# OSHIBA

## **CASE STUDY 2**

### **PRODUCTION SITE**

30 USX modules ensure the highest production quality in cleanroom environments.

#### **Project Period** October 2017

## **PROBLEM STATEMENT**

The customer is a manufacturer of optical sensors, electric light sources and other optical devices. They built a new factory to meet the growing demand for detectors and emitters in various applications that use infrared light. The cooling system in the factory requires chilled water for the manufacturing process and hot / chilled water for the clean room. The factory needed a new unit that could operate very flexibly

**SOLUTION** 

TOSHIBA proposed the Universal Smart X with Group controller to ensure efficient and flexible operation.

- The pattern control function of the Group Controller enables efficient and simple operation of the chiller, which is suitable for both cooling and heating.

- and efficiently under different conditions and loads, and save energy. Radial chillers for the manufacturing process were also considered but not realized because the load balancing did not match a clean room.
- The modular design with backup system reduces the risk of failure.
- The inverter control provides precise control of the operating conditions.





Universal Smart X

30 combined units



Cleanroom



Group Controller

**EFFECTS** 

TOSHIBA supplied a chiller system that allows flexible response to load fluctuations.

1. The USX reduces the risk of failure for manufacturing process and clean room.

## **CUSTOMER'S OPINION**

This new factory is designed for the pretreatment process of materials commonly used in our products. Reliable and seamless operation was critical.

2. The Group Controller provides flexible operation and control for any application and operating condition.

TOSHIBA USX reduced operating costs. We are pleased with the high efficiency over the entire lifetime.

**Installed Units** "Universal Smart X" (30 USX modules)