

PRELIMINARY

Am79Q02/021/031

Quad Subscriber Line Audio Processing Circuit (QSLAC™) Devices



Advanced
Micro
Devices

DISTINCTIVE CHARACTERISTICS

- **Software programmable**
 - SLIC input impedance
 - Transhybrid balance
 - Transmit and Receive gains
 - Equalization (Frequency Response)
 - Digital I/O pins
 - Time Slot Assigner
 - PCM transmit clock edge options
- **A-law, μ -law, or linear coding**
- **Single or Dual PCM ports available**
 - Up to 8.192 MHz each (128 channels per port)
- **1.536-, 1.544-, 2.048-, or 4.096-MHz master clock**
- **Built-in test modes**
- **Low power 5.0-V CMOS technology**
- **5.0-V DC power supply only**
- **Programmable impedance scaling**
- **Performance characteristics guaranteed over 12-dB gain range**

GENERAL DESCRIPTION

The Am79Q02/021/031 Quad Subscriber Line Audio Processing Circuit (QSLAC) devices integrate the key functions of an analog linecard into a single high performance, programmable four channel codec-filter device. The QSLAC devices are based on the proven design of the reliable Am7901A Subscriber Line Audio Processing Circuit (SLAC) device, the Am79C02/03/031(A) Dual Subscriber Line Audio Processing Circuit (DSLAC) devices, and the Am79C202 Advanced Subscriber Line Audio Processing Circuit (ASLAC) device. The advanced architecture of the QSLAC devices implements four independent channels and employs digital

filters to allow software control of transmission, thus providing a cost-effective solution for the analog-to-PCM function of a linecard.

Advanced sub-micron CMOS technology makes the Am79Q02/021/031 QSLAC devices economical. These devices have both the functionality and the low power consumption needed in linecard designs to maximize linecard density at minimum cost. When used with four AMD SLICs, the QSLAC devices provide complete software configurable solutions to the BORSCHT function.

BLOCK DIAGRAM

