

AL362B-DMB-A0 4K HDMI Quad DEMO Board

Version 1.1



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Revision History

Revision	Revision History	Author	Date
1.0	Release version 1.0	Ken Liu	10.20.2017
1.1	Add display mode	Ken Liu	12.07.2017

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1 Key Features

- Four 1080 60p HDMI signal inputs and 4K2K 30p/1080 60p HDMI output.
- 4K2K quad view and full screen display.

2 Application

• Multi-view and Quad display for monitor

3 System Installation

This section indicates how to setup the Quad Box for demonstrating quad mode and full screen mode on 4K2K TV.



- Connect the DMB and 4K TV with an HDMI cable.
- Connect the 4 x 1080 60p DVD players to the Quad Box's HDMI connectors.
- Plug in the Quad Box with 5V DC power.



Front Panel

Rear Panel



Remote Controller



Keypad button and Remote Control Description

Keypad	Remote	Function	Description
		This button is used to switch between the different display modes	
Mode	Mode	Mode	Please refer to below section of "Display Mode"
		CH-1/Audio	 It is used to display channel 1, also used to select/enable sub channel in PIP mode. (PIP can't be enable on Remote control)
IN1	IN1 IN1		CH1 →CH1+Sub-CH2 →CH1+Sub-CH3 →CH1+Sub-CH4 →CH1→
			2. Press 3 seconds for enable CH1 audio or disable CH1 audio.
		 It is used to display channel 2, also used to select/enable sub channel in PIP mode. (PIP can't be enable on Remote control) 	
IN2	IN2	CH-2/Audio	CH2 →CH2+Sub-CH1 →CH1+Sub-CH3 →CH1+Sub-CH4 →CH2→
			2. Press 3 seconds for enable CH2 audio or disable CH2 audio.
		CH-3/Audio	 It is used to display channel 3, also used to select/enable sub channel in PIP mode. (PIP can't be enable on Remote control)
IN3	IN3		CH3 →CH3+Sub-CH1 →CH3+Sub-CH2 →CH3+Sub-CH4 →CH3→
			2. Press 3 seconds for enable CH3 audio or disable CH3 audio.
IN4 IN4	IN4	CH-4/Audio	1. It is used to display channel 4, also used to select/enable sub channel in PIP mode. (PIP can't be enable on Remote control)
		CH4 →CH4+Sub-CH1 →CH4+Sub-CH2 →CH4+Sub-CH3 →CH4→	

		2. Press 3 seconds for enable CH4 audio or disable CH4 audio.
Audio		Reserved
$\leftrightarrow \rightarrow$		Reserved
Quad		Quad display
FHD/UHD	Output resolution	FUD- 1080 60p output display UHD- 4K2K 30p output display

Display Mode





Remote Control - Mode Key



4 Kit Content









Remote Controller

5 Firmware Update



5.1 Firmware Download Procedure

You can upload a new function code to the DMB with below tools.

• Windows AP-

USB Debug Tool (USB-DebugTool-DMB-A2) application program (AverLogic.exe)

😳 AverLogic.exe
Target_0.bin
😓 Target_1.bin

• USB Debug Tool (USB-DebugTool-DMB-A2)

Connect the USB Debug cable with bridge board







PIN 1-	RED
PIN 2-	BROWN
PIN 3-	GREEN
PIN 4-	YELLOWE
PIN 5-	ORANGE
PIN 6-	BLACK
PIN 7-	PURPLE
PIN 8-	GREY
PIN 9-	WHITE
PIN10-	BLUE

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5.2 Firmware download

You don't need to provide system with power when you are in the upload mode.



Connect the short pin's header to DEMO board.



6 DEMO H/W Board Block Diagram



7 Mechanical Specification



8 System specification

Function	Description
Input Resolution	HDMI x4 1080 60p
Output Resolution	HDMI 4K2K 30p or 1080 60p
Audio	HDMIx4 inputs/ I2S to HDMI output
Dimensions	213mm x 100mm
Power	4K30p-5V 1.60 A ; 1080p 5V 1.53A
HDMI Receiver	IT6604 x4
HDMI Transmitter	Sil9136CTU HDMI 1.4
Video Processor AL362	4K 4-Channel Video Processor
	MCU – Built-in MCU8051
	OS – None OS
	Memory- Built-in LP DDR
	Flash – Built-in SPI flash 8M-bit

9. Electrical Characteristic

Conditions	Description
Power	5V 2.5A
Operating Temperature Range	0~+70°C
Storage Temperature Range	-40 ~ +125°C

CONTACT INFORMATION

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