



Leaders in embedded VOIP products

Cost effective VOIP (RTP/IP) for Intel / Dialogic PCI (H.100) based telephony

The IP256.H100 VOIP Board

White paper



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Executive Summary:	4
IPBridges VOIP solution - Hardware:	4
The IPBridges LLC IP256.H100 VOIP Board	4
Using the IP256.H100 Board to add VOIP to an Intel / Dialogic Telephony Server	5
IPBridges VOIP solution - Software:	6
IP256.H100 Software Block Diagram.....	7
IP256.H100 VOIP solution cost:	8



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Executive Summary:

The IPBridges LLC IP256.H100 VOIP Board offers an extremely cost effective solution for adding robust VOIP services to existing Intel / Dialogic PCI (H.100) based telephony servers and platforms. The IP256.H100 board instantly adds up to 256 – VOIP resources to the Intel / Dialogic telephony server. IPBridges LLC has embraced the Intel / Dialogic software architecture, along with Open Source software, to delivery this powerful VOIP board solution at the lowest cost possible. While preserving existing infrastructure, applications may begin to utilize mixed network telephony (TDM + IP) environments to offer new and expanded voice services.

IPBridges VOIP solution - Hardware:

Just plug in the IP256.H100 into a free PCI slot, connect to the CTBUS (H.100) chain, and go! That's all it take to add 256 - full featured, VOIP resources to your Intel / Dialogic based telephony server!



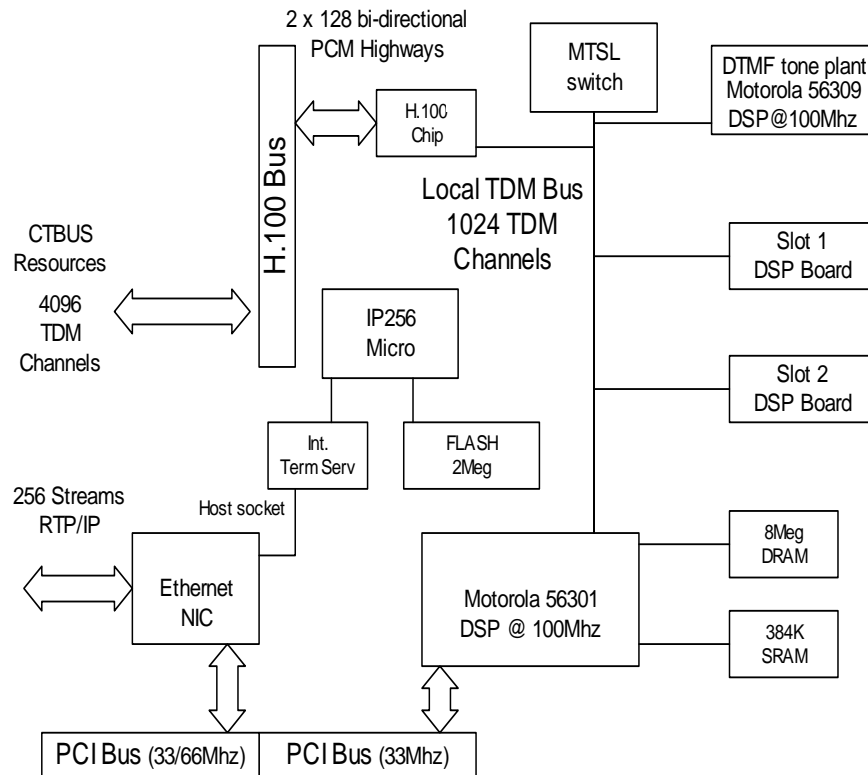
The IPBridges LLC IP256.H100 VOIP Board



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The IP256.H100 board provides for 256, full featured, bi-directional, VOIP (RTP/IP) data streams, translated to and from the CTBUS (H.100). These VOIP resources are available to the Intel / Dialogic applications accessing the common CTBUS (H.100). The board supports 3.3V and 5V mode of the 33Mhz PCI bus, all other controls are established through software.

Optional DSP modules may be added to the IP256.H100 for extended features; CTBUS DTMF detection, conferencing, compression, word spotting / recognition, etc...



Using the IP256.H100 Board to add VOIP to an Intel / Dialogic Telephony Server



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Embracing Open Standards in hardware, the IP256.H100 board brings unparalleled value to this complete VOIP solution. Examples of Open Standards based hardware designs utilized on the IP256.H100 board include:

- Motorola – (2 to 10) Motorola* Digital Signal Processors (DSP)
- Infineon* MTSL – non-blocking TDM switch
- Dialogic / Intel* CTBUS architecture
- OKI Semiconductor* CTBUS / H.100 interface
- Lantronix* XPORT with integral http configuration and SNMP

The IP256.H100 PCI Bus Mastering design dramatically reduces system OS load. The approach to TDM - IP translation has been painstakingly refined to minimize load on the system resources / CPU. All data transfers make use of our Bus Master mode, embedded DSP software, offloading the system CPU(s).

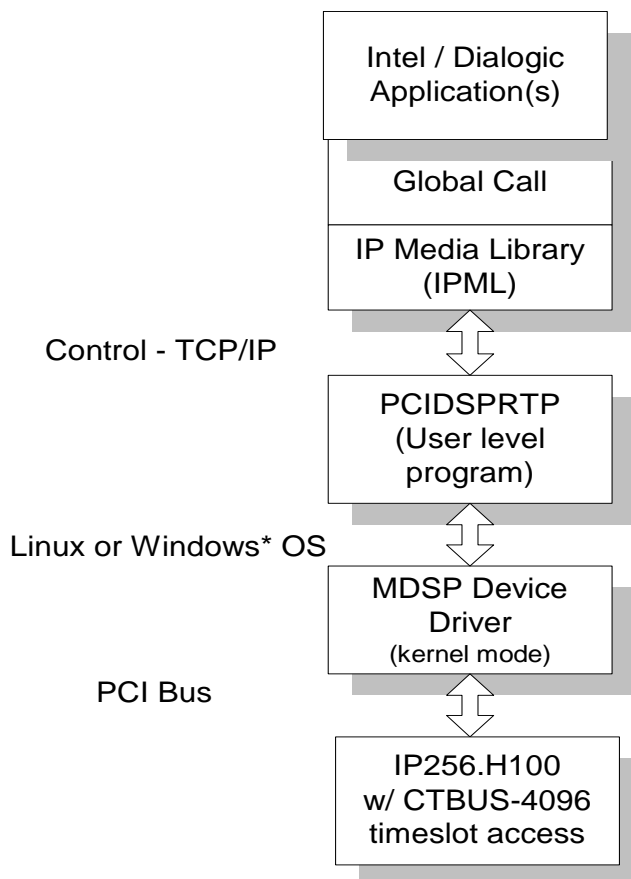
IPBridges VOIP solution - Software:

IPBridges has fully integrated support for the IP256.H100 board, delivering a seamless VOIP solution for existing Dialogic / Intel customers. Support for the IP256.H100 VOIP board has been added to the Intel / Dialogic Global Call API (through the Intel / Dialogic IPML [IP Media Library]). Complete Global Call integration means applications have the flexibility to access the VOIP resources transparently, from the existing platform! Open Source VOIP software rounds out this complete, integrated, VOIP solution.

Open Source / royalty free - VOIP software, RTP stack, and device driver are all included in the IP256.H100 VOIP solution. An Open API, user level program provides for complete command and control over the VOIP(RTP/IP) streams. Adaptive buffering is a standard feature of the IP256.H100, continuously adjusting to account for jitter or delays in VOIP packet delivery sub-system.



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IP256.H100 Software Block Diagram

In the typical solution, applications have seamlessly access the VOIP resources using Global Call. The IP256.H100 adds 256 dynamic listening resources, and 256 fixed (defined) transmit resources on the CTBUS (H.100). Each application assigns a listening resource, automatically routing its TDM data from the CTBUS, to the IP256.H100 for conversion to a VOIP (RTP/IP) data stream. Data is simultaneously processed in the reverse by the IP256.H100 board, from the VOIP data streams, sent to the defined 256 transmit resources on the CTBUS (H.100).



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The IP256.H100 VOIP solution is ideally suited for environments deploying advanced voice services, such as Speech Recognition and Text To Speech services, as these host servers may now reside in a pure / native TCP/IP environment.

IP256.H100 VOIP solution cost:

For the absolute highest value in a VOIP solution on the market, the IP256.H100 board provides low cost VOIP resources. Merging Open Standards hardware with Open Source software, IPBridges delivers the IP256.H100 board as a complete VOIP solution for a fraction the cost.

IPBridges IP256.H100 board - List price is \$2000 USD.

No additional licensing fees are required!**

Preserve existing application development investment and add seamless VOIP services with the IP256.H100 VOIP solution today!