



US Pinnacle Control Board Specification

Pinnacle is a digital and analogue SMART TV board, that can receive the NTSC analogue television and the ATSC digital television. It can also be used as a WIFI hotspot. Suitable for use in the North American ATSC high-definition TV market.

- TV supports ATSC (meets the performance requirements of A74), NTSC, Clear QAM (meets the performance requirements of ITU-J83).
- Supports USB 2.0 Multimedia Player
- Supports audio and video playback, picture browsing, & USB update.
- Analogue and digital HD input supporting up to 1080P
- HDMI 1.3/1.4 Compliant; HDCP 1.2 Compliant.
- Supports MHL and ARC.
- 3-D video decoding and Chroma separation
- 3-D motion adaptive video de-interlacers with edge-oriented adaptive algorithm for smooth low-angle edges
- 3-D video noise reduction
- Supports Closed Caption (analog CC 608/ analog CC 708/digital CC 608/ digital CC 708),V-chip and SCTE.)
- Supports BTSC/A2/EIA-J demodulation
- Supports digital audio format decoding:MPEG-1, MPEG2-2(Layer I/II),Dolby Digital(AC-3)
- Automatic 3:2 pull-down & 2:2 pull-down detection and recovery
- MStar 5rd Generation Advanced Color Engine (MStarACE-5) automatic picture enhancement
- Reliable EMC and ESD handling
- Support Fast Ethernet (RMII 10M/100M) with built-in Wireless 802.11b/g/n, WIFI and RJ45 interface
- Dual core ARM Cortex-A9 CPU that can run up to 1.5GHz and has a wide bus connecting to the memory sub-system.
- Dual core ARM Mali-400 GPU handling all the OpenGL ES 1.1/2.0.

Features

PANEL	Type	LED
	Resolution	Max. 1920X1080
	Interface	Single/ Double LVDS
	Voltage	5V, 12V
ATV	Input Impedance	75Ω
	Video System	NTSC
	Sound System	M, J, 4.43. BTSC/A2
DTV	Input Impedance	75Ω
	Bandwidth	6MHz
	Modulation	ATSC:8VSB QAM:64QAM, 256QAM
	Video System	MPEG 2 MP@HL
	Sound System	MPEG 1/ layer 1/AC-3
AV	Color system	PAL/NTSC/SECAM
	Video Level	1Vp-p@75ohm
	Audio Level	500mV rms
YPbPr	Video Level	Y:1Vp-p@75ohm, PbPr:0.7Vp-p@75ohm
	Audio Level	500mVrms
	Format	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
HDMI	Video Standard	TMDS
	Format	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
PC	Sync	H: 30-75KHz V: 56-75Hz
	Video Level	0.7Vp-p@75ohm
	MODE	Max 1920X1080@60Hz
SMART	CPU	Amlogic 8726-MX , Dual Cortex A9 upto 1.5GHz
	GPU	Dual core ARM Mail 400 GPU @ 400MHZ
	O/S	Android 4.1.1
	RAM	1GB
	NAND FLASH	4GB
Networking	RJ45 (10M/100M)	
	Built-in Wireless 802.11 b/g/n ,WIFI	
Andriod brain	Android 4.0.4	
OSD Language	English/French/Spanish	
Audio Amplifier	2 X8W @ 8ohm THD<10%	
Standby	< 0.3W(Main Board Only)	

Preset Mode for USB

MEDIA	File type	Codec		Remark
		Video	Audio	
MEDIA	.avi	Xvid,MPEG-2,MPEG-4, H.264,	MP3, WMA AAC, MP2 PCM	The Max Resolution and Frame Rate:1080p@30fps Max Data Rate: 20 Mbps
	.mp4	MPEG-2,MPEG-4,H.264		
	.mpg	MPEG-1,MPEG-2		
	mkv /.mov	MPEG-1/2/4,H.264,	MP2	
	.dat	MPEG-1		
	.vob	MPEG-2		
PHOTO	rm/.rmvb	RV8,RV9, RV10	COOK	The Max Resolution and Frame Rate:1080p@30fps Max Data Rate: 10 Mbps
	.jpg	Progressive JPEG		Max Resolution: 1024×768
	.jpeg	Baseline JPEG		Max Resolution: 15360×8640
	.bmg	.----		Max Resolution: 9600×6400 Pixel Depth: 1/4/8/16/24/32 bpp
	.png	Non-Interlaced		Max Resolution: 9600×6400
Interlaced		Max Resolution: 1200×800		
MUSIC	mp3	---	MP3	Sample Rate: 32K~48KHz Bit Rate: 32K~320Kbps Channel: Mono/Stereo
	wma	---	WMA	
	m4a /.aac	---	AAC	Sample Rate: 8K~48KHz Bit Rate: 24K~384Kbps Channel: Mono/Stereo
TEXT	txt	ANSI/UNICODE GB/UTF8		File Size:Max 1MB

- Note
- 1) Support hard disk. the maximum storage capacity is 400Gb.
 - 2) Folder in support of the greatest depth is 30
 - 3) Only support single audio channel audio format and dual-audio channel audio format Operation Instructions
 - 4) Hi Speed FS, FAT32, FAT16, NTFS compressed file is not supported

Connector Details

Front View:



Side View:



Your Aquavision TV also has an RJ48, 10 way auxiliary connector and 2 x IR connection sockets fitted to the daughter board that is positioned centrally along the bottom edge of the LCD Panel.

This is an unmodulated signal.

The RJ48 is designed for use with the Aquavision RSP5, Remote Switch Panel, and also with the relay interface module.

RJ48 Pin layout	RJ48 pin number	Function
	PIN 1	GND/OV
	PIN 2	ON/OFF
	PIN 3	VOL+
	PIN 4	VOL-
	PIN 5	PG+
	PIN 6	PG-
	PIN 7	TV/AV
	PIN 8	LED G
	PIN 9	LED R
	PIN 10	5V/VCC



HEAD OFFICE AND FACTORY
 Aquavision
 Unit 7 Riverpark, Billet Lane
 Berkhamsted, Hertfordshire
 HP4 1HL
 United Kingdom
 +44 [0]1442 872665

AMERICAN OFFICE
 Aquavision, Inc.
 #197
 5 Southside Drive, Suite 11
 Clifton Park, NY 12065
 America
 +1 800 524 1804



sales@aquavision.tv
 sales@aquavision.us

www.aquavision.tv
 www.aquavision.us