Product Brief
MuSLIC

PEB 31665/PEB 31666 (MuPP)
PEB 3465 (QAP)
PEB 4165/PEB 4166 (AHV-SLIC)

Multi Channel Subscriber Line Interface Circuit

The MuSLIC is a 16 channel signal processor together with four 4-channel A/D D/A converters and 16 single channel ringing Slics. This chipset integrates the entire BORSCHT functionality for analog line cards, based on a fully programmable DSP concept and therefore offers flexibility to different country - and line requirements with one single hardware.

Applications
- Analog Line Card Applications for Central Office, Access Network, Private Branch Exchange

Features
- Specification according to ITU-T Q.552 Z interface, LSSGR
- Integrated ringing
  - Programmable sinusoidal ring frequency (16.6 - 70 Hz)
  - Programmable ring amplitude (up to 85 Vrms)
  - Automatic DC ring trip detection with programmable threshold
  - Ring generation with zero crossing injection
  - No ring relays required
- Support of external ringing
- Fully digital programmable DC-Characteristic
  - Programmable constant current from 0 - 50 mA
  - Programmable resistive values from 0 - 2 x 800 Ω
  - Programmable constant voltage
- Programmable Integrated Teletax Injection and Filtering
  - Programmable up to 10 Vrms at Ring/Tip - wire of the AHV-SLIC
  - Programmable frequency (12/16 kHz)
- Programmable digital codec filters for:
  - Impedance matching
  - Transhybrid balancing
  - Frequency response
  - Gain
  - A-law, µ-law, 16 bit linear mode
- Sophisticated support of software controlled Integrated Test & Diagnostic Functions (ITDF)
  - Integrated line testing
  - Loops for Integrated Board/ Circuit Testing
  - Integrated tone generators
- Polarity reversal (hard/soft) for pay phones
- Interface
  - 8 bit parallel microcontroller interface for Intel - and Motorola - like Processors (PEB 31666)
  - IOM®-2 interface (PEB 31665)
- Programmable thresholds; On-Hook, Off-Hook, Ring Trip Detection
- Two Slics available
  - Slic PEB 4166 with additional battery switch for power management
  - Slic PEB 4165 without additional battery switch
- Integrated Checksum calculation for CRAM (AC and DC separated)
- Long loop driving capability
- Ground Start and Loop Start possible
- On-Hook Transmission
Support Package & Documentation
- 4 Channel Evaluation Board
  Smart 31666 or Smart 31665
- 16 channel evaluation board with on board µ-Controller
- Hard/Software reference manual
- Product Overview
- Coefficient Software
- Application Notes

Analog Line Card Evolution
Shown for a 16 Channel Line Card

MuSLIC Architecture

MuSLIC
Multi Channel Subscriber Line Interface Circuit
MuPP
Multichannel Processor for POTS
QAP
Quad Analog POTS

Advanced High Voltage Subscriber Line Circuit

Reduction of Components per Board

PeB
HV-SLIC/SLICOFI
Traditional Analog Line Card Architecture

16 Channels
Programmable Digital Filters
Impedance Matching
Level Adjustment
Frequency Response
Transhybrid Balancing
PCM-Band Limitation
DC Feeding Characteristic
Integrated Ring Generator
PCM Coding (A-Law, µ-Law)
TTX Generation
ITDF: Integrated Test & Diagnostic Functions for Integrated Line Testing and Integrated Board Testing

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