101211 – HDMI to SDI converter



User Manual

- Manual #: RGB-RD-UM-M204 E001
- Revision: V1.4

101211 User Manual

Thank you for choosing our products!
In order to allow you to learn how to use the Mini Converter quickly, we bring you the detailed user Manual. You can read the introduction and directions before using the video processor, please read all the information we provide carefully to use our products correctly.

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This equipment has been tested and found to comply with the limits for a class A 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 commercial environment. This equipment generates, uses and radiates radio frequency energy and, if not installed or used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference, in which case the user will be responsible for correcting any interference.

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Operators Safety Summary

The general safety information in this summary is for operating personnel.

Do Not Remove Covers or Panels

There are no user-serviceable parts within the unit. Removal of the top cover will expose dangerous voltages. To avoid personal injury, do not remove the top cover. Do not operate the unit without the cover installed.

Power Source

This product is intended to operate from a power source that will not apply more than 230 volts rms between the supply conductors or between both supply conductor and ground. A protective ground connection by way of grounding conductor in the power cord is essential for safe operation.

Do Not Operate in Explosive Atmospheres

To avoid explosion, do not operate this product in an explosive atmosphere.

Terms in This Manual and Equipment Marking



WARNING

Highlight an operating procedure, practice, condition, statement, etc, which, if not strictly observed, could result in injury or death of personnel.

Note

Highlights an essential operating procedure, condition or statement.



CAUTION

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Amendment Records

The table below lists the changes to the Mini Converter User Manual.

Format	Time	ECO#	Description	Principal
V1.0	2009-12-17	0001#	Release	LISA
V1.1	2009-06-10	0002#	Add “Quick Start”.	LISA
V1.2	2010-09-28	0003#	Change the product shell.	LISA
V1.3	2013-06-24	0004#	Change the integral style of product and user manual.	Vira
V1.4	2013-08-05	0005#	Change the application diagram.	Vira

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1. Brief Introduction

This chapter is designed to introduce you to the HDMI to SDI converterUser Manual. Areas to be covered are:

- Chapter Structure
- How to Use The Manual
- Terms and Definitions
- System Overview
- Application Questions

Chapter Structure

The following chapters provide instructions for all aspects of HDMI to SDI converter operations.

Chapter 1 Brief Introduction

Chapter 2 Hardware Orientation

Chapter 3 Functional Description

Chapter 4 Dial Switch Function

Chapter 5 Communication Software Guideline

Appendix A Specification

Appendix B Contact Information

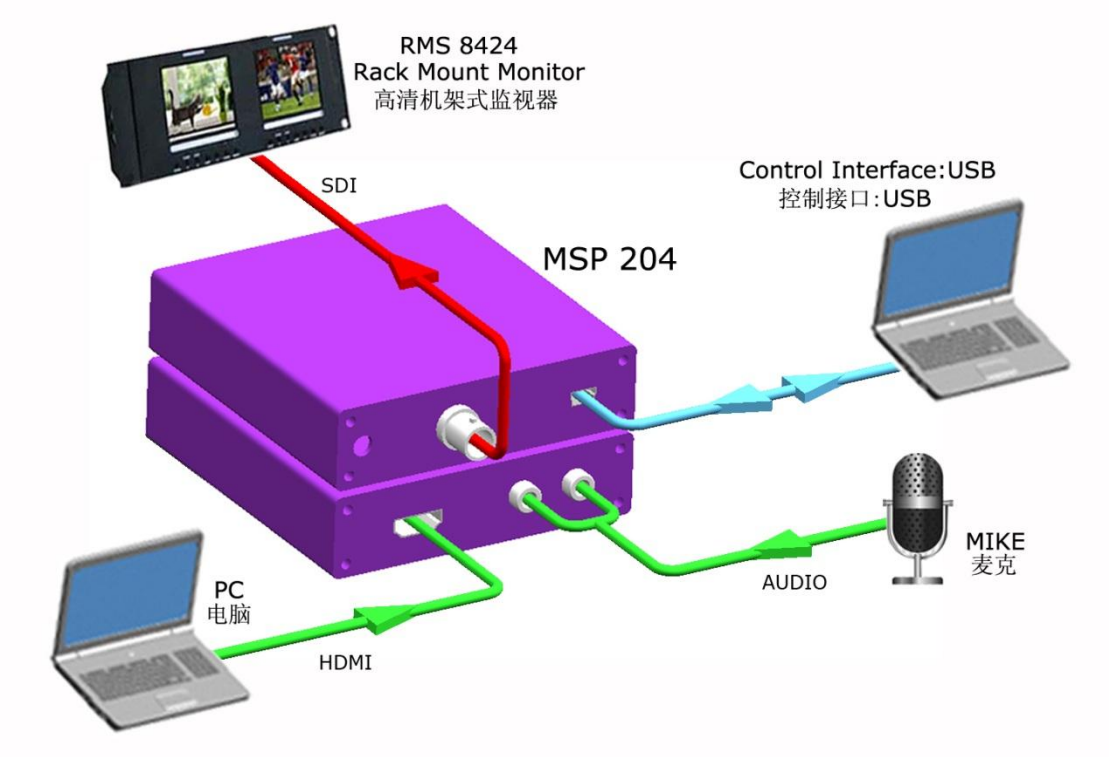
System Overview

HDMI to SDI converter is the HDMI to SDI video converter, which can realize the

switching from HDMI to 3G/HD/SD-SDI perfectly. It supports 1 HDMI input, 2 balanced analog audio input or 1 digital AES/EBU input, and 1SDI output. HDMI to SDI converter supports input and output resolution of 480i, 576i, 720p, 1080i and 1080p, also supports left and right analog sound channel input, digital AES/EBU input, HDMI embedded audio input and mute function. It can adapt to multiple rates of SDI signal, including 3G-SDI, HD-SDI and SD- SDI. Easy operation. It is really the best bridge for HDMI to broadcasting SDI application!

Application Questions

DMT offers solutions to demand technical problems. Any application questions, or required further information, please contact with our Customer Support Engineers. Refer to Appendix B for contact details.



2. Hardware Orientation

In This Chapter

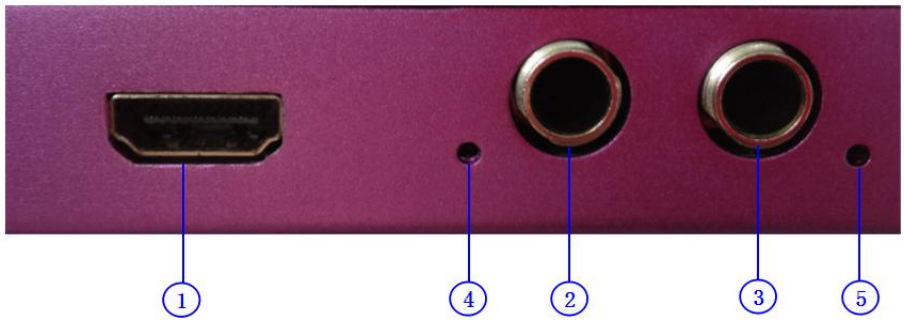
This chapter provides detailed information about the HDMI to SDI converter hardware. The following topics are discussed:

- Interface Description
- Dial Switch

Interface Description

INPUT Interface

It includes 1 HDMI input, 2 balanced analog audio input or 1 digital AES/EBU input. The figure below illustrates the professional interface of HDMI to SDI converter.



1：HDMI Input

HDMI input interface, input the video signal from HD player, DVD player and computer, etc.

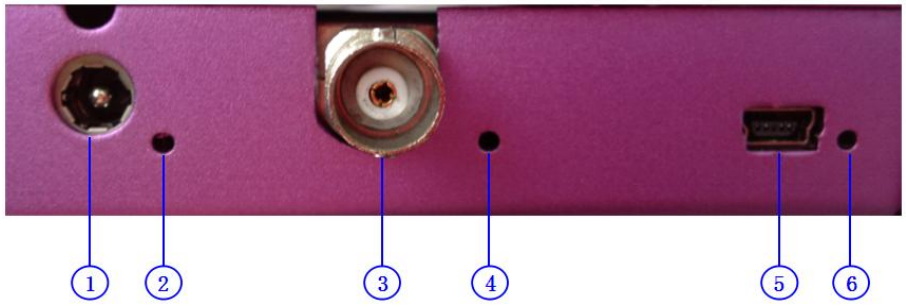
2.3：Audio Input Interface

Audio input interface, input audio signals from DVD player, set top box, hardware player, etc.

4.5：Indicator

When input analog audio signal, LED indicator4, 5 light, when input digital AES/EBU signal, LED indicator4 lights.

OUTPUT and Other Interface



2. Hardware Orientation

Interface Description

3：SDI Output Interface

SDI output interface, can connect the next level device with SDI interface.

5：USB Interface

USB interface, used to control the computer.

1：Power

This device uses the standard 12V/3A power supply.

2.4.6：Indicator

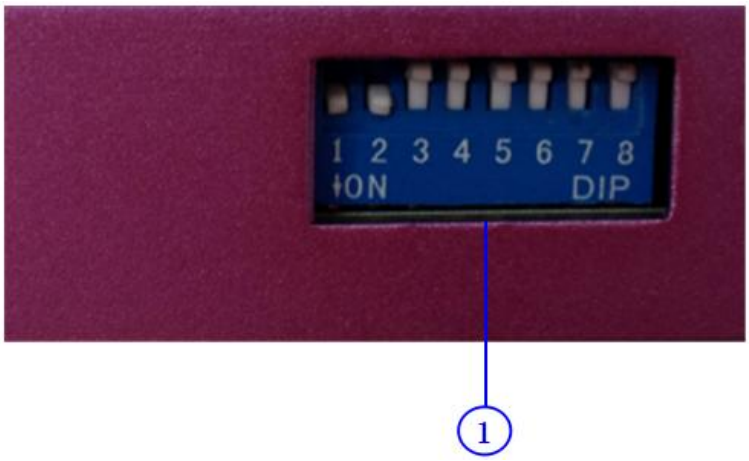
Power indicator 2 lights when device has power supply.

LED indicator 4 lights when output SDI signal.

LED indicator 6 lights when connect USB to computer.

Dial Switch

Dial switch shown as follows:



1. Dial Switch

The dial switch upwards is OFF, downwards is ON.

For specific operation and instructions, please refer to chapter 4:

Dial Switch Function.

3. Functional Description

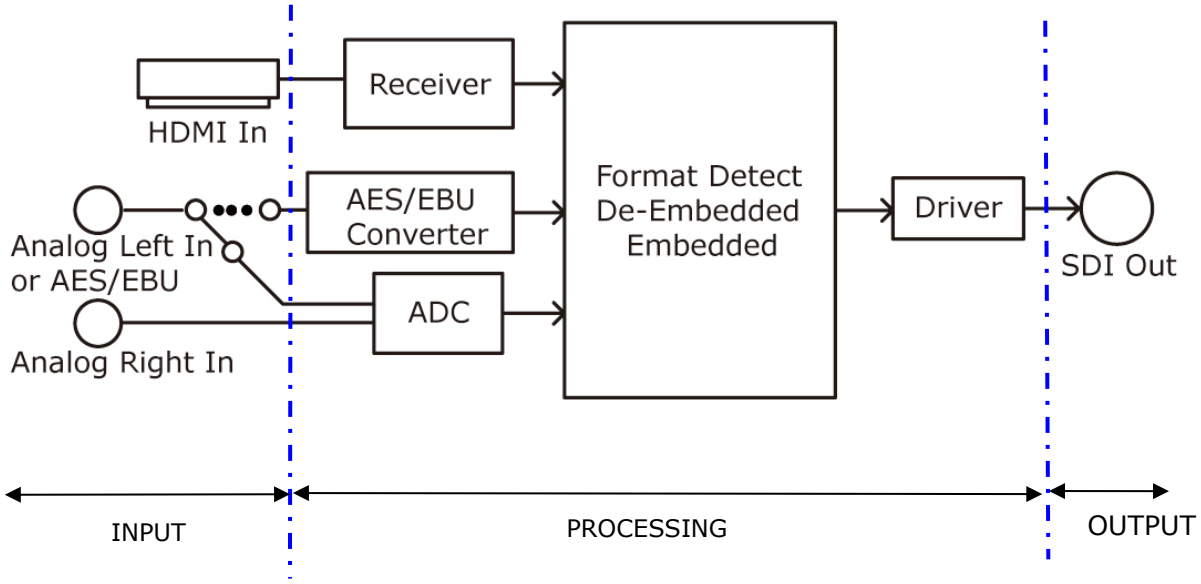
Functional Description

1. HDMI input to SDI output.
2. Support input and output resolution of 480i, 576i, 720p, 1080i and 1080p.
3. Support left and right analog sound channel input, digital AES/EBU input, HDMI embedded audio input and mute function.
4. The LED indicator beside SDI interface lights when output SDI signal.

   When input analog audio signal, the LED indicators beside L-ANALOG and R-ANALOG light.

   When input digital AES/EBU signal, the LED indicator beside L-ANALOG or AES/EBU lights.

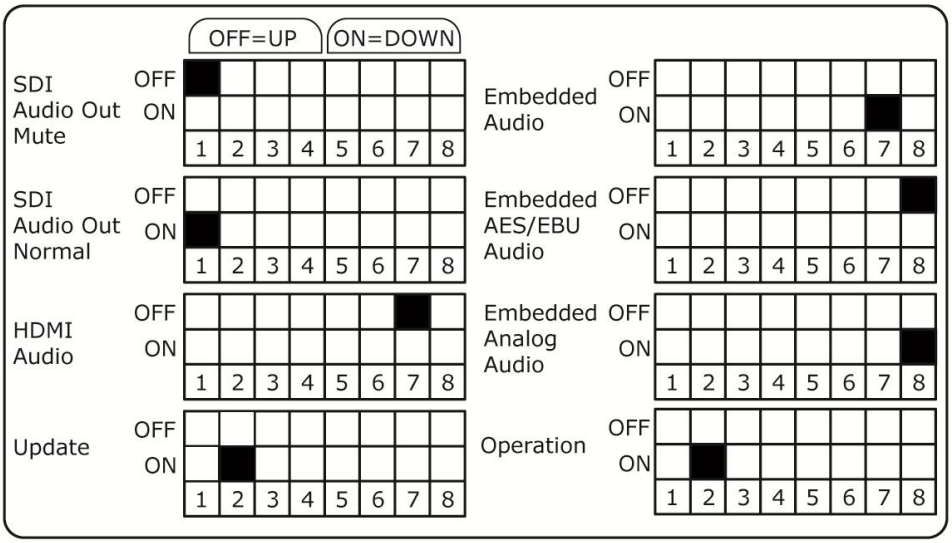
Functional Description Block Diagram



4. Dial Switch Function

Functional Description Block Diagram

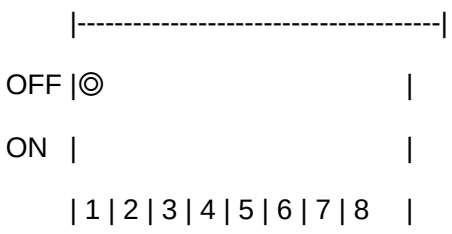
In this chapter, we will introduce the operation and instructions of dial switch, following is the functional description block diagram:



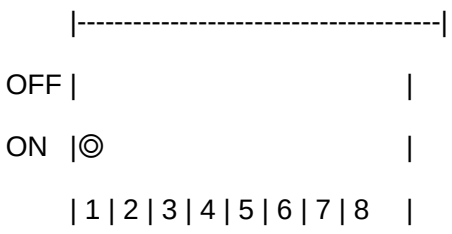
Instructions

The dial switch upwards is OFF, downwards is ON：

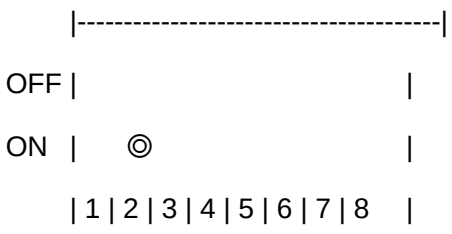
1. Dial switch1 OFF: mute.



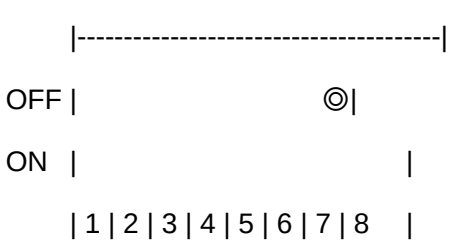
2. Dial switch 1 ON: cancel mute.



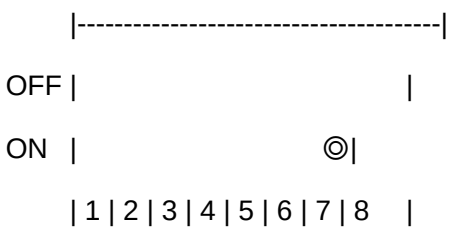
3. Dial switch 2 must be set to ON.



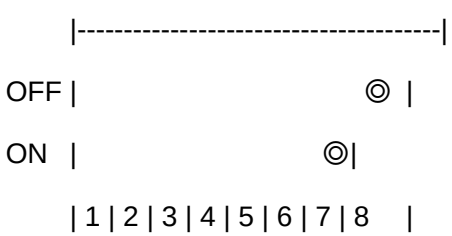
4. Dial switch 7 OFF: HDMI embedded audio output, no analog audio and AES/EBU audio output.



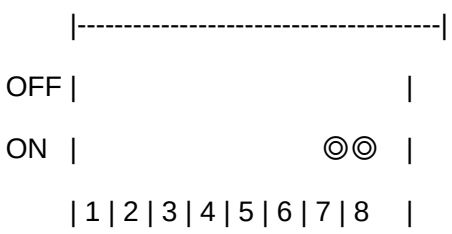
5. Dial switch 7 ON, no HDMI embedded audio output, analog or AES/EBU audio output (depend on dial switch 8).



6. Dial switch 7 ON, dial switch 8 OFF: AES/EBU output, no analog audio output.



7. Dial switch 7 ON, dial switch 8 ON: L-analog and R-analog audio output, no AES/EBU output.

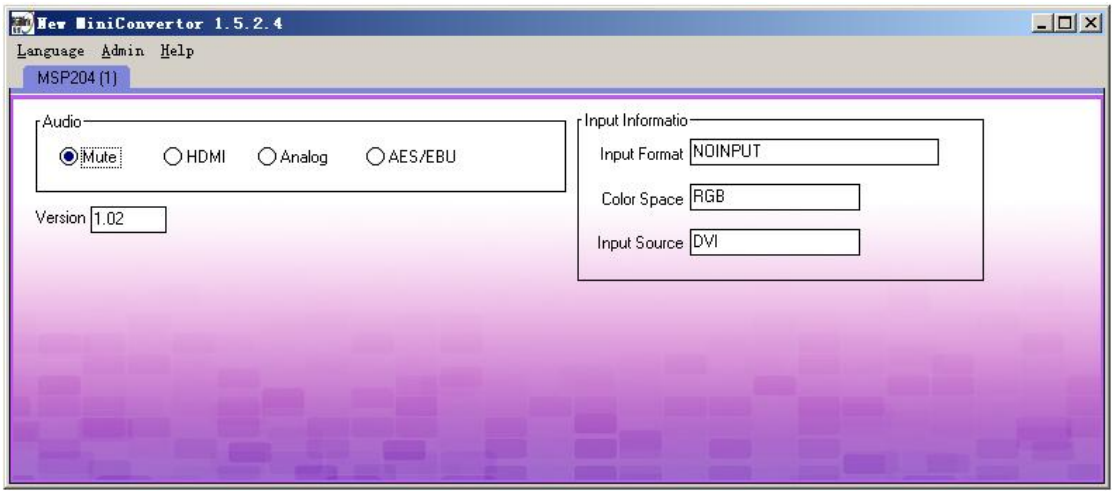


5. Communication Software Guideline

AVMSP series mini converter is equipped with user-friendly communication control software. User can set the audio display source and so on.

Running Software

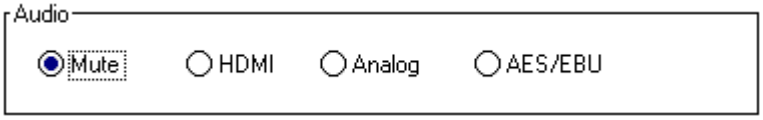
Double-click AVMSP software , HDMI to SDI converter software interface is shown as follows:



Use

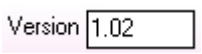
Audio

Click the option box to select audio input source, including mute, HDMI, analog or AES/ EBU, for example, choose mute:



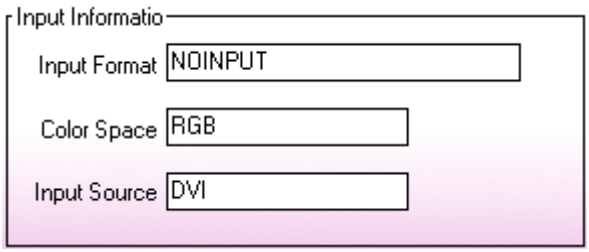
Version

Show the current device version information, the current version is 1.02 as shown beow:

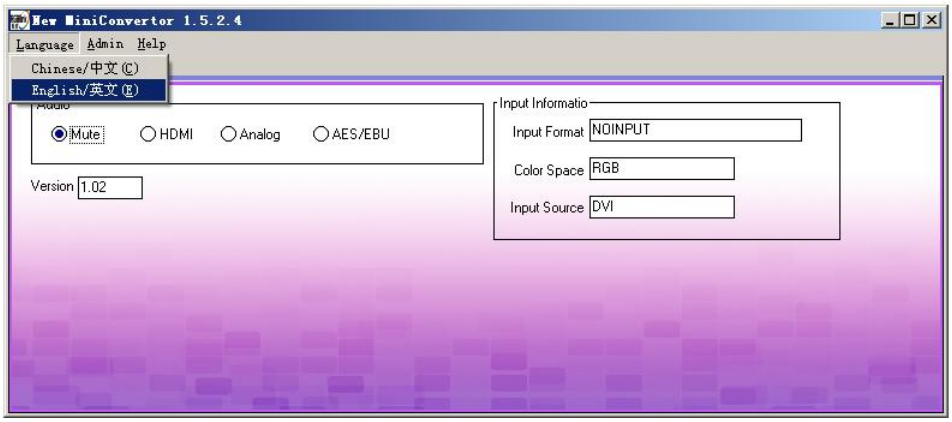


Input Information

Show the current input information, including input format, color space and input source.



【Video Processor】 **options**

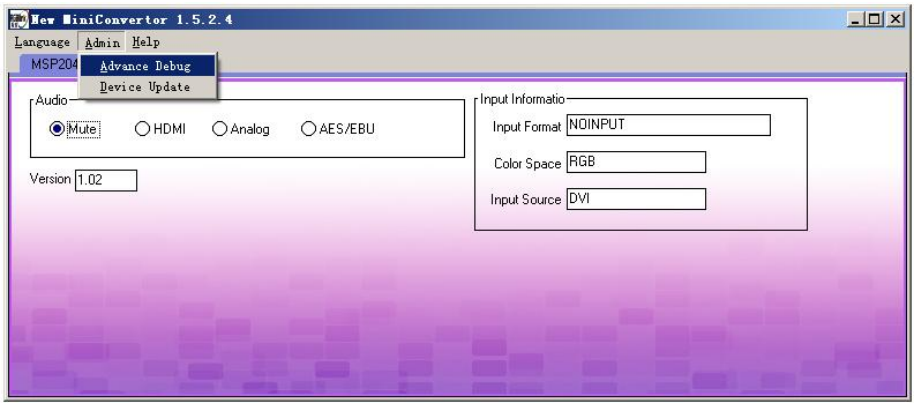


Language

This software supports both Chinese and English, User can switch the language by “language” option.

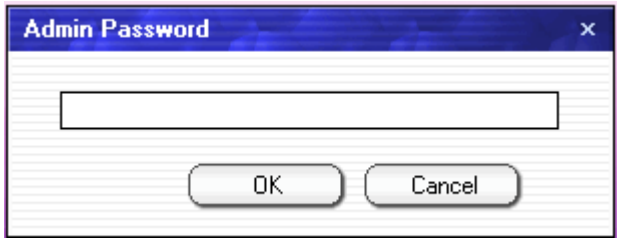
Admin

Including “Advance Debug” and “Device Update”:



Advance Debug：User should input the password in the “Admin Password”

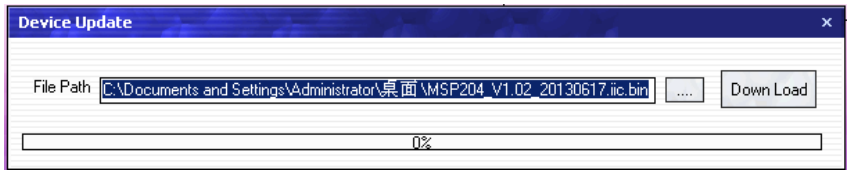
dialog for advance debug.



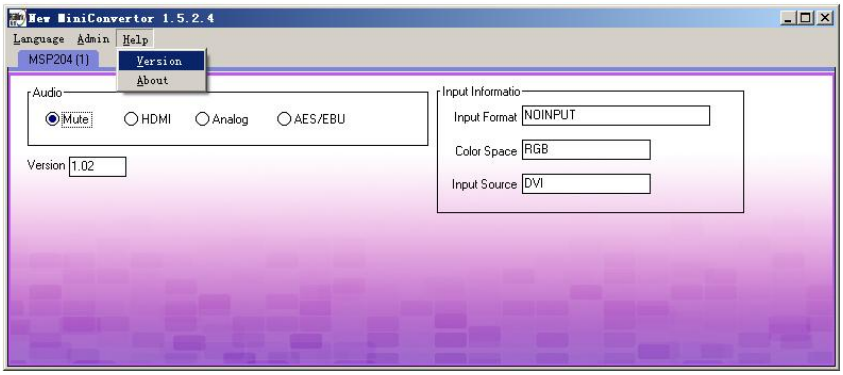
Note

Advance is only done by engineer. If need, please connect us for password.

Device Update:



Help



Version: Show the content of software update.

About: Show software version and company information.

A. Specification

HDMI input	
Number of inputs	1
Connector	HDMI standard type A interface
Input resolution (Supported Standards)	625/25 PAL, 525/29.97 NTSC, 720p50/59.94/60, 1080i50/59.94/60, 1080p23.98/24/25/29.97/30, 1080P50/59.94/60
Embedded Audio Channels	Choose 1 in 4
Standard	HDMI 1.3
Audio input	
Number of inputs	2
connector	Standard 1/4” socket
Audio standard	48Kbps 24bit balance analog audio, or 48KHz AES audio
SDI output	
Number of outputs	1
Connector	BNC interface
Output resolution （Supported Standards）	625/25 PAL, 525/29.97 NTSC, 720p50/59.94/60, 1080i50/59.94/60, 1080p23.98/24/25/29.97/30, 1080P50/59.94/60
Equalization	Belden 1694A 100m HD 1.485G，350m SD 270Mbps
Function	
PPM	No support
TSL	No support
Format Conversion	No support
Frame Rate Conversion	No Support
Extras	
Assignment control	USB or dial switch
Power Supply	+12V standard 3.5” interface power module
Working Environment	0°C~45°C
Stored Environment	10% to 90%
Product Warranty	3-year parts and labor warranty

B. Contact Information

Warranty:

All video products are designed and tested to the highest quality standard and backed by a full 1-year parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. DMT warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

The customer shall pay shipping charges when unit is returned for repair.

Company Address

Highlite International BV

Vestastraat 2
6468 EX Kerkrade
The Netherlands
0031-45-5667700