SONIFEX

Professional Sound Cards &
Radio Capture Cards

2016

Catalogue

Professional Sound Cards

These professional sound cards and radio capture cards were precision engineered in Australia. Use of the highest quality components & excellent electronic design give these cards the flatest frequency response in the business.

PC-AD2 2 Stereo Analogue I/O & 2 Stereo AES-3 I/O PCIe Half Height Sound Card

Category: Professional Sound Cards & Radio Capture Cards.
Product Function: Provides two AES-3 and two balanced analogue audio inputs and outputs for use in a PC.
Typical Applications: Audio workstations, recording studios, automation systems, audio logging, multi-channel playout.
Features:

- 2 independent transformer-coupled AES-3 inputs and outputs.
- 2 independent high level balanced stereo inputs and outputs.
- One of the stereo line inputs can act as a dual mono or stereo mic input with +48V phantom power and limiter.
- 1 AES-11 synchronisation input.
- 2 opto isolated GPIOs.
- 24-bit audio resolution.
- Sampling rates up to 192kHz.
- Asynchronous sampling rate converters on each input.
- Card synchronisation to any input, AES-11 input or other PC-AD2 card.
- 32 and 64 bit drivers for Windows7/8/10, Windows Server 2008/R2, 2012/R2.
- WDM-compliant supporting Wave, DirectSound, DirectShow and Core Audio APIs.
- Simultaneous record/play per channel.

24 BIT 192 kS/s

The PC-AD2 is a dual stereo analogue input/output and dual stereo AES-3 digital input/output sound card in the PCIe half height format. One of the analogue inputs can be used as a mic input, there is a dedicated AES-11 sync input and also 2 GPIOs. It is fully compatible with the Windows™ Wave, DirectSound, DirectShow, MCI and Core Audio APIs, supporting audio up to 24 bit, 192kHz.

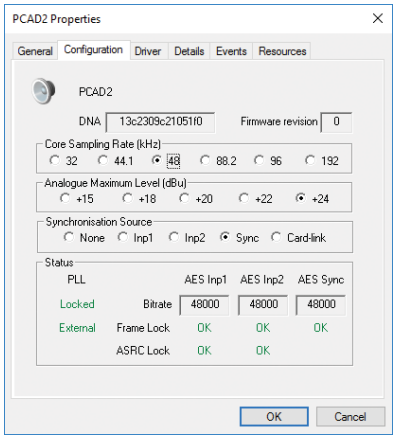
The PC-AD2 is a professional-quality half-height PCIe audio input-output card, offering both analogue and AES-3 stereo inputs and outputs. It is supplied with a Windows WDM driver to provide full sound card functionality on Windows 7, 8, 8.1, 10 and Windows Server 2008 R2, 2012 and 2012 R2. Many of the modern smaller PC systems only have space for half height PCIe cards – the PC-AD2 card has been designed with this in mind allowing a high channel count in a small format card.

The PC-AD2 has two stereo analogue inputs (the first of which can be used as a dual mono or stereo microphone input) and two stereo analogue outputs, two stereo AES-3 inputs and two stereo outputs, a dedicated AES-11 sync input and two general purpose (GPIO) inputs and outputs.

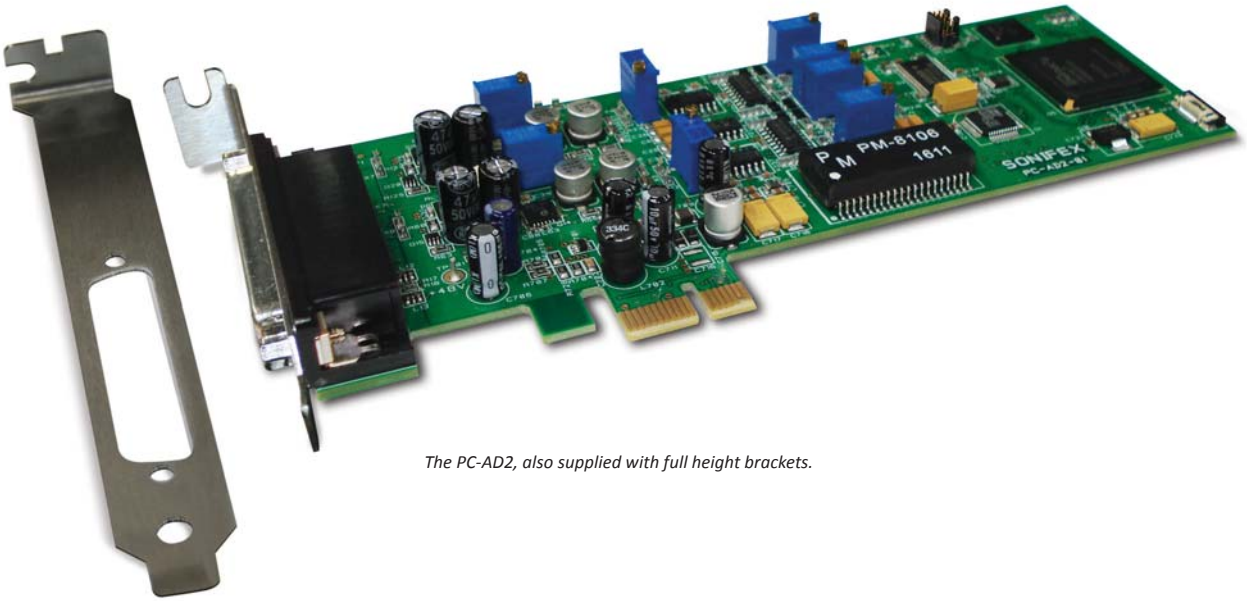
When acting as a microphone input, phantom power can be applied at +48V to the microphone input connection, but is removed if Line Input 1 becomes active. An audio limiter on the mic input automatically reduces the microphone gain if the recording level approaches clipping.

The peak analogue level sets the clipping threshold for the analogue inputs to one of +15, +18, +20, +22 or +24dBu. With the Windows endpoint faders set to maximum, these levels correspond to full scale on the software audio streams.

The card's core sampling rate can be synchronised to an external source chosen from either of the AES-3 inputs, the dedicated AES-11 sync input or by using the inter-card cable (PC-AD2SY) for synchronising to another PC-AD2.



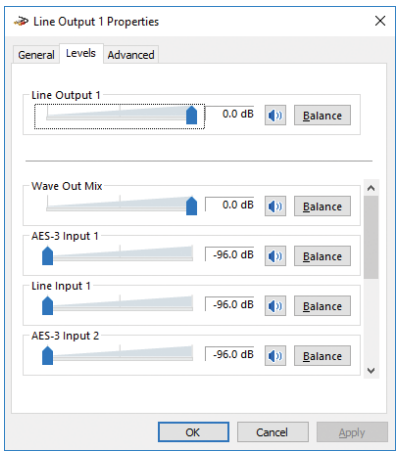
The PC-AD2 Properties/Configuration Page.



The PC-AD2, also supplied with full height brackets.

Independent asynchronous sampling rate conversion on the inputs supports rates from 32kHz to 192kHz, while the output rate can be configured as 192kHz, 96kHz, 88.2kHz, 48kHz, 44.1kHz or 32kHz, either free-running or locked to an AES11 reference on any of the digital inputs. Software sampling rate conversion is automatically inserted by Windows when the application rate does not match the hardware rate, ensuring that files of any sample rate can be played and recorded. Extended software bit depths of 32 and 24 bits are supported as well as 16 and 8 bits for playback and recording. For each AES-3 input, the received sampling rate, frame lock and sampling rate converter status is shown.

The playback and recording topology is virtualised because Windows treats each input source as its own 'endpoint'. Endpoints are the physical audio sources and destinations, such as microphones, speakers and line connectors. Each of the PC-AD2 card's physical line inputs is represented by an endpoint device, and as the hardware has separate A/D converters or AES-3 receivers for each one, they can be used simultaneously. A Microphone endpoint is also created which is shared with analogue Line Input 1 endpoint. The Windows mixer API is virtualised for each application, providing just a mute and volume control for each endpoint and affecting only the audio going to and from that application.



The PC-AD2 Line Output 1 Properties Page.

The PC-AD2 has two optically-isolated general purpose inputs and outputs which are accessed through a programming API supplied with the driver package. A demo program is included with the driver package to illustrate the operation of the GPIO API and to quickly test the GPIO functionality.

All the standard Windows audio APIs are available including the Core Audio API, Wave, DirectSound, DirectShow, MCI and MIDI playback, as are a variety of audio compression modes via the Windows Audio Compression Manager or other software compression systems.

Multiple cards may be installed in a single PC.

A 44-pin high-density D-type connector to XLRs & 9 pin D-type breakout lead is offered as an option, the PC-AD2BC.

Specification for PC-AD2 2 Stereo Analogue I/O & 2 Stereo AES-3 I/O PCIe Half Height Sound Card

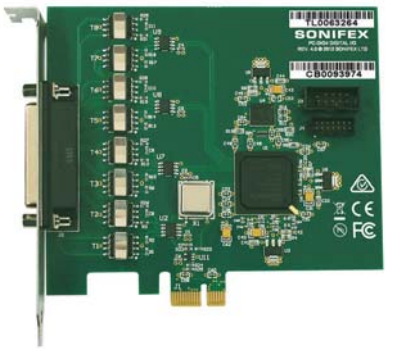
Operating Systems Supported	
Platform:	Windows 7, 8, 8.1 and 10 (32-bit and 64-bit versions Server 2008 R2, 2012 and 2012 R2.
PCIe Specification	
Card Interface:	Single lane PCIe 1.1
Audio Specification	
Analogue Sampling Rate:	32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz or 192kHz
Analogue Resolution:	24 bits
Dynamic Range:	>100dB typical (unweighted)
Analogue THD+N:	< 0.0015% (-96dB)
Analogue Input Interface:	2 x stereo balanced analogue line (1 can be switched to dual mono or stereo microphone)
Analogue Input Impedance:	20kΩ (balanced line), 2.5kΩ (microphone)
Analogue Output Impedance:	120Ω (balanced)
Analogue Maximum Signal:	+15dBu, +18dBu, +20dBu, +22dBu, +24 dBu (software settable)
Microphone Sensitivity:	-58dBu to +2dBu for full scale input
Microphone E.I.N.:	-119dBu (unweighted) (Sample rate 48kHz, max gain, 200Ω source)
Microphone CMRR:	77dB @ 1kHz, 77dB @ 10kHz
Microphone Phantom Power:	+48V (software enabled)
Frequency Response:	Input – 1Hz to 88kHz Output – 1Hz to 88kHz (192kHz hardware sampling rate)
Digital Audio Interface:	2 x AES-3 (formerly known as AES/EBU) inputs/outputs
Digital Input Impedance:	110Ω transformer coupled
Synchronisation Input:	1 x AES-11 input synchronisation:
Output Sampling Rates:	32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz and 192kHz
Input Sampling Rates:	32kHz to 192kHz
Software Sampling Rates:	Any rate from 10Hz to 384kHz
Software Resolution:	32, 24, 16 or 8 bits
GPIO Inputs:	Optically isolated, 2.5 to 50V on (2.5 to 50mA).
GPIO Outputs:	Optically isolated, 5mA max on, 80V max off.
Connector:	44-pin high-density D-type female
Equipment Type	
PC-AD2	2 Stereo analogue I/O & 2 stereo AES-3 I/O PCIe half height sound card
Physical Specification	
Dimensions (Raw):	18cm (L) x 7.0cm (H) x 2cm (D) 7.1" (L) x 2.8" (H) x 0.8" (D)
Dimensions (Boxed):	27cm (L) x 22.5cm (H) x 6cm (D) 10.6" (L) x 8.9" (H) x 2.4" (D)
Weight:	Nett: 0.10kg Gross: 0.20kg Nett: 0.2lbs Gross: 0.4lbs
Accessories	
PC-AD2BC	PC-AD2 full XLR & 9 pin D-type breakout cable
PC-AD2SY	Cable to sync 2 x PC-AD2 cards

PC-DIG4 Digitorc 4, 4 Stereo AES-3 I/O PCIe Sound Card

Category: Professional Sound Cards & Radio Capture Cards.
Product Function: Provides four AES-3 audio inputs and outputs for use in a PC.
Typical Applications:
Audio workstations, automation systems, audio logging, multi-channel playout.

Features:

- 4 independent transformer-coupled AES-3 inputs and outputs.
- 24-bit audio resolution.
- Sampling rates up to 96kHz.
- Asynchronous sampling rate converters on each input.
- Card synchronisation to any input or NTP-locked system clock.
- 32 and 64 bit drivers for Windows XP, & Windows7/8/10.
- WDM-compliant supporting Wave, DirectSound, DirectShow and Core Audio APIs.



The Digitorc 4, 4 Stereo AES-3 I/O PCIe Sound Card

The Digitorc 4 has four AES-3 stereo input and output channels on a Windows platform and is fully compatible with the Wave, DirectSound, DirectShow, MCI and Core Audio APIs.

On the card is implemented both a single lane bus-master PCIe interface and four x 24-bit AES-3 codecs. Independent asynchronous sampling rate conversion on the inputs supports rates from 32kHz to 96kHz, while the output rate can be configured as 96kHz, 88.2kHz, 48kHz, 44.1kHz or 32kHz, either free-running or locked to an AES3 or AES11 reference on any of the inputs. When used with an internet time standard (e.g.ntp.org), a very precise sampling rate can be achieved.

Software sampling rate conversion is automatically inserted by Windows when the application rate does not match the hardware rate, ensuring that files of any sample rate can be played. Extended software bit depths of 32 and 24 bits are supported as well as 16 and 8 bits for playback and recording.

The playback topology consists of a master output level, mute control and peak meter, a wave level and mute control, and input monitor level and mute controls for each of the line inputs. The record topology consists of a master input level, mute control and peak meter, line input level controls for each of the physical inputs and a digital loopback level control and mute. The range on the input and output master controls is -96dB to +6dB, while the individual line controls range from -96dB to 0dB. The mixer functions allow inputs to be mixed back into each output, while a digital loopback is available from each playback channel into its corresponding record channel.
High quality electrostatically-shielded transformers are used on all the inputs and outputs to give superb performance.

Multiple cards may be installed in a single PC.

A 25-pin D-type connector to 8 x XLR breakout lead is offered as an option.

Specification for PC-DIG4 Digitorc 4 AES3 Sound Card

Operating Systems Supported	
Platform:	Windows XP, Server 2003, Vista, Server 2008, Windows 7, Server 2008 R2, Windows 8 and Server 2012 (32- and 64-bit versions), Windows 10
Features	
Card Interface:	Single lane PCI Express version 1.1
Line Interface:	Transformer coupled AES3 (AES/EBU)
Line Output Sampling Rate:	96kHz, 88.2kHz, 48kHz, 44.1kHz or 32kHz (configurable)
Line Input Sampling Rate:	32kHz to 96kHz via independent asynchronous sampling rate converters
Audio Resolution:	24 bits
Sampling Rate Accuracy:	+/- 5ppm
External:	AES11 compliant synchronisation:
Frequency Response:	DC to 43.5kHz (at 96 kHz sampling)
Connector:	25-pin D-type female
Equipment Type	
PC-DIG4	Digitorc 4 4 stereo AES-3 I/O PCIe sound card
Physical Specification	
Dims (Raw):	14cm (L) x 12.5cm (H) x 2cm (D) 5.5” (L) x 4.9” (H) x 0.8” (D)
Dims (Boxed):	27cm (L) x 22.5cm (H) x 6cm (D) 10.6” (L) x 8.9” (H) x 2.4” (D)
Weight:	Nett: 0.10kg Gross: 0.20kg Nett: 0.2lbs Gross: 0.4lbs
Accessories	
PC-DIG4BC	Digitorc 4 XLR breakout cable

PC-AUR44 Auricon 4.4 PCIe Analogue Sound Card

Category: Professional Sound Cards & Radio Capture Cards.
Product Function: Provides four stereo balanced analogue audio inputs and outputs for use in a PC.
Typical Applications:
Audio workstations, automation systems, audio logging, multi-channel playout.

Features:

- 4 independent high level balanced stereo inputs and outputs.
- 24-bit audio resolution.
- Sampling rates up to 192kHz.
- 32 and 64 bit drivers for Windows XP, & Windows 7/8/10.
- WDM-compliant supporting Wave, DirectSound, DirectShow and Core Audio APIs.
- Simultaneous record/play per channel.

The Auricon 4.4 is a professional quality 4 stereo input and 4 stereo output analogue PCIe audio card. The inputs and outputs can be reconfigured as separate mono channels, giving eight inputs and outputs.

It is supplied with a Windows WDM driver to provide full sound card functionality under Windows XP, Server 2003, Vista, Server 2008, Windows 7, Server 2008R2, Windows 8, Server 2012 & Windows 10.

The card uses 24-bit 192kHz sigma-delta converters which pass data to and from the PC via a single lane PCI Express interface. An onboard FPGA provides audio buffering, level adjustment and mixing functions. Hardware sampling rates of 48kHz, 96kHz and 192kHz are available, with the Windows sampling rate converter transparently providing support for other rates. The card supports extended bit depths to 32 bit and the software sampling rate and bit depth (32, 24, 16 or 8 bits PCM) can be set independently for each input and output channel.

Windows Wave, DirectSound and DirectShow API's are supported, as are a variety of audio compression modes via the Windows Audio Compression Manager or other software compression systems. On Windows Vista/ Server 2008 and later systems, the Core Audio API is also fully supported.

There are four configuration settings for the Auricon 4.4, these being Mode (stereo/ mono), H/W Sampling Rate, Input Coupling and Nominal Line Level. The mode may be configured as either stereo or mono. In mono mode the number of input and output channels that Windows sees is doubled. The nominal line level can be set to +8dBu, +4dBu or 0dBu. In each case the clipping level is 16dB above the nominal level. The input coupling can be set to either DC or AC (the default is AC).

The Auricon 4.4 PCIe Analogue Sound Card

The playback topology consists of a master output level, mute control and peak meter, and input monitor level and mute controls for each of the line inputs. The record topology consists of a master input level, mute control and peak meter, and level controls and mutes for the physical input and digital loopback. The digital loopback allows the output of the card to be digitally mixed back into the input. The range on the input and output master controls is -96dB to +6dB, while the individual line controls range from -96dB to 0dB.

Multiple cards may be installed in a single PC.

A 44-pin high-density D-type connector to XLRs breakout lead is offered as an option.

Specification for PC-AUR44 Auricon 4.4 PCIe Analogue Sound Card

Operating Systems Supported		
Platform:	Supports Windows - XP, Server 2003, Vista, Server 2008, Windows 7, Server 2008 R2, Windows 8, Server 2012 (32-bit and x64 versions), Windows 10	
Audio Specification		
Dynamic Range:	114dB typical (unweighted)	
Input Impedance:	20k (balanced)	
Output Impedance:	40Ω (balanced)	
Maximum Signal:	+24dBu (34.6Vp-p)	
Frequency Response:	Input – DC to 88kHz (DC coupling) 1Hz to 88kHz (AC coupling) Output – DC to 88kHz (192kHz hardware sampling rate)	
Connector:	44-pin high-density D-type female	
Equipment Type		
PC-AUR44	Auricon 4.4 PCIe analogue sound card	
Physical Specification		
Dims (Raw):	14cm (L) x 12.5cm (H) x 2cm (D) 5.5" (L) x 4.9" (H) x 0.8" (D)	
Dims (Boxed):	27cm (L) x 22.5cm (H) x 6cm (D) 10.6" (L) x 8.9" (H) x 2.4" (D)	
Weight:	Nett: 0.10kg Nett: 0.2lbs	Gross: 0.20kg Gross: 0.4lbs
Accessories		
PC-AUR44BC	Auricon 4.4 XLR breakout cable	

Radio Capture Cards

Radio capture cards don't have inputs and outputs, other than an aerial to capture the required signal. They allow a PC to record or monitor a number of DAB/DAB+, FM or AM radio channels so are useful for logging and monitoring applications.

PC-DAB1-4 Multi-Ensemble DAB+/DAB Radcap PCIe Card

Category: Professional Sound Cards & Radio Capture Cards.

Product Function: Simultaneous audio capture of multiple DAB services for use in a PC.

Typical Applications:

Audio logging, station monitoring, media tracking.

Features:

- Simultaneous capture of every audio service across multiple ensembles.
- Available in 1, 2, 3 or 4 ensemble versions with field expansion option.
- Tunes Band III (174-240 MHz) using standard European channel numbers.
- DAB+ and legacy DAB supported.
- Each service appears as a standard audio input device.
- 32 and 64 bit drivers for Windows Vista, Windows 7,8,10.
- WDM-compliant supporting Wave, DirectSound, DirectShow and Core Audio APIs.
- API for monitoring, control and PAD extraction.
- Sample application for displaying DLS text and MOT slideshow.

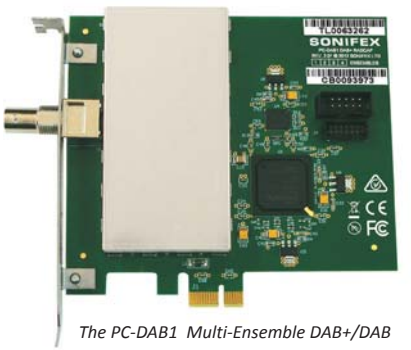
The PCIe DAB+/DAB radio capture card receives and decodes the entire contents of up to four DAB+/DAB ensembles, rendering each audio service as a virtual Windows audio capture device for use with multi-channel recording or monitoring software.

Broadcast data services, including DLS text and MOT slideshows, are also available through a simple application programming interface.

The card supports both legacy DAB MP2 audio coding as well as the new HE-AAC v2 encoding used with DAB+ broadcasts.

Any application that records from standard wave input devices can be used to record the audio streams from the DAB+ Radcap. A recording level and mute control are provided for each service through the devices' mixer ports.

A sample monitor application is included which displays a control panel for each card and creates buttons for each audio service. When a button is clicked, it plays the audio through the default output device while displaying information obtained from the service and any DLS text and MOT images being broadcast.



The PC-DAB1 Multi-Ensemble DAB+/DAB Radcap PCIe.

The number of ensembles is factory-set as 1 (PC-DAB1), 2, 3 or 4 (PC-DAB4) but is field-expandable through a purchased expansion key. Multiple cards can be installed, allowing simultaneous monitoring or recording of more than four ensembles.

A sample application is provided with the card, allowing monitoring of DAB+/DAB audio and data as well as providing diagnostic ensemble spectrum displays, signal quality indicators and an uncorrected error counter. Each card panel displays the ensemble name and identifier, along with the phase reference correlator level and signal spectrum.

Specification for PC-DAB1-4 Multi-Ensemble DAB+/DAB Radcap

System Requirements	
Platform:	Windows Vista, Server 2008, Windows 7, Server 2008 R2, Windows 8, Server 2012 (32-bit and 64-bit versions supported), Windows 10 (Note: Windows XP and Server 2003 are not supported)
Processor:	2GHz quad-core or better
Memory:	1GB minimum
Motherboard:	PCIe socket, single lane or greater
Other:	Sound card or motherboard sound port for monitoring
Specifications	
Tuning Range:	Band III (174-240 MHz)
DAB Format:	Mode 1
RF Input:	BNC connector
PCIe Interface:	Single lane PCIe 1.1
Number of Ensembles:	Factory-configured for 1, 2, 3 or 4 ensembles (field-expandable for an additional fee)
Total Number of Services:	128
Error Correction:	Soft-decision Viterbi inner decoder, Reed-Solomon outer decoder
Audio Decoding:	MP2 and HE-AAC v2
Audio Format:	48kHz 16-bit stereo (other application sampling rates and bit depths supported through the Windows SRC) (24kHz and 32kHz services are internally up-converted to 48kHz)
Decoding Latency:	3 seconds
Equipment Type	
PC-DAB1-4	Multi-ensemble DAB+/DAB radcap PCIe card
Physical Specification	
Dims (Raw):	14cm (L) x 12.5cm (H) x 2cm (D) 5.5" (L) x 4.9" (H) x 0.8" (D)
Dims (Boxed):	27cm (L) x 22.5cm (H) x 6cm (D) 10.6" (L) x 8.9" (H) x 2.4" (D)
Weight:	Nett: 0.10kg Gross: 0.20kg Nett: 0.2lbs Gross: 0.4lbs

PC-FM6-32 FM Radcap PCIe Card (6 to 32 Channels)

Category: Professional Sound Cards & Radio Capture Cards.

Product Function: Simultaneous audio capture of multiple FM radio stations for use in a PC.

Typical Applications:

Audio logging, station monitoring, media tracking.

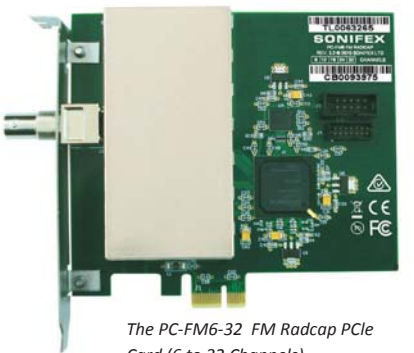
Features:

- Simultaneous capture of multiple FM stations.
- Available in 6, 12, 18, 24 and 32 station versions with field expansion option.
- Tunes 87.5-108.5 MHz in 25kHz steps.
- Stereo and RDS decoding.
- Each station appears as a standard audio input device.
- 32 and 64 bit drivers for Windows XP and all later versions, as well as Debian Linux.
- WDM-compliant supporting Wave, DirectSound, DirectShow and Core Audio APIs (Windows) and ALSA (Linux).
- API for monitoring and control.

The FM Radcap PCIe is a radio capture card designed for simultaneous recording of multiple radio stations. The frequency of each station is set in software and its audio appears as a standard Windows audio input device. RDS decoding is also supported.

The card uses a high-speed A/D converter to digitise the entire FM band, with up to 32 individual tuners. The Radcap achieves exceptionally low audio distortion through the use of linear phase filtering and mathematically precise FM demodulation and stereo decoding. FM demodulation and stereo decoding is done in FPGA fabric, while RDS decoding, if enabled, is performed in the driver using the host CPU's SSE-2 instruction set. This division of labour between the FPGA and driver allows greatest flexibility in catering for future baseband technologies while minimising the CPU overhead of the card.

A WDM driver for Windows XP (SP2 or later), Server 2003, Vista, Server 2008, Windows 7, Server 2008 R2, Windows 8, Server 2012 & Windows 10 is supplied as well as software for setting the tuner frequencies and monitoring the received audio. A programming API and DLL for software control and monitoring are also supplied.



The PC-FM6-32 FM Radcap PCIe Card (6 to 32 Channels).

The card can be configured to operate in stereo, mono or paired mono (two mono stations combined on a 2-channel audio stream) modes. Multiple cards can be used in a single PC, subject to available CPU bandwidth. The audio de-emphasis may also be set to either 50us or 75us. In Australia, New Zealand and Europe 50us is used, while in the USA and Canada 75us is used.

A utility called FMSpectrum is supplied. This displays the RF spectrum from 85MHz to 111MHz, using data from the card's front-end 256-point FFT and may be useful in selecting the best location for the antenna or resolving interference problems.

The card is factory-configured for 6 (PC-FM6), 12, 18, 24 or 32 (PC-FM32) stations, but may be expanded in the field for an additional charge.

Specification for PC-FM6-32 FM Radcap PCIe (6 to 32 channels)

System Requirements	
Platform:	Windows XP (SP2 or later), Server 2003, Vista, Server 2008, Windows 7, Server 2008 R2, Windows 8 and Server 2012 (32-bit and 64-bit versions), Windows 10
Processor:	2.5GHz Pentium 4 or better
Memory:	256 MB minimum (1GB for Vista Windows 7/Server 2008, 2GB for Windows 8/Server 2012)
Bus:	Single lane PCI Express v1.1
Other:	Sound card or motherboard sound port for monitoring
Specifications	
Tuning Range:	87.5MHz to 108.5MHz in 25kHz steps
Sensitivity:	10uV for 40dB S/N
Maximum Input:	150mV RMS
RF Input Impedance:	75Ω
De-emphasis:	Configurable as 50us or 75us
Audio Distortion:	<0.01%
Audio Sampling Rate:	48kHz (all other rates automatically supported via Windows sampling rate converter)
Number of Stations:	6, 12, 18, 24 or 32 (factory configured but end-user expandable)
RDS Decoding:	Optionally enabled in driver configuration
Equipment Type	
PC-FM6-32	FM Radcap PCIe card (6 to 32 channels)
Physical Specification	
Dims (Raw):	14cm (L) x 12.5cm (H) x 2cm (D) 5.5" (L) x 4.9" (H) x 0.8" (D)
Dims (Boxed):	27cm (L) x 22.5cm (H) x 6cm (D) 10.6" (L) x 8.9" (H) x 2.4" (D)
Weight:	Nett: 0.10kg Gross: 0.20kg Nett: 0.2lbs Gross: 0.4lbs

PC-AM6-32 AM Radcap PCIe Card (6 to 32 Channels)

Category: Professional Sound Cards & Radio Capture Cards.

Product Function: Simultaneous audio capture of multiple AM radio stations for use in a PC.

Typical Applications:

Audio logging, station monitoring, media tracking.

Features:

- Simultaneous capture of multiple AM stations.
- Available in 6, 12, 18, 24 and 32 station versions with field expansion option.
- Tunes 500-1610 kHz in 1kHz steps.
- Each station appears as a standard audio input device.
- 32 and 64 bit drivers for Windows XP and all later versions, as well as Debian Linux.
- WDM-compliant supporting Wave, DirectSound, DirectShow and Core Audio APIs (Windows) and ALSA (Linux).
- API for monitoring and control.

The PC-AM6-32 AM Radcap PCIe Card (6 to 32 Channels).

The AM Radcap PCIe card is a radio capture card designed for simultaneous recording of up to 32 radio stations. The frequency of each individual station may be set in software and its audio appears as a standard Windows audio input device.

The AM Radcap uses a high speed analogue-to-digital converter to digitise the entire AM band, with advanced digital signal processing on a Spartan 6 FPGA used to tune and extract the audio for each individual station. It can be configured to either create a separate audio stream for each station or to pair stations together as 2-channel streams.

A WDM driver for Windows XP, Windows 7/8/10 and other versions is supplied as well software for setting the tuner frequencies and monitoring the received audio.

A recording level control, mute control and peak meter are provided for each station (or pair of stations) through the devices' mixer ports. The default level setting is 50%, and at this setting 100% modulation will produce a peak audio level 6dB below clipping.

A utility called AmSpectrum is supplied. This displays the RF spectrum from 500kHz to 1700kHz and may be useful in selecting the best location for the antenna or resolving interference problems. The receiver bandwidth can be set to wide (default) or narrow. The narrow setting restricts the audio response to about 3kHz, which may be useful in noisy environments.

A utility program called Tuner is also supplied which can be used to set the frequency of each station and to monitor each station through the PC's standard sound card or motherboard sound port. The Tuner program also provides relative signal strength indicator bars which may be useful in adjusting antenna placement.

The card is factory-configured for 6 (PC-AM6), 12, 18, 24 or 32 (PC-AM32) stations, but may be expanded in the field for an additional charge.

Specification for PC-AM6-32 AM Radcap PCIe (6 to 32 channels)

System Requirements	
Platform:	Windows XP, Server 2003, Vista, Server 2008, Windows 7, Server 2008 R2, Windows 8, Server 2012 (32-bit and 64-bit versions), Windows 10
Processor:	1GHz Pentium II or better
Memory:	128MB minimum (1GB for Vista and later systems)
Bus:	Single lane PCI Express v1.1
Other:	Sound card or motherboard sound port for monitoring
Specifications	
Tuning Range:	500kHz to 1710kHz in 1kHz steps
Sensitivity:	50uV for 40dB S/N
RF Input Impedance:	50Ω
Filter Attenuation:	82dB at 15kHz or more from centre frequency
Audio Bandwidth:	5kHz
Audio Distortion:	<0.1%
Audio Sampling Rate:	22.05kHz (other rates supported via Windows SRC)
Number of Stations:	6, 12, 18, 24 or 32
Equipment Type	
PC-AM6-32	AM Radcap PCIe card (6 to 32 channels)
Physical Specification	
Dims (Raw):	14cm (L) x 12.5cm (H) x 2cm (D) 5.5" (L) x 4.9" (H) x 0.8" (D)
Dims (Boxed):	27cm (L) x 22.5cm (H) x 6cm (D) 10.6" (L) x 8.9" (H) x 2.4" (D)
Weight:	Nett: 0.10kg Gross: 0.20kg Nett: 0.2lbs Gross: 0.4lbs

SONIFEX

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