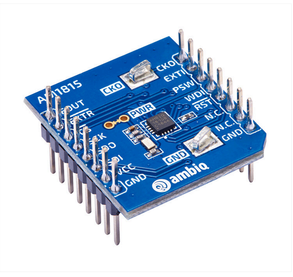
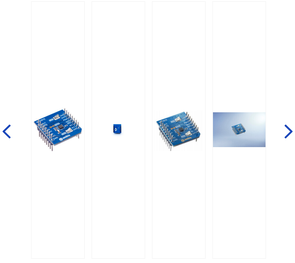
Categories

SoC
RTC
Artasie
Evaluation boards and kits





Artasie Evaluation board for AM1815

More information

Stock	**In stock**
Delivery time	**if not in stock: 6 ~ 8 weeks**
Part number	**AM1815SPIEVB**
Manufacturer / supplier	**Ambiq**
Product brief	**View product brief**
Documents	**View documents**
Datasheet	**View datasheet**

$ EXCL VAT

1 ADD TO BASKET

Quantity	Unit price
From 1 pcs	$ 79.98

Product specifications

Artasie Real-Time Clock Family - AM1815SPIEVB

The Ambiq Artasie Real-Time Clock family AM1815 with Power Management provides a groundbreaking combination of ultra-low power coupled with a highly sophisticated feature set. With power requirements significantly lower than any other industry RTC (as low as 14 nA), these are the first semiconductors based on Ambiq's innovative SPOT® (Subthreshold Power Optimized Technology) CMOS platform.

The AM1815 includes on-chip oscillators to provide minimum power consumption, full RTC functions including battery backup and programmable counters and alarms for timer and watchdog functions, and a PC serial interface for communication with a host controller. An integrated power switch and a sophisticated system sleep manager with counter, timer, alarm, and interrupt capabilities allows the AM1805 to be used as a supervisory component in a host microcontroller based system.

Features

Ultra-Low Supply Current
- 14 nA with RC oscillator
- 22 nA with RC oscillator and Autocalibration
- 55 nA with crystal oscillator

Baseline Timekeeping
- 3x GPIO Outputs
- 32.768 KHz crystal oscillator with integrated load capacitor/resistor
- Counters for hundredths, seconds, minutes, hours, date, month, year, century, and weekday
- Alarm capability on all counters
- Programmable output clock generation (32.768 KHz to 1 year)
- Countdown timer with repeat function
- Automatic leap year calculation

Advanced Timekeeping
- Integrated power optimized RC oscillator
- Advanced crystal calibration to ± 2 ppm
- Advanced RC calibration to ± 16 ppm
- Automatic calibration of RC oscillator to crystal oscillator
- Watchdog timer with hardware reset
- 256 bytes of general purpose RAM

Power Management
- Integrated —IQ power switch for off-chip components such as a host MCU
- System sleep manager for managing host processor wake/sleep states
- External reset signal monitor
- Reset output generator
- Supercapacitor trickle charger with programmable charging current
- Automatic switchover to Voltage of the Battery (VBAT)
- External interrupt monitor
- Programmable low battery detection threshold
- Programmable analog voltage comparator supercap

Ultra-low Power Flexible Serial Peripherals
- 3-wire or 4-wire SPI (up to 2 MHz) serial interface

Wide Operating Range
- Operating Voltage: 1.5-3.6 V,
- Clock and RAM Retention Voltage: 1.5-3.6 V
- Operating Temperature -40℃ to 85℃
- All inputs include Schmitt Triggers

Applications
- Smart Cards
- Wireless Sensors and Tags
- Medical Electronics
- Utility Meters
- Data Loggers
- Appliances
- Handsets
- Consumer Electronics
- Consumer Equipment

Ordering Information
- Product Part Number: AM1815SPIEVB

- Ambiq Product -

Related products



AM1805

Artasie RTC, I2C and Power management

$ 1.36

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