

# VK-S454N Specifications (NTSC)

**TENTATIVE**

HITACHI

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Specifications		HITACHI VK-S654R	Current HITACHI VK-S454R	HITACHI VK-S454N	Note
1	CCD Image Sensor	4.5mm Dia. (1/4-inch) <Ex-View: ICX448AK>	4.5mm Dia. (1/4-inch) <ICX216AN>	4.5mm Dia. (1/4-inch) <Ex-View: ICX448AK>	Ex-view/Progressive Scan CCD
2	Effective Pixels	380k (768 x 494)	360k (724 x 494)	380k (768 x 494)	
3	Progressive Scan	YES	YES	YES	
4	Lens: Optical	35X (f=3.4~119mm)	23X (f=3.6~82.8mm)	23X (f=3.6~82.8mm)	Lens is the same spec as VK-S454R
5	Practical f-value	3.4~119mm	3.6~82.8mm	3.6~82.8mm	
6	F-value	F1.4 (w) *~F4.2 (t)	F1.6 (w) *~F3.7 (t)	F1.6 (w) *~F3.7 (t)	
7	Focus	Auto VAF	Auto VAF	Auto VAF	
8	IR Removable	Auto Pro.AER+ * (OFF~ON~1/4*~1/4k)	Auto Pro.AER+ * (OFF~ON~1/4*~1/4k)	Auto Pro.AER+ * (OFF~ON~1/4*~1/4k)	
9	Manual (ON/OFF)	Possible (soft)	Possible (soft)	Possible (soft)	
10	DSP	DSP-7	DSP-6	DSP-8	New DSP
11	-Serial interface-	method : speed RS-232C : 57.6k / 38.4k / 19.2k / 9.6k / 4.8k* bps	method : speed RS-232C : 57.6k / 38.4k / 19.2k / 9.6k / 4.8k * bps	method : speed RS-232C : 57.6k / 38.4k / 19.2k / 9.6k / 4.8k* bps	
12	-Functions-	Digital Slow Shutter YES ( SDRAM 1/F ) w/o WDR	Digital Slow Shutter YES ( SDRAM 1/F ) w/o WDR	Digital Slow Shutter YES ( SDRAM 1/F ) w/o WDR	
13	Frame Output	OFF * / ON (soft)	OFF * / ON (soft)	OFF * / ON (soft)	
14	Wide Dynamic Range	OFF * / ON [ Auto * (offset) / Manual ] (soft)	OFF * / ON [ Auto * (offset) / Manual ] (soft)	OFF * / ON [ Auto * (offset) / Manual ] (soft)	Performance improved
15	Image Stabilization	OFF * / ON ( Digital Zoom max. 1.3x )	OFF * / ON (soft) w/o WDR	OFF * / ON (soft)	
16	Image Reverse	OFF * / ON (soft) w/WDR	OFF * / ON (soft) w/o WDR	OFF * / ON (soft)	Image Reverse during WDR mode
17	Mirror	OFF * / ON (soft) w/WDR	OFF * / ON (soft) w/o WDR	OFF * / ON (soft)	Mirror during WDR mode
18	Image Freeze	OFF * / ON (soft)	OFF * / ON (soft)	OFF * / ON (soft)	
19	Vertical Invert	OFF * / ON (soft)	OFF * / ON (soft)	OFF * / ON (soft)	
20	B&W	OFF * / ON (soft)	OFF * / ON (soft)	OFF * / ON (soft)	
21	Privacy Masking	OFF / ON* [ 2 zone 2-D* / 8 zone 3-D( 4/1screen ) ]	OFF / ON* [ 2 zone 2-D* / 8 zone 3-D( 4/1screen ) ]	OFF / ON* [ 2 zone 2-D* / 8 zone 3-D( 4/1screen ) ]	
22	Title display	OFF * / ON (soft)	OFF * / ON (soft)	OFF * / ON (soft)	
23	Motion Detect	OFF * / ON (soft)	OFF * / ON (soft)	OFF * / ON (soft)	
24	FNR	-	-	OFF* / ON (soft)	Side effect: afterimage
25	(=Frame Noise)	-	-	OFF* / ON (soft)	
26	Various customizable setting	YES [ Preset store (max.111) , WB tuning ]	YES [ Preset store (max.111) , WB tuning ]	YES [ Preset store (max.111) , WB tuning ]	
27	Dynamic Spot Cancel	YES (w/o AGC 0dB)	-	Auto	Effective both w/ and w/o AGC 0dB
28	Digital Zoom	Zoom mag. OFF * / ON [ max.12x * (soft) ]	Zoom mag. OFF * / ON [ max.12x * (soft) ]	Zoom mag. OFF * / ON [ max.12x * (soft) ]	
29	Electrical Shutter	Auto Pro.AE (1/60~1/4ks)	Auto Pro.AE (1/60~1/4ks)	Auto Pro.AE (1/60~1/4ks)	
30	Auto (+DSS) Shutter	Pro.AE+ * (1/2~1/4*~1/4ks : Seamless)	Pro.AE+ * (1/2~1/4*~1/4ks : Seamless)	Pro.AE+ * (1/2~1/4*~1/4ks : Seamless)	
31	Manual	Shutter priority 1/2~1/30ks : soft	Shutter priority 1/2~1/30ks : soft	Shutter priority 1/2~1/30ks : soft	
32	Exposure priority	F1.4~F32 : soft	F1.6~F34 : soft	F1.6~F34 : soft	
33	AGC priority	0~30dB : soft	0~30dB : soft	0~30dB : soft	
34	manual (Sensitivity)	32x, 16x, 8x, 4x, 2x (soft)	32x, 16x, 8x, 4x, 2x (soft)	32x, 16x, 8x, 4x, 2x (soft)	
35	Normal (1/60s)	Typ. 540, min520 / (400) TVL	470 / (400) TVL	Typ. 540 / (400) TVL	
36	Resolution	50 dB or more	50 dB or more	50 dB or more	
37	Horizontal / Vertical	50 dB or more	50 dB or more	50 dB or more	
38	Luminance S/N ratio	50 dB or more	50 dB or more	50 dB or more	
39	Min. Sensitivity	IR-cut ON (1/60s) 1.0 lx :Progressive/ 0.5 lx Interlace	3.0 lx :Progressive	1.0 lx : Progressive	Progressive :Progressive CCD scan mode Interlace :Interlace CCD scan mode
40	Typical	IR-cut ON (1/4s) 0.1 lx :Progressive	0.2 lx :Progressive	[TBD] :Progressive	
41	IR-cut ON (1/2s)	0.05 lx :Progressive	0.1 lx :Progressive	[TBD] :Progressive	
42	IR-cut OFF (1/4s)	Approx. 0.01 lx * ( B/W * ) :Progressive	Approx. 0.02 lx * ( B/W * ) :Progressive	[TBD] ( B/W ) :Progressive	
43	w/ IR illuminator [option]	0.1 lx ( B/W * ) :Progressive	[ 0.1 lx ( B/W * ) ] :Progressive	[TBD] ( B/W ) :Progressive	
44	Condition	(F1.4(w), 50IRE)	(F1.6(w), 40IRE)	(F1.6(w), 50IRE)	
45	Power	Supplied voltage 9~12V DC	9~12V DC	9~12V DC	
46	Supplied current	290mA w/WDR	310mA w/WDR	[TBD]	
47	max.	380mA w/WDR	540mA w/WDR	[TBD]	
48	Consumption max.	2.6W (3.4W) w/WDR	2.9W ( 4.7W ) w/ WDR	[TBD]	
49	Video Output (NTSC/PAL)	VBS:1.0Vp-p, Y/C Output	VBS:1.0Vp-p, (Y/C Output:Not Mount)	VBS:1.0Vp-p	No Y/C Output
50	Video Output (digital output)	-	-	YUV422 8bit output (REC656 type)	
51	Dimension W x H x D	50 x 60 x 89.5mm (w/M-case)	50 x 60 x 89.5mm (w/ M-case)	50 x 60 x 89.5mm (w/ M-case)	
52	Weight	240g(w/M-case)	225g(w/M-case)	[TBD] 225g(w/ M-case)	
53	No. of Connector	1 ( 9pin )	1 ( 9pin )	1 ( 9pin )	
54	Operating Temp. (Recommend): [ °C ]	0~60 ( ~40 )	0~60 ( ~40 )	0~60 ( ~40 )	
55	Others			Color is not same as VK-S454R/ER due to difference of sensor and DSP. However we design as similarly as possible.	

\* \* \* : Default mode

Frame rate restriction in FNR mode

Function 6 ON, -OFF, #any	Frame rate			Note	
	FNR	WDR	DSS REVERSE (ERROR)		
1	#	-	#	60Fr-H/s #1	60Fr-H/s #1
2	#	-	#	2/30fr-m e/s #2	2/30fr-m e/s #2
3	-	o	#	30fr-m e/s #3	30fr-m e/s #3
4	o	o	-	30fr-m e/s #3	15fr-m e/s #4
5	o	o	o	15fr-m e/s #4	TBD #5