

# SMS2186/SMS2186D

Advanced Single-Chip CMMB Receiver with MBBMS CA Support Single-die Solution for Mobile Phones & Cellular Data Cards

The SMS2186/SMS2186D is Siano's next generation of integrated CMMB receivers, taking the technology a step farther – introducing world's best single-die CMMB Mobile Digital TV (MDTV) solution.

Siano's SMS2186/SMS2186D enables device makers the simplest, quickest integration and time-to-market by getting an all-in-one solution that covers the entire CMMB reception, demodulation and descrambling operations (from RF signals on one end to descrambled digital TV streams on the other) while adhering to the strictest standards of receiver performance and China Mobile's MBBMS security. The SMS2186/SMS2186D maintains the same high-end performance as the existing SMS2186/SMS2186D receiver.

The SMS2186/SMS2186D integrates Siano's second generation CMMB receiver together with a China Mobile Communications Corporation (CMCC) approved MBBMS security module (UAM). Siano's next generation CMMB receiver provides single-die implementation of Siano's RF and demodulator, combining outstanding performance with smallest possible size.

Siano's SMS2186/SMS2186D provides superior in-field user experience due to the company's vast experience with true real-life scenarios, unmatched by any other CMMB receiver in the market. This includes superior immunity to tough multi-path field conditions, superior reception in deep in-door locations, excellent mobility and extremely low power consumption.

The SMS2186/SMS2186D also supports on-chip content descrambling, offering the lowest-cost and most secure solution for cellular phones and other mobile devices supporting CMCC's network.

The SMS2186/SMS2186D is complimented by a complete Host-API software package that includes drivers and libraries for popular host processors and operating systems.

#### Highlights

- Advanced single-chip, single-die MDTV receiver CMMB standard
- Optimized solution for China Mobile's MBBMS conditional-access and billing system
  - Embedded root-of-trust
  - Embedded content descrambling
- Superior mobility and extremely high sensitivity
- Superior immunity to tough multi-path field conditions
- Extremely low power consumption
- Concurrent multi-service reception
- Multiple interfaces

# Typical Applications

- Mobile phones
- Cellular data cards

# Target Markets

China



# enabling TV EVERYWHERE





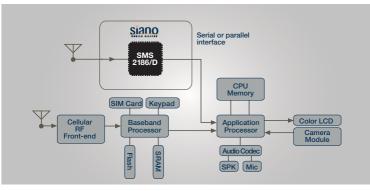
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# Key Features

- All CMOS single-die solution (ZIF conversion)
- No external components
- Compliant with GY/T220.1—2006 and GY/T 220.2—2006
- Compliant with MBBMS Rev-D
- RoHS compliant
- Complete MDTV receiver solution:
  - Device drivers
  - Middleware for popular host processors

- MBBMS support (CMCC compliant)
  - Integrated root-of-trust
  - Content descrambling
- 6mm x 6mm x 0.9mm
- 96 ball BGA, 0.5mm pitch



Integration of SMS2186/SMS2186D into a Mobile Device

### Supported Standards

- CMMB
- MBBMS CMCC compliant

#### Supported Bands

• UHF (470-862 MHz)

### Supported Interfaces

- SPI (Master/Slave)
- SDIO (Slave)
- CPU Parallel Bus (Slave)
- Serial/parallel Transport Stream (TS)
- General Serial (I<sup>2</sup>C-like) Control

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