

TEJ Series

Decades of accumulated DSP technology for echo cancellation and voice processing, empowers the most competitive open source architectures with matchless price and reliability.

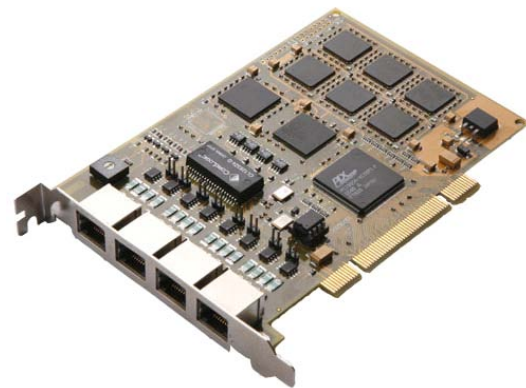
- 1/2/4 ports of T1/E1/J1 Digital telephony cards
- DSP-enabled echo cancellation of carrier-grade(32ms or 128ms optional)
- Six-years warranty, refundable two-month return, lifetime maintenance

Compatible with Asterisk and other open source platform, the TEJ series is of the robust hardware architecture to help software developers and service providers deliver cost effective open source solutions, including IP-PBX, gateway, IVR or other telephony applications. With 1, 2 or 4 trunks (T1/E1/J1) per card, the telephony cards of the TEJ series support up to 480 voice calls in a single system in the most difficulty situations.

The TEJ series leverages Synway's patent-pending echo cancellation technology and decades of voice processing expertise to guarantee high audio quality and unmatched pricing points. Up to 128 ms, the Synway's echo canceller is on-board DSP-enabled and eliminates the need for expensive echo cancellation module. Supporting each channel on the full four E1, T1 and J1 lines, the echo processing capability has been field-proven by some leading

carrier labs and made Synway's product offerings the most cost affective and accountable worldwide.

Compatible with PCI or PCI-express interface, the TEJ series also introduces the latest DMA data processing technology to minimize the consumption of CPU capability, enabling developers to design the high-performance solutions featuring high robustness, scalability and interoperability in the demanding telecommunication environments.



Key features and benefits

Configurable T1/E1/J1

A kind of highly flexible hardware platform, TEJ series supports software configurable T1/E1/J1 interfaces. Selectable interfaces, T1/E1/J1 lines, are conveniently available in a single box to fit into complex and hybrid environments, which improves system's flexibility.

SuPerForm™ superior voice quality and echo cancellation

High-adjustability, original and complimentary SuPerForm™, built on Synway-owned, certified DSP algorithm and carrier-grade applications, can be "automatic adaptability" optimized by site environments for the unmatched voice enhancements(over 128ms echo tail), accurate DTMF/tone detection.

Carrier-grade reliability in any situation

TEJ series (digital telephony card) utilizes DMA technology, and the optimized DMA streams minimize the hitting to host CPU. Most efforts have been offloaded from host CPU to the on-board DSP resources to maximize system's reliability in the most difficulty situation, enabling software developers and service providers to deliver highly flexible and scalable systems (up to 480ports).

Easy use and intelligence

To help you design an array of open source applications conveniently, the TEJ series is optimized with rich features like friendly interface, automatic configuration and troubleshooting, with 24x7 global availability of tech. support, it helps you design an array of robust Asterisk-based or other open-source telephony systems.

OS and open sources IP-PBX supported

Support Unix, Linux and Solaris; compatible with Zaptel, and support a broad range of open source PBX systems, including Asterisk, Trixbox, Yate, Freeswitch, CallWeaver, Elastix and more.

Technical Specifications

Product models

TEJ-1A/PCI, PCI(-x), PCIe, 1E1/T1/J1 software configurable

TEJ-2A/PCI, PCI(-x), PCIe, 2E1/T1/J1 software configurable

TEJ-4A/PCI, PCI(-x), PCIe, 4E1/T1/J1 software configurable

T1/E1/J1 Interface

1 or 2 or 4 T1/E1 ports with a single PCI or PCI-Express interface optimized for high performance voice and data applications. Only software configurable for any kind of physical interfaces. Both T1 or E1 or J1 are mixed simultaneously in a single system.

A complete range of open sources supported

Support for Asterisk, Trixbox and FreeSwitch, as well as other open source IP-PBX, Switch, IVR, or VoIP gateway applications.

Audio Specifications

CODEC: CCITT A/ μ -Law 64kbps

Distortion: $\leq 3\%$

Frequency response: 300-3400Hz (± 3 dB)

Signal-to-noise ratio: ≥ 38 dB

Echo suppression: ≥ 40 dB

Basics

Automatically compatible with 5 V and 3.3 V PCI busses, and fully PCI 2.2 compliant PCI-X

Echo Cancellation

The self-adaptive echo cancellation technology taps 128 ms tails (1024 taps/128 ms tail per channel) and can effectively eliminate echo effect during any hybrid VoIP application.

A complete range of open sources supported

Support for Asterisk, Trixbox and FreeSwitch, as well as other open source IP-PBX, Switch, IVR, or VoIP gateway applications.

DMA data exchange

The use of PCI-based DMA technique for data reading and writing helps minimize the cost of the host CPU.32-bit bus master DMA data exchanges across PCI interface at 132

MB/s for minimum host processor intervention, and optimized per channel DMA streams and hardware-level.

Input/output Interface

Digital trunk interface: TEJ-1A/PCI: 1 RJ48C jack; TEJ-2A/PCI: 2 RJ48C jacks; TEJ-4A/PCI: 4 RJ48C jacks

E1 interface: Compliant with G.703, including 75 Ω unbalanced interface and 120 Ω balanced interface

T1/J1 interface: DSX-1 and CSU line build-outs available for different extents of signal losses, including 100 Ω and 110 Ω balanced interfaces

Environment

Operating temperature: 0 $^{\circ}$ C—55 $^{\circ}$ C

Storage temperature: -20 $^{\circ}$ C—85 $^{\circ}$ C

Humidity: 8%—90% non-condensing

Storage humidity: 8%—90% non-condensing

Operating Systems

Linux (all versions, releases and distributions from 1.0 up).

FreeBSD.

Solaris.

Unix

Maximum System Capacity

Depends on the system consumption of Asterisk and the processing capability of computer.

Certification

CE, FCC Part 15 Class A and Class B , EN 55022, EN 55044, CISPR 22, CISPR 24

Safety: Lightning resistance: Level 4

Warranty

6-years warranty, refundable 2-month return, lifetime maintenance, free support

Production Quality

ISO 9001:2000

Environment standard

RoHS