

# High-speed Interface Bridge LSI for 4K-video [ HDMI to V-by-One® HS ]

## MN869125



### ■ Overview

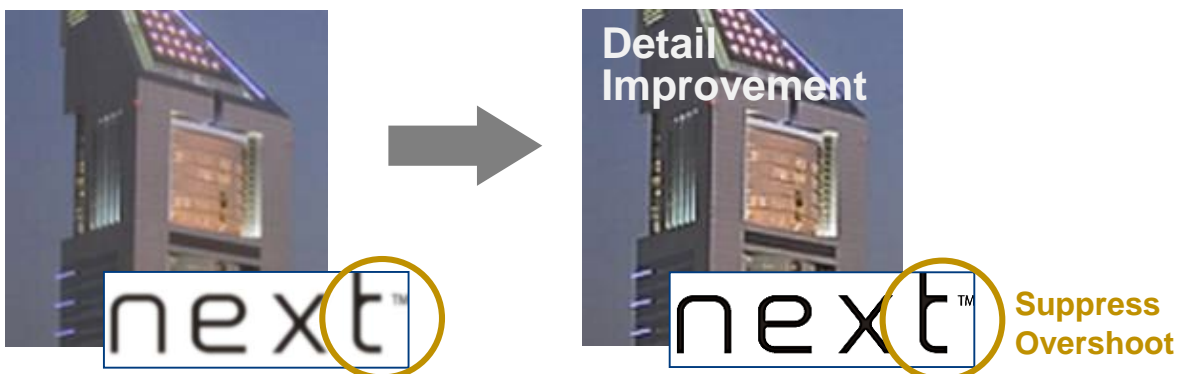
MN869125 is one of “HV series” that are high-speed interface bridge LSIs for 4K-video. This LSI enables to convert HDMI format to V-by-One® HS format for 4K contents. HDMI inputs support HDMI2.0/1.4 with HDCP2.2/1.4 contents protection.

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

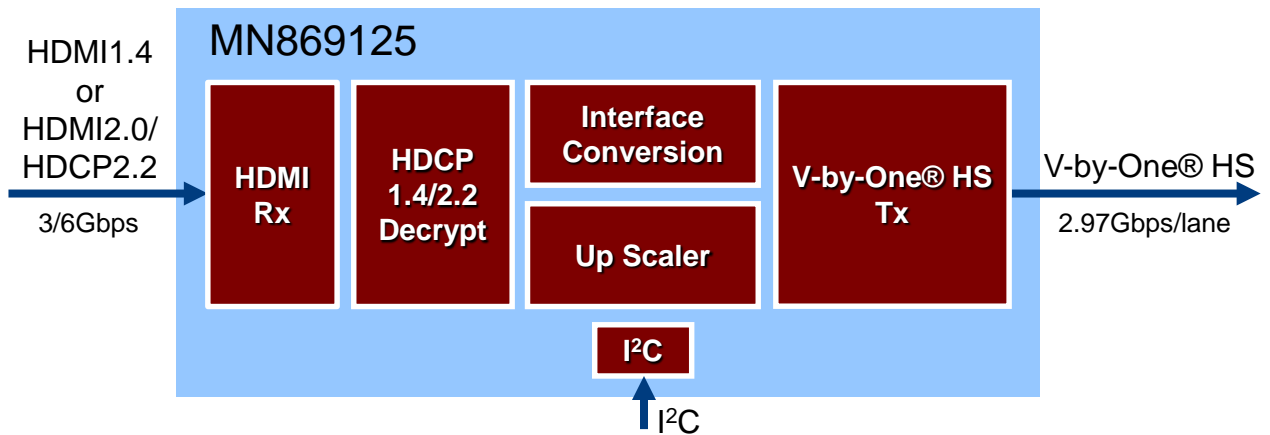
\* 'HDMI' is a trademark or registered trademark of HDMI Licensing, LLC.

\* “V-by-One®” is a trademark of THine Electronics, Inc.

### ■ 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>V-by-One® HS output</b>	8 lane (24Gbps)
<b>Color Space Conversion</b>		Refer to the following table.
<b>Up-scale Conversion</b>		<ul style="list-style-type: none"> <li>• 2K to 4K Up-scale Conversion with Super Resolution (Option)</li> <li>* Frame Rate: 24Hz, 25Hz, 30Hz, 50Hz, 60Hz</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	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	✓	✓	✓	✓	✓	

The Products and product specifications described in this document are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements. All company names, brand names and trademarks herein are property of their respective owners.

Copyright 2015 Socionext Inc.  
AD04-00063-1E July 2015  
Edited : Visual System Business Unit

### Socionext America

1455 McCarthy Blvd.  
Milpitas, CA 95035  
Main Office +1-844-868-1795  
www.socionextus.com