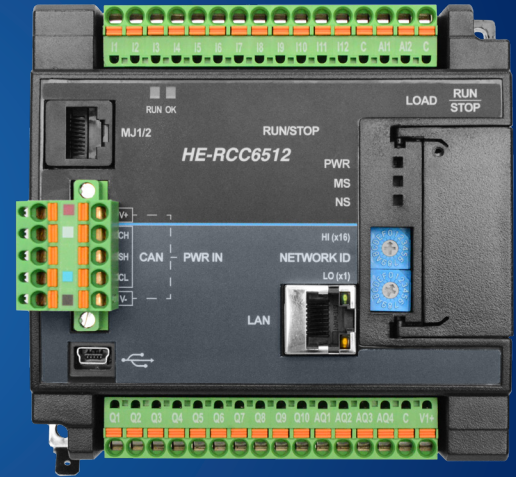


RCC6512

High-speed Remote I/O & Advanced Co-Processor

The RCC6512 is a versatile product to handle high speed applications. This device combines a control co-processor along with high-speed digital and analog I/O with integrated networking.



- Control Co-Processor programmed in Cscape
- Hardware high-speed I/O accelertor for handling high-speed inputs and outputs
- Eight high-speed counters that support totalizing, frequency, counting, pulse width measurement, period measurement or quadrature
- Ten sourcing high-speed outputs. Eight of which can be used as PWM signals
- Programmable input threshold for zero cross, 5V, 12V and 24V signals
- Programmable input filtering for 500kHz, 50kHz, and 5kHz

POWERFUL CO-PROCESSOR

The RCC6512 is designed as an add-on co-processor to any application requiring advanced high-speed counting. The RCC6512 is programmed in Advanced Ladder using Cscape

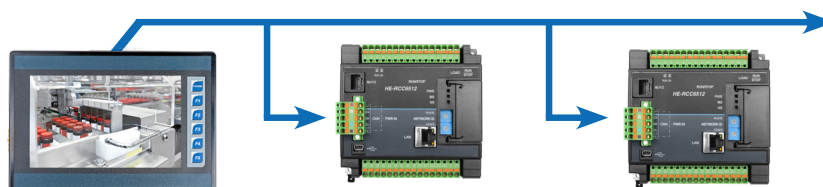
HIGH-SPEED INPUTS, HIGH-SPEED OUTPUTS

The RCC6512 is built around a FPGA chip which provides speed and flexibility for its generous complement of high-speed I/O. On the input side, up to 8 totalizers or 4 quadrature accumulators can be supported at frequencies up to 500kHz. Analog Filtering prevents spurious noise from interfering with legitimate signals for accurare counting. Digital outputs can be configured as either setpoint controlled outputs or PWM signals. Analog Outputs (+/- 10V) are provided with motor speed control in mind.

FLEXIBLE COMMUNICATIONS

The RCC6512 supports multiple connectivity options. The on-board Ethernet port (10/100Mbps) supports some of the most popular industrial ethernet protocols. These include Modbus TCP Server, Ethernet IP I/O Device and Ethernet Global Data (EGD). Horner's highly efficient CsCAN network is also onboard with its peer-to-peer architecture and superior noise immunity.

CsCan or Ethernet



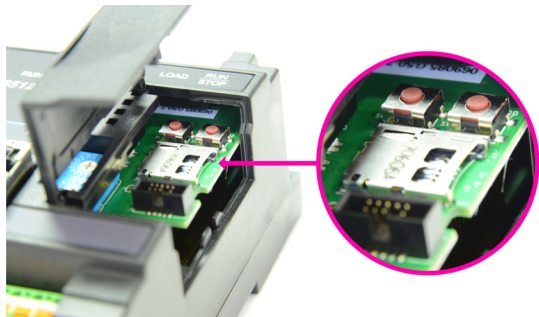
RCC6512 General Specifications

| Item | Specification | Item | Specification |
|-----------------------------------|--------------------------|----------------------------|-----------------------------|
| Co-Processor Specifications | | I/O Specifications | |
| Cscape Control Language | Advanced Ladder Logic | High-Speed DC Inputs | 8 (5V/12V/24V) pos/neg |
| Logic Size & Scan Rate | 16kB, 0.7,uS/kB | Maximum HSC Frequency | 500kHz (5k/50k/500k filter) |
| Programming Ports | USB, RS-232, microSD | General Purpose DC Inputs | 4 (24V) pos/neg |
| General Purpose Registers (words) | 2048 (256 Retentive) | High-speed DC Output | 8 (5V/12V/24V) pos 0.5A |
| General Purpose Bits | 2048 (Non-Retentive) | Max Frequency | 500kHz |
| Digital I/O Registers | 512 Input & 512 Output | General Purpose DC Outputs | 2 (5V/12V/24V) pos 0.5A |
| Analog I/O Registers | 256 Input & 256 Output | Analog Inputs | 2 (0-10V, 0-20mA) |
| Dimensions (maximum) | 4.67"H x 4.57"W x 2.81"D | Resolution, Accuracy | 12-bits, 1% full scale |
| Required Power (steady-state) | 120mA @ 24Vdc | Input Impedance | V: 100kohm mA: 15ohm |
| Primary Power Range | 10-28Vdc | Analog Outputs | 4 (-10V to +10V) |
| Operating/Storage Temperature | -10C to +60C | Resolution, Accuracy | 12-bits, 0.25% full scale |
| Relative Humidity | 5-95% Non-condensing | Minimum Load | 500ohm |

Part Number Description

[SmartBlock Standard](#)

| | |
|--------------|---|
| HE579MIX102 | Isolated mixed Digital/Analog I/O module (12/6/4) |
| HE579RTD100 | Isolated RTD Input Module, 4 channel |
| HE579RTD200 | Isolated RTD Input Module, 8 channel |
| HE579THM100 | Isolated Thermocouple Input Module, 4 channel |
| HE579MIX577 | Isolated Thermocouple Input Module, 8 channel |
| HE579MIX577 | 4 Analog Inputs, 2 Analog Outputs (0-10V, 0-5V, 0-20mA, 4-20mA) |
| HE579MIX977 | 8 Analog inputs, 4 Analog Outputs (0-10V, 0-5V, 0-20mA, 4-20mA) |
| HE579ADC570 | 6 Analog Inputs (0-10V, 0-5V 0-20mA, 4-20mA, and 10 K thermistor) |
| HE579ADC970 | SmartBlock 12x Analog In, +10, 4-20mA, Thermistor |
| HE579DAC107 | 4 Analog Outputs (0-10V, 0-5V, 0-20mA, 4-20mA) |
| HE579DAC207 | 8 Analog Outputs (0-10V, 0-5V, 0-20mA, 4-20mA) |
| HE579DIQ880 | 8 DC inputs and 8 relay outputs |
| HE579DIQ8881 | 8 DC inputs and 8-.5 amp DC outputs |
| HE579MIX105 | Isolated Mixed Digital/Analog I/O Module (12/12/2/2) |
| HE579ACM300 | AC power Monitor (3-phase) |
| HE579ACM302 | AC Power Monitor Using Rogowski Inputs |



The RCC6512 features a microSD slot for data logging and maintenance functions.

Part Number Description

[SmartBlock Open-style](#)

| | |
|----------------|---|
| HE-RLT12 | Replacement relay for HE569DQM212 |
| HE-SSR04 | Replacement SSR for HE69DQM204 |
| GE-SSR05 | Replacement SSR for HE69DQM205 |
| HE569DQM209 | 8 High Current Direct Connect Relays |
| HE569DQM212 | 8 High Current, Socketed Relays |
| HE569DQM212-12 | 8 High Current, Socketed Relays, supports 12V relay coils |
| HE569DQM204 | 8 High Current, Socketed SSRs (AC) |
| HE569DQM205 | 8 High Current, Socketed SSRs (DC) |

Part Number Description

[SmartStix Standard](#)

| | |
|-------------|---|
| HE559DIM610 | 16 DC Inputs (pos/neg) |
| HE559DIM710 | 32 DC Inputs (pos/neg) |
| HE559DQM602 | 16 Relay Outputs, 2A max |
| HE559DQM606 | 16 DC Outputs (pos) 0.5A max |
| HE559DQM706 | 32 DC Outputs (pos) 0.5A max |
| HE559DIQ816 | 16 DC Inputs (pos/neg) & 16 DC Outputs (pos) 0.5A max |



SmartStix Digital I/O can be used alongside SmartBlock I/O & the RCC6512 Co-processor.