

Solution partner

Conrac supplies its high-end display products for naval, defence and commercial applications to OEM partners and system integrators around the world. Product manager Jörn Wittig explains how the firm has adapted to the growing ruggedisation demands synonymous with harsh environmental conditions.

How long has Conrac been supplying display solutions for the defence sector?

Jörn Wittig: We've been developing display products ever since the late 1960s. These have always been dedicated to specialised market segments as, even back then, market competition for standard products was fierce.

Conrac was the first company to offer high-resolution industrial colour monitors. We then moved into ruggedised and customised products. Whatever the market segment, Conrac has always played a pioneering role in the display business. Over the years, we have built a reputation for the supply of extremely durable equipment, with the majority of our products being in operation for more than seven years.

What recent additions have you made to your mobile and marine display product portfolio?

In terms of widescreen marine displays and panel computers, our latest development has been a series of panel PCs specified to run all marine applications, from automation and control to ECDIS and navigation. This adds the flexibility of an integrated solution to the benefits of our well-proven ECDIS marine displays.

As a special feature, we have integrated a proprietary system-monitoring application called SysMon to control various settings and obtain exact information on a multitude of parameters. It controls the backlights, supervises the system and allows remote access from anywhere in the world.

Conrac has also been developing and producing rugged computers, workstations and notebooks for mobile use in tanks, shelters, trucks and other vehicles for Nato and worldwide armed forces for more than 15 years. Conrac's large-screen ruggedised displays, which range from 45-60in, have been tested according to MIL-STD-167 (vibration), MIL-STD-180 (shock/temperature) and MIL-STD-810 (EMI). Furthermore, the devices have been proven to withstand severe underwater explosions up to 100g.

For these products, we follow a clear original equipment manufacturer (OEM) strategy. From our modular concept, we

select the ideal, thoroughly tested components and, if necessary, develop new boards for the customer's specific needs. This allows us to supply clients with cost-effective, fully customised solutions that have very high quality standards, and avoid unnecessary over-engineering. We pride ourselves on being an innovative company so we always have something in the pipeline. Conrac was the first firm offering widescreen displays for radar, ECDIS and navigation applications – called wideECDIS – which is now state-of-the-art in all modern integrated bridge systems. We were also the first to launch widescreen marine panel computers. At present, we are working on a number of different new solutions based on special LED backlights.

R&D must be an imperative part of staying ahead of the curve. What is your approach in this area?

R&D is definitely a vital factor for us. Our R&D facility is based at our headquarters in Weikersheim, Germany, along with our manufacturing, quality assurance and quality control departments. For Conrac, this centralised element gives us a strategic edge. For example, equipment for climatic and EMI tests are available on-site, as are our prototyping department, mechanical workshop, paint shop and silk-screening facilities. We also have a clean room for production steps requiring a dust-free environment, such as touch-panel integration and special panel enhancement measures.

We conduct several meetings with our customers during each project, most of which are held at our premises. The feedback from our customers shows that they very much appreciate seeing where the products come from, and experiencing for themselves how strict our in-house test procedures are and that quality is being monitored at all stages of the production process. In most projects, the contracts request factory acceptance tests, which are also held at in Weikersheim.

In which geographical markets are you currently present? Do you have plans for further expansion?

Currently, the majority of our OEM customers are based in Europe. However, the North American market seems to be picking up, and is becoming increasingly attractive for us. We have successfully handled our first projects in this market, and are working on further projects and a continuous strengthening of our activities in this area.

How do you go about nurturing a successful partnership with your clients?

As a medium-sized and very flexible company, our uncompromising approach is to be not only a supplier, but also the customer's partner – from the conceptual design right through to series delivery. Our philosophy is to offer more than



Vibration testing of Conrac's large-screen displays.

just products. Together with the customer, we find the right display or system solution for any application. For decades, professional project management throughout the entire project, from consulting to service, has been part of our business. Long-standing relationships with our project partners clearly prove the success of this strategy.

How do you strike a balance between aesthetics and creating a robust product?

Striking a balance between aesthetics and ruggedisation is definitely a challenge and, to be honest, depending on the degree of ruggedisation required, this sometimes involves some compromises. Nevertheless, it is always possible to find a solution. As, in most cases, we supply to the system integrator as opposed to the end customer, there is the requirement to stick to their CI and design requirements.

Aside from producing customised displays, what other value-added services does Conrac provide?

We offer everything to make our customers' lives as easy as possible, starting long before the actual manufacture of a product right through to the end of its lifecycle. Prior to a new product launch, there are qualification procedures such as long-term heat testing for evaluation of new display panels. Obsolescence management, certification and auditing are also part of our day-to-day business. All this ensures thoroughly tested and extremely durable products, guaranteeing our

customers a low cost of ownership over the entire product lifetime. It almost goes without saying that we guarantee long-term availability, service, spare parts supply and a long-term exchange programme for our products.

After-sales service is one of our most important objectives and is ensured by our well-equipped service department. Repairs in the service centre, on-site service, installation, service and maintenance contracts, spare part service and service training are just some of the options we offer. Through a global network of subsidiaries and sales offices, as well as sales and service partners in more than 60 countries, we make sure we remain as close to our customers as possible.

Where will your future growth derive from?

We see a clear tendency towards the use of embedded solutions. This trend applies to all display sizes, from small to extra-large. This is a market development we are well prepared for as we are very experienced in the integration of industrial and ruggedised PCs and controller boards. Furthermore, all our products are based on a modular design, allowing very cost-effective customisation – an aspect that in times of restricted budgets is very much appreciated by our customers. ■

Further information

Conrac
www.conrac.de



CONRAC
DISPLAY AND SYSTEM SOLUTIONS

RUGGED DISPLAY SOLUTIONS



**FOR NAVAL & DEFENCE,
SECURITY & COMMERCIAL
APPLICATIONS**



NAVY APPROVED

MILStd 167
MILStd 810



Large Screen Displays
for command & control, automation,
mission planning (optionally with
integrated PC, touch screen etc.)



**Widescreen Monitors &
Rugged Panel Computers**
for naval, ground based & airborne
applications

Ruggedisation & Customisation



INNOVATION. EXPERIENCE. FLEXIBILITY. QUALITY.

CONRAC GmbH - Weikersheim / Germany - Tel.: +49 7934-101 226 - info@conrac.de - www.conrac.de

DATA MODUL GROUP