

# High-speed Interface Bridge LSI for 4K-video

[ HDMI to HDMI ] MN869124



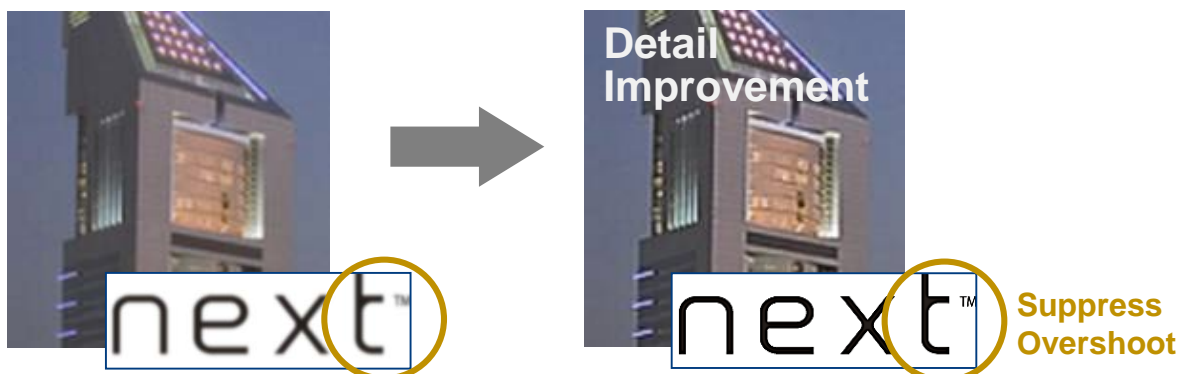
## ■ Overview

MN869124 is one of “HV series” that are high-speed interface bridge LSIs for 4K-video. This LSI supports color space conversion for input video. HDMI inputs and output support HDMI2.0/1.4 with HDCP2.2/1.4 contents protection.

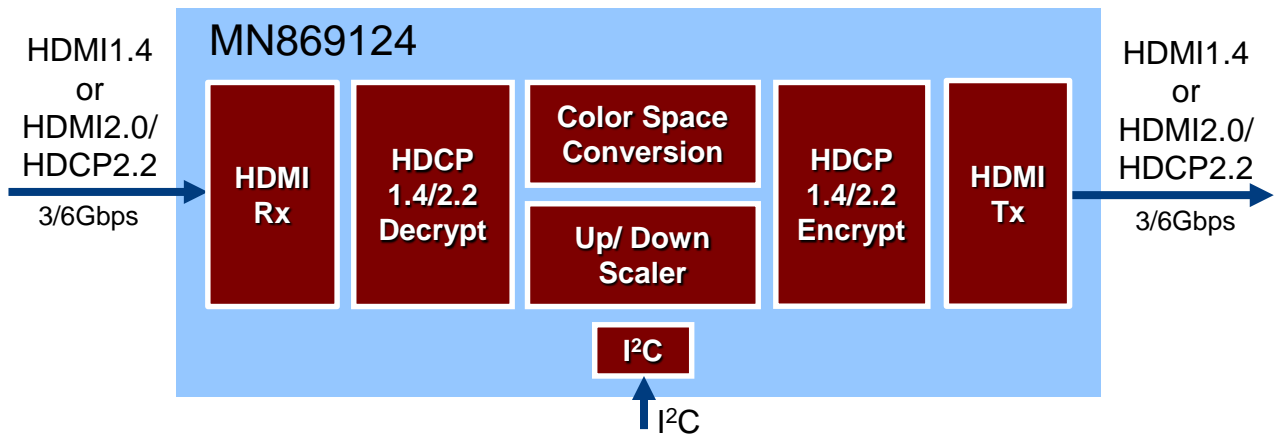
- **Input** : HDMI2.0/1.4 (max. 60Hz), HDCP2.2/1.4 support
- **Output** : HDMI2.0/1.4 (max. 60Hz), HDCP2.2/1.4 support
- **Color space conversion**
- **Up/ Down-scale conversion (Option)**

\* 'HDMI' is a trademark or registered trademark of HDMI Licensing, LLC.

## ■ 2K to 4K Up-scale conversion with “SUPER RESOLUTION” (Option)



## Internal Configuration



## Specifications

Function		Specifications
<b>Package</b>		Type: FBGA, Size: 17mm square
<b>I/O</b>	<b>HDMI input</b>	4 ports (HDMI2.0/1.4, HDCP2.2/1.4)
	<b>HDMI output</b>	1 port (HDMI2.0/1.4, HDCP2.2/1.4)
<b>Color Space Conversion</b>		Refer to the following table.
<b>Up/ Down Scale Conversion</b>		<ul style="list-style-type: none"> <li>2K to 4K Up-scale Conversion with Super Resolution (Option)                             <ul style="list-style-type: none"> <li>* Frame Rate: 24Hz, 25Hz, 30Hz, 50Hz, 60Hz</li> </ul> </li> <li>4K to 2K Down-scale Conversion (Option)</li> </ul>
<b>Frame Rate Conversion</b>		None
<b>Audio</b>	<b>Input</b>	I <sup>2</sup> Sx4(8ch), SPDIFx1
	<b>Output</b>	I <sup>2</sup> Sx4(8ch), SPDIFx1
<b>Power</b>		1.2V/ 3.3V

## Color Space Conversion

Input \ Output			YCbCr / xvYCC					sRGB	
			ITU-R BT.601		ITU-R BT.709			Limit Range	Full Range
			422	444	420 (4k only)	422	444	444	444
<b>YCbCr /xvYCC</b>	<b>ITU-R BT.601</b>	422	✓	✓	✓	✓	✓	✓	
		444	✓	✓	✓	✓	✓	✓	
	<b>ITU-R BT.709</b>	420 (4K only)	✓	✓	✓	✓	✓	✓	
		422	✓	✓	✓	✓	✓	✓	
		444	✓	✓	✓	✓	✓	✓	
<b>sRGB</b>	<b>Limit Range</b>	444	✓	✓	✓	✓	✓	✓	
	<b>Full Range</b>	444	✓	✓	✓	✓	✓	✓	

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