

μPac 515C



CPU: Infineon C515C with 10.00 MHz crystal speed, which has an internal equivalent clock of 20 MHz. Improved architecture results in 600 nS instruction cycle time at 10.00 MHz crystal speed.

CAN MODULE: It is a full CAN module version 2.0 B active with 15 message objects and basic-CAN feature with data rates approaching 1 MBaud. The module has 256 register/data bytes allocated in external data memory area.

DIGITAL I/O: 19 TTL level, bit programmable I/O lines, 8 high current outputs, with an additional 2 inputs and 3 output lines available with the purchase of the DUART upgrade option. There is a 50 pin I/O rack compatible header connector which allows connection to 24 of these I/O lines (consisting of the 8 high current outputs, 11 TTL level programmable lines and the optional 2 inputs and 3 outputs). When the CAN option and coprocessor are not installed, an additional 8 TTL level, bit programmable I/O lines are available on a 10 pin header.

ANALOG INPUTS: Fast 8 channel, 10 bit analog to digital converter with a 10.4 microsecond conversion rate. A/D inputs may be also be used as an addition 8 digital inputs.

ANALOG OUTPUTS: The optional D/A has 4 channels with 8 bit resolution.

COUNTER/TIMERS/PWM: Three, 16 bit counter/timers are included standard. One of these has four I/O lines which can be used as compare outputs, or capture inputs (for Pulse Width Modulation/Demodulation). A watchdog timer is also provided. An additional 16 bit counter/timer is included with purchase of the coprocessor option.

COMMUNICATION: The 515C is capable of supporting up to 4 RS232 serial ports, 1 is standard and 3 are included with the purchase of optional upgrades. Conversion of up to 3 ports from RS232 to RS-422/485 is available optionally.

COPROCESSOR: An optional coprocessor may be added which is preprogrammed to provide an additional RS232 serial port with transmit and receive data buffering and a keypad interface (for decoding up to 20 keys in a 4x5 matrix). This coprocessor may be custom

programmed by EMAC for almost unlimited capabilities. Resources available on the coprocessor: 255 bytes of RAM, a UART, two 16 bit timer/counters with counter inputs, 2 interrupt inputs, 15 I/O lines, and an analog comparator.

LCD INTERFACE: The interface will drive all industry-standard character displays based on the HD44780 and compatibles. It will also drive all industry-standard graphic displays based on the the HD61830 and compatibles.

PERIPHERAL EXPANSION: The address bus, data bus, reset and interrupt lines are included on a 50 pin bus expansion header for connecting to external peripherals from EMAC, or to peripherals of your own design.

MEMORY: In addition to the 255 bytes of IRAM and 2K of XRAM memory within the C515C, there is provision for up to 128 K of EPROM or in-circuit programmable FLASH and up to 512 K of RAM. Total memory capacity is 640K bytes. The C515C directly accesses 128 K of memory (64K EPROM and 64K RAM) with the balance being Banked Selected memory. A parameter storage area is implemented with a 1K bit serial EEPROM. The EEPROM is a nonvolatile memory organized into 64, 16 bit words with over 10,000 write cycles guaranteed and unlimited read cycles.

DISTRIBUTION CD: A CD is included with a demo program in assembly language and drivers for the onboard peripherals.

THIRD PARTY SOFTWARE: The C515C is supported by Keil Software's C-compiler and their RTOS has a CAN API. A more economical DDS ANSI C subset compiler is also available as an alternative. There are C drivers for the onboard peripherals.

The MicroPac series of single board computers feature micro size with micro power consumption at a micro price. The MicroPac 515C has dimensions of 5.375" by 3.625" with a power requirement of 45 ma. typical and 80 ma. with the DUART upgrade option installed.The MicroPac 515C single board computer utilizes the Infineon C515C microprocessor. EMAC integrated this powerful processor onto a board that can provide up to 32 digital I/O lines, 4 serial RS-232/485 ports, 128 K of Flash or ROM, 512 K of RAM, serial EEPROM, CAN interface, LCD interface, keypad interface, SPI compatible interface, 8 channels of A/D, and 4 channels of D/A.The MicroPac 515C is ideally suited for controller applications requiring in-circuit Flash reprogramming, on-board graphic or character LCDs and/or keypad interface circuitry. It is also ideal for low cost data acquisition and control applications. The 8 channels of A/D allow the board to be connected to temperature sensors, pressure sensors, strain gauges, and LVDTs. Conditioned signals from these sensors can be used to make decisions in controlling motors, lights, heaters, etc.

Specifications

Single Board Computer Microcontroller
Processor

Infineon C515C

Clock Speed:

10 MHz

Real Time Clock:

Memory
Primary Flash:

128K EEPROM

Primary I/O
GPIO:

19x TTL level bit prog. I/O

Video Out:

LCD HD44780

Serial Ports:

1x RS-232

Watchdog:

Secondary I/O
CAN:

CAN 2.0 B

Timers/ Counters/ PWM:

3x 16

LPT Port:	
Keypad:	
PS/2:	
Analog on A/D.	
A/D Channels:	
8 Chan. 10 bit	
D/A:	
D/A Channels:	
4 Chan. 8 bit	
Dimensions	
Dimensions:	
5.375 × 3.625 in	
Form Factor:	
uPac	
Power Requirements	
Voltage:	
7 V	
Typical Current:	
80 mA	
Typical Voltage:	
7 V	
Environmental	
Low Operating Temperature:	
0 C	
High Operating Temperature:	
70 C	
Upper Operating Humidity:	
90%	
Pricing	
E515-01-10000	
515C SBC, 1 RS232 & CAN (EOL 12/31/2019)	
Stock	
\$145.00	
E515-01-10020	
515C SBC, 3 RS232 & CAN (EOL 12/31/2019, Limited stock remain)	
Stock	
\$210.00	
E515-01-10121	
515C SBC, KEYPAD, D/A, HIDRIVE,1x RS422/485, 3x RS232 & CAN (EOL 12/31/2019, Limited stock remain)	
Stock	
\$340.00	
E515-01-10010	
515C SBC, 1 RS422/485 & CAN (EOL 12/31/2019)	
Non-Stock	
\$164.00	
E515-01-10030	
515C SBC, 1 RS422/485, 2 RS232 & CAN (EOL 12/31/2019)	
Non-Stock	
\$208.00	
E515-01-10040	
515C SBC, 1 RS232, 2 RS422/485 & CAN (EOL 12/31/2019)	

Non-Stock
\$227.00
E515-01-10021
515C SBC, 4 RS232, KEYPAD & CAN (EOL 12/31/2019, Limited stock remain)
Non-Stock
\$245.00
Keypads:
E020-25
12 KEY MEM TELEPHONE STYLE KEYPAD
\$25.00
E020-21
16 KEY MEMBRANE HEX STYLE KEYPAD
\$30.00
Cables & Adapters:
CAB-35-004-1
6" 10 PIN HEADER TO DB9 SERIAL ADAPTER CABLE
\$5.00
CAB-35-002-1
6" DB9 TO DB9 EXTENSION CABLE
\$10.00
Date/Time Clocks:
E010-03
REAL TIME CLOCK/CALENDAR 32K BATTERY BACKED PROVISION (REQUIRES 32K RAM, 06-0723 OPTION)
\$39.00
E010-04
REAL TIME CLOCK/CALENDAR 128K BATTERY BACKED PROVISION (REQUIRES 128K RAM, 06-0724 OPTION)
\$50.00
E010-14
REAL TIME CLOCK/CALENDAR 512K BATTERY BACKED PROVISION (REQUIRES 512K RAM, 06-0725 OPTION)
\$39.00
Power Supply:
E010-05
32K BY 8 BATTERY BACKED SOCKET (REQUIRES 32K RAM, 06-0723 OPTION)
\$24.00
E010-07
128K BY 8 BATTERY BACKED SOCKET (REQUIRES 128K RAM, 06-0724 OPTION)
\$29.00
E010-13
512K BY 8 BATTERY BACKED SOCKET (REQUIRES 512K RAM, 06-0725 OPTION)
\$32.00
Memory:
06-0723
32K BY 8 STATIC RAM
\$10.00
06-0724
128K BY 8 STATIC RAM
\$15.00
06-0725
512K BY 8 STATIC RAM
\$35.00
06-90072
128K BY 8 BLANK PLCC FLASH
\$15.00

Displays:

E020-30

20 CHAR. X 2 Line LCD Display

\$49.00

E020-31

20 CHAR. X 2 Line LCD backlit display

\$65.00

E020-32

20 char. X 4 line LCD

\$74.00

E020-33

20 Char. X 4 line backlit LCD (EOL, LIMITED AVAILABILITY)

\$0.00

Source URL: <https://www.emacinc.com/content/%C2%B5pac-515c>