



RTP3000 TAS N⁺

Mini DCS

Product Highlights

- **Multiprocessor State-of-the-Art System**
- **Comprehensive Diagnostics**
- **Configurable Redundancy**
- **Availability in excess of 99.9999% (6 Nines)**
- **1 msec Scan Time**

Product Overview

Pictured above is the newest member of the TAS family. It is ideally suited for customers that prefer a DCS but can only afford a PLC. It has all the functionality of a DCS, solves logic faster than a PLC, and is priced better than either.

With “hot-swappable” capabilities, you can add controllers, I/O cards, field devices, and workstations while the system is powered and running. Expand and upgrade your system with no downtime.

• **Easy to use:** It is very easy to install, learn, engineer, commission, back-up, maintain and expand.

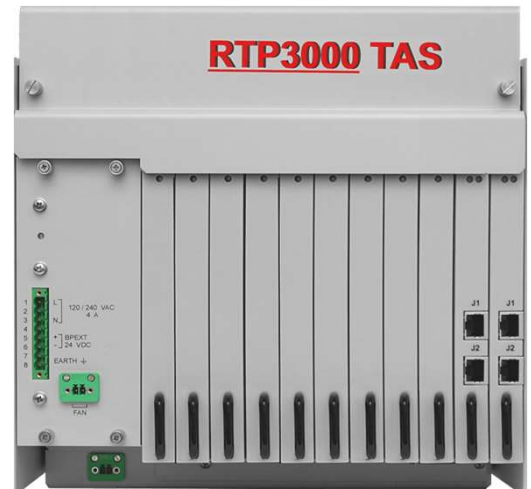
• **Scalable:** Projects can start as small with a few I/O for skids, package units, rotating machinery, RTU or single plant equipment and grow to thousands of I/O controlling the whole plant. Since the system uses intelligent peer-to-peer architecture, there is no need for expensive server PCs. Additionally, a system wide project database makes archiving or backup very easy to perform.

• **Reliable:** It is based on the RTP3000 TAS, which is certified to IEC61508-2010, IEC61511, IEC61131-2,3,6,7, EDSA-300 and ABS, a proven system with high reliability and availability providing redundancy options supporting solutions without any single point of failure.

• **Value for your money:** Your investment goes a long way because of its small footprint together with its ease of use, this results in savings in installation, engineering, commissioning and life cycle costs.

It's unique multiprocessor architecture aids you in many ways. It minimizes the scan time providing unprecedented speed for identification of process disruption and for responding to such disturbance. For your critical control applications, each chassis has the ability to solve 50 PID loops, scan I/O, solve logic, handle alarms, perform peer to peer communication and perform other communication in a single 1-millisecond scan.

Each Node Processor has multiple CPUs working in parallel to perform a specific function. This architecture enables the system to maintain a 1-millisecond scan regardless of the size of the application or the amount of I/O. Unlike conventional control and safety systems, the scan time does not increase in proportion to the amount of I/O.



Additional computing capacity is added as the I/O load grows, meaning that the system never exhibits a scan time in excess of 2-milliseconds for a TMR chassis configuration. No matter how large the application, the N⁺ will provide the highest performance of any control system.

Another benefit of the multi-processing architecture is comprehensive diagnostics. RTP brings more computing power to this task than any other system, enabling more diagnostics that, in turn, enables the High Integrity, High Availability, and High reliability the TAS product family is known to deliver.

Exceptional value for the price,

Here's Why:

It has all the functionality of a DCS, solves logic faster than a PLC, and is priced better than either.

NetSuite is a complete suite of Software applications as shown on the 2nd page. It's one time project fee allows a project unlimited use of all the applications contained in the suite. There are no hardware or software keys to deal with. When future enhancements are available, they are distributed at no additional cost.

From a hardware standpoint all the functionality needed for the most complex project is available. For example listed below are some Analog options:
Thermocouple types: B, E, J, K, R, S, and T
RTD: 100 Ohm Platinum, 10 Ohm Copper
Analog Inputs: 4-20 mA, +/- .08, +/- .16, +/- 10 volts
Analog Outputs: 0-20, 4-20 mA, +/- 10 volts
All Analog current channels are Hart enabled

Note all A/D and D/A converters are 16 bit

Communications: MBTCP, MBSerial, OPC

10 Year Warranty Standard



RTP3000 TAS N+

Multiprocessor State-of-the-art System



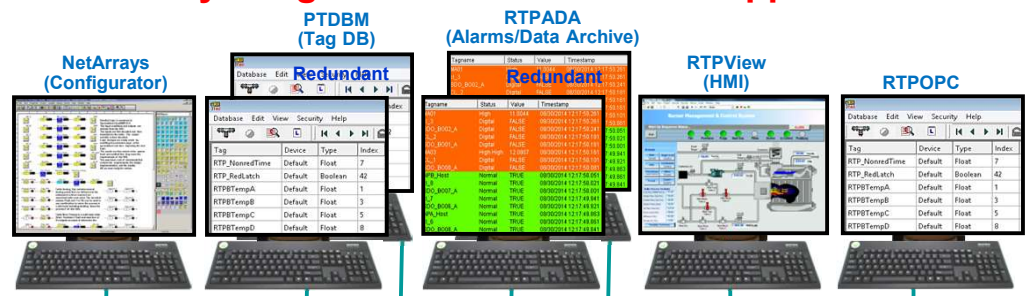
Quality First

EDSA-300
Level 2

IEC61508-2010
SIL 1-3
IEC61131-6

NetSuite:

Totally integrated software suite of applications



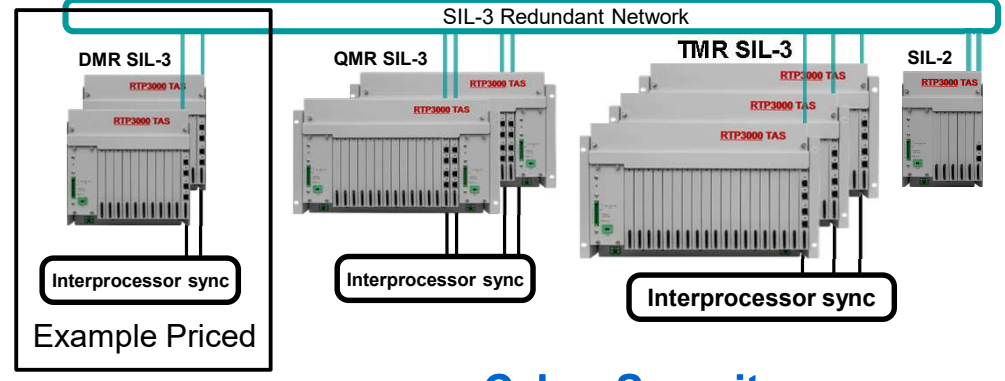
NetSuite:

- Plant License \$10,000
- Project License \$5,000
- Limited Version \$2,500
- Plant already licensed \$0

Hardware: SIL-3 DMR Node

List Price <\$20,000

- 2 - Node Processors
- 2 - Power Supplies
- 2 - Chassis
- 4-32 bit - Digital input cards
- 4-32 bit - Digital output cards
- 4-32 channel - Analog inputs
- 4-32 channel - Analog outputs
- 4-8 channel - Pulse input channels



Example Priced

Costs Less

Software (NetSuite):

- One-time registration fee
No annual maintenance fees
- No HW/SW keys
- Unlimited number of tags
- Unlimited use of each application
- 1 msec Alarm Time Stamping

Hardware: 3000 TAS:

- All Analog/Digital inputs SOE enabled
- Proof Test - Not required for SIL-3
- Unlimited online downloads
- CPUs physically separated
- 10 year Warranty
- 1 msec SOE (Analog and Digital)

Cyber Security

- ISA Secure EDSA 300 Level II
- AES Encryption Algorithm
 - Block Size 128 bits
 - Key Length 256 bits

Never Stops

- MTTF:* >50,000 Years
- MTTFs:* >60,000 Years
- MTTFD:* >350,000 Years

* Numbers provided by TUV

Specifications:

Processor	Intel Atom Z520PT @1.33GHz 2 Isolated 1000BaseT PCIe based Ethernet Channels System Controller Hub WITH 512Mbyte SDRAM 64bits wide, 32MByte Flash Memory
Sequence of Events	1-millisecond SOE processing (analog and digital) Stores up to 300,000 events
Operating Temperatures	-20C to 60C (-4F to +140F)
AC Input Options	4A @120/240VAC, 47-63Hz (External 24 VDC input available for I/O cards)
DC Input Options	10A @24 VDC, 5A @48VDC
Chassis Dimensions:	
6 slot chassis	Height: 11.3 inches (28.7cm), Width: 7.625 inches (19.37 cm), Depth: 11.3 inches (28.7 cm)
11 slot chassis	Height: 11.3 inches (28.7cm), Width: 11.382 inches (28.91 cm), Depth: 11.3 inches (28.7 cm)
15 & 19 slot chassis	Height: 11.3 inches (28.7cm), Width: 19 inches (48.3 cm), Depth: 11.3 inches (28.7 cm)