

EBS-E1 HI

PASSIVE EXTERNAL BOARD WITH 1 OR 2 E1/T1 LINKS



Main Characteristics

- DSPs for processing of audio and signaling
- Web interface for control, visualization and download of logs
- Detection of intercept tones (voice mail, collect calls, etc.)

Typical Applications

- Call recording
- Telephone call monitoring

Models

- EBS-E1HI 300, with 1 E1/T1
- EBS-E1HI600, com 2 E1/T1

Overview

The EBS-E1HI was designed for passive recording applications on E1/T1 links, offering an excellent cost-benefit relationship for high impedance recording applications (telephone wire-taps).

The module is connected to the E1/T1 link in parallel with the PBX and the modem with two inputs (Rx/Tx) that receive the signals transmitted by the PBX and the modem. These two signals are mixed to allow for full-duplex recording of calls on each of the 30 channels on each link.

Exclusive Resources of the EBS-E1 HI:

- Network channels: 30 or 60 high impedance E1/T1 channels
- Recording in parallel, without interfering with the link
- One VoIP channel for monitoring in real time
- Network protocols: R2 Digital, ISDN
- Uses 2 independent framers for reception of transmission signals from the modem to the PBX and from the PBX to the modem
- Reports E1/T1 link error situations
- Reports call monitoring events in R2D and RDSI signaling to the application, including number of A and B

Physical characteristics

- Connectors: 75 Ohms BNC or RJ45 connectors
- Weight: 1.92 and 2.62 Kg

Resources available on the entire EBS family of products:

Voice processing

High capacity resources:

- All voice resources available simultaneously on all channels
- DSPs for processing of audio and signaling

Detection and generation of tones (DSP)

- MFC exchange (R2 signaling)
- Detection and generation of DTMF digits, fax tones, 425Hz (dial tone) and TDD messages (*Telecommunications Device for the Deaf*)
- Detection of intercept tones (voice mail, collect calls, etc.)
- Generation of programmable tones (beep)
- Detection of silence and presence of audio before and after answering
- Detection of fax signal and voice mail with standard signaling: 600Hz/450ms – 1000Hz/450ms or 300Hz/250ms
- Detection of programmable frequencies (for example: portability tone, non-standard voice mail, etc)

Audio enhancement features

- DTMF suppression
- Manual and automatic volume control (AGC)
- *Carrier grade* echo canceling in hardware
 - Up to 64ms (512 TAPS) simultaneously on all channels, independent of other resources
 - Convergence and automatic delay adjustment during the entire call
 - Compatible with ITU-T G.165 and G.168 norms (2000 and 2002)

Call signaling and handing

- Detection of collect calls through recognition of tones, signaling or double answering
- Call progress for generation of call control events in FXO interfaces and PBX protocols
- Classification of call answering (*Call Analyzer*)

Features programmable via API K3L

Recording and reproduction of voice messages

- Full-duplex mono or stereo recording
- Codecs available for recording and reproduction: G.711 (A-law and μ -law), GSM and ADPCM, PCM8, PCM16 and AMR.
- Reproduction of messages (play) in the PCM8, PCM11, PCM16, A-law and μ -law, GSM and DVI4 (ADPCM) formats

VoIP channel features

- Codecs available for VoIP: G.711 (A-law and μ -law), ADPCM, GSM, iLBC

High availability

- 2 Ethernet ports for server connection (network redundancy)
- Server redundancy (supports virtual IP)

OAMPT

- Automated installer for updating and implementing new systems
- Web system for configuration, monitoring and diagnostics
- Native integration with SNMP
- Signaling analyzer
- Remote monitoring in real time (via web)
- Web interface for control, visualization and download of logs

Physical Characteristics

- Standard 1U Module and 1/2 19" rack
- Measurements in mm: 44.5 (height) x 220.5 (width) x 280 (length)
- Power source: Full Range (100~240Vac - 50/60 Hz)

Guarantees and Certifications

- Factory warranty 3 years
- The entire EBS line is Anatel certified
- ISO 9001:2008 Industry certified

Additional product images



Rear view of model with 2 E1/T1 links (BNC).



Rear view of model with 1 E1/T1 link (BNC).



Rear view of model with 2 E1/T1 links (RJ45).



Rear view of model with 1 E1/T1 link (RJ45).

Application Model

