Good morning Ladies and Gentlemen!

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It is my pleasure and honor to attend this assembly which celebrates

Professor Chowning's great invention associated with FM music synthesis

systems, and I greatly appreciated your kind invitation.

Mr. Hiroshi Kawakami, the President of Nippon Gakki Company, deeply regrets that he is unable to be present at this gathering due to a prior engagement. He asked me to convey his best wishes and regards to all of you.

We at Yamaha have a long relationship with Professor Chowning of Stanford University. I first met Professor Chowning more than ten years ago. I then embraced a firm belief that digital processing would replace analog processing in electronic musical instruments in the future. Therefore, within Yamaha, we began conducting intensive research and study of digital processing methods, and we developed several methods of digital processing by ourselves. But every method of our own development made the hardware—in this case, electronic musical instruments—into very bulky pieces of equipment that could not be produced within our targeted cost.

When we were still exploring a system which guaranteed a high performance at low cost, a professor at Utah University referred Professor Chowning to me. I immediately met with Professor Chowning and realized that he was quite a talented man who composed music and had a profound knowledge and expertise in digital music processing, and he had invented a very unique method of FM music synthesis.

I perceived instinctively that the FM music synthesis system would be the

best one for production of sounds of musical instruments, and I discussed with Professor Chowning at once how we could best proceed with further development in cooperation with Stanford University. Thus our relationship began about ten years ago.

We very highly evaluated the FM synthesis system, but ten years ago our IC technology was not good enough to manufacture high quality electronic musical instruments which we wanted to develop. For instance, only P-MOS IC was available then. It was slow in calculation and was not highly integrated. Therefore we had to exert a lot of our own hard efforts in the development of IC's which had higher performance and quality. Later, C-MOS IC replaced N-MOS IC and calculation speed and integration had been greatly enhanced. I firmly believe that the FM synthesis system has now become quite a perfect system.

This FM synthesis system supercedes all other systems which are available in the world, as I perceived instinctively when I first encountered this system. Our company has produced a huge volume of FM synthesis chips. To the best of my knowledge, we have delivered more than 10 million pieces of FM synthesis chips to the market.

Application of FM music synthesis has become so popular and diversified that there are many personal computers which incorporate the FM music synthesis in the unit. About 90 percent of the personal computers marketed in Japan adopt our FM synthesis chips. There is no doubt that the FM synthesis system will become even more popular and global.

Of course, we owe much of our success to Professor Chowning's great invention on the FM synthesis and the excellent understanding and cooperation of Stanford University.

We would like to take this opportunity to express our sincere appreciation to Mr. Laimurse, who did a find job in the process of F M synthesis patent licensing.

Thank you all for your kind attention.