so the industry can make informed engineering and marketing decisions, and find solutions to the problems of PCM.

2. We should see if it is possible to create an algorithm that will correct the PCM stress problem so people can have better results with PCM technology in various applications including music, video, cell phones,

computers, and movie theaters.

3. We should engineer equipment that utilizes 1 bit technology without compromise from PCM, otherwise we are asking customers to buy new equipment without giving the benefit they deserve.

4. We should make sure that new products that use 1 bit technoogy are free from the stress and confusion problem of PCM.

5. We need a logo that record companies can use that tells the customer wen PCM processing has been used. Otherwise, people will buy CD's made with PCM processing but released as SACD's, and they will have no benefit. Then customers Will again feel betrayed by the audio industry and we will lose more credibility with them.

6. We need a new series of products for professional and consumer applications that give the maximum benefit from the new 1 bit technology, and reconnect people to love of music.

I believe this whole general direction of complexity and mediocrity is being fueled by the presence of PCM processing, because it takes away or blocks the emotional element, thereby pushing people to fill the gap with more - more channels, more speakers, more Cables, more, more more. Quantity is not an acceptable substitute for quality. What we need is a return to the basic principles of Japanese culture, where less is more.

The future of the audio industry depends on our ability to reconnect people to love of music. Otherwise, we will be have mainly a world of video which is about entertainment but not the higher values which music

has traditionally represented.

My new company has developed audio technology for speakers and amplifiers that is very synergistic with 1 bit technology. We hope to work closely with companies that have a similar commitment to building the audio industry based on honesty, caring about our customers, and good engineering in the service of music. Thank you. (end)
Additional Notes:

My new company is Red Rose Music. Apart from manufacturing, we have a small retail store in New York City. I personally worked in the store for over two years every day, in order to understand what was going on with our customers and to test out new ideas.

Around the time we opened the store, I was introduced to 1 bit DSD technology. Sony kindly provided a SD recording system for me to use, and during the course of a year, I made a series of recordings of great classical, jazz and blues artists.

we made a dual layer SACD of these tracks and sold around 5000 copies in three months. Sony invited RRM to do the audio demonstration at a CES show, and we used this sampler as our only demo disk. People commented on how the feeling was so relaxed in our demonstrations.

we began to use this disk in our store for demonstrations, and immediately saw a completely different reaction in people who came to the store, compared to PCM recordings. These people included both men and women, older and younger people, some with a strong audio background and others with no audio history at all.

Many of our customers complained that SACD's on the market were not recorded well. We tested a number of new SACD's and found that they were made with PCM technology. In speaking with record companies, it turned out they were mostly interested in stopping downloading, and were using SACD as a way to convince customers tO accept the new technology, but were unconcerned about whether the recordings were actually real DSD or not.

But what is wrong with PCM? We have no electrical tests that identify the problems, but we know that many people have turned away from listening to music because of limitations of the CD. It is not just a question of sonic quality. It has to do with what it feels like, not justwhat it sounds like. The fact is that PCM digital audio causes stress in 100% of people tested, yet the industry has no way to measure these effects. How can we avoid the problems of PCM if we don't have a way to detect them?

The real issue is that this stress and confusion problem drives people away from listening to music. This is why so many people either stop seriously listening to music, or return to LP's and analog program material with no PCM processing. In short, PCM has been disconnecting people from love of music and making quality equipment and recordings irrelevant. It doesn't matter how much the equipment costs if you don't want to listen to it. It doesn't matter who the artists are if you don't want to
listen to the recording.

1 bit technology is being developed as a solution by a number of companies. The industry is making big claims for SACD, but the fact is that many of the SACD's are made with PCM processing, and affect

people just like a CD because from the human body's point of view, they are CD's. Once sound has passed through PCM processing, it can never be repaired-sofar Protection from piracy is a good goat. However, the industry is telling people how great SACD is without telling them that most
SACD's offer no advantage over CD's. Furthermore, the industry is blocking companies from ripping SACD's to hard drives, thus taking away the convenience of CD libraries and other functions that customers like and enjoy. So the net result is that people are buying new equipment and recordings but virtually have no advantage, Only the serious disadvantage of having no ability to store the material on a hard drive.

Some companies were developing DSD tools for recording engineers to use so that the potential of SACD could be realized. However, last year, most of this research and development was Stopped, essentially forcing record com anies to keep using their PCM equipment to make records. At the same time the recording industry refuses to provide a logo which identifies the presence of PCM processing on SACD's. Customers and ress now have another reason not to trust us, Since we are asking them to pay for advantages they often do not get.

I agree that record companies need protection. Stealing the creativity of people and companies is not acceptable in any field. There should be a way to give people the convenience they need and want, with protection for the artists and record companies. But the real problem is the lack of quality of the content. It doesn't matter who owns it if nobody wants it. some of the most popular records are the ones recorded in the 1950's with one or two microphones. Artists such as Nat King Cole, Ella Fitzqerald and Frank Sinatra recorded this way. Today, the industry is built on an elaborate complicated and expensive recording process which

produces noise, not music. How can we expect artists to play great music if they are wearing headphones and sitting in glass isolation booths listening to cue tracks of musicians who recorded tracks weeks ago and aren't even in the studio. So much sound is synthesized and electronically produced, when what people want and need is the humanity of real instruments and voices.

1 bit technology could be part of a return to traditional Japanese values of simplicity, beauty and understatement. It gives us the ability, for the first time, to give the highest quality of music reproduction to the wider audience. We must protect this opportunity and nourish it.
We must remember that for around 100 years, people have enjoyed radio, records, and tapes in analog. Although the fidelity was limited, everyone enjoyed the results and was happy listening to music.

PCM brought low noise and many technical advantages, but the enjoyment and upliftment disappeared. It doesn't matter how much you spend on equipment, because the problems of PCM cannot be overcome with money.