

TouchChip® TCS4K Chipset

Silicon Fingerprint Sensor and Processor



FEATURES

- Highly durable black SteelCoat coating
- Integrated design enables low bill of materials cost
- Internal current limiter and voltage regulator
- Multiple battery-optimized operating modes
- Cursor and menu navigation capability

SUPERIOR TECHNOLOGY

- Advanced technology provides the most accurate fingerprint image
- Minutia matching supports different swipe angles

EASY TO USE

- Able to read a wide range of fingerprints
- Fast swipe speeds
- Rapid response from sleep/suspend states

PRODUCT DESCRIPTION

The TCS4K / TCD58 chipset is an all-in-one, enterprise-friendly solution capable of performing all of the necessary biometric functions to match a finger that is swiped across the sensor surface against a pre-enrolled fingerprint template. Performing the biometric processing locally provides a rapid response and high performance by eliminating processing delays common when dependent on the host processor. One-Time Passwords (OTP) and encrypted host communications are supported by the chipset along with LED features for user feedback.

ABOUT CROSSMATCH®

Crossmatch helps organizations solve their identity management challenges through biometrics. Our enrollment and authentication solutions are trusted to create, validate and manage identities for a wide range of government, law enforcement, financial institution, retail and commercial applications. Our solutions are designed using proven biometric technologies, flexible enrollment and strong multi-factor authentication software, and deep industry expertise. We offer an experienced professional services capability to assess, design, implement and optimize our identity management solutions for a customer's individual challenges. Our products and solutions are utilized by over 200 million people in more than 80 countries.

Learn more at www.crossmatch.com

SPECIFICATIONS

Advanced Biometric Processor Capabilities	<ul style="list-style-type: none"> • Powerful 32-bit RISC architecture, Up to 144 MIPS • 1 Mb Flash NVM available for biometric data <ul style="list-style-type: none"> - More than 100,000 write cycles - More than 20 years data retention
Advanced BGA Package	<ul style="list-style-type: none"> • TCS4K Smart Sensor <ul style="list-style-type: none"> - 33 Ball Grid Array (BGA) package - 13.8 mm X 5 mm X 1.7 mm - Integrated drive bezel • TCD58 Companion Processor <ul style="list-style-type: none"> - 81 Ball Grid Array (BGA) package - 8 mm x 8 mm • RoHS compliant & low halogen
High Definition 192 Pixel Array	<ul style="list-style-type: none"> • 508 pixels per inch • Proven minutia matcher
Multiple Host Interfaces	<ul style="list-style-type: none"> • USB 2.0 full speed interface (12 Mbps) • UART interface (up to 230.4 Kps) • SPI (up to 1 Mbps)
ESD Resistance	<ul style="list-style-type: none"> • Up to ± 30 kV air discharge (Exceeds IEC 61000-4-2 Level 4)
Low Power	<ul style="list-style-type: none"> • USB low power device supports selective suspend • Low power consumption for navigation and finger detection • 3.0 V to 3.6 V single supply voltage
Rugged Sensor Surface	<ul style="list-style-type: none"> • Scratch & impact resistant • Withstands >20 million rubs • Advanced 6-H hardness durability coating
Robust Software Application Support	<ul style="list-style-type: none"> • Broad operating system support including: Windows®, Win CE, Linux®, Android® and others • Multi-factor authentication – tokens, smart cards, etc.

FEATURES

High Performance Smart Sensor Functions	<ul style="list-style-type: none"> • Proven minutia matcher • Menu, list and document navigation
Firmware Components	<ul style="list-style-type: none"> • Image capture algorithm • Fingerprint template extraction and matching • Navigation engine
Security Functions	<ul style="list-style-type: none"> • PKI support • Advanced Anti-Spoofing technology • Encrypted communication to host supported on all interfaces • Support for trusted paths to other digital entities
Enhanced Usability	<ul style="list-style-type: none"> • Supports fast swiping – up to 40 cm/sec. • Rapid wake-up time for reliable authentication: < 15 ms (Deep sleep or standby to imaging or navigation)
Memory Interfaces	<ul style="list-style-type: none"> • Flash memory in lieu of internal Flash • I2C EEPROM for expanded minutia database
Total Control Conveniences	<ul style="list-style-type: none"> • Password replacement, scroll wheel and rocker switch emulation, quick application launch, fast user switching and support of One-Time Password (OTP)

Corporate Headquarters:

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