



necessary for future optical communications by concentrating on understanding silicon in KME's own development or introduction from IP vendors. Thus, these solutions are guaranteed to work reliably on the silicon chip, allowing worry-free use by customers. KME's JPEG Core has a long history and is now playing an important role in digital still cameras (DSC). KME has also provided ASSPs (application specific

interface is very important and requires an analog technology which is significantly related to the specific process of the wafer foundry. KME has focused on development of this interface technology, and has created interface solutions such as LVDS for LCD controllers, USB for PC interface and SerDes (Serializer/Deserializer) which is a high speed serial interface

### 3.3 Horizontal International Specialization

KME has outsourced the packaging process from the beginning. In 1999, KME entered into a strategic alliance, including product co-development, with United Microelectronics Corp. (UMC), a major specialized wafer foundry in Taiwan. As an active partner in co-development work, KME has a complete knowledge of the process and device, even when outsourcing. KME has organized a new production system called horizontal international specialization, in which the deep sub-micron products are mainly processed by wafer foundries such as UMC, and the special process is done at KME's Utsunomiya Works.

### 3.4 Joint Research

As a farsighted policy for developing new applications and basic technologies, KME cooperates with various academic research partners. Catholic Univ. of Leuven in Belgium was a partner in the new architecture development for the GPS-RF product<sup>5)</sup>. Kobe Univ. in Japan cooperated in CAD tool development<sup>6)</sup>, and UCLA now supports basic high speed interface technology.

## 4. Summary

KME ranked at the top in overall scores when Nihon IDS Corp. made its 2nd investigation of semiconductor customer satisfaction in July-September 2001<sup>7)</sup>. In the future, KME will deliver optimum solutions in a timely manner, and will continue to work to improve customer satisfaction as a reliable ASIC partner.

## References

- 1) Yamauchi Y. et al. LSIs and equipment for high speed and diversified digital communication network. Kawasaki Steel Giho. vol. 32, no. 3, 2000, p. 123-126.