03 Intelligent Applications

Leveraging AI risk assessment and edge computing technologies, products are widely applied in smart security, robot control, and autonomous driving scenarios. CEC provides integrated "chip + algorithm + platform" solutions to empower global customers in building smart ecosystems, continuously leading edge computing and 6G communication frontier innovation.

IoT Metering Chip

Mainly used for precise measurement and monitoring of AC power-related parameters, can monitor current, voltage, power, etc. of appliances connected to sockets in real-time, helping users understand appliance power consumption for energy-saving management, while assisting home appliances in intelligent control and optimization to improve efficiency and safety.

Scope of Application

Suitable for smart-home appliances, charging piles and other fields.

Core Products



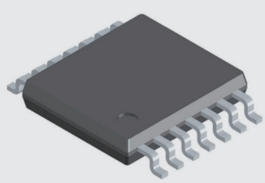
Magnetic Encoder

Magnetic encoder series products supporting SPI and I2C interfaces. Used to measure the absolute position of magnet rotation angles, the system consists of Hall sensors, digital-to-analog converters, and digital signal processing. The zero-degree position of angles can be programmed through commands without mechanical zero-point alignment, helping designers reduce development time.

Scope of Application

Suitable for motor control, robot joint encoders, industrial automation, drone gimbals, automotive applications, etc.

Core Products



32-bit Microprocessor

This series is a 32-bit microprocessor with a highly adaptive multi-layer interconnect bus structure, paired with flash memory (zero-wait, dual-operation supported), SRAM (main & auxiliary interfaces), rich peripherals and security modules.

Scope of Application

Suitable for motor drives, industrial control, IoT devices, smart furniture, etc.

Core Products



Home Appliance Main Control 32-bit MCU

Abundant communication peripherals, multi-channel timers and analog ADCs, with multiple wide-pin-pitch packages. High quality and reliability. For AC indoor main control, it enables bidirectional communication with inverter boards and outdoor units, monitors ambient temperature/humidity, and supports fault detection, OTA upgrade and safety protection.

Scope of Application

Suitable for air conditioners, refrigerators, washing machines and other home-appliance fields.

Core Products



Home Appliance Main Control + Single Inverter Control 32-bit MCU

Abundant communication peripherals, three-phase motor timers, analog ADCs and comparators. High quality and reliability. The single-chip AC indoor main control + fan inverter solution enables bidirectional communication with outdoor units, precise fan control, temperature/voltage/current monitoring, plus fault detection, OTA upgrade and safety protection.

Scope of Application

Suitable for air conditioners, refrigerators, kitchen appliances, etc.

Core Products



Home Appliance Main Control + Single Inverter High-Performance Control 32-bit MCU

Clocking up to 120 MHz, it features abundant communication peripherals, motor timers, 3.6 Msps high-speed ADCs, comparators and op-amps with high quality and reliability. The single-chip drum washer main-inverter solution supports bidirectional communication with display boards, precise motor control, temperature/voltage/current monitoring, fault detection, OTA upgrade and safety protection.

Scope of Application

Suitable for air conditioners, washing machines, high-end fans, etc.

Core Products



Multi-Motor Inverter 32-bit MCU

Operating up to 200 MHz, it has rich communication peripherals, multiple three-phase motor timers and 2.5 Msps high-speed ADCs, delivering high quality and reliability. For AC outdoor units, it enables bidirectional communication with indoor units, precise control of compressors, fans and PFC for high-efficiency heat exchange, parameter monitoring, fault detection, OTA upgrade and safety protection.

Scope of Application

Suitable for air conditioners, industrial servo systems, etc.

Core Products



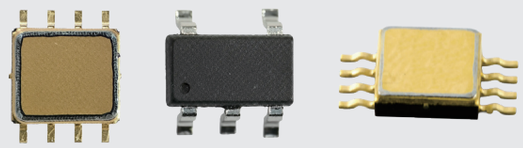
High-Speed Wideband Operational Amplifier

High-speed wideband op-amp series: ensures signal integrity with driving capability in high-speed data acquisition systems. Used for high-frequency signal conditioning and impedance matching in communication systems. It meets bandwidth/slew rate requirements in video/image processing. enables fast response and anti-interference in high-speed control systems.

Scope of Application

Suitable for A/D converters, active filters, video amplifiers, and various high-speed applications.

Core Products



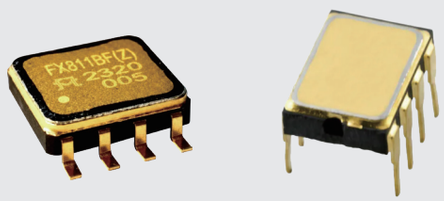
Transceiver

This series consists of an internal driver and receiver. The driver sets output to high-impedance via current-limiting & over-temperature protection to prevent overload/ overheating. The receiver has fail-safe protection to ensure normal logic high output when input is floating.

Scope of Application

Suitable for instrument data transmission, industrial control local area networks, etc.

Core Products



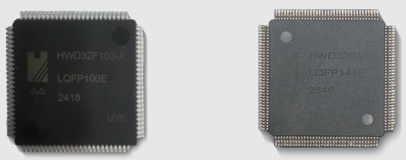
Microcontroller

Offers multiple peripheral interfaces and high-reliability design to meet complex application needs. supports industrial control, communication equipment, IoT terminals, etc.

Scope of Application

Suitable for industrial automation, military equipment, consumer electronics, network communications, smart homes, automotive electronics, etc.

Core Products



Qiyan Series FPGA

Fully domestic industrial chain, software-compatible (no patches needed). Its FPGA array includes 6-input LUT CLBs, high-performance user I/O modules, 36kbit single-block Block RAM, DSP signal processing modules, CMT clock management modules, ADC modules, PCIe modules, SerDes high-speed serial interfaces, configuration modules, and interconnect resources.

Scope of Application

Suitable for high-speed communications, data processing, video and image processing.

Core Products



8-bit Ultra-High-Speed A/D Converter

Supports 32GSPS, 50GSPS, 64GSPS sampling rates and 20GHz input bandwidth. key components for analog-digital system interfaces.

Scope of Application

Widely used in RF communications, high-end instrumentation, electronic warfare. key components in laser communications, electronic countermeasures, high-speed oscilloscopes, high-frequency spectrum analyzers.

Core Products



12-bit High-Speed A/D Converter

Its performance indicators directly affect the system's signal sampling speed.

Scope of Application

Widely used in wireless communications, satellite radar, instrumentation. key components in carrier communications, baseband communications, coherent optical communications, phased array radar, high-speed oscilloscopes, high-frequency spectrum analyzers.

Core Products



16-bit A/D Converter

5V single-power supply, handles ±10V/±5V bipolar inputs. All channels sample at up to 200kSPS. Used in power line monitoring/protection, multi-phase motor control, instrumentation/control systems, multi-axis positioning, data acquisition.

Scope of Application

Suitable for industrial control, medical equipment, communication systems, consumer electronics.

Core Products



24-bit Ultra-High-Precision Analog-to-Digital Converter

Offers 16-channel (multiplexed), low-noise, 24-bit ΔΣ ADC with single-loop fixed data. Used in low-speed high-precision fields (biomedical, instrumentation measurement).

Scope of Application

Suitable for communications, medical equipment, underwater sonar, instrumentation, surveying and mapping.

Core Products



31-bit Ultra-High-Precision Analog-to-Digital Converter

High-performance single-chip AD converter with 32-bit output. Integrates on-chip digital filters (external filters usable via bypass). variable decimation rate. Used in low-speed high-precision fields (biomedical, seismic detection, energy exploration, instrumentation).

Scope of Application

Suitable for communications, medical equipment, underwater sonar, instrumentation, surveying and mapping.

Core Products



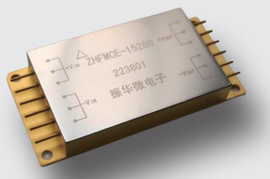
EMI Filter

Used for system EMC filtering (filters conducted interference from system and external interference to system). Wide operating temperature range, high reliability.

Scope of Application

Suitable for aviation equipment, special vehicles, special ships (high reliability requirements).

Core Products



Thick-Film DC-DC Power Converter

Mainly for system secondary power conversion: converts bus power to voltage for in-system electronics. It provides various protection functions.

Scope of Application

Suitable for aviation equipment, special vehicles, special ships (high reliability requirements).

Core Products



Motor Driver

Drives motors (DC brushed motors, permanent magnet synchronous motors). Features undervoltage lockout, external enable control. Hybrid thick-film technology. wide operating temperature range, high reliability.

Scope of Application

Suitable for aviation equipment, special vehicles, special ships and other fields with high product reliability requirements.

Core Products

