

# High-speed Interface Bridge LSI for 4K-video [ HS-LVDS to V-by-One® HS ] MN869133



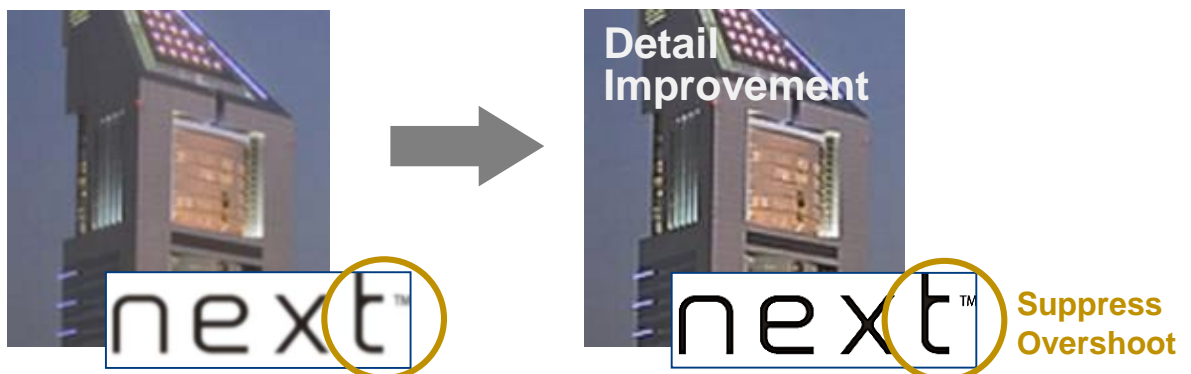
## ■ Overview

MN869133 is one of “HV series” that are high-speed interface bridge LSIs for 4K-video. This LSI enables to convert HS-LVDS format to V-by-One® HS format for 4K contents. This LSI supports frame rate conversion and color space conversion for input video.

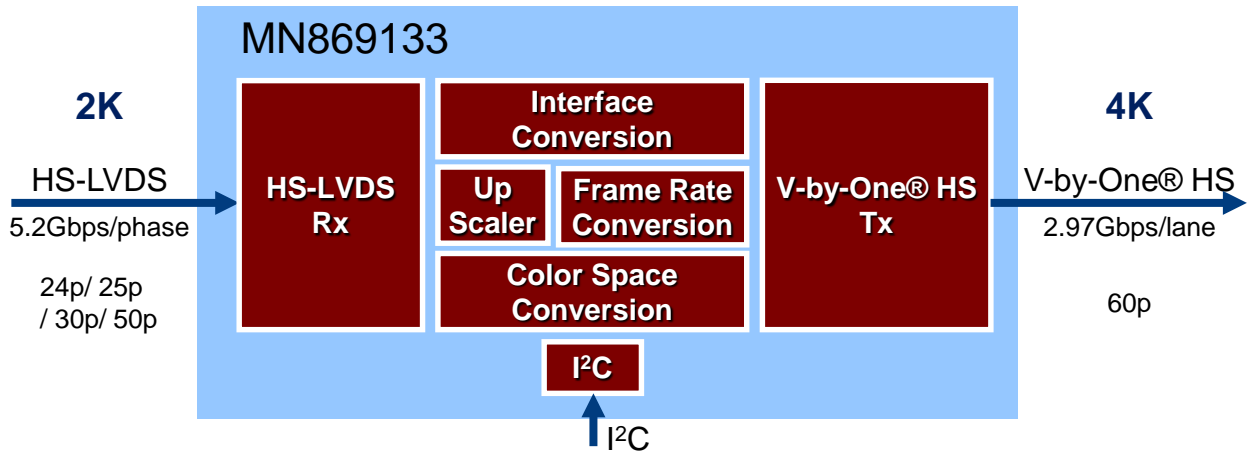
- **Input** : HS-LVDS (2K)
- **Output** : V-by-One® HS (4K)
- **Frame rate conversion:** 24p/ 25p/ 30p/ 50p to 60p
- **Up-scale conversion**

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

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



## Internal Configuration



## Specifications

Function		Specifications
<b>Package</b>		Type: FBGA, Size: 17mm square
<b>I/O</b>	<b>HS-LVDS input</b>	2 phase (10.4Gbps)
	<b>V-by-One<sup>®</sup> 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</li> <li>* Frame Rate: 24Hz, 25Hz, 30Hz, 50Hz, 60Hz</li> </ul>
<b>Frame Rate Conversion</b>		24p/ 25p/ 30p/ 50p to 60p
<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/ 1.5V/ 3.3V

## Color Space Conversion

Input \ Output			YCbCr / xvYCC		sRGB	
			ITU-R BT.709		Limit Range	Full Range
			422	444	444	444
<b>YCbCr /xvYCC</b>	<b>ITU-R BT.709</b>	422	✓	✓	✓	✓
		444	✓	✓	✓	✓
<b>sRGB</b>	<b>Limit Range</b>	444	✓	✓	✓	✓
	<b>Full Range</b>	444	✓	✓	✓	✓

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### Socionext America, Inc.

1250 E. Arques Ave; MS 335  
Sunnyvale, CA 94085  
(408) 737-5400 | Toll free: (844) 680-3453  
<http://us.socionext.com>  
SNA\_inquiry@us.socionext.com