TX-0204i

2-Trunk/4-Extension/2-VoIP/6-Voice Full-Function PBX/VoIP Board

TX-0204i is a PCI bus function-full PBX board that provides 2-channel trunk line interface, 4-channel extension line interface, 2-channel VoIP interface, and 6-channel voice processing function. In addition, 7 tone plants and SCSA bus digital switching are also equipped onboard. Through a polling and shared memory technique, up to 16 TX-0204i boards can operate simultaneously in a single system -- the maximum number of lines that can be supported depends on the application, the amount of disk I/O required, and the power of the host computer used.

Drivers /API

➢ Drivers for Windows NT®/2000
➢ DLL type driver supports almost all kinds of programming languages
➢ API for C, VB are available

FEATURES & BENEFITS

➢ Single board PBX card provides full-function non-blocking switching
➢ 2-channel independent analog trunk line interface
➢ 4-channel independent extension line interface
➢ 2-channel independent VoIP interface
➢ 6-channel voice processing function
➢ Built-in 7 tone plants include two ringback tone, busy tone, warning tone, two dial tone and music on hold
➢ Provides free-port, non-blocking switching between ports onboard
➢ Extension line maximum length = 1 km
➢ Allows for a maximum of 8 sets of three-way conference
➢ Dedicated processor to ensure background operation
➢ Pulse dialing; Pause, flash time selection, loop current drop detection (Trunk Interface)
➢ Ring detection; Loop current detection; Onhook / offhook control (Trunk Interface)
➢ DTMF dialing; Pause time selection (Voice/VoIP Unit)
➢ Detect caller hang up signal whether or not the system is playing or recording message (Voice/VoIP Unit)
➢ Real time digitizing and decompression during recording and playback (Voice/VoIP Unit)
➢ Caller ID receiving/generating function
➢ Call Progress detection of busy, dial, or ringback tone (Voice/VoIP Unit)
➢ DTMF detection during playback or recording (Voice/VoIP Unit)
➢ Pickup/Hangup/Flash detection; Flash duration selection (Extension Interface)
➢ Ringing generation (Extension Interface)
➢ Expands to a maximum of 16 boards to support 32-channel trunk lines, 64-channel extension lines , 32-channel VoIP interface and 96-channel voice processing function
➢ SCSA bus compatible

TECHNICAL SPECIFICATIONS

Host Interface:

➢ Bus: PCI 32 bit bus
➢ Shared Memory: 96K byte SRAM on each TX-0204i
➢ Interrupt: INTA
➢ Maximum Number of boards per system: 16

Analog Trunk Interface:

➢ Loop start
➢ Loop current drop detection
➢ Loop voltage polarity reverse detection
➢ Loop current: 20 -- 120 mA polarity insensitive
➢ Impedance: 600 ohm nominal
➢ Frequency response: 200 -- 3400 Hz
➢ Ring detection: 30Vrms -- 140Vrms (16 -- 68 Hz)
➢ Pulse dialing: 10/20 PPS, M/B ratio 33/66, 40/60 selectable
➢ Modular phone jacks with 1 RJ-45 outlet
➢ Caller ID receiving: Bellcore GR-30-CORE & DTMF

Extension Interface:

➢ Loop start
➢ DC Supply: 55V (standby), 20V (active)
➢ Loop current: 20 mA
➢ Frequency response: 200 -- 3400 Hz
➢ Ringing: 50Vrms (20 Hz)
➢ Modular phone jacks with 1 RJ-45 outlets
➢ Caller ID generating: Bellcore GR-30-CORE
➢ Message light: Bellcore FSD 01-02-2000

VoIP Interface:

➢ Speech Digitizing Algorithm: G.729A, 8Kbps
➢ G.165/168 line echo cancellers
➢ Protocol: SIP or H.323
  ▪ H.323: H.323V4, H.225, H.245
  ▪ SIP: RFC-3261, RFC-2327, RFC-2833, RFC-3264
➢ DTMF dialing, Pause time selection
➢ DTMF receiving, supports SIP/H.323 out-band DTMF delivery
➢ Detect caller hang up signal whether or not the system is playing or recording message
➢ Real time digitizing and decompression during recording and playback
➢ DTMF detection during playback or recording
➢ Call Progress detection of busy, dial, or ringback tone

Speech Digitizing (Voice Unit)

➢ Algorithm: G.711
➢ Storage requirement: 64 Kbps

Switching bus

➢ SCSA bus: One 26-pin connector to standard SCSA bus

Audio-In/Out

➢ Input volume: 20-2000 mV (RMS)
➢ Input Impedance: 10K ohm
➢ Output volume: 200-2000 mV (RMS)
➢ Output Load Impedance: > 8 ohm (recommended)
➢ Connector: 3.5 mm stereo earphone jack

DC power Input

➢ Input voltage: DC 12V
➢ Power consumption: 1A
➢ Connector: 5-pin power connector
➢ Wiring from PC power supply

APPLICATIONS

➢ IP PBX
➢ VoIP Gateway