THE VE790 SERIES PROVIDES A TOTAL LINE CARD SOLUTION THAT GIVES CUSTOMERS TOTAL FLEXIBILITY IN DESIGNS, RANGING FROM INTERNAL OR EXTERNAL RINGING TO CALL CONTROL AGGREGATION AND INTEGRATED LINE TESTING.

Zarlink's Wired Communication Access product portfolio includes the Legerity VoiceEdge™ and BatteryDirect™ families. These families enable the voice interface design to meet the requirements of traditional telephony equipment such as central office, digital loop carrier, DSLAM or PBX, and solutions to address next generation access equipment such as MSAN/MSAP, FTTP and VeDSLAM.

The VoiceEdge VE790 Series is a high-performance, highly programmable integrated voice chip set that performs all the functions necessary to create a 2-wire, twisted-pair telephone interface from any broadband digital source. The VE790 Series include 2-, 4-, and 8- channel programmable codecs along with short, medium and long loop length SLIC devices that together operate with minimal external components and include software to provide a complete system solution. Programmability and integrated line testing, when used with the optional Le79112 or Le79114 device, make the VE790 Series the most flexible chip set available.

Features and Benefits

➤ Complete system solution: SLAC device, SLIC device, LCAS device, VCP, integrated test firmware, and regional coefficient generation

➤ Supports comprehensive "Carrier Class" self and loop testability

  • Standards: compliant with all relevant ANSI and ETSI standards, including GR-822, GR-909, and GR-844 line measurement requirements

  • Provide early detection of existing or future telephone line or equipment failures and line performance characteristics

➤ Control aggregation with the VCP

  • Off-loads real-time control and management from the microprocessor for up to 32 or 64 channels, allowing the use of a lower cost/power host processor

➤ Enables high system integration and implementation density

➤ Available support tools

➤ Complete BORSCHT functionality in one chip set

➤ Eliminates unnecessary truck rolls

➤ Carrier class line testing for remote applications

➤ Integrated ringing and test eliminates need for external relays

Applications

➤ Central Office (CO)

➤ Digital Loop Carrier (DLC)

➤ Integrated Voice and Data (IVD)

➤ Voice Enabled DSLAM

➤ PBX / KTS

➤ Pair Gain

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Major Call Control Features

➜ 32- or 64-Channel call control
- Control/Coordination of Call Processing
- CID high level interface
- Control for Metering

➜ DTMF Detection
- Up to 16 or 32 lines simultaneously
- Q.24 compliant

➜ Pulse Dial Timing w/Decode
- 32 or 64 simultaneous channels
- Adjustable timing parameters for Make, Break, Flash, and Disconnect

➜ Zero-Cross Detection for ringing On/Off control

➜ Optional make-before-break, or break-before-make (with LCAS)

➜ Adjustable delays for Internal ringing

➜ AC and DC fault detection with automatic disconnect of the line

➜ Slow ramp from Disconnect to Standby
- Programmable ramp time (0 – 4000 ms)

➜ Read Loop conditions while in service
- Line Current (Metallic and Longitudinal)
- Sensed Voltage
- Current Battery Supply voltages

➜ Howler Tone Generation

Testing Features

The task of performing line testing is shared between the host controller and the VCP. The Legerity VoicePath™ API-II software contains a series of functions that pass their input arguments to the VCP and trigger the execution of a VCP routine. The software package also includes a test library that uses the basic Voice-Path API-II testing functions to implement a series of high-level test. The following testing functions are supported by the API-II.

➜ Open AC and DC voltage measurements

➜ Differential AC voltage measurement

➜ AC/DC resistance measurement

➜ Three-Element resistance and capacitance

➜ DC and AC current measurements

➜ Keypad Test (to support DTMF and Pulse Dial Measurements)

➜ Active and Passive noise measurement (with various filter options)

➜ SNR and quantization distortion measurement

➜ Arbitrary single tone measurement

➜ Single, dual, quad tone output (for line testing)

➜ Draw and break dial tone

➜ Hybrid loss measurement

➜ REN measurement (capacitive load REN measurement)