

TAMRON

LW IR Thermal Camera Module LW10F90-U

Overview

- Compact Thermal Camera Module products adopted by shutter-less NUC (Nonuniformity Correction)
- Three products which cover from wide to telephoto field of view available. (LW10F90-U : this model uses wide type lens)
- Thanks to high performance lenses and original temperature computation format, able to measure temperature of the dedicated points. and output both temperature data and thermal image data at the same time

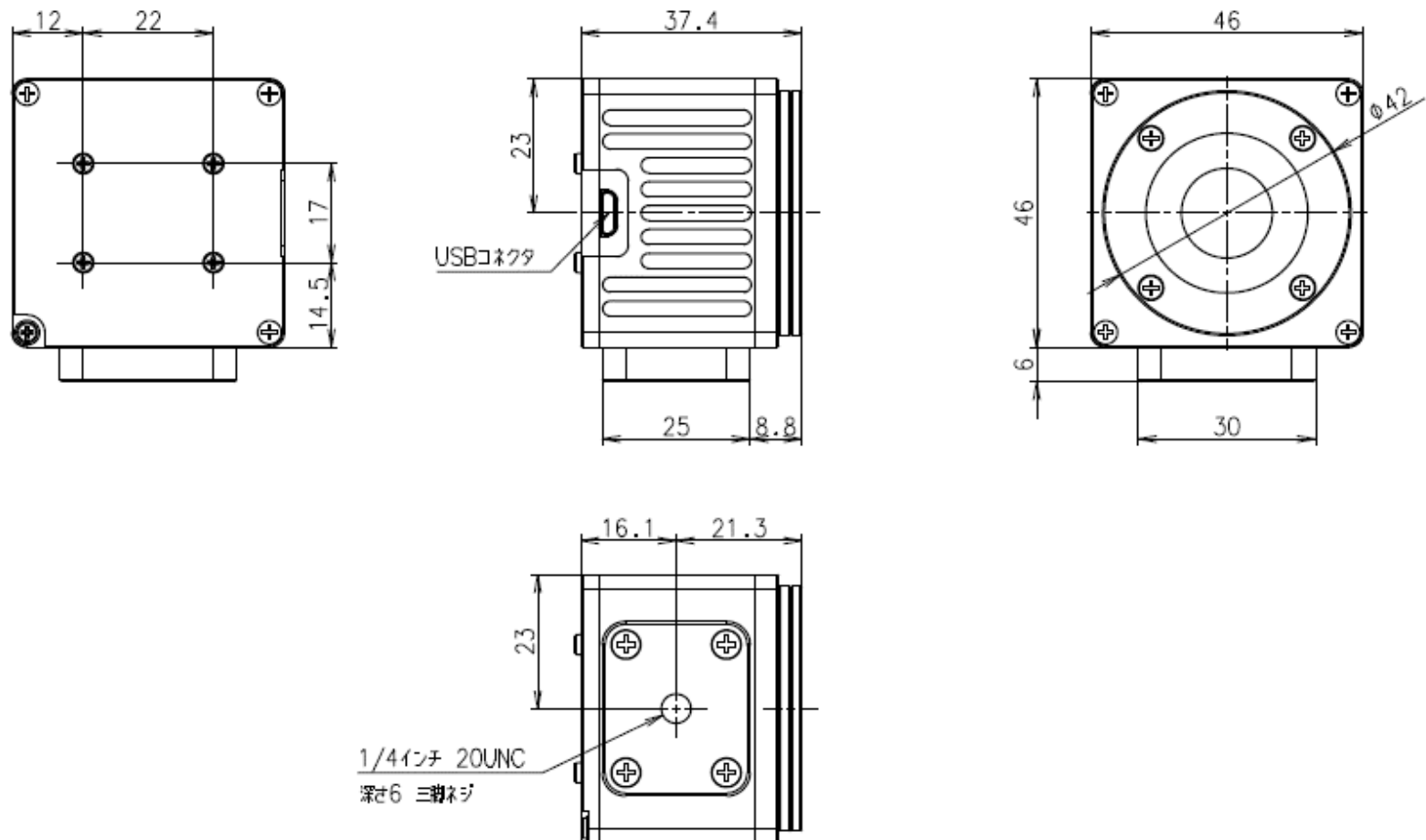
Specifications

■ Detector Detector type Uncooled microbolometer Wavelength 8~12 μm		■ Image processing Noise reduction (DNR) OFF/2D/3D (16bit temperature/8bit thermal image mode) GAMMA Adjustable(at 8bit thermal image mode) Histogram average Auto/Manual(at 8bit thermal image mode)	
■ Image/Optical Effective pixel 80 x 80 pixel NETD 80mK (typical) Lens Focal Length f=1.9mm F/1.3 Field of view (FOV) 90° (H) x 90° (V) Focus Fixed Minimum object distance 80cm		■ Interface Interface USB2.0 (UART 2ports) Interface connector UART communication Micro USB Type-B connector (USB cable not attached) Output data 1) 16bit temperature data 2) 8bit thermal image data 3) 16bit temperature + 8bit thermal image data 1)2)3): selectable	
■ Temperature measurement Temperature correction Tamron's original temperature computation format Thermal image temperature range -40°C~200°C Temperature Measurement range 10°C~100°C Temperature measurement accuracy 10°C~60°C: ±2°C ※Ambient Temperature : 10°C~40°C 10°C~100°C: ±5°C ※Ambient Temperature : 0°C~60°C ※Center area only (9 x 9 pixel) ※Not able to guarantee absolute temperature Variance may occur due to the difference in measurement conditions		communication protocol Tamron original protocol Frame rate 1/2/4/8 fps	
■ Temperature analysis function Temperature analysis area 6400 pixel (always measures temperature each pixel)		■ General Power requirement 5V DC (via USB) Power consumption Max 1.0W Performance temperature/humidity 0°C ~ +60°C / 20 ~ 80% (no condensation) Operating temperature/humidity -20°C ~ +70°C / 20 ~ 80% (no condensation) Storage temperature -20°C ~ +70°C Dimensions (W x H x D) 46 x 46 x 37.4mm Weight Approx 132g Dust/Water proof equivalent to IP52 level	

※Specifications and design subject to change without notice

Dimensions

unit: mm



Model name	Tamron co.Ltd	Category	Issue	page
LW10F90-U		LW IR Thermal camera module	2022/10	1/1