

The information in this document is subject to change without notice and does not represent a commitment on the part of the developer.

THIS DOCUMENT CONTAINS MATERIALS PROTECTED BY COPYRIGHT. ALL RIGHTS ARE RESERVED. NO PART OF THIS MANUAL MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, BY ANY MEANS OR FOR PURPOSE WITHOUT EXPRESS WRITTEN CONSENT.

FCC DECLARATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Radio Frequency Interference Statement.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, Pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio of television reception, which can be determined by turning the equipment off or on, the user is encouraged to try to correct the interference by one or more of the following measures:

Notice :

- (1) The changes or modifications not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

- (2) Shielded interface cables and AC power adapter, if any must be used in order to comply with the emission limits.

CE DECLARATION

This device complies with CE class B.

***EN55022 *EN61000-3-2 *EN61000-4-2**

***EN61000-4-4 *EN61000-4-5 *EN61000-4-11**

Printed in Taiwan R.O.C.

All contents are subject to change without notice.

All trademarks are the property of their respective owner.

CONTENTS

Chapter 1. WELCOME TO GRAND PC2TV WIRELESS	1
1.1 INTRODUCTION.....	1
1.2 FEATURES.....	1
1.3 MODE AND RESOLUTION TABLE.....	2
1.4 SYSTEM REQUIREMENTS.....	3
1.5 PACKAGE CONTENTS.....	3
Chapter 2. INSTALL GRAND PC2TV WIRELESS.....	5
2.1 CONNECTORS OF.....	6
2.2 BUTTONS & SWITCH OF.....	6
2.3 CHANNEL SETTING(TX and RX setting).....	7
2.4 INSTALLATION FOR IBM PC USER.....	7
2.5 STEP BY STEP CONNECTIONS.....	9
Chapter 3. TECHNICAL TIPS.....	12
Chapter 4. TECHNICAL SPECIFICATIONS.....	13
Chapter 5. TROUBLE SHOOTING.....	16

Version : A

Issue: 08, 2002

PN: 34221000

CHAPTER 1 WELCOME TO GRAND PC 2 TV WIRELESS



1.1 INTRODUCTION

Thank you for purchasing the Grand PC2TV WIRELESS. **GRAND PC2TV WIRELESS** is a **VGA to TV** converter with an integrated **2.4GHz Wireless Transmitter & separate Receiver**. Transmit the computer's video and audio to any remote TV. It is ideal for **Internet or DVD/VCD movie viewing**, presentations, baby/patient monitoring, burglary detection, theft prevention, or home/company monitoring.

1.2 FEATURES

- Plug and Display, no software required.
- Supports **four selectable channels and multiple receivers**, transmits, ISM Band from 2410~2470Mhz.
- Simultaneous display on **TV, Remote TV and VGA monitor**.
- Supports **NTSC, NTSC-EIAJ, PAL-B/G/H/I**
- Supports **CVBS, S-VIDEO or RGB** video outputs by switch change (via wired)

connections) .

- Supports RGB output signal on RGB out connector.
- True 24 bit, true color digitizer.
- User controls: **NTSC/PAL , ZOOM , FREEZE , SAVE , SIZE , POWER & Position** adjustments, **RF CHANNEL SETUP, RGB/CVBS OUTPUT SELECTOR.**
- CH-SET tact switch supports functions : CHANNEL 1~ CHANNEL 4.
- LED indicator PAL, ZOOM/FREEZE & POWER.
- Stereo Audio input from sound card or any audio device.
- RF frequency: **CH1=2410MHz, CH2=2430MHz, CH3=2450MHz, CH4=2470MHz.**
- Demodulation Method: FM.
- Frequency Generating: P.L.L..
- Audio Response: 20Hz ~ 20kHz.
- Video Output: 1Vpp/ 75 ohm composite Video.
- Distance : Open area is 100 meters, indoor is 30 meters. (Actual range may vary depending on environment)

1.3 MODE AND RESOLUTION TABLE

This converter supports the following VGA display modes:

	640	800	1024	1152	1280	1600	2048
Resolution	x	x	x	x	x	x	x
	480	600	768	864	960	1200	1536
Vertical	60, 70,72,	60, 70,	60, 70,	60, 70, 72,	60, 70, 72,	60, 70, 72,	60, 70, 72,
Frequency (Hz)	75,85,	72, 75,	72, 75,	75, 85,	75, 85,	75, 85,	75, 85,
	100,120	85, 100	85, 100	100	100	100	100
		120					

This converter supports the following MAC display modes:(for MAC G4,G4 Cubic,G3)

	640	832	800	1024	1152
Resolution	x	x	X	X	X
	480	624	600	768	864
Vertical	60,66,72,75,85,100,	75	56,60,72,	60,70,75	60,70
Frequency(Hz)	120		75,85, 100		

This converter fully supports APPLE iMac and iMAC DV computer display modes

Resolution	640x480	800x600	1024x768
Vertical frequency (Hz)	117	95	75

1.4 SYSTEM REQUIREMENTS

- Desktop or laptop computer with HD15 VGA standard connection.
- TV or VCR that supports NTSC or PAL video standard with composite video input (required for wireless transmission), (or) S-Video input, (or) RGB video input, (or) SCART input connector.

1.5 PACKAGE CONTENTS

This package contains the following items:

- User's Manual

For Tx

- Grand PC2TV WIRELESS Tx
- S-Video cable
- Video cable.
- Audio cable.

- Y cable for IBM PC
- MAC cable for MAC PC (optional)
- Power adapter (DC 6V/800mA)

For Rx

- Grand PC2TV WIRELESS Rx
- Audio/Video Cable for Rx
- Video SCART cable with Audio (for Europe)
- Power adapter (DC 6V/800mA)

		
S-Video cable	Video cable.	Audio cable.
		
Y cable for IBM PC	Audio/Video Cable	Video SCART cable with Audio

CHAPTER 2

INSTALL GRAND PC2TV WIRELESS

The following section shows the function of controlling the **Grand PC2TV WIRELESS**.

Refer to **Figure 1** for the Outline of Grand ULTIMATE WIRELESS.

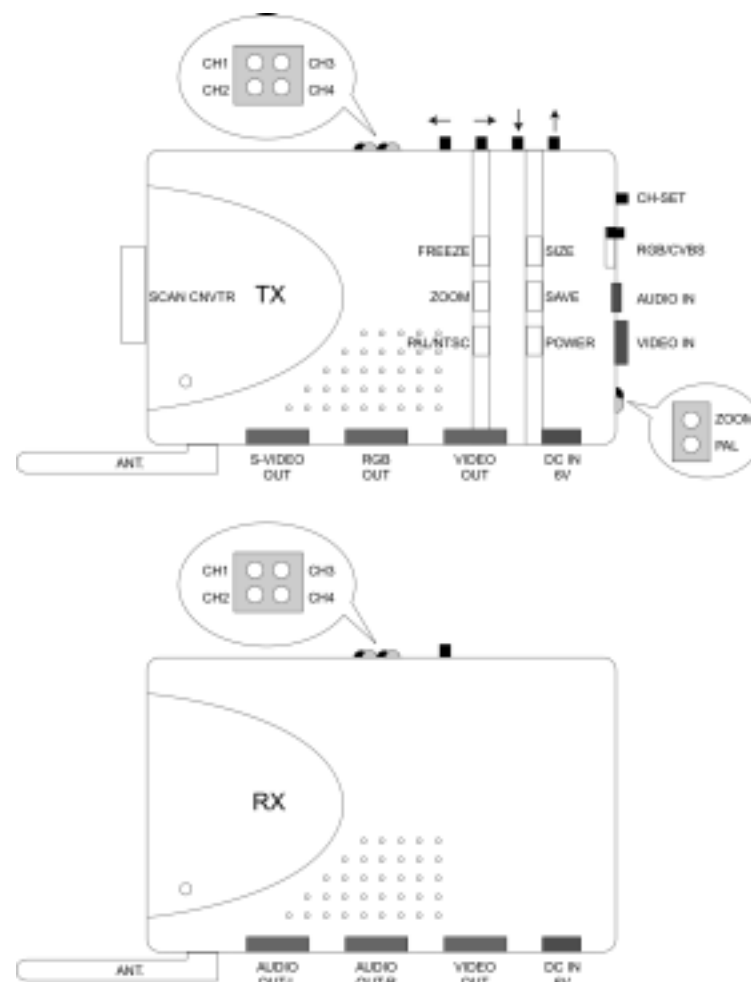


FIG.1 Outline of Grand PC2TV WIRELESS

2.1 CONNECTORS OF GRAND PC2TV WIRELESS

- **SCAN CNVTR :** Connects Y cable to PC, Grand PC2TV WIRELESS and monitor.
- **AUDIO IN:** Connects to sound device or audio output of DVD/ VCD /VCR.
- **VIDEO IN:** Connects to your video device such DVD/VCR/Camera for video pass-through.
- **DC IN :** Connects with supplied AC power adapter.
- **VIDEO OUT:** Connects Grand PC2TV WIRELESS to the Video input of TV.
- **RGB OUT:** Connects to your display device supporting The European SCART Standard with RGB to SCART cable, or other display device with RGB input.
- **S-OUT :** Connects Grand PC2TV WIRELESS to your TV supporting the S-VIDEO input.(Recommend for wired connections)

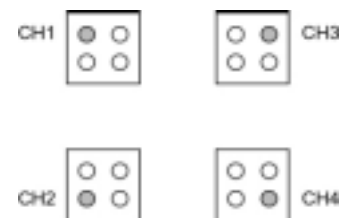
2.2 BUTTONS & SWITCH OF GRAND PC2TV WIRELESS

- **POWER :** Toggle between power on & off.
- **SAVE :** Press this button to save current display and position settings
- **SIZE :** Press the button to select the current display size.
- **FREEZE :** Toggle between freeze and normal display.When is FREEZE mode, the ZOOM LED is flash.
- **ZOOM :** Toggle between Zoom and Normal display for converted computer display. When is ZOOM mode, the ZOOM LED is light.
- **PAL/NTSC :** Press this button to select PAL or NTSC.When is PAL mode, the PAL LED is light.

- **POSITION :** Press up, down, left and right button to adjust the position of the converted TV display

2.3 CHANNEL SETTING (TX and RX SETTING)

- **CH-SET tact switch :** Press the button to select the current channel.



2.4 INSTALLATION FOR IBM PC USER

The Grand PC2TV WIRELESS is a “Plug and Display” video converter. The only requirement to get the output of the computer on the TV is to make the proper connection and ensure that your computer display is set within the supported parameters. Please read the following sections carefully for the installation of the hardware. Please refer to Fig.2 for an overview of the process.

2.5 STEP BY STEP CONNECTIONS

IMPORTANT! Turn your computer OFF before connecting the Grand PC2TV Wireless!

1. Connect the end of the Y Cable that is RED to the port on the PC2TV Wireless labeled SCAN CNVTR (which is also red).
2. Connect the end of the Y cable that is BLUE to the CRT port on the back of your laptop or desktop PC. On a desktop, you may need to first unplug the monitor.



Fig. 3 – Laptop Connection



Fig. 4 – Desktop with Monitor

3. Connect one end of the audio pass-through cable to the AUDIO IN port on the Grand PC2TV Wireless. Connect the other end to the LINE OUT or SPEAKER OUT of your sound card. On a desktop you may first have to disconnect your existing computer speakers.



Fig. 5 – Audio Pass-Through Cable

Fig.2 Grand PC2TV WIRELESS Installation

4. Connect one of the supplied power supplies to the DC IN port on the Grand PC2TV Wireless and then connect the supply to a wall outlet.

NOTE: Connecting anything other than a 6V DC power supply with a center positive connector to the Grand PC2TV Wireless will cause damage to the product and will void the warranty. GrandTec recommends using only the supplied power supplies when using the Grand PC2TV Wireless.

5. Connect the Grand PC2TV Wireless Receiver to your TV using the AV Cable. Plug the power supply to the DC IN of the Receiver and then connect the supply to a wall outlet.



Fig. 6 – Audio/Video Cable

Note: Grand PC2TV Wireless also supports high quality S-VIDEO via the S-video cable. If your TV or VCR supports S-VIDEO IN, we highly recommend you use it to get the best TV picture. This option is not available when transmitting the video wirelessly.

6. Toggle the display input to correspond with the video input you are using. For instance, a TV defaults to the antenna or cable input when it is turned on. You will see either a TV channel or snow. Each TV varies slightly, so you may need to refer to your TV's user's manual for further assistance.
7. If you are experiencing any distortion or interference in the wireless transmission, change the transmission channels. Using a paperclip, change the switches on

both the transmitter and the receiver so that they are on the same channel. Only one switch should be DOWN on each and the switch that is DOWN indicates which channel is in use.

8. If your TV does not have a VIDEO input, you may connect through a VCR's VIDEO IN. Note: Since virtually every VCR is different, please refer to your VCR User's Manual for exact instructions for recording an external video source.

To connect the Grand PC2TV Wireless to a VCR for recording, follow these steps:

1. Using either the RCA or the S-video (recommended) cable, connect from the video out on the Grand PC2TV Wireless to the Video IN on the VCR
2. Using either an RCA or a 75 Ohm coaxial cable connect from the Video OUT on the VCR to the Video IN on the TV
3. Set the TV/VCR switch on the VCR to "VCR"
4. Set the TV to display the video input signal (Refer to TV's User's manual for instruction on displaying an external video source)
5. You should be able to see the converted computer display on the TV
6. Insert a blank tape into the VCR and press "RECORD". Stop the tape after a few moments to test that it is recording.

CHAPTER 3 TECHNICAL TIPS

The following are problems that might arise when using the Grand PC2TV converter, and possible solutions to them.

Q: How can I enhance the display quality?

A: You can usually decrease the contrast and increase brightness control to get the better picture (ON TV).

Q: I connect with a NOTEBOOK PC, no output is displayed on TV.

A: Please refer to your computer's User's Manual to display an external VGA Signal.

(Many Notebook computers have 3 settings, VGA external only, VGA internal only, and VGA internal & external simultaneously)

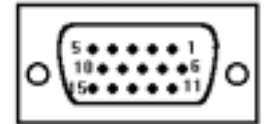
CHAPTER 4 TECHNICAL SPECIFICATIONS

4.1 Transmitter

4.1.1 SCAN CNVTR CONNECTOR

Analog RGB and SYNC signal from 15 pin VGA output port of PC or Notebook PC, and output SYNC signal to monitor.

Pin No.	Signal Description
1	RED IN, 0.7Vpp $\pm$ 0.1Vpp, 75 ohms, from PC
2	GREEN IN, 0.7Vpp $\pm$ 0.1Vpp, 75 ohms, from PC
3	BLUE IN, 0.7Vpp $\pm$ 0.1Vpp, 75 ohms, from PC
4	HSYNC IN, TTL level
5	VSNC IN, TTL level
6	Ground
7	NC
8	Ground
9	Ground
10	Ground
11	RED out, 0.7Vpp $\pm$ 0.1Vpp, 75 ohms, To Monitor
12	GREEN out, 0.7Vpp $\pm$ 0.1Vpp, 75 ohms, To Monitor
13	BLUE out, 0.7Vpp $\pm$ 0.1Vpp, 75 ohms, To Monitor
14	HSYNC OUT, TTL level
15	VSNC OUT, TTL level

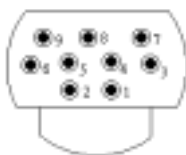


Remark: Case is connected to ground

4.1.2 RGB OUT CONNECTOR

RGB OUT is 9-pin mini-DIN type female connector. It can output RGB or Composite VIDEO signal. Detailed description is below: This connector cannot work with **S-OUT** and **VIDEO OUT** simultaneous. This connector is very useful for Europe's TV with SCART connector.

Pin No.	Signal Description
1	Blue output, 0.7Vpp, 75 ohms
2	RGB enable, +12V output to enable Europe TV RGB input.
3	Green output, 0.7Vpp, 75 ohms s
4	Negative SYNC
5	No connection
6	No connection
7	Red output, 0.7Vpp, 75 ohms
8	Audio output, left channel , 1 Vrms
9	Audio output, Right channel , 1 Vrms



Remark: Case is connected to ground

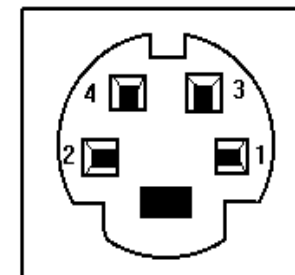
4.1.3 VIDEO OUT CONNECTOR

Composite video out, 1.0Vpp $\pm$ 0.2Vpp 75 ohms, negative sync.

4.1.4 S-VIDEO OUT CONNECTOR

S-OUT connector is a 4-pin mini-DIN connector.

Pin No.	Signal Description
1	GND
2	GND
3	Y (Luminance), 0.7 Vpp $\pm$ 0.2 Vpp, 75 Ω , negative sync
4	C (Chrominance), 0.3 Vpp $\pm$ 0.1 Vpp



4.1.5 AUDIO IN CONNECTOR

Connect to computer audio output (line out) or DVD/VCR/VCD audio output , Input with 1Vrms(max)

4.1.6 VIDEO IN CONNECTOR

Composite video input from DVD/VCR/VCD or security camera, Input level: 1 Vpp

4.2 Receiver

4.2.1 VIDEO OUT CONNECTOR

Composite video out, 1.0Vpp $\pm$ 0.2Vpp 75 ohms, negative sync.

4.2.2 AUDIO OUT CONNECTOR

Connect to computer audio input (line in) or VCR audio input or speaker(amplifier) input, output signal with 1Vrms(max)

CHAPTER 5 TROUBLE SHOOTING

Check the following before requesting service.

Symptom	Point to check
No TV output	Press the video select or AV button of the TV to select the video Input from the Grand PC2TV WIRELESS.
Text not sharp	Use S-Video or SCART connection.
Missing characters	Set the Grand PC2TV WIRELESS to underscan. Adjustment UP/ DOWN/ LEFT/ RIGHT position button to the center screen.
No color	1) Toggle the PAL/NTSC button to match your TV system. 2) If your TV is multi-standard, set the standard to AUTO or the same as that output from the Grand PC2TV WIRELESS.

When you need RMA or advanced technique service, please fill this form as detail as possible and FAX to your dealer.

Product S/N:			
Name:			
TEL No.:		FAX No.:	
E-mail address:			
Full Address:			
Hardware condition:			
Mainboard chipset:			
Mainboard CPU:		CPU clock:	MHz
Main memory:	MB	Cache memory:	KB
VGA card:		Display memory:	MB
Sound card:		Hard Disk:	MB
Other add-on cards:			
Monitor:		Horizontal Freq.:	KHz to KHz
		Vertical Freq.:	Hz to Hz
Problem description:			