

## AVC-TVR

## TV and FM Radio Receiver for PC/104+



### General Description

The **AVC-TVR TV and FM Radio Receiver** is a versatile and highly integrated Multimedia controller card on a compact PC/104+ card format. Utilising the 32-bit PCI architecture and built-in **TV and FM Radio Tuners**, the AVC-TVR provides real-time reception of TV Video and Audio broadcast and also FM Radio broadcast to be viewed on the host system screen. The **TV Tuner** operates over the full TV frequency range from Channel E2 to E69 . The built-in **FM Radio Tuner** provides full **FM Stereo Radio** which can be routed to the host systems Sound card. For in-vehicle entertainment applications, the AVC-TVR provides an additional input for attaching a composite PAL or NTSC video source. This additional source may be used for rear-view mirror functions. The AVC-TVR also features (option) to receive and decode **RDS/RBDS** data commonly used to provide road and traffic information for vehicle applications.

The AVC-TVR is supported by comprehensive SDKs for Windows2000/XP/CE . The AVC-TVR is an ideal solution for Mobile Entertainment Systems (MES).

### Features

- Live Broadcast TV Reception and Display
- Live FM Radio Reception and Decoding
- Live image input from NTSC/PAL/SECAM
- Additional Composite or S-Video input
- RDS (Europe) stream decoding (option)
- RBDS (USA) stream decoding (option)
- Live video overlay on CRT and TFT Panel
- SDKs for Windows2000/XP/CE
- Compact 3.6in x 3.8in PC/104+ form factor
- Single +5V power supply

### Applications

- Embedded TV Receiver
- Smart FM Radio
- Intercast Receiver
- In-Vehicle Entertainment System
- In-Vehicle Information System
- Disc based TV Video Recorder
- Disc based FM Radio Recorder
- Mobile Entertainment Systems (MES)

\*Rev 1.00 subject to change without notification



## AVC-TVTR

## TV and FM Radio Receiver for PC/104+

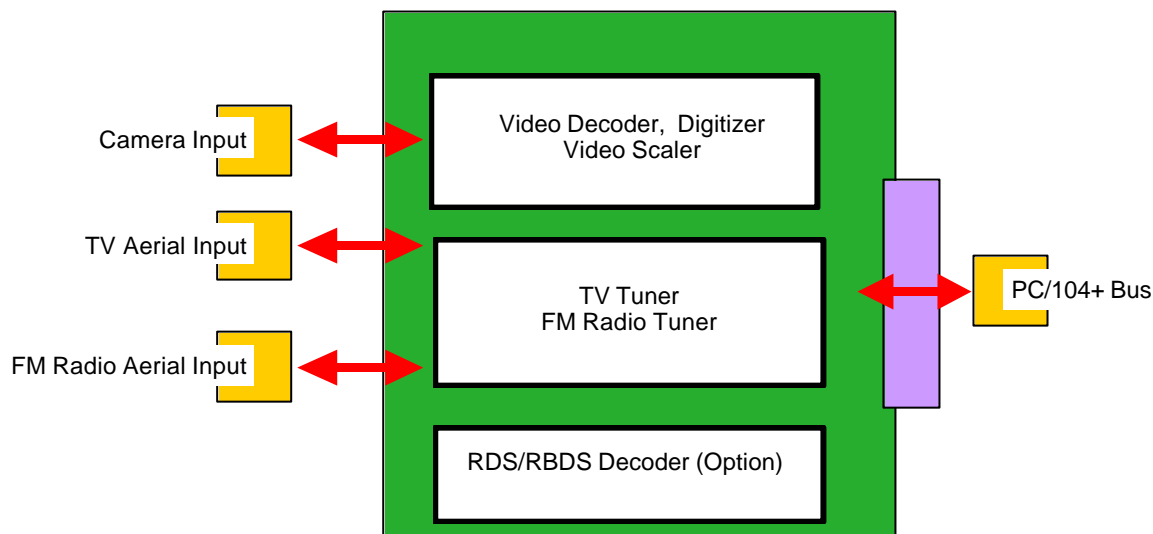
<b>PC104+ Bus Interface</b>	Compliant with PCI Rev 2.1 132MBytes/sec bandwidth at 33.33 MHz bus speed Consumes less than 45MBytes/sec at maximum image capture size Live image burst to host system VGA display controller
<b>TV Tuner</b>	Full frequency TV range From channel E4 (48.25MHz) to E69 (855.25MHz) True-synchronous IF Demodulation Supports CCIR L/L' (France), B/G, I, D/K TV Systems
<b>FM Tuner</b>	Wide FM Radio Band coverage From 87.50MHz to 108.00MHz
<b>RDS/RBDS Decoder (option)</b>	Decoding of European Radio Data System Decoding of USA Radio Broadcast Data System Program Service Name Traffic Program Identification Traffic Announcement Program Identification
<b>TV and FM Audio Input</b>	Three input analogue Audio multiplexer Selection of TV Audio, FM Audio or Microphone Input Audio to systems Sound Card Input
<b>Analogue Video Input</b>	UltraLock digital technology for reliable locking to any video source Three input video multiplexer 2 Composite and 1 S-Video inputs Dual flash Analogue-to-Digital converters 2X oversampling - 28.64MHz for NTSC, 35.47MHz for PAL
<b>Video Input Formats</b>	NTSC-M, NTSC-Japan PAL-B, PAL-D, PAL-G, PAL-H, PAL-I, PAL-M, PAL-N SECAM
<b>Video Input Adjustments</b>	Contrast (or luma gain) adjustable from 0 - 200% of original value Saturation (or chroma gain) adjustable from 0 - 200% of original value Brightness (or luma level) can be adjusted from 0 - 255 steps
<b>Miscellaneous</b>	Single +5V at less than 750mA Operating Temp of 0 to 60degC (Extended Temp option) Standard 3.6 x 3.8in PC/104+ form factor
<b>Software</b>	Comprehensive SDKs for Windows2000/XP/CE Including Drivers and sample applications. Sample applications for video overlay, TV, FM Radio, RDS/RBDS in C/C++ source code Other Operating Systems such as QNX, VxWorks, etc can be supported (contact AMP Ltd).
<b>Ordering Information</b>	<b>AVC-TVTR</b> Standard AVC-TVTR card with FM-Radio and TV Tuners



## Functional Overview



The AVC-TV/R is designed to work with a PC/104+ computer such as the Tiny886ULP or Mobile786EBX. The card plugs into the PC/104+ stack and transfers Video data from TV Aerial or Camera across the PC/104+ bus to the system memory, disk, or Display. Audio from the TV Tuner or FM Tuner is routed under software control to the host system's Sound card. The optional RDS/RBDS processor allows reception, decoding and displaying of road and travelling information such as Program Service name, Traffic Program, Program Identification, etc.



### Ordering Information

#### Hardware

##### **AVC-TV/R**

Standard AVC-TV/R with TV Tuner and FM Radio Tuner

##### **AVC-TV/R/RDS**

As above but also including RDS/RBDS Processor

#### Software Development Kit (SDK)

##### **AVCTVR-Win2K**

TV+FM Radio SDK for Microsoft Windows2000 Operating System

##### **AVCTVR-WinCE**

TV+FM Radio SDK for Microsoft Windows-CE Operating System

##### **AVCTVR-WinXP**

TV+FM Radio SDK for Microsoft Windows-XP Operating System

##### **AVCRDS**

RDS/RBDS SDK

#### Related products

**Audio2000** (multi-channel Sound Card)

**Tiny886ULP** (ultra low power PC/104+ computer)



# AVC-TV Screenshots



FM Radio with RDS  
Rear View Camera



FM Radio Tuning  
RDS Data Display



TV Reception and  
Display

