PROVEN SOLUTIONS

Anritsu Analyzes Quality

Anritsu has been providing communications solutions for over 100 years. Today, with revenues over one billion dollars, Anritsu is a leading manufacturer of advanced communications, instrumentation, and control equipment; information terminals; and manufacturing equipment. In particular, Anritsu is acknowledged as the world leader in measurement systems for optical communications.

The Anritsu MP1220B is a good example of those leadership products. It's used by manufacturers to evaluate performance of network interface cards or chipsets, or attached to a network to measure the performance of both low- and high-speed links. In the fast-paced optical communications market, short-term revenue opportunities are more important than ever. Getting new products to market faster is critical. When Anritsu wanted to upgrade their popular ATM quality analyzer, they knew they needed to do it quickly.

In order to add new features and functions, upgrade the processor and operating system, and still meet their market window and manufacturing constraints—Anritsu decided to use an off-the-shelf embedded CPU product. After evaluating three different suppliers, Anritsu chose Ampro and the CoreModule P5e.

Anritsu

Company—Anritsu Company, Applied Technologies Division

Industry—Telecommunications test and instrumentation

Product—ATM quality analyzer

Challenge—Get the next-generation product to market faster

Solution—Use off-the-shelf, standards-based Ampro CoreModule™ P5e products to provide CPU and CRT control functions

Benefits—Speeded up development time—getting to market with new features and operating system—but with the same mechanical form factor, eliminating expensive mechanical retooling.

Anritsu Quality Analyzer

The goals

Anritsu faced a number of challenges in bringing their new product to market:

- **Improve time to market:** The functionality, flexibility, and standards compliance Anritsu needed for the MP1220B requires a very resource-intensive development effort. By using existing Ampro resources, Anritsu significantly reduces the risks involved with bringing it to a just-in-time market.
- **Increase design flexibility:** To provide a high level of application flexibility, the MP1220B must conform to a variety of international standards. Anritsu also needed a solution that would enable them to easily add value-added features.
- **Eliminate retooling costs:** Having made a substantial investment in mechanical retooling, Anritsu wanted to maintain their existing form factor.
- **Plan for the future:** Besides adding new features and upgrading the CPU and operating system, Anritsu wanted to adopt an architecture that would enable them to easily upgrade.

Ampro provides the solutions

For every one of the development and manufacturing challenges Anritsu faced, the CoreModule P5e provided solutions.

Faster time to market: Using the Ampro CoreModule P5e enabled Anritsu to cut their design cycle to between 90 and 120 days. Anritsu engineers were also able to simultaneously build prototypes—which helped them to hit their one-year time-to-market goal.

Anritsu needed to develop extensive application-specific software. Taking CPU design out of the development process gave the development team more time to work on value-added features like remote access capabilities over Ethernet, and specific test and measurement features.

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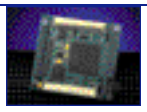

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Joe McCain
Anritsu Product Marketing Manager

Ampro CoreModule P5e

According to Joe McCain, Anritsu product marketing manager, using an off-the-shelf CPU board also improved product delivery times. "Ampro was not only key to getting this product to market faster, it also helped reduce our deliverable lead time to four weeks or less."

Design flexibility: McCain continued, "Choosing the CoreModule P5e was a minimum-risk decision. The fact that it uses an industry-standard Pentium processor and Windows operating system reduced the adoption risk. And the product is based on a mature technology and well-defined standards." This gave Anritsu design engineers the flexibility to incorporate the features they needed for a successful product, as well as the ability to conform to international networking standards.

McCain also believes that using the CoreModule P5e as part of the design has enhanced the product concept. He says Anritsu can now re-use the application-specific development work they did for the MP1220B for additional products that use the same CPU and operating system.

No retooling costs: Originally released in Japan, the MP1220B is now manufactured in both Japan and California. According to McCain, "Because we would have had retooling costs for two lines, we really didn't want to change the product specs. And with the CoreModule P5e, we didn't have to." According to McCain, Ampro's CoreModule family offered them three product choices—all of which would fit their existing product footprint.

Future-proof platform: McCain notes that, "Adopting the PC/104 platform offers us about a seven-year lifecycle as Ampro continues to support and upgrade this platform."

World-class reputation and support

Other important factors that drove Anritsu's choice of the Ampro CoreModule P5e included worldwide product availability and technical support near their California design facility. The Anritsu development team also used Ampro design resources such as documentation and reference materials, carrier-board reference design,software references for the BIOS and operating system,Ampro field engineering support,and consultation with the Ampro board designer.

McCain says, "I have continued to recommend Ampro products since my first experience with them in the mid 1980s when I worked with them at another company. I've come to count on Ampro for consistency from generation to generation. And they came through for us again here at Anritsu."

From Ampro:A leader in standards-based embedded computing

For 18 years, Ampro Computers has supplied innovative modular embedded computing solutions to help our customers get to market—and to profit—faster. Partnering with embedded software suppliers and leading microprocessor companies, we define and implement standards-based embedded computing technology that accelerates product development and enhances productivity.