Ai-Logix Enabling Technology Products

SmartWORKSTM NGX Single Card Solution to Passively Record Proprietary PBX Extensions



- Multiple PBX Support
- Firmware Upgradeable to any PBX
- Wide Spectrum of Trigger Events
- Summation
- CODEC Support



NGX Application Model

Applied Use: The SmartWORKS[®] NGX is perfectly suited for information centers, financial trading centers or call centers where tapping behind a proprietary PBX is required. The **SmartWORKS™ NGX** is an all-in-one resource for logging behind a PBX. Every key pressed, call taken, and telephone action performed by an agent is automatically decoded and sent to the recording application. A powerful set of features, combined with PBX integration, makes the NGX a true single slot solution for call logging application providers.

TAP ENVIRONMENT

The NGX is designed for tapping behind a proprietary PBX. Residing between the PBX and agent phones, the SmartWORKS[™] NGX's high impedance receivers record both sides of a call without interrupting service. The NGX is available in 8, 16, and 24 port configurations. The SmartWORKS[™] API supports a total of 384 channels per system. As a result, the SmartWORKS[™] NGX is ideal for low to high-density environments.

EXTENSIVE PBX SUPPORT

Designed with international deployment in mind, the SmartWORKS™ NGX taps 2-wire, 4-wire, BRI and full duplex PBX's. The list of PBXs that the NGX supports is constantly growing. Contact your Ai-Logix sales representative for more information.

WORLDWIDE ANALOG SUPPORT

The SmartWORKS[™] LD supports passive call recording on ground start and loop start analog networks. It has line terminating capabilities for loop start environments. Features such as programmable voltage thresholds, voltage detection, and polarity reversal are managed through the common SmartWORKS[™] API. As a result, the SmartWORKS[™] LD easily adapts to variations found on analog systems throughout the world.

BUILT-IN PERFORMANCE MONITORING

The SmartWORKS[™] API provides framer alarms and network statistics to pass easily into performance monitoring applications. Event driven framer alarms are generated with a loss of signal condition. Network statistics are available for both sides of the conversation, incoming and outgoing. Statistics such as synchronization errors, line amplitude, noise or clipping are available via a simple API function call.

COMMON SMARTWORKSTM API FEATURES:

- Media Control CODECS
- Tone Detection
- CallerID/FSK/DTMF/MF Detection
- Activity / Silence Detectors
- Switching (H.100 and MVIP)
- Automatic Gain Control (AGC)
- Automatic Volume Control (AVC)
- Stereo Recording
- Echo Cancelation
- Call Progress Monitoring (CPM)
- Full-duplex Channels
- Media Streaming
- Live Monitoring
- Start/Stop Call Recording Triggers



SmartWORKS[™] NGX

NGX2400

MX80

910-0314-003

910-0315-001

NGX2400-EH

MX80A

910-0700-003

910-1315-001

SPECIF	ICATIONS			
System R	equirements			
Hardware Requirements		Pentium 4/equivalent - 2 GHz, PCI motherboard or passive backplane with 3.3V power supply, PCI 2.2 bus (PCI express is also available with x1 connector)		
Operating Systems		Windows2000 Professional/Server, WindowsXP Professional (SP3), Windows2003server (32-bit/64-bit), Windows2008 server (32-bit/64-bit), Windows2012 Server (Call for variant details)		
Technical Specifications		Max blades per system: 16 · Max ports per system: Up to 384, · Resource Sharing Bus H.100		
Host Interface		Bus Compatibility: PCISIG 2.2/PCI-X/PCI-E1.1/x1,x4, x8, x16 a Bus · Specifications: Rev. 2.2 · Bus Speed: 33/66/2500MHZ Bus Mode: 32 bit bus master/target (PCI express available-1x	Is Compatibility: PCISIG 2.2/PCI-X/PCI-E1.1/x1,x4, x8, x16 and Gen 2.0 PCI Express slots is · Specifications: Rev. 2.2 · Bus Speed: 33/66/2500MHZ is Mode: 32 bit bus master/target (PCI express available-1x connector)	
Environmental Conditions		Form Factor: Full-size PCI or PCIe card - Operating Temperature Clocking: Master/Slave Storage Temperature: -20C to +85C - H Storage humidity: 8% to 80% non-condensing	ctor: Full-size PCI or PCIe card · Operating Temperature: OC to +60C · Boards Status: On-board LEDs ; Master/Slave Storage Temperature: -20C to +85C · Humidity: 8% to 80% non-condensing humidity: 8% to 80% non-condensing	
Telephony	y Interface			
Tap Interface		Insertion loss: <1dB · Isolation: Galvanic 500VDC +/-10%, 100 1K0hms/1000hms External connector: RJ-21X 25 Pair female	ion loss: <1dB · Isolation: Galvanic 500VDC +/-10%, 100VRMS 1 sec · Impedance: Soft-Switchable ms/1000hms nal connector: RJ-21X 25 Pair female	
Analog Jack		Audio Connector: 3-pin 0.1" ctr header · Output impedance: 3 Mic bias: +5VDC @ 4.7KOhms · Input gain: +9dB · Output gain Full scale output: 1.5 VRMS open circuit	Connector: 3-pin 0.1" ctr header · Output impedance: 3000hms · Input impedance: 33K0hms · Return loss: >25dB as: +5VDC @ 4.7K0hms · Input gain: +9dB · Output gain: 2.6dBm @ 3000hms · Full scale input: 370 mVRMS ;ale output: 1.5 VRMS open circuit	
PBX Interface		PBX Support: Software Configurable		
Audio Signal		Receive range: -68 dBm to + 3 dBm · Input gain control: +24 to	Receive range: -68 dBm to + 3 dBm · Input gain control: +24 to -50 dB · Silence Detection: Programmable from API	
Transmit volume control		+24 to -50 dB to MVIP/H.100 · Automatic Gain Control (AGC): Programmable from API Automatic Volume Control (AVC): Programmable from API		
Software				
SDK		Ai-Logix SmartWORKS™ API		
Activity Detection		Programmable from API · Frequency Response: 300 - 3400 Hz	r (+/- 3dB)	
Encodiong & Decoding		5.3 Kb/sG.723.1 · 8 Kb/s:G.729A · 13 Kb/s:GSM 6.10, Microsoft GSM · 16 Kb/s:G.726 24 Kb/s:G.726, OKI · 32 Kb/s:G.726, OKI · 40 Kb/s:G.726 · 64 Kb/s:u-law or A-law per G.711, 8 bit linear PCM (signed & unsigned) · 96 Kb/s:G Khz 16 bit linear PCM (signed) 128 Kb/s: 16 bit linear PCM (signed & unsigned) · Wave file formats: Microsoft GSM, Linear signed · 8 & 16-bit PCM		
Digitization selection		Programmable per channel, independent for encode and decode		
DTMF Tone Detection		DTMF digits: 0 - 9, *, #, A, B, C, D · Dynamic range: -38 dBm to Interdigit timing: 40 ms min.	DTMF digits: 0 - 9, *, #, A, B, C, D · Dynamic range: -38 dBm to 0 dBm · Minimum tone detection: 40 ms /programmable Interdigit timing: 40 ms min.	
Acceptable twist		Per LSSGR sec. 6, 8 dB forward, 4 dB reverse · Frequency variation: Accept all +/- 1.5%, reject all +/-2.5%		
Talk off		Bellcore TR-TSY-000762		
D Channel Events		The following types of D-channel events are decoded:		
PBX Event (Command Events)		Generated by the PBX and passed to the phone as a comman	Generated by the PBX and passed to the phone as a command to perform some type of action.	
Signaling		These events indicate a call progress tone (dial tone, ring tones), or audio changes		
LEDs		These events correspond to light changes on the phone		
Display		These events indicate that the LCD on the phone has been updated. These are usually related to the clock display, or messages displayed on the LCD.		
Phone Events		Generated by the phone indicating an action has been taken (i.e. button pressed).		
Hook State		Off hook and on hook changes occur when the handset is removed or replaced		
Button events		Indicate that a button on the phone was used. For example: digits pressed, speaker buttons etc.		
Power Re	quirements			
NGX (PCI 2.2 base) NGX (PCI 2.2 24 channel) NGX (PCI express base) NGX (PCI express 24 channel)		+ 3.3 VDC: 0.9 A + +5 VDC: 1.5 mA + 12 VDC: 25 mA + +12 VDC: 25 mA + 3.3 VDC: 1.6 A + 5 VDC: 1.5 mA + 12 VDC: 35 mA + +12 VDC: 35 mA + 3.3 VDC: 1.3 A + 3.3 VDC: 2.0 A		
Certificati	ons			
Safety		EN60950 / IEC60950 (third edition) / UL60950 · CAN · CSA-C22.2 No / 60950-00 (third edition)		
Emissions		EN55022 / 47 CFR FCC part 15 / EN55024		
Order Info	rmation			
NGX800 NGX1600	910-0314-001 910-0314-002	NGX800-EH 910-0700-001 NGX1600-EH 910-0700-002		

ABOUT AI-LOGIX

Since 1991, Ai-Logix has designed boards used in interactive and passive telephony applications. With global support for all types of telephone and radio systems - analog, digital, and enterprise PBXs, Ai-Logix products have set a new world standard in telephony communications. A single API, combined with event driven reporting simplifies application development by providing one standard for all types of networks.

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