



**TAIYO NIPPON SAN SO**  
The Gas Professionals

# Expanding the Horizon for Gallium Nitride Mass Production MOCVD Systems



**UR26K-CCD**

Advancements in Productivity

# World's First Fully Automated MOCVD Platform For Power, High Frequency, and Micro-LED Devices



Integration of  
dry cleaning system



## Cassette-to-Cassette System

Fully automated cassette-to-cassette (CtoC) wafer loading increases throughput, reduces contamination from wafer handling, and increases overall product yield

## Integrated Dry Cleaning System

Maximizes the productivity of the MOCVD chamber by cleaning reactor parts *ex situ* in parallel with MOCVD processing

## Advantages

- Higher yield performance with fully automated cassette-to-cassette wafer transfer system
- Higher reproducibility and lower cost of ownership with integrated *ex situ* cleaning system for reactor components
- High epi-controllability with horizontal tri-laminar flow nozzle and stable gear driven susceptor rotation and wafer revolution
- Sequence programming and data logging functions optimized for mass production

## Applications

Power, high frequency, and micro-LED devices

## UR26K-CCD Specifications

\* General specifications are listed below.

Reactor type	Face up, rotation & revolution
Wafer size	6" x 10 or 8" x 6
Heating system	6 zone resistance heaters
Sources	TMGa, TEGa, TMAI, TMIIn, NH <sub>3</sub> , Cp <sub>2</sub> Mg, SiH <sub>4</sub>
Gas nozzles	Three laminar flow horizontals
Growth pressure	13 to 100 kPa

## About Us

Taiyo Nippon Sanso Corporation (TNSC) was the first company to develop and introduce its own commercial metal organic chemical vapor deposition (MOCVD) systems in 1983. TNSC equipment has received praise for its world-class performance and stability. TNSC is also uniquely qualified to provide total solutions for MOCVD applications, including MOCVD equipment, purification and abatement solutions, specialty gases, and gas handling equipment.

Also TNSC is an industrial gas manufacturer with abundant experience and unique technological capabilities supporting a wide range of industries, including the electronics, steel, chemical, automobile, construction, shipbuilding, food/beverage, and medical care sectors. TNSC is expanding globally with products developed in-house, and products and technologies acquired through open innovation platforms.



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