



**3907629 Mini PCI Video  
Capture Module  
3907603 Mini PCI Video and  
Audio Capture Module  
3507155 Mini PCI Audio Card**

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Mini-PCI Multimedia Card User's Manual Edition 1.1

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# 1. Product Overview

**3907629, 3907603, 3507155** is a Mini-PCI card for multimedia solution. This card integrated **Conexant Bt878A** video capture codec and **Realtek ALS4000/ALC650** AC'97 audio codec. The **Bt878A** allows for capture of teletext and other data types, and the **ALS4000/ALC650** audio codec can provide you 2-channel/6-channel audio output.

The General features of **Conexant Bt878A** are below:

1. Supports NTSC/PAL/SECAM Video decoding.
2. Supports image resolution up to 768 x 576 (full PAL resolution).
3. Supports complex clipping of video source.
4. Zero wait state PCI burst writes.
5. Field/ Frame masking supports to throttle bandwidth to target.
6. Multiple YCrCb and RGB pixel formats supported output.
7. Image size scalable down to icon using vertical & horizontal interpolation filtering.
8. Multiple composite and S-Video inputs.
9. Supports different program control for even and odd fields.
10. Supports different color space/scaling factors for even and odd fields.
11. Supports planar YUV data format.
12. Supports for mapping of video to 255 color palette.
13. VBI data capture for closed captioning teletext and Intercast data decoding.

The general features of **Realtek ALS4000** are listed below:

1. Single, mixed-signal, high performance VLSI chip.
2. Compatible with DirectSound® & DirectSound3D®, Sound Blaster™, Sound Blaster Pro™.
3. Supports DDMA, Avance Legacy Support for legacy DMAC emulation.
4. Avance ALSFM synthesizer.
5. 3D Effects Processor.
6. 16-bit full-duplex for concurrent recording and playback.

The general features of **Realtek ALC650** are listed below:

1. 18-bit ADC and 20-bit DAC resolution.
2. Compliant with AC'97 2.2 specifications.
3. 18-bit stereo full-duplex CODEC with independent and variable sampling rate.
4. 6 channel slot selectable DAC output for multi-channel applications.
5. 3D Stereo enhancement.
6. Digital S/PDIF output.
7. Digital S/PDIF input.

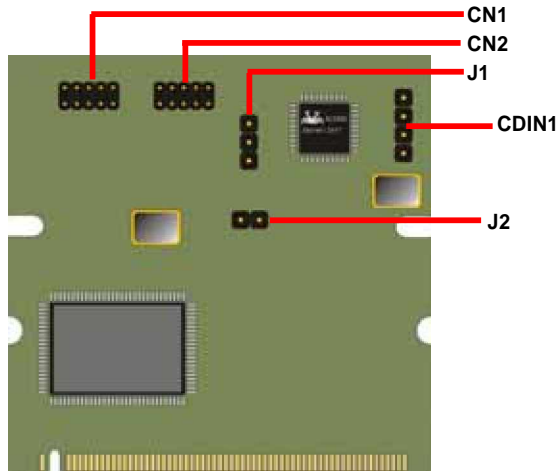
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## 2. Product Specification:

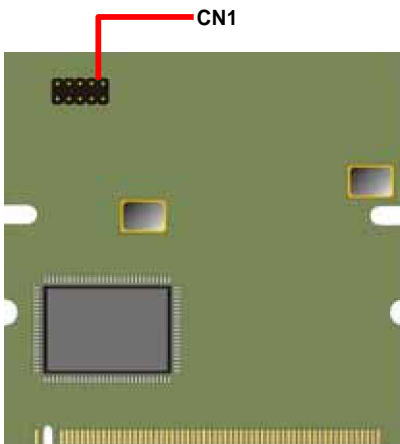
Form Factor	Mini-PCI Type III with 124-pin interface
<b>3907630</b>	
Video Codec	Conexant Bt878A
Audio Codec	Realtek ALC650
Output Function	10-pin video-in connector 10-pin 5.1 channel audio connector 2-pin SPDIF digital audio connector 4-pin CD-in connector
<b>3507155</b>	
Audio Codec	Realtek ALS4000
Output Function	10-pin 2 channel audio connector 4-pin CD-in connector
<b>3907629</b>	
Video Codec	Conexant Bt878A
Output Function	10-pin video-in connector
<b>Mechanical Requirement</b>	
Mechanical Requirement	Two screw holes
Dimensions (W x D)	60mm x 60.75mm
<b>Accessories</b>	
3907630	1 x 10-pin audio cable 1 x 10-pin video cable
3507155	1 x 10-pin audio cable
3907629	1 x 10-pin video cable

### 3. Hardware setup:

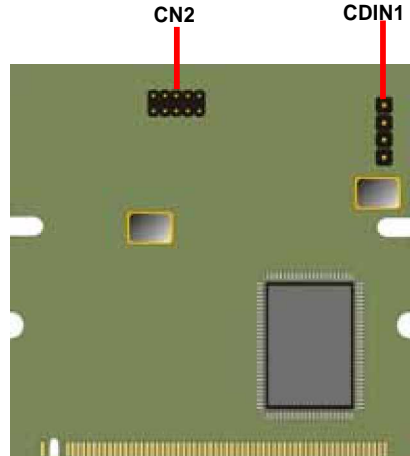
#### 3.1 Jumper and Connector



3907630



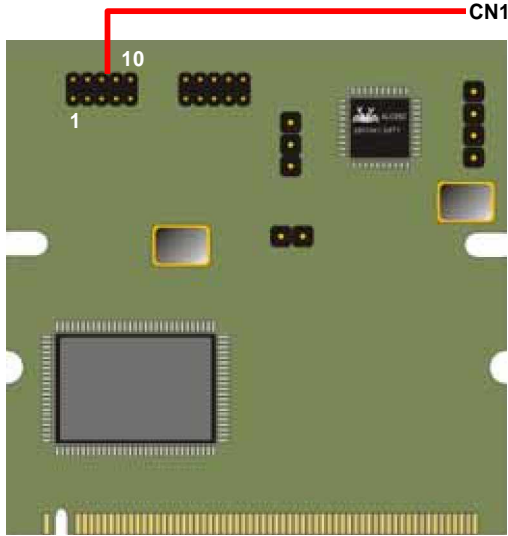
3907629



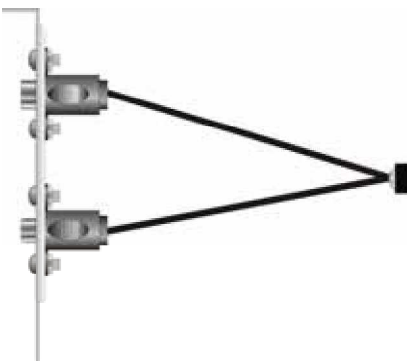
3507155

## 3.2 Video In (for 3907630 and 3907629)

The board's video in function can let you build a video recorder system. The CN1 is a 10-pin header to connect the S-Video/RCA cable in package, or you can follow the pin mapping to create a cable.



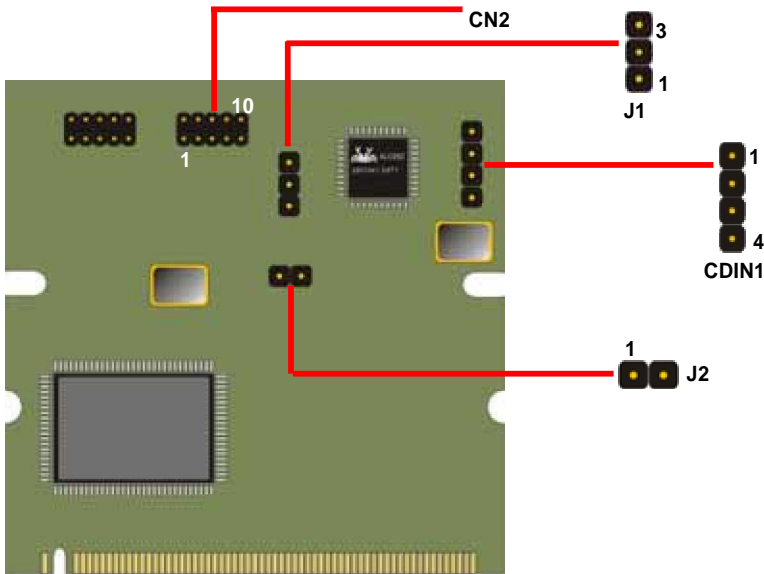
Pin Assignment	Pin Number	Pin Number	Pin Assignment
Ground	1	2	COMPVIDEO
Ground	3	4	Y
Ground	5	6	C
Ground	7	8	TV-IN
Ground	9	10	FM-IN



Please use this cable to connect to CN1  
The pin-1 of the cable would have a  
white mark on the connector

## 3.2 5.1 channel Audio (for 3907630)

The **3907630** built-in a 5.1 channel audio codec, the 10-pin header of **CN2** can let you connect the audio cable in the package for Line-out/Front, Line-in/Rear and MIC-in/Center. The 4-pin **CDIN1** can let you connect the audio port with CD-ROM. The 2-pin **J2** header can let you connect a RCA jack for SPDIF input/output through the jumper **J1** to set.



### Jumper: J1

Type: onboard 3-pin header

J2	Mode
1-2	S/P DIF Output
2-3	S/P DIF Input

Default setting

### Connector: J2

Type: onboard 2-pin header

Pin number	Assignment
1	Ground
2	SPDIF

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**Connector: CDIN1**

Type: 4-pin header

Pin	Description
1	CD – Left
2	Ground
3	Ground
4	CD – Right

**Connector: CN2**

Connector type: Onboard 2x 5pin header, pitch=2.0mm

Pin Assignment	Pin Number	Pin Number	Pin Assignment
LINE_L	1	2	Ground
LINE_R	3	4	MIC1
MIC2	5	6	Ground
N/C	7	8	SPK_L
SPK_R	9	10	Ground

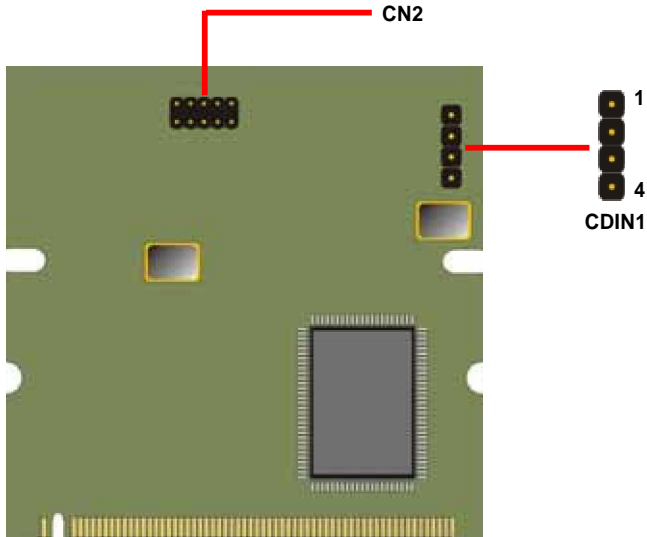


Please use this cable  
to connect to CN2



### 3.2 2 channel Audio (for 3507155)

The **3507155** built-in a 2 channel stereo audio codec. The 10-pin **CN2** can let you connect the audio cable for Line-out, Line-in and MIC-in. The 4-pin **CDIN1** can let you connect the audio port of the CD-ROM.



#### Connector: **CDIN1**

Type: 4-pin header

Pin	Description
1	CD – Left
2	Ground
3	Ground
4	CD – Right

#### Connector: **CN2**

Connector type: Onboard 2x 5pin header, pitch=2.0mm

Pin Assignment	Pin Number	Pin Number	Pin Assignment
<b>LINE_L</b>	<b>1</b>	<b>2</b>	<b>Ground</b>
<b>LINE_R</b>	<b>3</b>	<b>4</b>	<b>MIC1</b>
<b>MIC2</b>	<b>5</b>	<b>6</b>	<b>Ground</b>
<b>N/C</b>	<b>7</b>	<b>8</b>	<b>SPK_L</b>
<b>SPK_R</b>	<b>9</b>	<b>10</b>	<b>Ground</b>