

CVBS / BT656

KLU64-C

VGA, 640 x 480 Resolution



features

- Excellent temperature resolution (NETD) and high temperature accuracy
- Various image outputs CVBS and BT656
- SKD support for development of integrated S/W

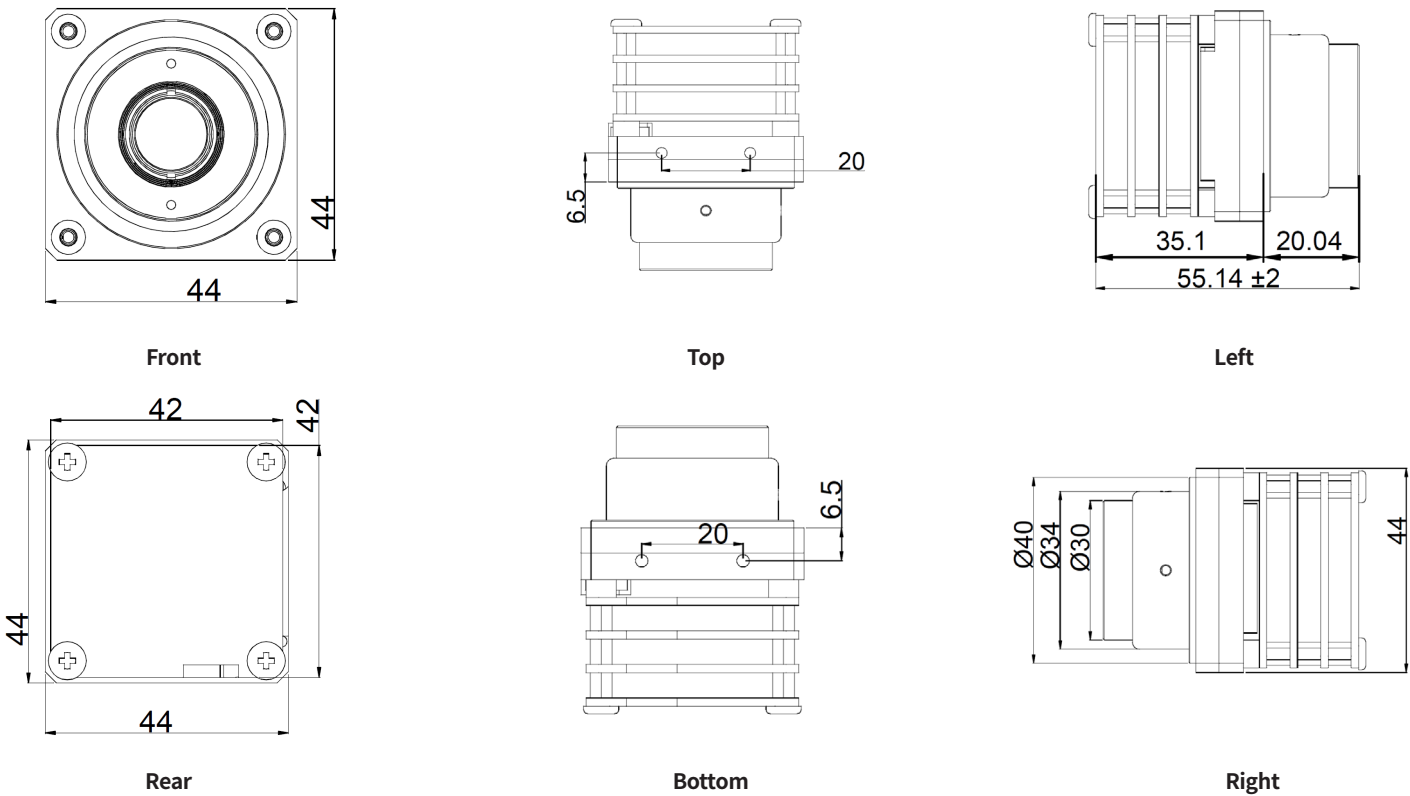
Specifications

Resolution	640 x 480 Pixels	
Pixel size	17 μ m	
NETD	<50mK @ f1.0, 30Hz, 300K	
Detector Type	Uncooled microbolometer	
Spectral Range	8 - 14 μ m	
Color Variation (Palette)	10 colors(Grey,Iron, Rain_v1,2,3/Half_Grey/Yellow/MidGrey/Fire/BlueRed)	
Image Setting	Analogue: AGC, Level & Span, NUC, Mirror, Flip, Invert, Image Filter on Screen Menu Digital/LVDS: AGC, Level & Span, NUC, Mirror, Flip, Invert, Image Filter	
Lens to be paired	Manual or Motorized focus Athermalized lenses also available as per request	Variety of lenses available
Alarm	Not available	
Function	Hot/Cold tracker, Center indicator	Analogue only
TV Mode	NTSC/PAL Compatible	Analogue only
Temperature Output Interface	Not available	
Protocol	KT&C's own protocol for menu control	
OSD Control	Via RS-485	Analogue only
Video Output Interface	Standard BNC Connector(Composite)	Analogue only
Frame Rate	30Hz	
Start-up	<5 seconds	
Application	Security & surveillance Thermal network cameras Application for mobile device or military use like gun sight or thermal goggle	Low power consumption version also available
Input Power	12VDC	
Operating temperature	-30°C to 60°C	
Storage temperature	-40°C to 70°C	

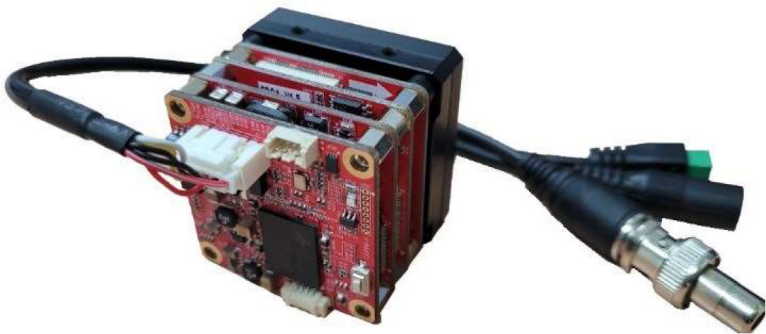
Note : KT&C offers output boards with CVBS formats.

Please note that BT656 output is not supported directly and should be implemented by customer side.

Dimension



Video Output Varies by Interface Board

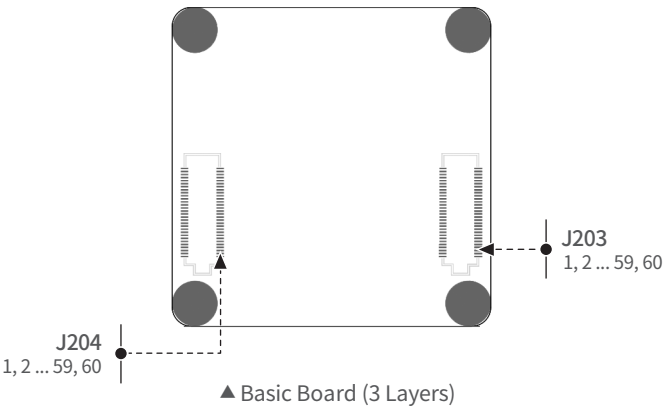


CVBS Output



BT656 Output

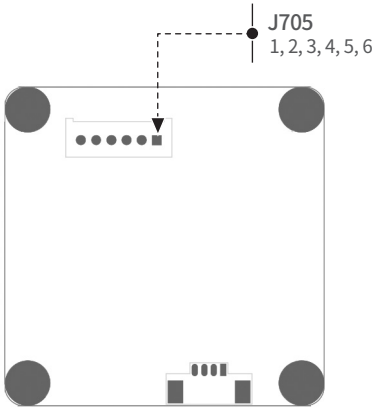
Pin Assignment



▲ Basic Board (3 Layers)

J203 / SAMTEC : ST4-30-1.50-L-D-P-TR							
Pin No.	Function	Type	Description	Pin No.	Function	Type	Description
1	Power	GND		2	Power	GND	
3	Power	GND		4	Power	GND	
5	Not Used			6	CIS0_PCLK_P	O	20MHz
7	Power	GND		8	Power	GND	
9	Not Used			10	CIS0_HSYNC_P	O	BT656
11	Power	GND		12	CIS0_VSYNC_P	O	
13	nRESET_FPGA_P	I	FPGA reset(Active High) (over 100ms)	14	CIS0_D00_P	O	
15	Not Used			16	CIS0_D01_P	O	
17	nREADY_FPGA_P	O	FPGA Active (Low Out)	18	CIS0_D02_P	O	
19	Not Used			20	CIS0_D03_P	O	
21	F2M_CTRL_P	O	SPI(Active high) SPI access in FPGA	22	CIS0_D04_P	O	
23	Not Used			24	CIS0_D05_P	O	
25	M2F_CTRL_P	I	SPI access in SPI (Active high) Master	26	CIS0_D06_P	O	
27	Power	GND		28	CIS0_D07_P	O	
29	Not Used			30	Power	GND	16bits temperature data or Grid(32*32 pixels) temperature data
31	Not Used			32	Power	GND	
33	Power	GND		34	RAW_DATA0_P	O	
35	FPGA_I2C_SCL_P	I	Communication between FPGA and Embedded	36	RAW_DATA1_P	O	
37	FPGA_I2C_SDA_P	I/O		38	RAW_DATA2_P	O	
39	Power	GND		40	RAW_DATA3_P	O	
41	SPI1_CS_P	I	Slope data	42	RAW_DATA4_P	O	
43	SPI1_MISO_P	O		44	RAW_DATA5_P	O	
45	SPI1_SCK_P	I		46	RAW_DATA6_P	O	
47	SPI1_MOSI_P	I		48	RAW_DATA7_P	O	
49	SPI_CS0_P	I	Master FPGA upload	50	RAW_DATA_VSYNC_P	O	20MHz
51	SPI_MISO_P	O		52	RAW_DATA_HSYNC_P	O	
53	SPI_SCK_P	I		54	Power	GND	
55	SPI_MOSI_P	I		56	RAW_DATA_PIXCLK_P		
57	Power	GND		58	Power	GND	
59	Power	GND		60	Not Used		

J204 / SAMTEC : ST4-30-1.50-L-D-P-TR							
Pin No.	Function	Type	Description	Pin No.	Function	Type	Description
1	Not Used			2	Not Used		
3	Not Used			4	Not Used		
5	Power	GND		6	Power	GND	
7	Not Used			8	Not Used		
9	Not Used			10	Not Used		
11	Power	GND		12	Power	GND	
13	Not Used			14	Not Used		
15	Power	GND		16	Power	GND	
17	Not Used			18	Not Used		
19	Power	GND		20	Power	GND	
21	Not Used			22	Not Used		
23	Power	GND		24	Power	GND	
25	Not Used			26	Not Used		
27	Power	GND		28	Power	GND	
29	Not Used			30	Not Used		
31	Not Used			32	Not Used		
33	Power	GND		34	Power	GND	
35	Not Used			36	Not Used		
37	Not Used			38	Not Used		
39	Power	GND		40	Power	GND	
41	Power	5.6 to 6 VDC	Required 5.6V/1.5A or higher	42	Power	5.6 to 6 VDC	Required 5.6V/1.5A or higher
43	Power	GND		44	Power	GND	
45	Power	GND		46	Power	GND	
47	Not Used			48	Not Used		
49	Not Used			50	Not Used		
51	Power	GND		52	Power	GND	
53	Power	+12V	Required 12V/1A or higher	54	Power	+12V	Required 12V/1A or higher
55	Power	GND		56	Power	GND	
57	Power	GND		58	Power	GND	
59	Power	GND		60	Power	GND	



▲ Optional Board (4 Layers)

Pin no.	J705 CONN(CVBS) / YEONHO : SMW200-06
1	12V VCC
2	GND
3	RS485+
4	RS485-
5	CVBS_OUT
6	GND