

# STARDOM™ New CPU Modules for the FCN Autonomous Controller

## -Faster, Stronger, Smarter-

New CPU modules, NFCP501 and NFCP502, for the FCN autonomous controller of the STARDOM™ Network-based Control System were released on March 29, 2016. The features of the new CPU modules have been improved based on the concept of “faster, stronger, and smarter.”

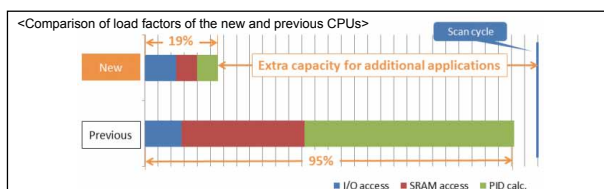
Since its release in 2001, STARDOM has been highly evaluated as a system that inherits the reliability of distributed control systems (DCS) and the versatility and economy of PLC instrumentation.

The FCN autonomous controller is the core of STARDOM and is widely used in small- to medium-sized production facilities in Japan, thanks to the highly reliable hardware design and the easy construction of redundant systems. In global markets, the controller is used in many oil and gas well sites and pipelines as intelligent remote terminal units (RTU).

The new CPU modules enable high-speed, highly reliable control of equipment such as compressors, turbines, and large wind-power generators. The expanded functions also allow the new modules to be used in production facilities under severe temperature conditions. Other useful functions have been added to improve the efficiency of engineering and maintenance after introduction.

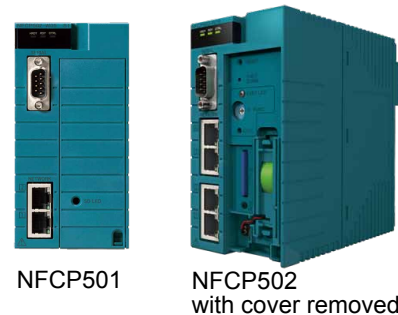
### MAJOR FEATURES

■ **Faster (High-speed calculation and communication)**  
The processing speed of the new CPU modules is five times faster than that of the previous CPU modules. The new modules also have a gigabit Ethernet port for faster communication. The improved processing power ensures stable control on the FCN even if it is installed in equipment that needs faster control and in more advanced, complex applications. The new four Ethernet ports model, NFCP502, connects the various Ethernet-based standard networks, while securing redundant communication with host systems such as SCADA.



Comparison of load factors of new CPU (NFCP501/NFCP502) and previous CPU (NFCP100)

■ **Stronger (Strengthened environmental resistance)**  
The new model covering the range from -20°C to 70°C has been added in addition to the standard temperature model from 0°C to 55°C to ensure stable operation even in harsh



environments, such as oil and gas fields in deserts, mountain areas, and other locations with severe climate conditions. In addition to the installation environment, the modules have robust file systems that are not affected by sudden power failures while accessing files.

■ **Smarter (Improved efficiency of engineering and maintenance work)**

The system can be maintained in the field without a PC. Various data necessary for system update and maintenance are stored on SD cards by simply inserting them, then selecting the rotary switch for maintenance on the front panel of the CPU module. The battery holder is arranged in the front panel and thus batteries can be replaced while the power is on (operation is not interrupted).

Previously, it was necessary to obtain each software license for control calculation, communication, and other functions for the CPU module at initial installation. However, the necessary licenses are bundled with the new CPU modules, eliminating the need for obtaining them separately.

### MAJOR SPECIFICATIONS

- Processor : Atom E3815 (1.46 GHz)
- Secondary memory : 1 GB on-board flash memory
- External media : SD card 1 slot: SDHC (4 to 32 GB) Class10
- Memory (main) : 256 MB with ECC
- Memory (static RAM): 2 MB with ECC, battery backup, retention capacity: 700 kB
- Interface
  - Ethernet : 1000BASE-T, 100BASE-TX, 10BASE-T 2 ports (NFCP501), 4 ports (NFCP502)
  - RS-232-C : 0.3 to 115.2 kbps (1 port)
- Battery : 1000 mAh graphite fluoride lithium battery
- Protection : CPU cover (with the hole for wire lock)

Contact us:  
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URL: <http://STARDOM.biz/>  
For worldwide locations, please see the back cover.

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