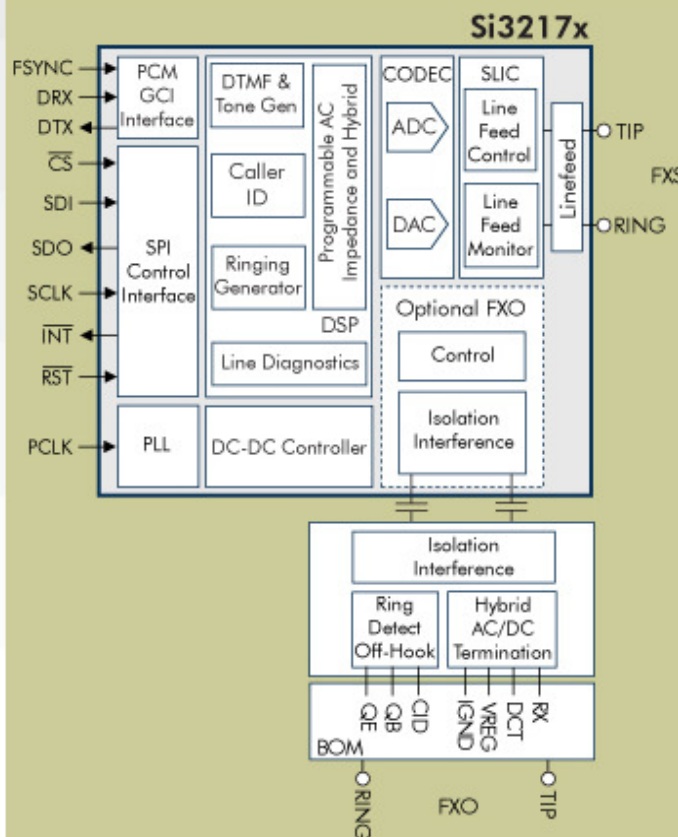


## Si3217x

The Si3217x family of ProSLIC devices deliver the world's smallest single chip FXS solution, and the world's first two chip FXS+FXO solution, and offers the lowest power consumption in the industry.

### Block Diagram



### Features

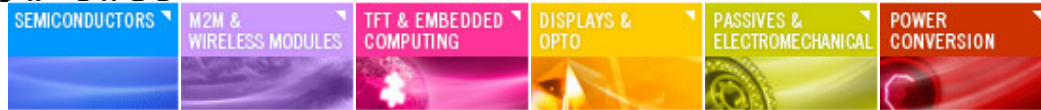
- Single chip FXS solution
- 5x5 mm QFN package enables smallest board area
- Lowest power consumption
- Tracking dc-dc controller
- Internal balanced or unbalanced ringing
- Patented low-power ringing
- Global programmability
- Simplified configuration and diagnostics supported by ProSLIC API
  - Ringing frequency, amplitude, cadence and waveshape
- Transhybrid balance
- DC current loop feed (10–45 mA)
  - Loop closure and ring trip thresholds
  - Ground key detection threshold
- Integrated test load
- Wideband voice support
- On-hook transmission
- Loop or ground start operation
  - High voltage (-135V) line feed option (Si32177)
  - DTMF detection option (Si32171)
  - Pulse metering option (Si32171)
- Two chip FXS+FXO option (Si32178)
  - Uses industry leading voice DAA technology from Si3050
  - Global programmability
  - Greater than 5 kV isolation
  - Up to +6 dBm TX/RX level
  - Parallel handset detection
  - Type I and II caller ID support
    - Integrated ring detector
    - Programmable digital hybrid

### Applications

- Ideal for short and medium loop applications including Voice over IP (VoIP)
- Cable gateways (EMTA)
- DSL gateways (IAD)
- FTTH optical network terminals (ONT)
- WiMax voice terminals
- Wireless Fixed Terminals (WFT)
- Analog terminal adapters (ATA)

### Technologies

- Performs all battery, overvoltage, ringing, supervision, coding, hybrid and test (BORSCHT) functions
- Smooth polarity reversal
- DTMF generator/decoder
- Law/ $\mu$ -Law companding, linear PCM
- PCM and SPI bus digital interfaces with programmable interrupts
- GCI/IOM-2 mode support
- 3.3 V operation
- GR-909 loop diagnostics
- Audio diagnostics with loopback



| Product Matrix          |                     |          |                           |                                   |                  |                  |                 |              |                |                     |                  |          |
|-------------------------|---------------------|----------|---------------------------|-----------------------------------|------------------|------------------|-----------------|--------------|----------------|---------------------|------------------|----------|
| Part Number             | Available Documents | Channels | Integrated SLIC and Codec | Integrated High Voltage Line Feed | Internal Ringing | External Ringing | DC/DC Converter | DTMF Decoder | Pulse Metering | FXO System Side DAA | Line Diagnostics | Wideband |
| <a href="#">Si32171</a> |                     | Single   | Yes                       | Integrated (110 V)                | Yes              | -                | Yes             | Yes          | Yes            | -                   | Yes              | -        |
| <a href="#">Si32176</a> |                     | Single   | Yes                       | Integrated (110 V)                | Yes              | -                | Yes             | -            | -              | -                   | Yes              | Yes      |
| <a href="#">Si32177</a> |                     | Single   | Yes                       | Integrated (135 V)                | Yes              | -                | Yes             | -            | -              | -                   | Yes              | Yes      |
| <a href="#">Si32178</a> |                     | Single   | Yes                       | Integrated (110 V)                | Yes              | -                | Yes             | Yes          | -              | Yes                 | Yes              | Yes      |