

1/2.7" Megapixel IR Series

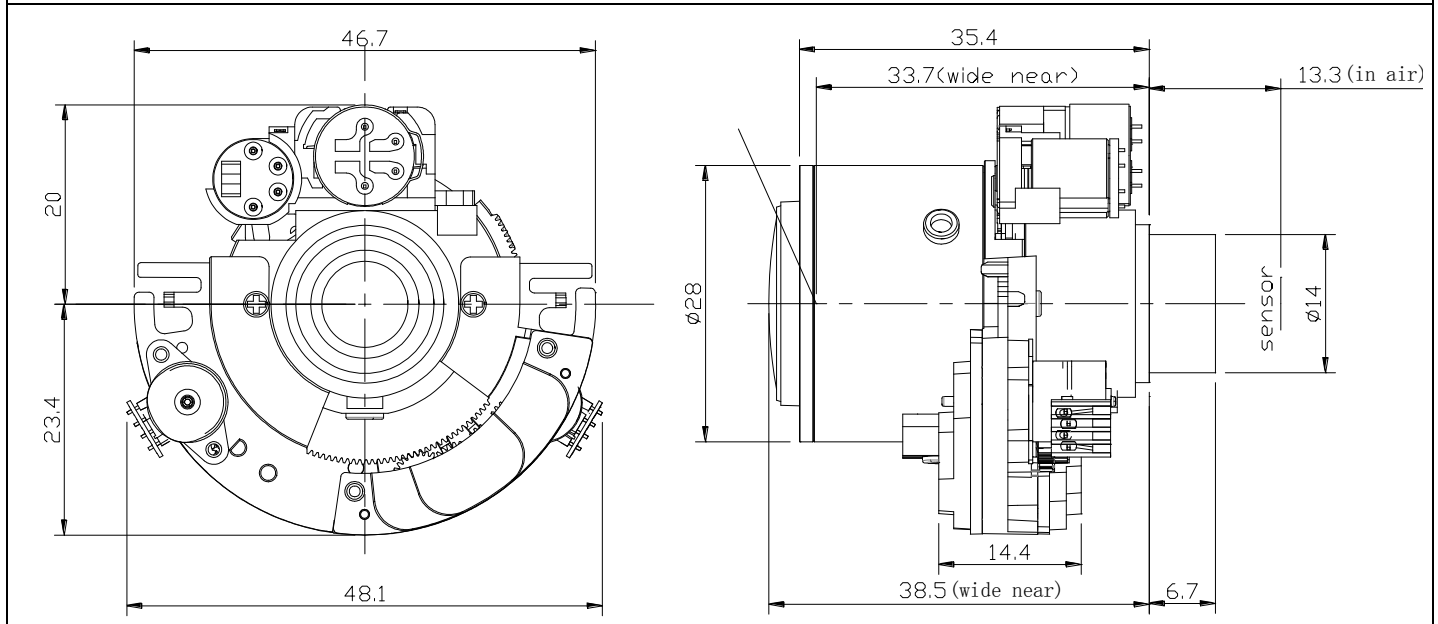
TT02812DB.ICR-MFZ(3MP)

- 2.8 - 12mm
- Φ14
- 1/2.7" Format
- DC-Iris & IR-Cut
- 3 Megapixel
- IR Correction



| | | | |
|------|-----------------------|------------------|----------------|
| 有效焦距 | E.F.L. | 2.8 ~ 12 mm | |
| 相对孔径 | F No. | F1.4 | |
| 水平视角 | H.FOV | 1/3.2" Full | 86° ~ 26° |
| 像面尺寸 | Image Format | 1/2.7" (max) | |
| 光圈类型 | Iris Type | DC-Iris & IR-Cut | |
| 接口类型 | Mount Type | Φ14 | |
| 近摄距 | M.O.D | 0.3m | |
| 畸变 | TV Distortion | 1/3.2" Full | -15% (wide) |
| 主光角 | Chief Ray Angle (Max) | <8° | |
| 操控方式 | Control Type | 变倍 Zoom | Stepping Motor |
| | | 聚焦 Focus | Stepping Motor |
| 工作温度 | Operating Temperature | -20°C ~ 60°C | |
| 镜头重量 | Weight | 36g ±3g | |

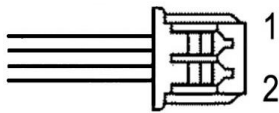
尺寸规格 Dimensions



| | | | | |
|---------------|--------------|---------------|----------------|-----------|
| Tolerance(mm) | 0 ~ 10 ±0.05 | 10 ~ 30 ±0.10 | 30 ~ 120 ±0.20 | Angle ±2° |
|---------------|--------------|---------------|----------------|-----------|

IR-Cut

1. Connector and Cord Specification

| | | | |
|---|----------|--------------|------------------|
|  | | Housing | Molex 51021-0200 |
| | | Terminal | Molex 50058-8000 |
| | | Pitch | 1.25mm |
| 1. Red | 2. Black | Cable Length | 100mm |

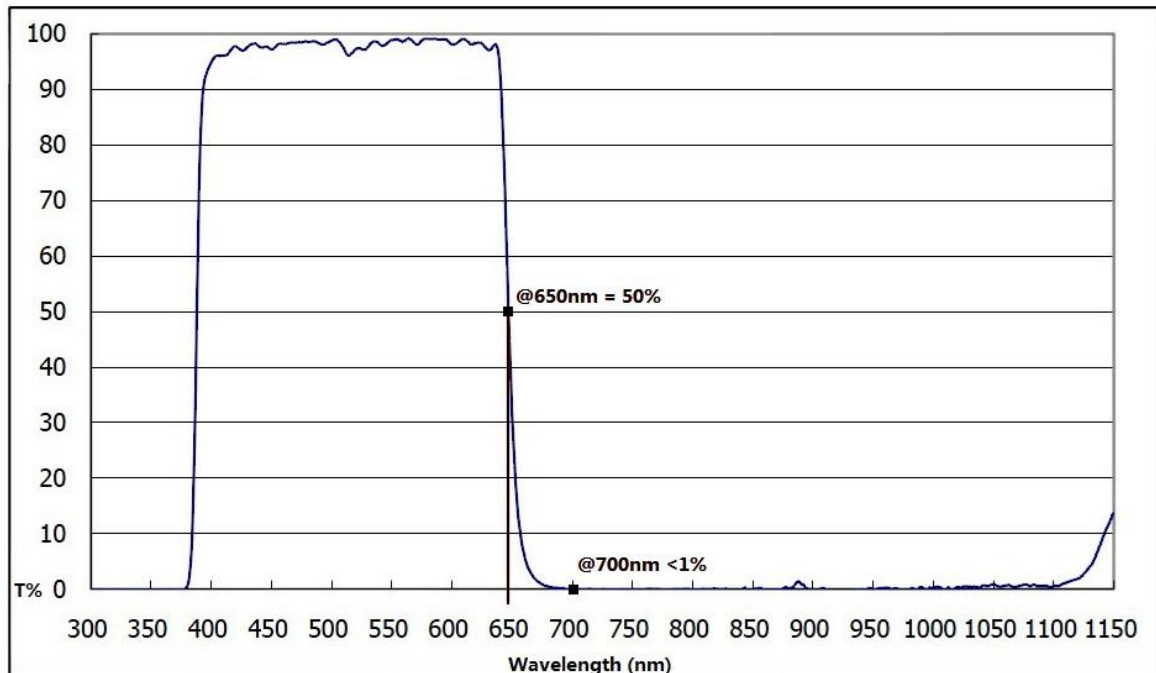
2. IR-Cut Specification

| | | |
|------------------|---------------------|------------------------|
| Motor | Driving Coil | 240 at 20°C |
| | Storage Temperature | -30 ~ 70°C |
| Operating | Operating Voltage | 3.5 ~ 5V |
| | Operating Mode | One-shot (100 ~ 200ms) |
| | Temperature | -20 ~ 60°C |

3. IR-Cut Filter

| IR Mode | Day Mode |
|------------|------------|
| 1. Red + | 1. Red - |
| 2. Black - | 2. Black + |

4. IR-Cut Optical Characteristic Curve



DC-Iris

1. Connector and Cord Specification

| | | | | | |
|---|--------------|---|------------------|---------|---|
|  | 1 | 1 | Yellow | Damping | + |
| | 2 | 2 | Orange | Damping | - |
| | 3 | 3 | Brown | Driving | + |
| | 4 | 4 | Red | Driving | - |
| Connector | Housing | | Molex 51021-0400 | | |
| | Terminal | | Molex 50058-8000 | | |
| | Pitch | | 1.25mm | | |
| | Cable Length | | 100mm | | |

2. DC-Iris Specification

| | | |
|------------------|-----------------------|--------------|
| DC Motor | Driving Coil | 190Ω at 20°C |
| | Control | 855Ω at 20°C |
| | Storage Temperature | -30 ~ 70°C |
| Operating | Voltage (Open) | 3.5 ~ 5V |
| | Voltage (Close) | <0.5V |
| | Operating Temperature | -20 ~ 60°C |

MFZ

1. Connector and Cord Specification

| | | | | | |
|---|--------------|---|------------------|-------|-----------|
|  | 1 | 1 | White | Zoom | A |
| | 2 | 2 | Green | Zoom | \bar{A} |
| | 3 | 3 | Red | Focus | A |
| | 4 | 4 | Orange | Focus | \bar{A} |
| | 5 | 5 | Brown | Focus | B |
| | 6 | 6 | Yellow | Focus | \bar{B} |
| | 7 | 7 | Blue | Zoom | B |
| | 8 | 8 | Black | Zoom | \bar{B} |
| Connector | Housing | | Molex 51021-0800 | | |
| | Terminal | | Molex 50058-8000 | | |
| | Pitch | | 1.25mm | | |
| | Cable Length | | 170mm | | |

2. MFZ Specification

| | | |
|-----------------------|-----------------------|------------------------|
| Stepping Motor | Motor Type | PM type stepping motor |
| | No. of Phases | 2 phases |
| | No. of Focus steps | 1864 steps |
| | No. of Zoom steps | 732 steps |
| | Coil Resistance | 21Ω/phase, at 20°C |
| | Storage Temperature | -30 ~ 70°C |
| Operating | Operation Voltage | 3.5 ~ 5V |
| | Operation Frequency | 200 ~ 800pps |
| | Operation Temperature | -20 ~ 60°C |

3. Focus and Zoom

| Pin | | | 1 | 2 | 3 | 4 |
|-----|-------|-----------|---|---|---|---|
| 1 | Zoom | A | H | H | L | L |
| 2 | Zoom | \bar{A} | L | L | H | H |
| 7 | Zoom | B | L | H | H | L |
| 8 | Zoom | \bar{B} | H | L | L | H |
| 3 | Focus | A | H | H | L | L |
| 4 | Focus | \bar{A} | L | L | H | H |
| 5 | Focus | B | L | H | H | L |
| 6 | Focus | \bar{B} | H | L | L | H |

ZoomWide→Tele: 1 →2 →3 →4 →1...

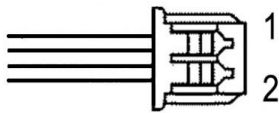
ZoomTele→Wide: 4 →3 →2 →1 →4...

FocusNear→Far: 1 →2 →3 →4 →1...

FocusFar→Near: 4 →3 →2 →1 →4...

IR-Cut

1. Connector and Cord Specification

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| | | Terminal | Molex 50058-8000 |
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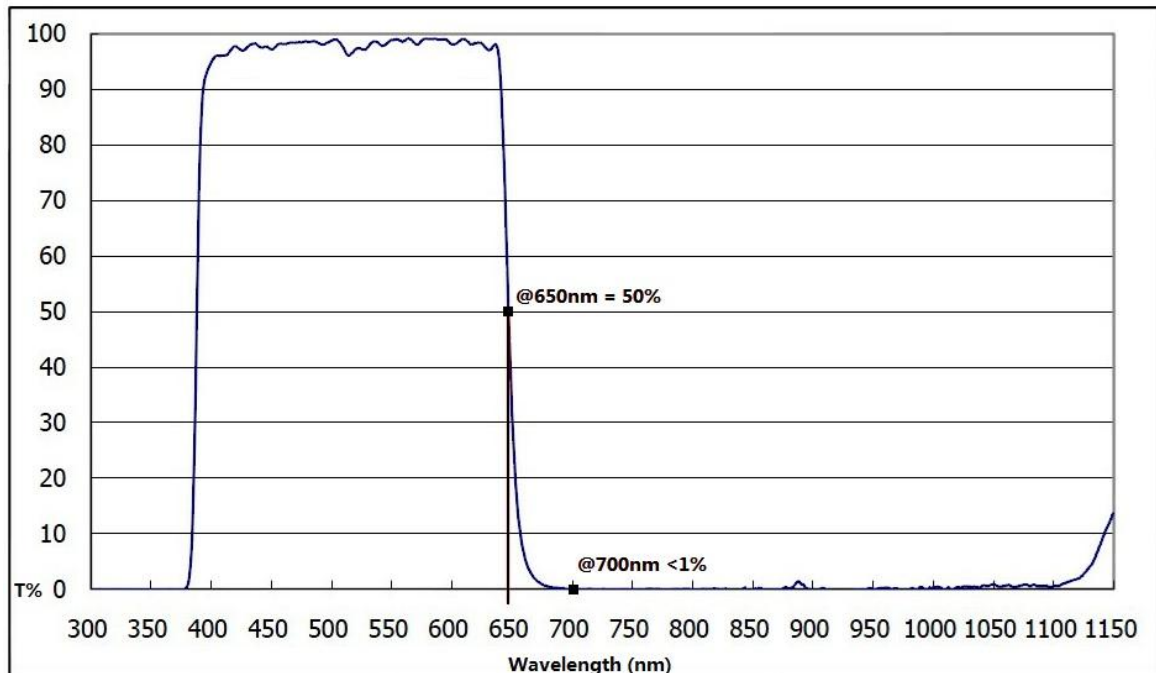
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| | Storage Temperature | -30 ~ 70°C |
| Operating | Operating Voltage | 3.5 ~ 5V |
| | Operating Mode | One-shot (100 ~ 200ms) |
| | Temperature | -20 ~ 60°C |

3. IR-Cut Filter

| IR Mode (IR Cut Filter In) | | Day Mode (IR Cut Filter Out) | |
|----------------------------|---|------------------------------|---|
| 1. Red | - | 1. Red | + |
| 2. Black | + | 2. Black | - |

4. IR-Cut Optical Characteristic Curve



DC-Iris

1. Connector and Cord Specification

| | | | | | |
|---|--------------|---|------------------|---------|---|
|  | 1 | 1 | Yellow | Damping | + |
| | 2 | 2 | Orange | Damping | - |
| | 3 | 3 | Brown | Driving | + |
| | 4 | 4 | Red | Driving | - |
| Connector | Housing | | Molex 51021-0400 | | |
| | Terminal | | Molex 50058-8000 | | |
| | Pitch | | 1.25mm | | |
| | Cable Length | | 100mm | | |

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|------------------|-----------------------|--------------|
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| Connector | Housing | | Molex 51021-0800 | | |
| | Terminal | | Molex 50058-8000 | | |
| | Pitch | | 1.25mm | | |
| | Cable Length | | 170mm | | |

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| 3 | Focus | A | H | H | L | L |
| 4 | Focus | \bar{A} | L | L | H | H |
| 5 | Focus | B | L | H | H | L |
| 6 | Focus | \bar{B} | H | L | L | H |

ZoomWide→Tele: 1 →2 →3 →4 →1...

ZoomTele→Wide: 4 →3 →2 →1 →4...

FocusNear→Far: 1 →2 →3 →4 →1...

FocusFar→Near: 4 →3 →2 →1 →4...