OPERATIONAL DESCRIPTION

1.1. Product description

The Digigram's HR series (PCX22HR, PCX924HR, PCX924HR-MIC, VX2222HR and VX222HR-MIC) are a Card (PCI bus) designed for professional audio applications on a Personal computer. They are "Universal PCI 64-bit/66MHz", which means they can be plugged in 32bit/33MHz 5V keyed PCI slots as well as in 64-bit/66MHz 3.3V keyed PCI slots. The cards are also compatible with PCI-X interface.

Digigram's High Resolution (HR) series has set a new industry standard and now covers the entire span of broadcasting application from 2/12 and 8/8 multichannel to stereo.

This solution bringing new possibilities for production, editing, on-air, journalist work-stations and other recording applications.

Key features:

Mains differences between PCX924HR-MIC, PCX924HR, VX222HR-MIC, VX222HR and PCX22HR, are summarized in the chart following :

Fonction	PCX924HR	PCX22HR	VX222HR	VX222HR-Mic	PCX924HR-Mic
Analog Inputs Stereo	One Balanced	-	One Balanced	One Balanced	One Balanced
Digital Inputs	One AES/EBU or SPDIF	-	One AES/EBU or SPDIF	One AES/EBU or SPDIF	One AES/EBU or SPDIF
Other Inputs	LTC , two GPI (dry contact)	LTC , two GPI (dry contact)	LTC , two GPI (dry contact)	LTC , two GPI (dry contact)	LTC , two GPI (dry contact)
Analog Outputs Stereo	One Balanced	One Balanced	One Balanced	One Balanced	One Balanced
Digital Outputs	One AES/EBU or SPDIF	-	One AES/EBU or SPDIF	One AES/EBU or SPDIF	One AES/EBU or SPDIF
Other Outputs	HeadPhone (600Ω) , two GPI (0,5V , 48Vcc)	HeadPhone (600Ω) , two GPI (0,5V , 48Vcc)	HeadPhone (600Ω) , two GPI (0,5V , 48Vcc)	HeadPhone (600Ω) , two GPI (0,5V , 48Vcc)	HeadPhone (600Ω) , two GPI (0,5V , 48Vcc)
MIC Input Mono	-	-	-	Yes	Yes
AES11 Synchro	Yes	Yes	Yes	Yes	Yes

Mains software feature for PCX's series
- ❑ Decoding and mixing of several PCM (8, 16 and 24 bits) and MPEG Audio streams (Layer 1, II & III, *up to 48 kHz sampling frequency*)
- ❑ Real-time, simultaneous record and playback in PCM (8, 16 and 24 bits), Float IEEE754 conversion (with 24-bit fixed-point dynamic range), as well as in MPEG Audio Layer I, Layer II, and Layer III? ?
- ❑ When using the np SDK, direct monitoring, level adjustment, panning, cross-fades, punch-in/punch-out, scrubbing, time-scaling, inter-board synchronization, synchronization on LTC (SMPTE)
- ❑ Possibility to control the parameters of the inputs and outputs (gains, mutes, 48 V switch, analog compressor-limiter-expander parameters), from the provided 'Digigram Hardware Settings' application, or from any application that addresses these controls
- ❑ 24-bit DSP effects in playback and recording: 3-band parametric equalizer plus Maximizer
- ❑ Low latency DirectSound, Wave, and ASIO drivers

Mains software feature for VX's series

- ❑ Real-time, simultaneous PCM record and playback (8, 16 and 24 bits), Float IEEE754 (with 24-bit fixed-point dynamic range)
- ❑ When using the np SDK, real-time on-board mixing of several PCM audio streams, direct monitoring, level adjustment, panning, cross-fades, punch-in/punch-out, scrubbing
- ❑ Possibility to control the parameters of the inputs and outputs (gains, mutes, 48 V switch, analog compressor-limiter-expander parameters), from the provided '*Digigram Hardware Settings*' application, or from any application that addresses these controls
- ❑ 24-bit DSP effects in playback and recording: 3-band parametric equalizer plus Maximizer
- ❑ Low latency DirectSound, Wave, and ASIO drivers

For more information, see product's data sheet at section 1.6.

1.2.   Related Submittal(s) / Grant(s)

All host equipment used in the test configuration are FCC granted, when relevant.

1.3.   Tested System Details

The FCC IDs for all equipment, plus description of all cables used in the tested system are:

Trade Mark – Model Number (Serial number)	FCC ID	Description	Cable description
DIGIGRAM PCX924HR-mic* **(sn:)**	**IGTPCX924HR**	**Audio PCI card**	I/0 cable, shielded
HEWLETT PACKARD pn:D2846 (sn: JP74001000)	D.o.C.	monitor	Standard power cable unshielded, Video cable with ferrite at each end.
HEWLETT PACKARD pn:C4734-60111 (sn: M971168931)	GYUR38SK	Keyboard	
HEWLETT PACKARD pn:C4736-60101 (sn: LZA93024031)	JNZ201213	Mouse	
DELL pn:DMC (sn: 3MJRL1J)	D.o.C.	Personnel computer	I/0 cable, shielded Standard power cable unshielded,
Sennheiser HD 545 reference (sn: none)	none	Headset	I/0 cable, shielded Standard power cable unshielded,
Hewlett Packard pn:C6410A (sn: MY9761915T)	D.o.C.	Parallel printer	I/0 cable, shielded Standard power cable unshielded,
Hewlett Packard 48GX (sn: ID83802369)	none	Graphic calculator	Serial cable shielded with ferrite.
Labtec C324 (sn: none)	none	Headphone	
INTEL YC76 (sn: 0045143)	EDUYC76	WEBCAM	Personnel computer
DIGIGRAM	None	Load box	Standard power cable unshielded

* : Equipment under test

1.4.   Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4-2000, CISPR22-2003 and EN55022:1998+/A1:2000+/A2:2003.
Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.5.   Test facility

Tests have been performed on December 13th, 2005.
The test facility used to collect the radiated and conducted data is the **LCIE** (Etablissement Voiron) facility, located ZI des Blanchisseries, 38500 VOIRON, France. This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4 in a letter dated July 14, 2005 (registration number 94821).

This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.

1.6.   Data sheets of Digigram HR series

See user's manual of PCX cards and the user's manual of VX cards