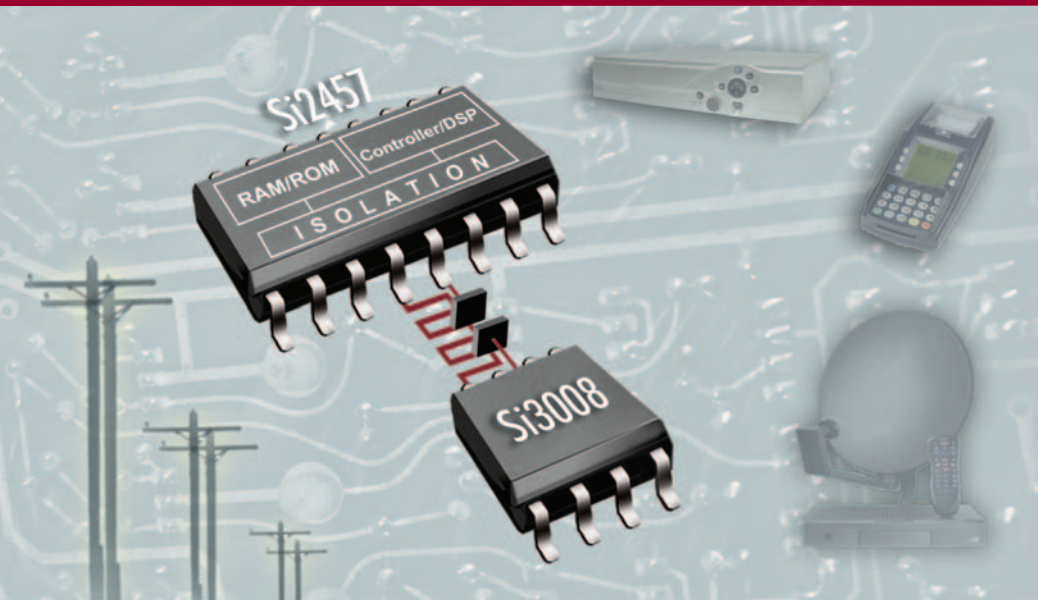


ISOmodem® Solutions

EMBEDDED MODEMS WITH AN INTEGRATED GLOBAL DAA



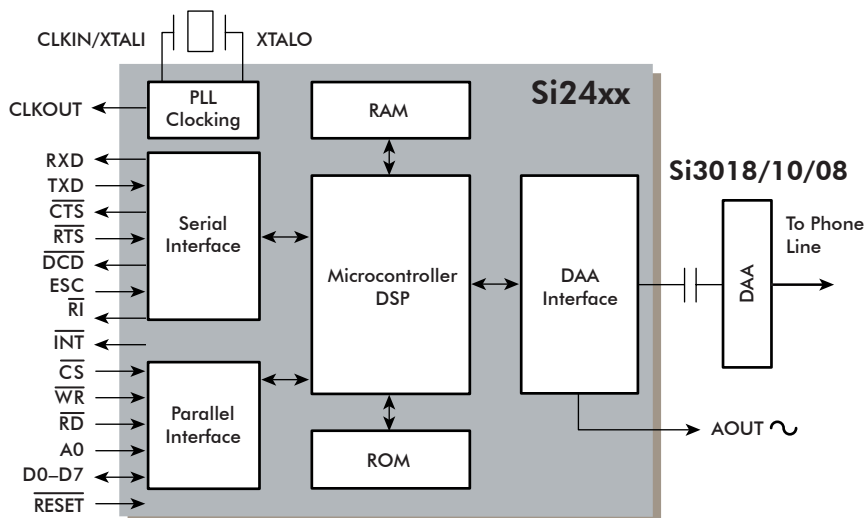
DESCRIPTION

The ISOmodem family of products (Si2401, Si2404, Si2415, Si2434 and Si2457) are complete modems ranging in speed from 2400 bps to 56,000 bps. Offered as a chipset with a 16-pin high-speed global line side (LS) device, 16-pin low-speed global LS, or a 8-pin FCC+ LS (see back for country list), the ISOmodem utilizes Silicon Laboratories' patented direct access arrangement (DAA) technology to provide a programmable telephone line interface with an unparalleled level of integration. Available in two small packages, these compact solutions eliminate the need for a separate DSP, modem controller, codec, transformer, relay, opto-isolators, clocking crystal and 2–4 wire hybrid. These devices are ideal for embedded modem applications due to their flexibility, small footprint and minimal external components.

BENEFITS

- Smallest, most compact modem solution
- Lowest external component count
- Reduces development time and resources

ISOmodem BLOCK DIAGRAM



FEATURES

- Data modem formats
 - 56,000 bps: V.90
 - 33,600 bps: V.34
 - 14,400 bps: V.32bis
 - 9600 bps: V.32
 - 2400 bps: V.22bis
 - 1200 bps: V.22, V.23, Bell 212A
 - 300 bps: V.21, Bell 103
- Integrated DAA
 - Over 6000 V isolation
 - Global country support (Si3018/10 LS)
 - FCC, JATE, China and 31 other countries (Si3008 LS)
 - On and off hook line voltage monitoring
 - Parallel handset (intrusion) detection
- V.22 and V.29 Fast connect
- V.42 and MNP 2–4 error correction
- V.42bis and MNP5 data compression
- SMS/MMS support
- AT command set
- 27 MHz clock input support
- Type I and Type II Caller ID
- Serial UART or parallel interface
- Field upgradable
- On-chip data pump controller
- <85 mW power consumption
- Lead-free 8-pin, 16-pin or 24-pin packages

APPLICATIONS

- Set-top boxes
- Electronic point-of-sale
- Digital video recorders
- Digital television
- Remote monitoring
- Data/video telephones

PRODUCT BRIEF

**SINGLE DESIGN
SUPPORTS ALL COUNTRIES
AND ALL SPEEDS**



SILICON LABORATORIES

ISModem Solutions

**INTEGRATED. PROVEN.
SMALLEST FOOTPRINT.**

Highest Level of Integration

By integrating the DSP, modem controller, RAM and ROM on-chip, the ISModem significantly reduces software development time and resources needed to provide a full-featured modem.

Smallest Footprint

Dramatically reducing the bill-of-materials to less than 30 external components, the ISModem is the smallest complete modem solution on the market. This compact design eases layout, procurement and compliance testing while the smaller footprint allows for more functions on a given PCB.

Proven, Robust Solution

Leveraging Silicon Laboratories proven DAA technology, the ISModem offers robust operation, excellent surge immunity and reliable worldwide performance.

Global Line Side Compliance

Si3018/10 Global Line Side:

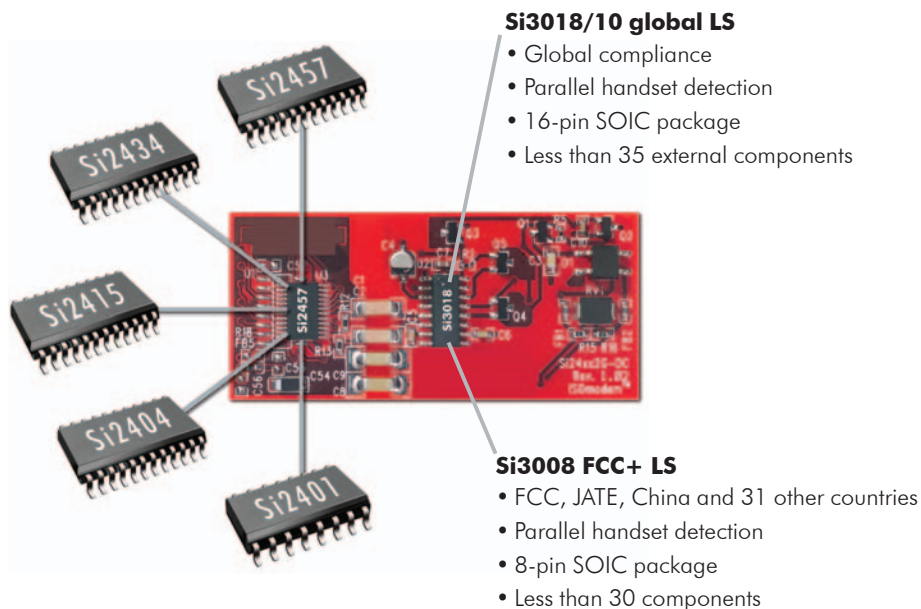
Supports all countries

Si3008 FCC+ Line Side:

Supports the following countries:

Argentina, Brazil, Canada, Chile, China, Colombia, Ecuador, Egypt, El Salvador, Guam, Hong Kong, Hungary, India, Indonesia, Japan, Jordan, Kazakhstan, Kuwait, Macao, Malaysia, Mexico, Oman, Pakistan, Peru, Romania, Russia, Saudi Arabia, Singapore, Slovakia, Syria, Taiwan, UAE, USA, Yemen

Compact Design with Fewest External Components



ISModem Family Feature Summary

Feature	Si2401	Si2404	Si2415	Si2434	Si2457
Speed (bps)	2400	2400	14,400	33,600	56,000
Global LS	Si3010	Si3010	Si3018	Si3018	Si3018
FCC+ LS	Si3008	Si3008	Si3008	Si3008	Si3008
27 MHz CLKIN	✓	✓	✓	✓	✓
V.42 MNP 2-4	Host	✓	✓	✓	✓
Parallel Interface		✓	✓	✓	✓
Fast Connect	✓	✓	✓	✓	✓
>6000 V Isolation	✓	✓	✓	✓	✓
System-side packaging options	16-pin (-FS)	24-pin (-FT) 16-pin (-FS)	24-pin (-FT) 16-pin (-FS)	24-pin (-FT) 16-pin (-FS)	24-pin (-FT) 16-pin (-FS)

CONTACT INFORMATION



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PG, 5000, Jan 05, Rev B

ORDERING INFORMATION

Modem	Line-Side DAA	Description
Si2401-FS	Si3010-FS, Si3008-FS	V.22bis Modem, 0 to 70 °C
Si2401FS10-EVB, Si2401FS08-EVB		Si2401 Evaluation Board
Si2404-FS, Si2404-FS	Si3010-FS, Si3008-FS	V.22bis Modem, 0 to 70 °C
Si2404FS10-EVB, Si2404FS08-EVB		Si2404 Evaluation Board
Si2415-FS, Si2415-FS	Si3018-FS, Si3008-FS	V.32bis Modem, 0 to 70 °C
Si2415FS18-EVB, Si2415FS08-EVB		Si2415 Evaluation Board
Si2434-FS, Si2434-FS	Si3018-FS, Si3008-FS	V.34 Modem, 0 to 70 °C
Si2434FS18-EVB, Si2434FS08-EVB		Si2434 Evaluation Board
Si2457-FS, Si2457-FS	Si3018-FS, Si3008-FS	V.90 Modem, 0 to 70 °C
Si2457FS18-URT, Si2457FS08-URT		Si2457 Evaluation Board