



Dual-spectrum Bullet Camera

IRS-FB225-T



Product Feature

1. With the latest InfiRay® 12 μ m IR thermal imaging detector and advanced IR vision algorithm, IRS-FB225-T series can make farther and clearer images.
2. Visible imaging and thermal imaging can meet the requirement for 24-hour security monitoring.
3. Smart analysis for actions such as area intrusion and cross-border intrusion are available.
4. Fire detecting alarm is available.
5. The camera can measure temperature independently. Equipped with professional temperature measuring analysis tools and multiple linkage alarm rules.
6. One-piece body design with encapsulation level IP66.
7. DC12 or PoE power supply is available.
8. ONVIF&GB28181 standard interface protocol, SDK, second development and third-party platform integration are available.

Camera Specifications

| Technical Specifications | | IRS-FB225-T | | |
|---------------------------------|---------------------------------|--|-------------|-------------|
| Thermal Parameters | Detector Type | VOx, uncooled FPA detectors | | |
| | Spectral Range | 8 ~ 14μm | | |
| | NETD | ≤40mK @25°C,F#1.0 | | |
| | Resolution | 256×192 | | |
| | Pixel | 12μm | | |
| | Focal Length | 3.2mm | 7mm | 10mm |
| | Focus Type | Athermal fixed focus | | |
| | FOV | 56.0°×42.2° | 24.8°×18.7° | 17.5°×11.3° |
| | F# | 1.1 | 1 | 1 |
| | IFOV | 3.75mrad | 1.7mrad | 1.2mrad |
| | Palette | 18 palettes available such as Whitehot/Blackhot/Rainbow. | | |
| Visible Parameters | Sensor | 5MP 1/2.8" Progressive Scan CMOS | | |
| | Max. Resolution | 2560×1920 (visible) | | |
| | Focal Length | 4mm | 8mm | 12mm |
| | Focus Type | Fixed focus | | |
| | FOV | 82°×59° | 39°×29° | 25°×18° |
| | Min. Illumination | Color:0.005Lux ,Black&white:0.0005Lux , IR light on:0Lux | | |
| | Wide Dynamic | 120dB | | |
| | Day/Night Conversion | ICR auto conversion/ Electronic color to B/W | | |
| | Digital Noise Reduction | 3D NR | | |
| | Filling Light | Infrared filling light, maximum filling distance 30m | | |
| Dual-spectrum Parameters | Dual-Spectrum Fusion | Support the thermal image to fuse visible image to improve the image details | | |
| | Temperature Information Overlay | The camera displays a digital camera image with superimposed thermal imaging information (only support thermographic rules and thermographic values) | | |

| | | | |
|---|---|--|--|
| Network Functions | Network Protocol | IPv4,HTTP,HTTPS ,FTP,SMTP,UPnP,DNS,DDNS,NTP,RTSP,RTCP,RTP,TCP,UDP,IGMP,ICMP,DHCP | |
| | Interoperability | ONVIF、GB28181、SDK | |
| | Number of Videos Previewed Simultaneously | Support up to 8 channels | |
| | User Management | Up to 32 users, divided into 3 levels: administrators, operators and users | |
| | Browser | Support browsers such as Google, Firefox, Edge, 360 (chrome kernel), and multiple languages (at least Chinese and English are supported) | |
| Video Parameters | Max. Resolution | 2560×1920(visible),1280×960(thermal) | |
| | Image Format | JPEG | |
| | Audio Compression Standard | G.711a/G.711u/AAC/PCM | |
| | Video Compression Standard | H.264/H.265 | |
| | Main Stream | Visible: | |
| | | PAL:25fps(2560×1920),25fps(2560×1440),25fps(1920×1080) | |
| | | NTSC:30fps(2560×1920),30fps(2560×1440),30fps(1920×1080) | |
| | Thermal: | PAL:25fps(1280×960),25fps(1024×768) | |
| | | NTSC:30fps(1280×960),30fps(1024×768) | |
| | | Visible | |
| | Sub stream | PAL:25fps(1920×1080),25fps(1280×720),25fps(704×576),25fps(352×288) | |
| NTSC:30fps(1920×1080),30fps(1280×720),30fps(704×480),30fps(352×240) | | | |
| Thermal: | | | |
| PAL:25fps(640×480),25fps(320×288) | | | |
| NTSC:30fps(640×480),30fps(320×240) | | | |

| | | |
|--------------------------------|----------------------------------|--|
| Temperature Measurement | Measuring Range | -20°C ~ +550°C |
| | Measuring Accuracy | ±2°C or ±2% (The larger value shall prevail) |
| | Temperature Analysis | Whole frame, spot (12), line (12), region (12), support temperature measurement rules and linkage alarms |
| Smart Functions | Fire Warning | Support fire detection |
| | Smart Video | Alarm trigger recording, disconnection trigger recording |
| | Smart Alarming | Support triggering alarm and linkage alarm of network disconnection, IP address conflict, memory error, illegal access and abnormal detection, strong light protection detection |
| | Smart Detecting | Support area intrusion, cross-border intrusion (distinguishing human/vehicles), dynamic detection analysis, heat source tracking analysis, etc. |
| | Voice Intercom | Support two-way voice intercom |
| | Linkage Alarm | Video/image/mail/ alarm output / sound and light alarm (built-in) |
| System Interface | Power Interface | DC 12V±25% / PoE(802.3af) |
| | Communication Interface | 1 RJ45 10M/100M adaptive Ethernet port |
| | Audio Input | 1 channel audio input |
| | Audio Output | 1 channel audio output, 1 channel built-in speaker |
| | Alarm Input | 2 channel DC 0 ~ 5V alarm input |
| | Alarm output | 1 channel open relay output |
| | Storage Interface | Micro SD memory (maximum 256G) |
| | Reset Button | Support |
| | RS485 | 1 channel RS485 and support Pelco protocol |
| General Specification | Operating Temperature & Humidity | -40°C ~ +70°C; <95%RH |
| | Protection Level | IP67, TVS 6000V, lightning protection, anti-surge, in line with level four standard of GB/T17626.5 |

| | | |
|--|-------------------|---|
| | Power Consumption | Max.< 3W |
| | Dimension (mm) | 265×99×87 (minimum length can be adjusted to 253mm) |
| | Weight | 950g |

Operating Distance

The recommended distance of detecting, recognizing and identifying for human (1.8×0.5m) and vehicles (1.4×4.0m) are as follows:

DD stands for Detecting Distance;

RD stands for Recognizing Distance;

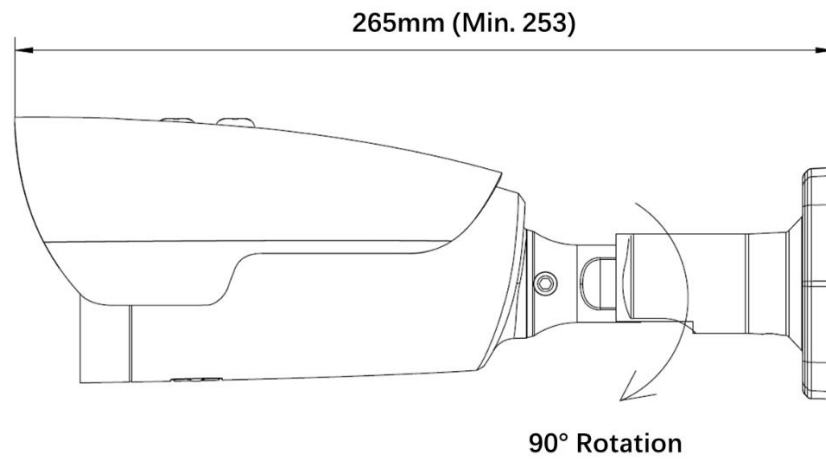
ID stands for Identifying Distance;

| Equipped Lens | DD (vehicle) | DD (human) | RD (vehicle) | RD (human) | ID (vehicle) | ID (human) |
|---------------|--------------|------------|--------------|------------|--------------|------------|
| 3.2mm | 409m | 133m | 102m | 33m | 51m | 17m |
| 7mm | 894m | 292m | 224m | 73m | 112m | 36m |
| 10mm | 1661m | 542m | 415m | 135m | 208m | 68m |

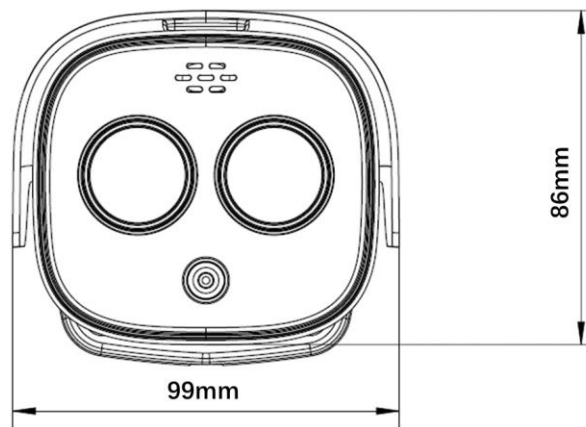
Operating Distance

| Equipped Lens | DD (vehicle) | DD (human) | Temperature Measuring Distance Target (2mx2m) | Temperature Measuring Distance Target (1mx1m) | Fire Detecting Distance Target (2mx2m) | Fire Detecting Distance Target (1mx1m) |
|---------------|--------------|------------|---|---|--|--|
| 3.2mm | 33m | 102m | 89m | 44m | 356m | 178m |
| 7mm | 73m | 224m | 194m | 97m | 750m | 389m |
| 10mm | 104m | 319m | 278m | 139m | 1000m | 550m |

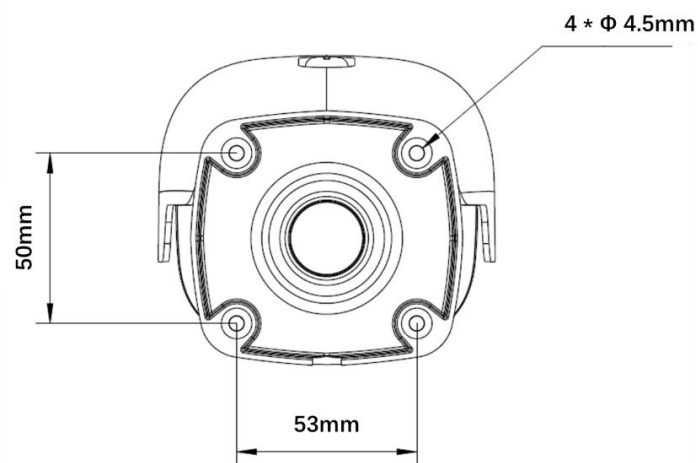
Camera Structure and Dimensions



Side View



Front View



Back View

Package List

| No. | Items | Quantity |
|-----|---------------------------------|----------|
| 1 | 5-pin connector | 1 |
| 2 | 2-Pin connector | 1 |
| 3 | Waterproof connector | 1 |
| 4 | User Manual | 1 |
| 5 | Drill position template | 1 |
| 6 | Expansion screw with swivel nut | 4 |

©IRay Technology Co., Ltd. 2021. All right reserved worldwide.

This datasheet is subject to change without prior notice. Please contact us to get the latest datasheet.