

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

## MN869125



### ■ Overview

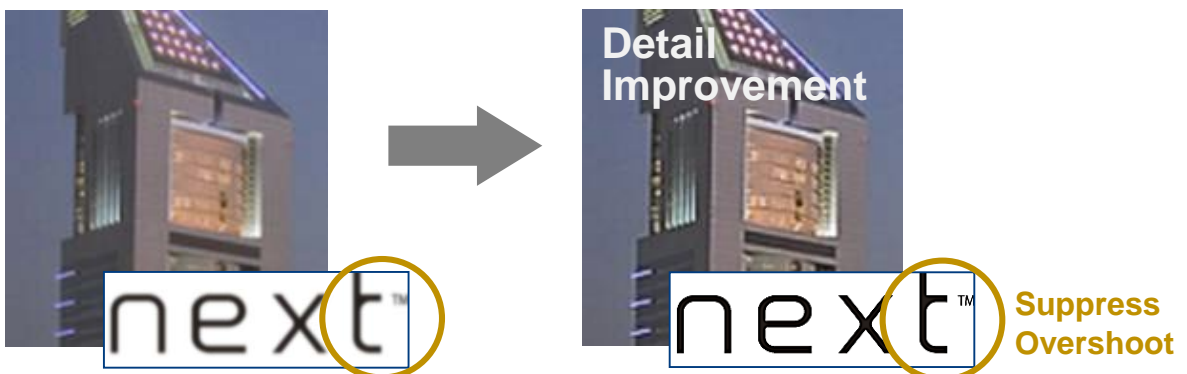
MN869125 is one of “HV series” that are high-speed interface bridge LSIs for 4K-video. This LSI enables to convert HDMI format to V-by-One® HS format for 4K contents. HDMI inputs support HDMI2.0/1.4 with HDCP2.2/1.4 contents protection.

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

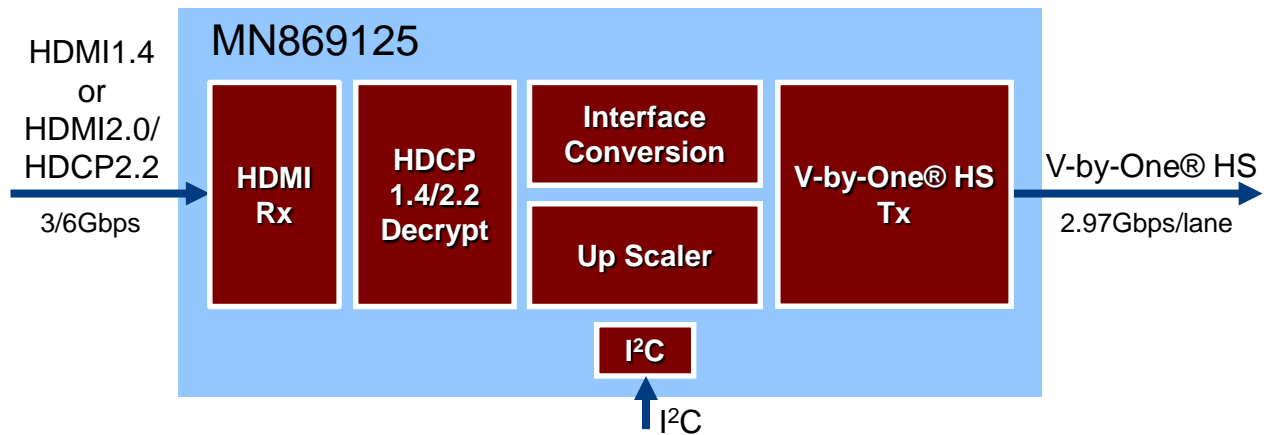
\* 'HDMI' is a trademark or registered trademark of HDMI Licensing, LLC.

\* “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>	I²Sx4(8ch), SPDIFx1
	<b>Output</b>	I²Sx4(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	✓	✓	✓	✓	✓	

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