



Datasheet: InLine - Low Density Analog Board with DSPs



The PIKA Analog Board (formerly known as InLine) is a cost effective choice to support a wide range of capabilities from the needs of basic voice applications to enhanced speech applications. 4 ports of fax are included with every board at no extra cost!

This low-density board with DSP based media processing applications and API is ideally suited for basic voice processing applications to enhanced speech applications. Examples of applications include:

- Small fax system
- Predictive dialer
- Operator console
- IVR/voice mail system

Key Features

- Single slot PCI card
- Software configurable as 4 loop start interfaces or 3 loop start interfaces plus 1 headset port
- DSP based echo cancellation and RTP packetization available (suitable for analog to IP gateway applications)
- Advanced DSP based media processing capabilities include voice, tone, fax, and conferencing
- Windows and Linux development environments via PIKA's low and high level APIs
- Compatible with other popular technologies such as Skype and Asterisk

Functional Chart

Functionality	Specifications
Analog line circuits	User configurable 4 loop start or 3 loop start +1 headset/handset
Host interface bus type	PCI
DSPs:	
On-board DSPs	1
Chip Type	Motorola 56303 (see note)
Memory	128 K
Clock Speed	100 MHz
Instruction Speed	100 MIPs
Supported Operating Systems (OS)	Windows 2000/XP/2003 Red Hat 7.3/Enterprise 4 SuSE 9.3 distributions of Linux

Note: DSP applications are independent programs that perform operations such as fax, VAD, echo cancellation, dual tone multi frequency (DTMF) detection, speech compression, conferencing, and more. The number of supported applications is limited only by the amount of available memory and real time.

Technical Specifications

PCI Interface	PCI 32 bit target/ initiator V2.2 compliant 33 MHZ bus speed
Network Interface	RJ14 connectors RJ22 headset/ handset connector
Headset Interface	RJ22 headset/ handset connector; does not require external power supply
Loop Start Trunk Interfaces (CO Interface Circuit)	Headset/ handset connection configurable via software set up On hook audio reception Ground button (Euro version only) Gain pad
DC resistance	North American: 360-140 ohms over 15-120 mA typical Euro version: 470-154 ohms over 14-130 mA typical
Loop Range	0-2000 ohms AC impedance: 600 ohms (North America) or complex (Euro version)
Supervision	loop current drop, battery reversal, ringing
Signaling	Off-hook, flash, DTMF
Loop current range	North America: 15-120 mA Euro version: 14-130 mA
Compliance and Capabilities	FCC part 15 and FCC Part 68, Industry Canada CS-03, CSA C22.2 no 950 NRTL/C TBR21 EU 55022:1998 Class B, EU 55024:1998, EU 60950:1992 2002/ 95/ EC RoHS 6
DSP	Motorola 56303 DSP Software reset on per DSP basis
MTBF	4L/ 3L plus headset North America: 47 years Euro version: 45 years
Power Requirements	355 mA
Environmental Requirements	Operating Temperature: 0 °C to +60 °C Storage Temperature: -20 °C to +85 °C Humidity: 5 to 95%, non-condensing
Media Capabilities	Play and Record DTMF, tone, speech detection DTMF, tone generation Fax RTP, IP/SIP Integration with Asterisk and Skype technologies

About PIKA Technologies Inc.

For over 2 decades, PIKA Technologies has been providing developers with the tools they need to build advanced voice and fax applications like IP PBX, fax broadcast and self-service IVR. As the technology landscape has changed, so too has PIKA, building out its product offering so its customers can choose the right tool set for their applications. Whether building applications using DSP board-based media processing, host-based or VoIP only solutions, whether your application requires telephony boards or appliances, application developers of all kinds turn to PIKA for their development tools.