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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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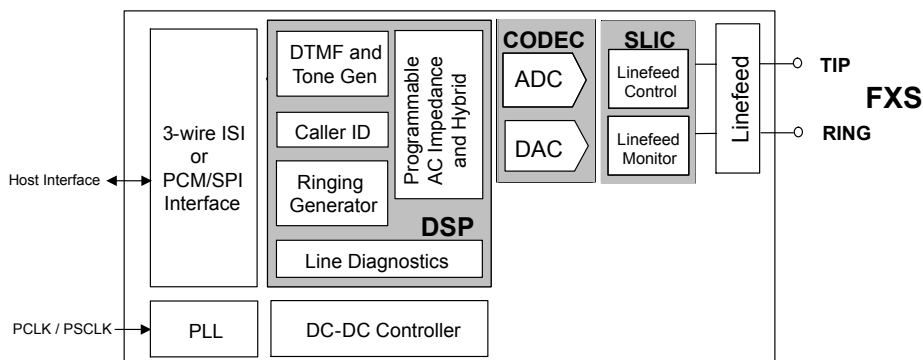


# Si3218x Data Short: ProSLIC<sup>®</sup> Single-Chip FXS Solution

The Si3218x devices are pin-compatible single-channel ProSLIC<sup>®</sup> products that implement a complete foreign exchange station (FXS) telephony interface solution in accordance with all relevant global specifications. The Si3218x ProSLIC ICs operate from a 3.3 V supply and interface to standard PCM/SPI or 3-wire ISI digital interfaces with 3.3 V or 1.8 V I/O. The Si3218x integrated dc-dc controller automatically generates the optimal battery voltages required for each linestate. Si3218x ICs are available with voltage rating of -106 V. The Si3218x devices are available in a 5x6 mm 36-pin QFN package and a 6x6 mm 40-pin QFN Package.

## Applications:

- VoIP Gateways and Routers
- xDSL IADs
- Optical Network Terminals/Units (ONT/U)
- Analog Terminal Adapters (ATA)
- Cable eMTA
- Wireless Fixed Terminals (WFT)
- Wireless Local Loop (WLL)
- WiMAX CPE



**Si3218x**

**Functional Block Diagram**

## KEY FEATURES

- Complete FXS solution in a single 5x6 mm or 6x6 mm package
- Performs all BORSCHT functions
- Ideal for short to medium loops
- Global programmability
- Patented low-power ringing
- Simplified configuration and diagnostics
  - Supported by ProSLIC API
  - Audio diagnostics with loopback
  - Integrated test load
- Ultra low power consumption
- Wideband voice support
- On-hook transmission
- Loop or ground start operation
- Smooth polarity reversal
- A-Law/ $\mu$ -Law companding, linear PCM
- Flexible integrated tracking dc-dc controller supporting patent-pending low-cost capacitive boost configuration
- Software-programmable parameters:
  - Ringing frequency, amplitude, cadence, and waveshape
  - Two-wire ac impedance
  - Transhybrid balance
  - DC current loop feed (10–45 mA)
  - Loop closure and ring trip thresholds
  - Ground key detect threshold
- Pulse metering
- DTMF generation
- DTMF detection (Si32181/3/5)
- 3.3 V operation
- Support for 1.8 V I/O
- Maximum battery up to -106 V
- Pb-free/RoHS-compliant packaging
- Two digital interface options
  - 3-wire Integrated Serial Interface (ISI) or PCM/SPI interface

**Table 1.1. Si3218x Ordering Guide**

P/N	Description	Package Type <sup>2</sup>	Max V <sub>BAT</sub>	Temperature
Si32180-A-FM	Wideband FXS, selectable ISI/PCM interface, daisy-chain mode, practical MLT	QFN40	-106 V	0 to 70 °C
Si32180-A-GM	Wideband FXS, selectable ISI/PCM interface, daisy-chain mode, practical MLT	QFN40	-106 V	-40 to 85 °C
Si32181-A-FM	Wideband FXS, selectable ISI/PCM interface, daisy-chain mode, practical MLT, DTMF detection	QFN40	-106 V	0 to 70 °C
Si32181-A-GM	Wideband FXS, selectable ISI/PCM interface, daisy-chain mode, practical MLT, DTMF detection	QFN40	-106 V	-40 to 85 °C
Si32182-A-FM	Wideband FXS, ISI interface, parametric MLT	QFN36	-106 V	0 to 70 °C
Si32182-A-GM	Wideband FXS, ISI interface, parametric MLT	QFN36	-106 V	-40 to 85 °C
Si32183-A-FM	Wideband FXS, ISI interface, parametric MLT, DTMF detection	QFN36	-106 V	0 to 70 °C
Si32183-A-GM	Wideband FXS, ISI interface, parametric MLT, DTMF detection	QFN36	-106 V	-40 to 85 °C
Si32184-A-FM	Wideband FXS, PCM interface, parametric MLT	QFN40	-106 V	0 to 70 °C
Si32184-A-GM	Wideband FXS, PCM interface, parametric MLT	QFN40	-106 V	-40 to 85 °C
Si32185-A-FM	Wideband FXS, PCM interface, parametric MLT, DTMF detection	QFN40	-106 V	0 to 70 °C
Si32185-A-GM	Wideband FXS, PCM interface, parametric MLT, DTMF detection	QFN40	-106 V	-40 to 85 °C

**Note:**

1. Adding the suffix "R" to the part number (e.g. Si3218x-A-FMR) denotes tape and reel.
2. QFN - Quad-Flat No-leads.

**Table 1.2. Ordering Guide—Si3218x Evaluation Kits**

Part Number	Description	V <sub>BAT</sub> Max
Si32183ACB10SL0EVB	ISI Wideband FXS with DTMF detection low-cost capacitive boost dc-dc converter EVB	-100 V
Si32185ACB10SL0EVB	PCM interface, wideband FXS with DTMF detection low-cost capacitive boost dc-dc converter EVB	-100 V