

High-speed Interface Bridge LSI for 4K-video

[V-by-One® HS to HDMI]

MN869127



■ Overview

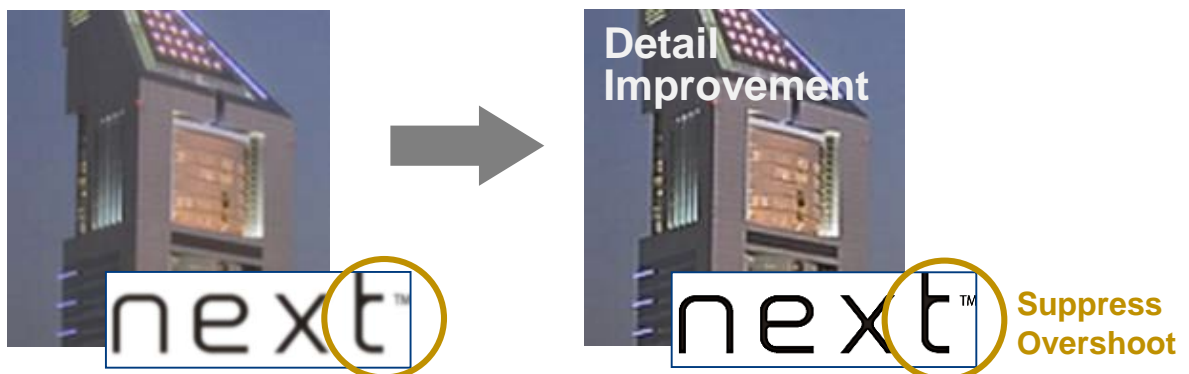
MN869127 is one of “HV series” that are high-speed interface bridge LSIs for 4K-video. This LSI enables to convert V-by-One® HS format to HDMI format for 4K contents. HDMI output supports HDMI2.0/1.4 with HDCP2.2/1.4 contents protection.

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

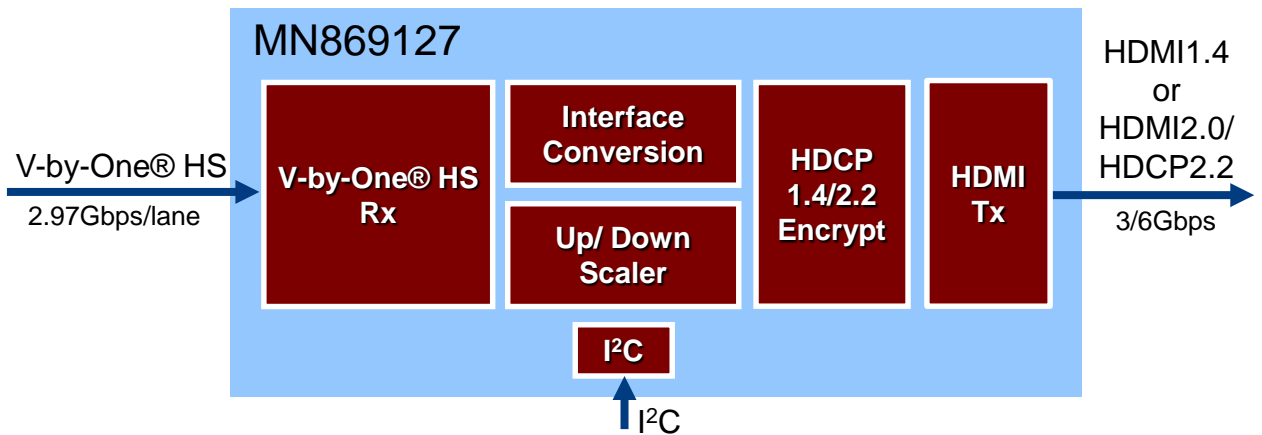
* 'HDMI' is a trademark or registered trademark of HDMI Licensing, LLC.

* “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
Package		Type: FBGA, Size: 17mm square
I/O	V-by-One® HS input	8 lane (24Gbps)
	HDMI output	1 port (HDMI2.0/1.4, HDCP2.2/1.4)
Color Space Conversion		Refer to the following table.
Up/ Down Scale Conversion		<ul style="list-style-type: none"> • 2K to 4K Up-scale Conversion with Super Resolution (Option) <ul style="list-style-type: none"> * Frame Rate: 24Hz, 25Hz, 30Hz, 50Hz, 60Hz • 4K to 2K Down-scale Conversion (Option) • 4K/2K to 480p Down-scale Conversion (Option)
Frame Rate Conversion		None
Audio	Input	I ² Sx4(8ch), SPDIFx1
	Output	I ² Sx4(8ch), SPDIFx1
Power		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
YCbCr /xvYCC	ITU-R BT.601	422	✓	✓	✓	✓	✓	✓	
		444	✓	✓	✓	✓	✓	✓	
	ITU-R BT.709	422	✓	✓	✓	✓	✓	✓	
		444	✓	✓	✓	✓	✓	✓	
sRGB	Limit Range	444	✓	✓	✓	✓	✓	✓	
	Full Range	444	✓	✓	✓	✓	✓	✓	

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