BST-E806TW /BST-E816TW
Body Temperature Measurement

FEATURES

- FRP IP67 Case
- Sony IMX326 CMOS Sensor
- Visual Resolution 2592X1944
- 160X120 Thermal Detector:
- High Temperature Measurement (-10 ℃ ~ 450 ℃)
- Thermal/Overlay Mode: 1920X1080 (FHD)
- White LED: For Night Visual Image
- Manual On/Off or Automatic “ON” on temperature event
- Power LED: To check camera power status

SPECIFICATIONS

Models		BST-E806TW	BST-E816TW
Thermal	IR Sensor Frame Rate	< 9 Hz	
	IR Sensor Resolution	80 (h) × 60 (v)	160 (h) ×120 (v)
	Spectral Range	LWIR , 8 to 14	
	Field of View (FOV)	51’ HFOV, 63.5 diagonal (f/1.1 silicon doublet)	56 ‘ HFOV, 71 diagonal (f/1.1 silicon doublet)
	Temperature Sensitivity (NETD)	<50 mK (0.05℃)	
	Temperature Range	Low Gain Mode: -10 ℃ ~ 140 ℃ High Gain Mode: -10 ℃ ~ 450 ℃	
Visual	CMOS Sensor	Sony Diagonal 6.15mm CMOSProgressive Scan	
	Effective Pixels	3096(H) X 2202(V) : 6.82M Pixel	
	Frame Rate	30 fps	
	Resized Resolutions	Visual Mode Only: 2592X1944, 2048X1536, 1600X1200. All Modes: 1920X1080, 1280X720, 1024X768, 640X480	
	Multi User Access	8	
General	Alarm Out	1 port(Dry contact, relay out)	
	Operating Temperature	0℃ ~ 50℃	
	Power	PoE(802.3.af), DC12V	
	Power Consumption	5W (LEDON)	
	IPLevel	IP67	
	Dimension(wxhxd)	80x131X47(mm)	

Temperature Compensation

Maximum Temperature Point on the screen. Measure the maximum temperature of the face of a person with normal body temperature at a distance of 1M from the camera and enter an offset value in "offset" item on thermal parameter setup page to a measurement error. ex) 2 for 34 / +2 for 32 Celsius measurement

Thermal Parameter Setup

R	979061.00000	170500.00, 0~1000000
B	2745.00000	1628.00, -16384~16383
F	-194.75500	0.00, -16384~16384
O	102.00000	7000.00, -16384~16383
Offset	4	0, -100~100

Emissivity Setup

- One of the most important parameters when measuring temperature using a non contact infrared thermometer is the emissivity according to the object being measured
- Emissivity determines how accurately the temperature of an object can be measured
- The object that absorbs external energy and does not reflect is referred to as "Blackbody", which defines emissivity as "1”
- This thermal camera has been calibrated for measuring temperature by using "black body“.
- To measure the skin temperature of human body more accurately, human skin emissivity should be applied.
- The emissivity of skin of human body is 0.985.

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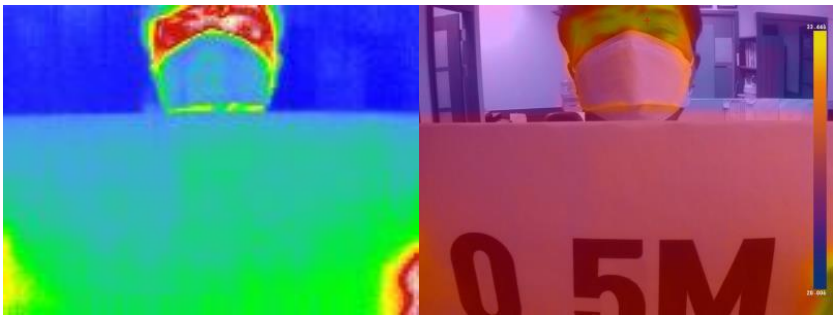
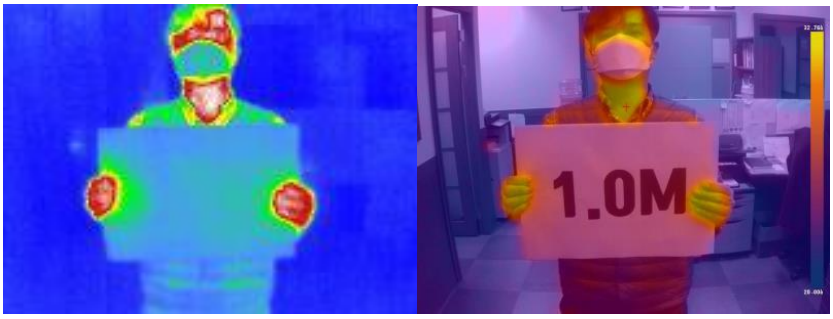
O	102.00000	7000.00, -16384~16383
Offset	4	0, -100~100
E	0.985	1.000, 0.001~1.000

Temperature Change by Distance

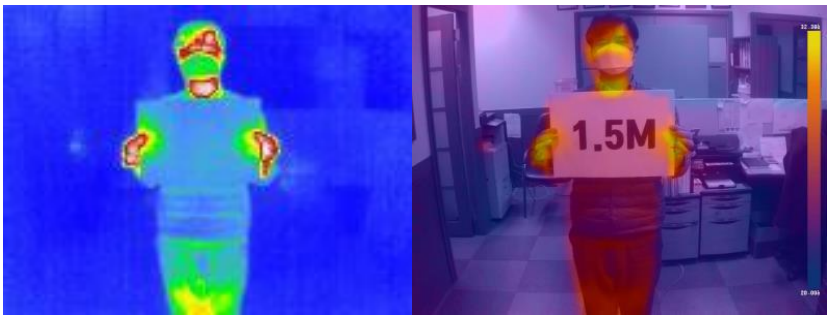
33.44℃ / 0.5M



32.78℃ / 1M

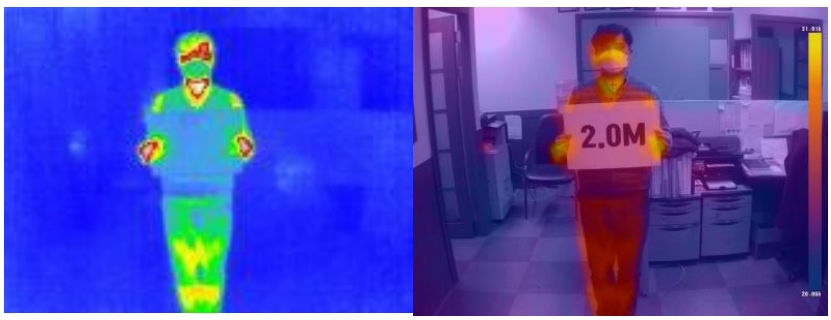


32.38℃ / 1.5M



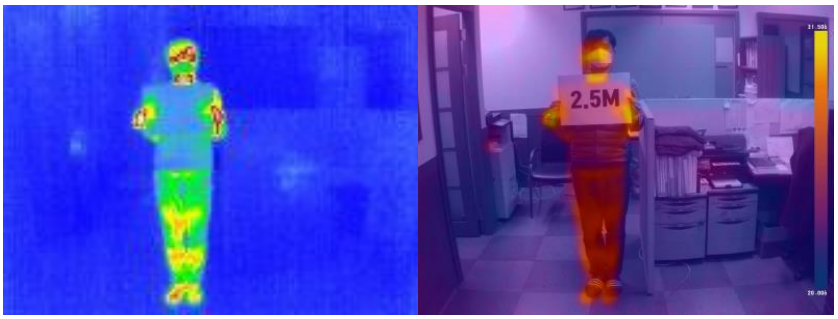
- Test Environment : Room Temperature 23.7℃
- Human Skin Temperature Measured by Infrared Thermometer : 32.5℃

31.91℃ / 2M



Temperature Change by Distance

31.50℃ / 2.5M



31.77℃ / 3M

31.32℃ / 3.5M

31.03℃ / 4M

- **Within a distance of 50Cm, about 1 ℃ is measured higher than the actual temperature.**
- **1.75 ℃ difference is made from 1~4M distance. (Accuracy within ±2 ℃)**