

# Comparison of MDIN ISP Series

ITEM		MDIN-i510	MDIN-i540	MDIN-i550	
Input	subLVDS	4/6-ch 10/12-bit	4/6/8-ch 10/12-bit	4/6/8-ch 10/12-bit	
	CMOS Parallel	10/12-bit	10/12-bit	10/12-bit	
	Max. Resolution	3M : 2048x1536@60fps	8M : 4096x2160@30fps	8M : 4096x2160@30fps	
	External Video	BT.656/BT.1120 [4:2:2]	-	-	8/10-bit / 16/20-bit
		RGB/YCbCr [4:4:4]	-	-	24/30-bit
		Max. Resolution	-	-	4096x2160p@30fps
		Max.Pixel Rate	-	-	300MHz
Data Format	-	-	Single / Dual-Wide / Dual-Edge Mode		
Output	BT.656 [4:2:2]	8/10-bit / 16/20-bit	8/10-bit / 16/20-bit	8/10-bit / 16/20-bit	
	RGB/YCbCr [4:4:4]	24/30-bit	24/30-bit	24/30-bit	
	Max. Resolution	3M : 2048x1536@60fps	8M : 4096x2160@30fps	8M : 4096x2160@30fps	
	Max. Pixel Rate	240MHz	300MHz	300MHz	
	Data Format	Single / Dual-Edge Mode	Single / Dual-Wide / Dual-Edge Mode	Single / Dual-Wide / Dual-Edge Mode	
	LVDS	Max. 2M	Max. 2M	Max. 2M	
	CVBS	720H / 960H	720H / 960H	720H / 960H	
Enhancement	DNR	Motion Adaptive 2D / 3D NR (for Low Light Condition)			
	WDR	Frame Mode : 3M Line Mode (DOL) : 2M (60fps to 30fps)	Frame Mode : 3M Line Mode (DOL) : 3M (120fps to 30/60fps)		
	Tone Mapping	Local Adaptive Gain Control			
	Gamma	Bayer Gamma / RGB Gamma / YC Gamma			
	Defog	Enhanced Fog Detection & Removal			
	DIS	Up to 3M	Up to 8M		
	D-WDR	Local D-WDR with Histogram			
	Chroma Suppression	False Color Detection & Suppression. Purple Fringe Reduction			
	Edge Enhancement	Video Level Depending Multi-Tap Horizontal / Vertical Edge Enhancement			
	Auto Focus	5 AF Windows and AF Filters			
	Privacy Mask	8 Square Masks or 8 Polygons			
Sensor Slave Mode	Various Mode of External Sync Lock Supported (with Dedicated Trigger Input Pin)				
Embedded Frame Memory	512Mb LPDDR2	1Gb LPDDR2	1Gb LPDDR2		
Embedded MCU	32-bit MCU / 2xSPI / 2xI <sup>2</sup> C (Dedicated SPI / I <sup>2</sup> C Slave)	32-bit MCU / 2xSPI / 2xI <sup>2</sup> C (Dedicated SPI / I <sup>2</sup> C Slave)	32-bit MCU / 2xSPI / 2xI <sup>2</sup> C (Dedicated SPI / I <sup>2</sup> C Slave)		
Package	144-ball FBGA 10mm x 10mm / 0.8mm pitch	196-ball FBGA 12mm x 12mm / 0.8mm pitch	256-ball FBGA 14mm x 14mm / 0.8mm pitch		