



# EMBEDDED APPLICATION IN AESTHETIC MEDICINE

AN ITALIAN EQUIPMENT PROVIDER USES KONTRON'S SBC TO  
CREATE HMI FOR PICOSECOND LASER TATTOO REMOVAL MACHINE



PICOSECOND LASER HAS SHORTER PULSE DURATION THAN TRADITIONAL NANOSECOND LASER. IT BECOMES A NEW TECHNOLOGY FOR AESTHETIC USE BECAUSE OF ITS EFFECTIVE TREATMENT TO REMOVE DARK PIGMENTATIONS.



// PICOSECOND LASER IS A NEW TECHNOLOGY FOR AESTHETIC USE.

Picosecond laser is a new ultrashort-pulsed laser technology used in aesthetic medicine to remove / diminish pigmentation disorders, sun spots and tattoos from the skin. Compared to conventional laser technology, its light pulse is converted into an acoustic wave in the skin and can reduce the thermal effect in the tissue.

An Italian aesthetic medical equipment supplier develops a state-of-the-art picosecond laser tattoo removal machine to provide a more effective, painless and faster-recovering treatment to patients with unwanted tattoos or pigmented lesions.

Since the equipment would apply a photomechanical therapy to human tissue, validation of compliance with severe medical device regulations is very important for the access to global markets. They therefore need a high-quality and long-lifetime reliable embedded board to design a HMI system for this aesthetic medical equipment, which includes an intuitive interactive graphical touch screen to change pulse mode, set the values of the user parameters or other operational / functional settings, as well as a foot pedal to activate laser emission.

In addition, the equipment is an essential long-term asset for clinics or hospitals to provide pigmentation removal services. Thus, a qualified embedded board supplier must be capable of excellent quality control on key components to avoid frequently replacement.

## SYSTEM REQUIREMENTS

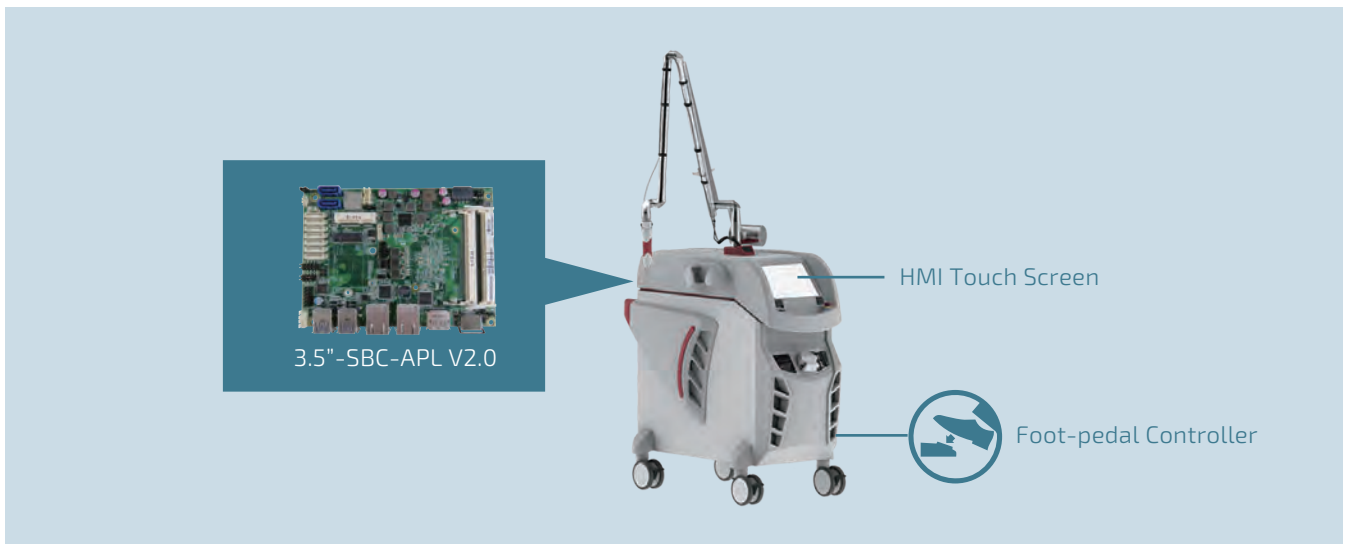
- ▶ Long lifetime and high quality
- ▶ Low-power processor
- ▶ Windows OS
- ▶ Excellent quality control on key components

## SOLUTION

Without sophisticated graphics nor complicated commands to deal with, this client integrated Kontron's 3.5"-SBC-APL V2.0, a power-efficient single board computer, for their aesthetic medical equipment.

They chose the model based on Intel® Celeron® N3350 processor with a rated TDP of only 6W (model name: 3.5"-SBC-APL-N3350 V2.0). It is really an ideal platform to create a Windows-based HMI system for this equipment.

In addition, not only this embedded board but also all the other Kontron's products can offer industrial-grade reliability to ensure stable and long-term operation. Life cycle management is another important part of Kontron's total quality management. Kontron has a life cycle management rule to identify product roadmap and longevity support from suppliers when procuring key components. Besides high-quality product provision, it also ensure long-term support with strict revision control.



// SYSTEM DIAGRAM

## About Kontron

Kontron, a global leader in embedded computing technology and trusted advisor in IoT, works closely with its customers, allowing them to focus on their core competencies by offering a complete and integrated portfolio of hardware, software and services designed to help them make the most of their applications.

With a significant percentage of employees in research and development, Kontron creates many of the standards that drive the world's embedded computing platforms; bringing to life numerous technologies and applications that touch millions of lives. The result is an accelerated time-to-market, reduced total-cost-of-ownership, product longevity and the best possible overall application with leading-edge, highest reliability embedded technology.

Kontron is a listed company. Its shares are traded in the Prime Standard segment of the Frankfurt Stock Exchange and on other exchanges under the symbol "KBC". For more information, please visit: [www.kontron.com](http://www.kontron.com)



### GLOBAL HEADQUARTERS

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