

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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COMMUNICATIONS AND CONTROL PROCESSOR



RABBITCORE® RCM4300 SERIES

The RabbitCore RCM4300 series delivers larger mass storage by allowing you to implement up to 2 GB of hot swappable industry-standard microSD™ memory

The RabbitCore RCM4300 series offers larger memory for memory intensive applications. The microSD™ card slot has the ability to store up to 2 GB of data, making this an ideal module for data logging applications. In combination with our FAT file system, users can easily access data via the built-in web server or by simply using the hot-swappable feature. Dynamic C® also adds Megabyte Code Support™ (MCS), which allows the use of 1 MB of on-board SRAM for shared memory and code space.

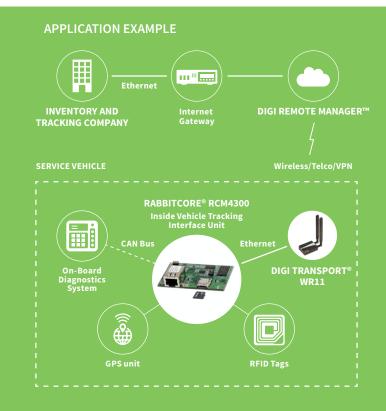
The RCM4300 series is pin-compatible with other RCM4XXX core modules, enabling migration to other designs with specific requirements.

The RabbitCore RCM4300 Development Kit makes evaluation easy with all the hardware and software needed to get started quickly.

BENEFITS

- Rabbit 4000 running at 58.98 MHz
- Supports up to 2 GB microSD memory card, 1 MB SRAM for shared code, 512K of battery-backed SRAM, FAT file organization
- 10/100Base-T Ethernet, 36 GPIO, 6 serial ports
- 8 channel 12-bit resolution (RCM4300 only)
- Embedded web server
- Easily implement secure embedded devices with client side SSL or AES encryption
- Includes Remote Program Update allowing for firmware updates from anywhere in the world

RELATED PRODUCTS RabbitCore® Romanou Series Series Series Romanou Rom



| MICROPROCESSOR Rabbit* 4000 at 58.08 MHz ENI REDUCTION Spectrum spreader for reduced EMI (radiated emissions) ETHERNET PORT 10/1008ase1, RJ-45, 3 LEDs 512K (8-bit) 512K (8-bit) 512K (8-bit) 58RIAL FLASH MEMORY PROGRAM PROGRAM PROGRAM 2 MB I MB MEMORY (DATA STORAGE) microSD**Card 128 MB-2 GB microS | SPECIFICATIONS | RCM4300 | RCM4310 |
|--|----------------------------------|--|--|
| EMIREDUCTION Spectrum spreader for reduced EMI (radiated emissions) ETHERRE PORT 101/008ase-T, R2-45, 3 LEDs DATA SRAM 512K (8-bit) SERIAL FLASH MEMORY (PROGRAM) 2 MB (b-bit) 512K (8-bit) SERIAL FLASH MEMORY 2 MB IMB (B-bit) 1 MB (PROGRAM) MEMORY (DATA STORAGE) microSD** Card 128 MB-2 GB microSD** Card 128 MB-2 GB LEDI INDICATORS LINK/ACT (fink/activity) FDX/COL (full-duplex/collisions) SPEED (on for 1088ase-T ethemet connection) S0 (microSD** mounted status) BACKUP BATTERY Connection for user-supplied backup battery (to support RTC and data SRAM) GENERAL-PURPOSE I/O 28 parallel digital I/O lines: Configurable with 4 layers of alternate functions Configurable with 4 layers of alternate functions Configurable with 4 layers of alternate functions ADDITIONAL OUTPUTS Status, reset out, analog VKEF ABALOG INPUTS: 12 bits (11 bits single-ended of 4 channels differential Programmable giain 1.2, 4, 5, 8, 10, 16, and 20 V/V 12 bits (11 bits single-ended) 130 IAS configurable as asynchronous (with 100A), - All Sconfigurable as asynchronous (with 100 | FEATURES | | |
| ADATA SRAM 512K (8-bit) FROGRAM EXECUTION FAST SRAM 512K (8-bit) 1 M8 FROGRAM) 2 MB 1 MB MicroSD**Card 128 MB-2 GB LINK/ACT (link/activity) FDX/COL (full-duplex/collisions) SPEED (on for 1008ase-T Ethernet connection) 50 (microSD** mounted status) BACKUP BATTERY Connection for user-supplied backup battery (to support RTC and data SRAM) 2 BBACKUP BATTERY Connection for user-supplied backup battery (to support RTC and data SRAM) 2 Bparallel digital I/O lines: Configurable with 4 layers of alternate functions Status, reset out 3 chances single ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 29 V/V 12 bits (1 bits single ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 29 V/V 12 bits (1 bits single ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 29 V/V 12 bits (1 bits single ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 29 V/V 12 bits (1 bits single ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 29 V/V 12 bits (1 bits single ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 29 V/V 13 | MICROPROCESSOR | Rabbit® 4000 at 58.98 MHz | |
| DATA SRAM \$12K (8-bit) PROGRAM) Z MB 1 MB (8-bit) Z MB 1 MB (8-bit) Z MB MEMORY (DATA STORAGE) MICROSD® Card 128 MB-2 GB MEMORY (DATA STORAGE) MEMORY (DATA STORAGE) MEMORY (DATA STORAGE) MEMORY (DATA STORAGE) MICROSD® Card 128 MB-2 GB MICROSD® Card 148 MB-2 GB MICROSD® Card | EMI REDUCTION | Spectrum spreader for reduced EMI (radiated emissions) | |
| SERIAL PORTS SERIAL PORTS SERIAL RATE Maximum asynchronous baud rate = CLK/8 SERIAL RATE Maximum asynchronous baud rate = CLK/8 SERIAL RATE Maximum asynchronous baud rate = CLK/8 SERIAL RATE SERIAL RATE Maximum asynchronous baud rate = CLK/8 SERIAL PORTS (1 bits file bit limers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 18-bit timers with 4 outputs and 8 set/reset registers WATCHOOG/SUPERVISOR QUADRATURE QUADRATURE (2 vo 85 c) APWING UNIOLATORS (1 bits (1) configurable from the first), one 10-bit timer with 2 match registers, and one 18-bit timer with 4 outputs and 8 set/reset registers WATCHOOGSUP (7 cons). APWING UNIOLATORS (2 consequence) (3 consequence) (4 consequence) (5 configurable value) (5 configurable value) (5 configurable value) (6 configurable value) (7 configurable value) (8 configurable value) (9 consequence) (9 configurable value) (1 configurable value) (1 configurable value) (1 configurable value) (2 configurable value) (3 configurable value) (4 configurable value) (5 configurable value) (6 configurable value) (8 configurable value) (9 consequence) (9 configurable value) (9 configurable value) (1 configurable value) (1 configurable value) (1 configurable value) (2 configurable value) (3 configurable value) (4 configurable value) (5 configurable value) (6 configurable value) (8 configurable value) (9 configurable value | ETHERNET PORT | 10/100Base-T, RJ-45, 3 LEDs | |
| SERIAL FLASH MEMORY (PROGRAM) microSD**Card 128 MB-2 GB microSD**Card | DATA SRAM | 512K (8-bit) | |
| PROGRAM ZMB | PROGRAM EXECUTION FAST SRAM | 1 MB (8-bit) | 512K (8-bit) |
| LINK/ACT (link/activity) FDX/CDL (full-duplex/collisions) SPEED (on for 100Base-T Ethernet connection) SD (microSD** mounted status) BACKUP BATTERY Connection for user-supplied backup battery (to support RTC and data SRAM) Za parallel digital I/O lines: Configurable with a layers of alternate functions Status, reset out Status, reset out Status, reset out ANALOG INPUTS: Za bits (11 bits single-ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 20 V/V 12 bits (11 bits single-ended) 180 us SERIAL PORTS Sarred high-speed, CMOS-compatible ports: All Sconfigurable as asynchronous (with IrOA), 4 as clocked serial (PI), and 1 as SDLC/HDLC 4 1 clocked serial port shared with programming port 4 1 clocked serial port shared with A/D converter, serial flash, 1 clocked serial port shared with brogramming port 4 1 clocked serial port shared with horizons with IrOA), 4 and microsD** card SERIAL RATE Maximum asynchronous baud rate = CLL/8 SLAVE INTERFACE Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor REAL-TIME CLOCK Yes Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes WATCHDOG/SUPERVISOR Yes WATCHDOG/SUPERVISOR Yes QUADRATURE Zinput capture channels can be used to time input signals from various port pins QUADRATURE Zinput capture decoder accepts inputs from external incremental encoder modules POWER | SERIAL FLASH MEMORY (PROGRAM) | 2 MB | 1 MB |
| GENERAL-PURPOSE I/O 28 parallel digital I/O lines: Configurable with a layers of alternate functions Configurable with programming port Configurable with programming port Configurable with a lay | MEMORY (DATA STORAGE) | microSD™ Card 128 MB–2 GB | microSD™ Card 128 MB–2 GB |
| ADDITIONAL INPUTS ADDITIONAL INPUTS ADDITIONAL OUTPUTS ADDITIONAL OUTPUTS ANALOG INPUTS: B channels single-ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 20 V/V 12 bits (1 bits single-ended) 180 µs AUXILIARY I/O BUS Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write SERIAL PORTS S shared high-speed, CMOS-compatible ports: - All 5 configurable as asynchronous (with IrDA), - 4 as clocked serial port shared with programming port - 1 clocked serial port shared with programming port - 1 clocked serial port shared with yell proverter, serial flash, and microSD™ card Maximum asynchronous baud rate = CLK/8 SLAVE INTERFACE SLAVE INTERFACE SLAVE INTERFACE SLAVE INTERFACE SLAVE INTERFACE SIENDE THE CLOCK Yes TIMERS Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE - 20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS 3 starty mode, reset in 2 startup mode, reset in 3 startus, and increased in the status, and increased in the configurable as as a pitch increased in the configurable as a superchorous with programming port - 1 clocked serial port shared with programming port - 1 clocked serial port shared with programming port - 1 clocked serial port shared with programming port - 2 clocked serial port shared with programming port - 1 clocked serial port shared with programming port - 1 clocked serial port shared with programming port - 1 clocked serial port shared with | LED INDICATORS | LINK/ACT (link/activity) FDX/COL (full-duplex/collisions) SPEED (on for 100Base-T Ethernet connection) SD (microSD™ mounted status) | |
| ADDITIONAL INPUTS ADDITIONAL INPUTS ADDITIONAL OUTPUTS Status, reset out, analog VREF Schannels single-ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 20 V/V 12 bits (11 bits single-ended) 180 µs AUXILIARY I/O BUS Can be configurable with alayers of alternate functions SERIAL PORTS SERIAL RATE Maximum asynchronous baud rate = CLK/8 SLAVE INTERFACE Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor REAL-TIME CLOCK Yes TIMERS Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Ves PULSE-WIDTH MODULATORS A PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE CONNECTORS Configurable with 4 layers of alternate functions Status, reset out A//A A//A All Configurable with payarammable gain 1, 2, 4, 5, 6, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10 | BACKUP BATTERY | Connection for user-supplied backup battery (to support RTC and data SRAM) | |
| ANALOG INPUTS: 8 channels single-ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 20 V/V 12 bits (11 bits single-ended) 180 µs AUXILIARY I/O BUS Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write 5 shared high-speed, CMOS-compatible ports: - All Is configurable as asynchronous (with irDA), - 4 as clocked serial in SPU, and 1 as DUCI/HDLC - 1 clocked serial port shared with programming port - 1 clocked serial port shared with Programming port - 1 clocked serial port shared with Programming port - 1 clocked serial port shared with Programming port - 1 clocked serial port shared with Programming port - 1 clocked serial port shared with Programming port - 1 clocked serial port shared with Programming port - 1 clocked serial port shared with and microSD** card SERIAL RATE Maximum asynchronous baud rate = CLK/8 SLAVE INTERFACE Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor REAL-TIME CLOCK Yes TIMERS Ten 8-bit timer (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE 4.00 to 59%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD** Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | GENERAL-PURPOSE I/O | | |
| ANALOG INPUTS: 8 channels single-ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 20 V/V 12 bits (11 bits single-ended) 180 µs AUXILIARY I/O BUS Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write 5 shared high-speed, CMOS-compatible ports: • All 5 configurable as asynchronous (with IrDA), • 4 as clocked serial foly), and 1 as SDLC/HDLC • 1 clocked serial port shared with programming port • 1 clocked serial port shared with programming port • 1 clocked serial port shared with A/D converter, serial flash, and microSD™ card SERIAL RATE Maximum asynchronous baud rate = CLK/8 SLAVE INTERFACE Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor REAL-TIME CLOCK Yes TIMERS Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE 4.00 C to +85° C HUMIDITY 5% to 95%, non-condensing One 2 × 25, 1.27 mm pitch IDC programming header | ADDITIONAL INPUTS | 2 startup mode, reset in, CONVERT | 2 startup mode, reset in |
| ANALOG INPUTS: gain 1, 2, 4, 5, 8, 10, 16, and 20 V/V 12 bits (11 bits single-ended) 180 µs AUXILIARY I/O BUS Shared high-speed, CMOS-compatible ports: All 5 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 1 as SDLC/HDLC 1 clocked serial port shared with programming port 1 clocked serial port shared with A/D converter, serial flash, and microSD™ card 1 clocked serial port shared with A/D converter, serial flash, and microSD™ card 1 clocked serial port shared with programming port 1 clocked serial port shared with serial flash and microSD™ card 1 clocked serial port shared with serial flash and microSD™ card | ADDITIONAL OUTPUTS | Status, reset out, analog VREF | Status, reset out |
| AUXILIARY I/O BUS Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write 5 shared high-speed, CMOS-compatible ports: | ANALOG INPUTS: | | N/A |
| AUXILIARY I/O BUS Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write 5 shared high-speed, CMOS-compatible ports: - All 5 configurable as asynchronous (with IrDA), - 4 as clocked serial (SPI), and 1 as SDLC/HDLC - 1 clocked serial (SPI), and 1 as SDLC/HDLC - 1 clocked serial port shared with programming port - 1 clocked serial port shared with Programming port - 1 clocked serial port shared with A/D converter, serial flash, and microSD™ card SERIAL RATE Maximum asynchronous baud rate = CLK/8 SLAVE INTERFACE Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor REAL-TIME CLOCK Yes TIMERS Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | | 12 bits (11 bits single-ended) | |
| SERIAL PORTS 5 shared high-speed, CMOS-compatible ports: All 5 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 1 as SDLC/HDLC 1 clocked serial port shared with programming port 1 clocked serial port shared with programming port 1 clocked serial port shared with Porgramming port 1 clocked serial port shared with Porgramming port 1 clocked serial port shared with Porgramming port 1 clocked serial port shared with programming port 1 clocked serial port shared with programming port 1 clocked serial port shared with serial flash, and microSD™ card SERIAL RATE Maximum asynchronous baud rate = CLK/8 SLAVE INTERFACE Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor REAL-TIME CLOCK Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Ves PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE 2.0° C to +85° C HUMIDITY 5% to 95%, non-condensing One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | | · | |
| PALL 5 configurable as a synchronous (with IrDA), 4 as clocked serial (SPI), and 1 as SDLC/HDLC 1 clocked serial port shared with programming port 1 clocked serial port shared with A/D converter, serial flash, and microSD™ card Maximum asynchronous baud rate = CLK/8 SLAVE INTERFACE Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor REAL-TIME CLOCK Yes Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | AUXILIARY I/O BUS | Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write | |
| SLAVE INTERFACE Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor Yes TIMERS Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | SERIAL PORTS | All 5 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 1 as SDLC/HDLC 1 clocked serial port shared with programming port 1 clocked serial port shared with A/D converter, serial flash, | All 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC 1 clocked serial port shared with programming port 1 clocked serial port shared with serial flash and |
| TIMERS Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | SERIAL RATE | Maximum asynchronous baud rate = CLK/8 | |
| Timers Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | SLAVE INTERFACE | Slave port allows the RCM4300 to be used as an intelligent peripheral device slaved to a master processor | |
| and one 16-bit timer with 4 outputs and 8 set/reset registers WATCHDOG/SUPERVISOR Yes PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | REAL-TIME CLOCK | Yes | |
| PULSE-WIDTH MODULATORS 4 PWM registers with 10-bit free-running counter and priority interrupts 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | TIMERS | | |
| INPUT CAPTURE 2 input capture channels can be used to time input signals from various port pins QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | WATCHDOG/SUPERVISOR | Yes | |
| QUADRATURE DECODER 2-channel quadrature decoder accepts inputs from external incremental encoder modules POWER (PINS UNLOADED) 3.0-3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | PULSE-WIDTH MODULATORS | 4 PWM registers with 10-bit free-running counter and priority interrupts | |
| POWER (PINS UNLOADED) 3.0–3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | INPUT CAPTURE | 2 input capture channels can be used to time input signals from various port pins | |
| OPERATING TEMPERATURE -20° C to +85° C HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | QUADRATURE DECODER | 2-channel quadrature decoder accepts inputs from external incremental encoder modules | |
| HUMIDITY 5% to 95%, non-condensing CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | POWER (PINS UNLOADED) | 3.0–3.6 VDC, 350 mA (typ.) @ 3.3V, 385 mA @ 3.6V and 85° C (max.) | |
| CONNECTORS One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | OPERATING TEMPERATURE | -20° C to +85° C | |
| | HUMIDITY | 5% to 95%, non-condensing | |
| BOARD SIZE 1.84" × 2.85" × 0.84" (47 mm × 72 mm × 21 mm) | CONNECTORS | One 2 × 25, 1.27 mm pitch IDC signal header; One microSD™ Card socket; One 2 × 5, 1.27 mm pitch IDC programming header | |
| | BOARD SIZE | 1.84" × 2.85" × 0.84" (47 mm × 72 mm × 21 mm) | |

| PART NUMBERS | DESCRIPTION |
|--------------|-------------|
| 20-101-1138 | RCM4300 |
| 20-101-1139 | RCM4310 |

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