



# Dual-spectrum Bullet Camera

## IRS-FB225-T

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### Product Feature

1. With the latest InfiRay® 12  $\mu$ 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 tripwire intrusion and area intrusion are available.
4. Support professional temperature measurement analysis tools and smart fire detecting algorithm.
5. Support multiple event linkage alarm and sound-light alarm.
6. One-piece body design with encapsulation level IP66.
7. DC12 or PoE power supply is available.
8. ONVIF&GB28181 standard interface protocol, SDK, NVR and VMS client software are available.

## Camera Specifications

Technical Specifications		IRS-FB225-T		
<b>Thermal Parameters</b>	Detector Type	VOx, uncooled FPA detectors		
	Spectral Range	8 ~ 14 $\mu$ m		
	NETD	$\leq 40$ mK @25 $^{\circ}$ C,F#1.0		
	Max. Resolution	256 $\times$ 192		
	Pixel Pitch	12 $\mu$ m		
	Focal Length	3.2mm	7mm	10mm
	Focus Type	Athermal fixed focus		
	FOV	56.0 $^{\circ}$ $\times$ 42.2 $^{\circ}$	24.8 $^{\circ}$ $\times$ 18.7 $^{\circ}$	17.5 $^{\circ}$ $\times$ 11.3 $^{\circ}$
	F#	1.1	1	1
	I FOV	3.75mrad	1.7mrad	1.2mrad
	Palette	20 palettes available such as Whitehot/Blackhot/Rainbow.		
<b>Visible Parameters</b>	Sensor	5MP 1/2.8" Progressive Scan CMOS		
	Max. Resolution	2560 $\times$ 1920		
	Focal Length	4mm	8mm	12mm
	Focus Type	Fixed focus		
	FOV	82 $^{\circ}$ $\times$ 59 $^{\circ}$	39 $^{\circ}$ $\times$ 29 $^{\circ}$	25 $^{\circ}$ $\times$ 18 $^{\circ}$
	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		
<b>Dual-spectrum Parameters</b>	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 temperature measurement information		

<b>Network Functions</b>	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 (chrome kernel), Chinese and English are supported.	
	<b>Video Parameters</b>	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:	
		50Hz:25fps(2560×1920, 2560×1440,1920×1080)	
		60Hz:30fps(2560×1920, 2560×1440, 1920×1080)	
		Thermal:	
		50Hz:25fps(1280×960, 1024×768)	
		60Hz:30fps(1280×960, 1024×768)	
Sub stream		Visible	
		50Hz:25fps(1920×1080, 1280×720, 704×576, 352×288)	
		60Hz:30fps(1920×1080, 1280×720, 704×480, 352×240)	
		Thermal:	
	50Hz:25fps(640×480, 320×288)		
	60Hz:30fps(640×480, 320×240)		
<b>Temperature Measurement</b>	Measuring Range	-20℃~150℃, 0℃~+550℃	

	Measuring Accuracy	$\pm 2^{\circ}\text{C}$ or $\pm 2\%$ (The larger value shall prevail)
	Temperature Analysis	Support full frame, spot, line, region temperature measurement rules and linkage alarms
<b>Smart Functions</b>	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 burn alarm
	Smart Detecting	Support event analysis functions such as area intrusion, tripwire intrusion, dynamic detection analysis, etc.
	Voice Intercom	Support two-way voice intercom
	Linkage Alarm	Video/image/mail/ alarm output / sound and light alarm
<b>System Interface</b>	Power Interface	DC 12V $\pm$ 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
	Alarm Input	2 channel
	Alarm output	1 channel
	Storage Interface	Micro SD memory (maximum 256G)
	Reset Button	Support
<b>General Specification</b>	RS485	1 channel RS485 and support Pelco protocol
	Operating Temperature & Humidity	$-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$ ; $<95\%\text{RH}$
	Protection Level	IP66
	Power Consumption	Max. $< 6\text{W}$
	Dimension (mm)	265 $\times$ 99 $\times$ 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;

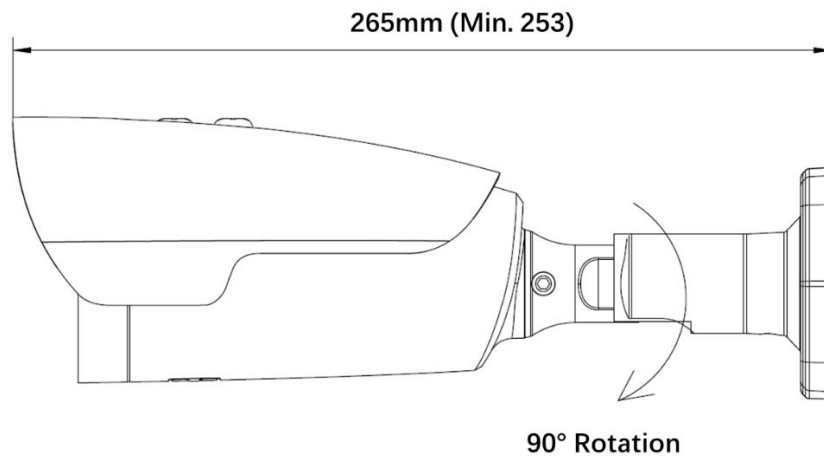
ID stands for Identifying Distance;

<b>Equipped Lens</b>	<b>DD (vehicle)</b>	<b>DD (human)</b>	<b>RD (vehicle)</b>	<b>RD (human)</b>	<b>ID (vehicle)</b>	<b>ID (human)</b>
3.2mm	409m	133m	102m	33m	51m	17m
7mm	894m	292m	224m	73m	112m	36m
10mm	1278m	417m	319m	104m	160m	52m

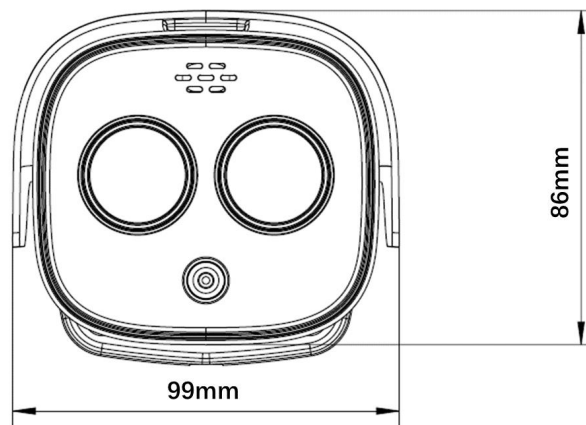
## Operating Distance of Smart Analysis

Equipped Lens	Target RD (human)	Target RD (vehicle)	Temperature Measuring Distance Target (2mx2m)	Temperature Measuring Distance Target (1mx1m)	Fire Detecting Distance Target (2mx2m)	Fire Detecting Distance Target (1mx1m)
3.2mm	25m	77m	89m	44m	356m	178m
7mm	55m	168m	194m	97m	750m	389m
10mm	78m	240m	278m	139m	1000m	550m

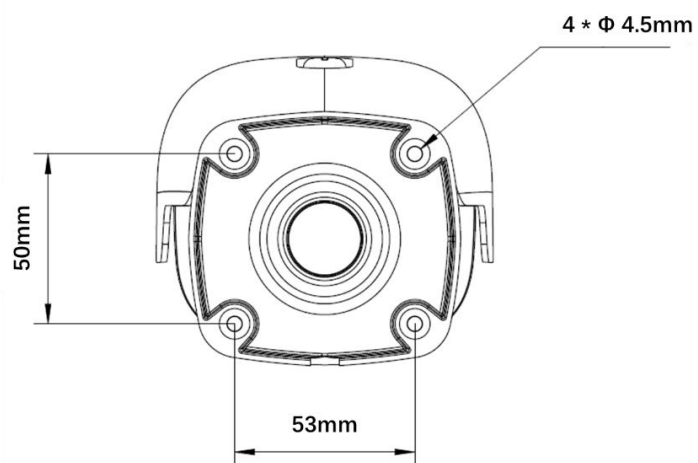
## Camera Structure and Dimensions



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

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