SH POTS Chipset

MS140131KT

Product Overview

Motorola's highly flexible software baed SH POTS chipset provides a line interface from analog POTS terminals to digital communication systems. The SH POTS chipset is comprised of three devices consisting of one DSP based dual codec and two high voltage Short-Haul Line Interface Circuits (SHLIC).

The MS140131KT provides complete flexibility due to the software based dual codec, enabling customers to support worldwide standards without having to redesign their board. In addition, the SH POTS chipset requires only 34 external standard resistors and capacitors, providing the customer with a smaller footprint, reduced system cost, and increased density.
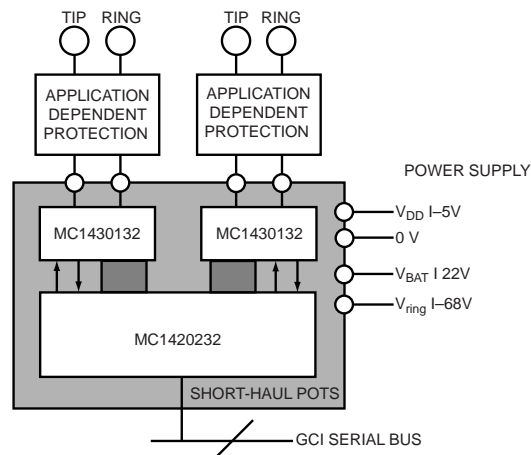
Applications

- Advanced ISDN NT (NT plus)
- Analog/Digital PABX
- Cable Telephone Systems (Set-Top Box)
- Remote Telephone Access Systems
    - Fiber to the Curb
    - Radio in the Loop
- Internet Telephones

Benefits

- Low-cost POTS interface for short loop applications
- Offers world wide spec compliance with one design
    - Ability to support different regional specifications without board redesign
    - Supports both sine and trapezoid ringing
    - Metering Injection, 12 or 16 kHz
    - Programmable tone generation
    - Q.552 Compliant
- Minimal number of external components yields small footprint
    - 34 external components for 2 POTS lines
    - All external components are standard resistors and capacitors
    - Board area less than 2" by 1.75" for 2 lines (including RJ11 connectors)
    - No heatsink or other thermal management needed
    - No external ringing generator needed.

Block Diagram

The following diagram illustrates the MS140131KT.

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MS140131KT Features

- Digitally programmed transmission and signaling characteristic meets world-wide specification requirements.
- Support all BORSHT functions
- Integrated rigning, sine or trapezoid with auto-cadence
- Metering Injection (12 or 16 kHz)
- Support on hook transmission: ADSI, CLIP
- Battery Reversal
- Loop current control and monitoring are programmable
- CODEC and AC parameters (ZCO and hybrid) are fully programmable (A-Law or U-Law)
- Test support (test load switch, loopback, tone generators)
- Standard GCI with Time Slot Assigner
- Dual Codec is 3.3 volts with 5 volt tolerant inputs
- Support up to 72 volts on Vbat ring and -35 volts on Vbat speech
- Minimal external components

Ordering Information

Chipset Part Number:	MS140131KT
Product Brief Order Number:	MS140131KT/PPD (*available for download from* www.motorola.com/codecs)
Data Sheet Order Number:	MS140131KT/D (*available for download from* www.motorola.com/codecs)

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