Galaxy®

Color247 Technology

Feb 2020 Galaxy Training

www.galaxysecurityinc.com

Low-light Level Comparison

Basic Starlight

Good low-light performance for applications down to .008-.009 lux

Starlight+

The best low-light performance down to 0.004 lux or lower.

Color247

Continuous color surveillance for scenes with ~1.0 lux backlighting (-NI). Image remains in constant color with no IR cut-filter or IR illumination.

IP Color247 Camera

GX-HT724-AI-LED-28CF
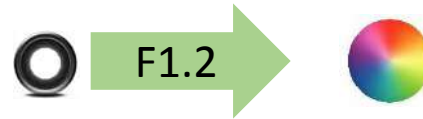**GX-HT744A-AI-36CF**

4MP Color247 AI

ePoE 4MP 700 AI Series Cameras w/ Color247

Common Features
- 1/1.8-in. CMOS Sensor
- True WDR (120dB)
- Smart H.265+ / H.265 / Smart H.264+ / H.264
- Onboard Storage
- IP67 / IK10(for 5442-NI only)
- Premium IVS Features
- People Counting
- Face Detection
- Perimeter Protection: People / Vehicles

F1.2

4MP Color247 Low-light Performance ~1.0 lx

F1.6

LEDs Length 20m

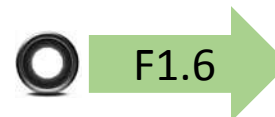**744 AI Series**

3.6mm

GX-HT744A-AI-36CF

Color247 Technology

724 AI Series

2.8mm

IPC

Color247 Technology

What if you could rely on clear, full color images in dark conditions?

ePoE

Round-the-clock video surveillance

Full Color Images in the Dark for 24/7 monitoring

ePoE Color247

Color Images in the Dark

ePoE **4MP Color247** Camera **(700 AI CF)** Series offers a **back-illuminated, stacked 1/1.8" CMOS structure** for optimal sensitivity in low-light scenes. Thanks to a large **F1.2(-NI) aperture**, a higher amount of absorbed light is filtered for **4x's the brightness** of a normal camera. Requiring as little as **1.0 lux ambient light**, nighttime images are captured in vivid color for better identification.

Captured using 4MP 700 AI CF Series Color247 @ 10:53 pm

Longer Distances

H.265 Future Proof

ONVIF®

Color 247

CAT5/6 or via Coax

Low-light Performance at 10:53 p.m. @ ~1 lux

Standard Camera

ePoE 4MP Standard IR Camera

Captured using 4MP (standard camera with IR/ICR) Series @ 10:53 pm | **1/3" CMOS**

- Best for areas that are well lit at night
- Better for short distances when used in dark applications without ambient light
- Best if color details are not required at night

700 AI CF Series

ePoE 4MP Color247 Camera

Captured using 4MP 700 AI CF Series Color247 @ 10:53 pm | **1/1.8" CMOS**

- Best for areas that have some ambient lighting such as a street light
- Best for mid to long range distances when used in dark applications with ~1.0 ambient light
- Best for when color details are required at night

4MP 700 AI CF   **4MP Standard Camera**

1/1.8"   1/3"

(Penny for size comparison)

ePoE Color247 Cameras

Perimeter Protection

700 AI CF Series makes video surveillance more relevant by adding a second layer of analytics for higher efficiency.

Perimeter Protection: Monitor a defined **area or line** for tripwire or intrusion violations. The camera then distinguishes between humans and vehicles. False alarms are reduced due to animals, weather, swaying trees and shadows.

With the ability to search by **human** or **vehicle**, time can

be greatly reduced.

Available on GX-HT724-AI-LED-28CF / GX-HT744A-AI-36CF

Perimeter Protection can distinguish between people and vehicles

ePoE 4MP Comparison

	4MP ePoE Color247 Network Dome Camera	4MP ePoE Color247 Network Eyeball Camera	4MP Starlight Network Dome Camera
Model	GX-HT744A-AI-36CF	GX-HT724A-AI-LED-28CF	GX-HT744A-AI-28
Resolution	4MP Fixed Lens	4MP Fixed Lens	4MP Fixed Lens
Sensor	1/1.8-in. CMOS	1/1.8-in. CMOS	1/2.7-in. CMOS
Illumination	**Color247** Color: 0.00022 lux at F1.2 (1/3 s, 30 IRE) Color: 0.0022 lux at **F1.2** (1/30 s, 30 IRE); *requires 1lux light*	**Color247** Color: 0.00022 lux at F1.2 (1/3 s, 30 IRE) Color: 0.0022 lux at **F1.6** (1/30 s, 30 IRE); *requires 1lux light*	**Starlight** 0.005 Lux@F1.6
Day / Night	Electronic D/N	True D/N (ICR)	True D/N (ICR)
Lens	**3.6mm**	**2.8/3.6/6mm**	**2.8mm**
IR	N/A	N/A	**164ft**
WDR	True WDR (120 dB)	True WDR (120 dB)	True WDR (120 dB)
Codec	Smart H.265+ / Smart H.264+	Smart H.265+ / Smart H.264+	Smart H.265+ / Smart H.264+
FPS	4MP (2688 x 1520) at 30 fps	4MP (2688 x 1520) at 30 fps	4MP (2688 x 1520) at 30 fps
Audio	1 in / 1 out	1 in / 1 out	1 in / 1 out
Environmental	IP67 / IK10	IP67	IP67 / IK10
Operating Temp	−22° F to +140° F	−40° F to +140° F	−22° F to +140° F
Functions	• Perimeter Protection • People Counting • Premium IVS • Face Detection	• Perimeter Protection • People Counting • Premium IVS • Face Detection	• Perimeter Protection • SMD

Color247

Offers a back-illuminated, stacked CMOS structure for optimal sensitivity in low-light scenes with 1.0 lux minimum ambient light.

Starlight

Images remain in color longer with low-light performance down to .005 lux or lower.

Ideal for applications with very little to no backlighting.

Color247 – 7/24 colorful image

Normal camera

Starlight camera

Color247 Camera

3200K warm light

ePoE 4MP Comparison

HIKVISION®

Color247

Offers a back-illuminated, stacked CMOS structure for optimal sensitivity in low-light scenes with 1.0 lux minimum ambient light.

Model	4MP ePoE Color247 Network Dome Camera	4MP ePoE Color247 Network Eyeball Camera	4 MP ColorVu Fixed Bullet/Turret Network Camera
Model	GX-HT744A-AI-36CF	GX-HT724-AI-LED-28CF	DS-2CD2T47G1-L DS-2CD2347G1-L(U)
Resolution	4MP Fixed Lens	4MP Fixed Lens	4MP Fixed Lens
Sensor	1/1.8-in. CMOS	1/1.8-in. CMOS	1/1.8-in. CMOS
Illumination	**Color247** Color: 0.00022 lux at F1.2 (1/3 s, 30 IRE) Color: 0.0022 lux at **F1.2** (1/30 s, 30 IRE); *requires 1lux light*	**Color247** Color: 0.00022 lux at F1.2 (1/3 s, 30 IRE) Color: 0.0022 lux at **F1.6** (1/30 s, 30 IRE); *requires 1lux light*	**Full-Time Color:** 0.0014 Lux @ (**F1.0**, AGC ON) 0 Lux with Light
Day / Night	Electronic D/N	True D/N (ICR)	Auto
Lens	**3.6mm**	**2.8/3.6/6mm**	**4mm/6mm**
IR	N/A	N/A	
WDR	True WDR (120 dB)	True WDR (120 dB)	True WDR (120 dB)
Codec	Smart H.265+ / Smart H.264+	Smart H.265+ / Smart H.264+	
FPS	4MP (2688 x 1520) at 30 fps	4MP (2688 x 1520) at 30 fps	2688 × 1520 @30fps
Audio	1 in / 1 out	1 in / 1 out	
Environmental	IP67 / IK10	IP67	IP67
Operating Temp	–22° F to +140° F	–40° F to +140° F	-22 °F ~ 140 °F
Functions	• **Perimeter Protection** • People Counting • Premium IVS • Face Detection	• **Perimeter Protection** • People Counting • Premium IVS • Face Detection	• Face Detection • Standard IVS

Captured using 4MP (standard camera with IR/ICR) @ 12 am | 1/3" CMOS

Performance Comparison

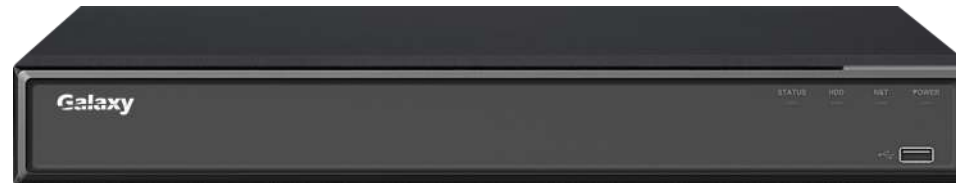**700 AI CF Series**

GX-HT744-AI-36CF

GX-HT724-AI-LED28CF

GX-HT-NVR8000 Series

👍 Recommended

HD 4in1

Basic Starlight
Good low-light performance for applications down to .008-.009 lux

Starlight+
The best low-light performance down to 0.004 lux or lower.

Color247
Continuous color surveillance for scenes with ~1.0 lux backlighting. Image remains in constant color with no IR cut-filter or IR illumination.

HD 4in1 Color247 Camera

GX-HT-XHD705FA-LED-36CF
GX-HT-XHD705FA-36CF

2MP Color247

Low-light Level Comparison

Basic Starlight

Good low-light performance for applications down to .008-.009 lux

Enhanced Starlight

Enhanced low-light performance under dark conditions down to .005-.007 lux.

Starlight+

The best low-light performance down to 0.004 lux or lower.

Color247

Continuous color surveillance for scenes with ~1.0 lux backlighting. Image remains in constant color with no IR cut-filter or IR illumination.

With higher amount of absorbed light by the larger aperture, the Color247 series camera is able to present a more vivid, brighter image under lowlight conditions.

4MP HD 4in1 Color247

2MP HD 4in1 Color247

Fixed 2.8mm
0.002 lux F1.6

Vari-focal
0.002 lux F1.9

F2.0

Fixed 3.6mm
0.001 Lux F1.0
0.005 Lux F1.6

705FA-LED

705FA

2MP Eyeball/Dome Cameras w/ Color247

Common Features
- 1/2.8-in. CMOS Sensor
- 3.6mm Fixed Lens
- True WDR (120dB) [700 Series], DWDR [700 LED Series]
- 2D Noise Reduction, 3D for [2249 Series]
- IP67 Ingress Protection
- Multi Video format (CVI, TVI, AHD, CVBS)
- Built-in Microphone

2MP Color247 Low-light Performance ~1.0 lx

Energy Savings | The power consumption of a normal surveillance camera is around 8-12W with IR LED turning on, while the maximum power consumption of a **Color247** camera is under **4.2W**.

700 / 700 LED Series

HD 4in1

GX-HT-XHD705FA-36CF

Color247 Technology

HD 4in1

GX-HT-XHD705FA-LED-36CF

Color247 Technology

Low-light Performance at 5:41 a.m. @ ~1 lux

2MP IR / ICR

Captured using 2MP 1230 Series (Standard camera with IR/ICR) Series @ 5:41 am | 1/2.8" CMOS

700 Series | 2MP Color247

2019-04-30 05:41:26

Captured using 2MP Color247 GX-HT-XHD705FA @ 5:41 am | 1/2.8" CMOS

Sensor Comparison

1/1.8"   1/3"

(Penny for size comparison)

- Best for areas that are well lit at night
- Better for short distances when used in dark applications without ambient light
- Best if color details are not required at night

- Best for areas that have some ambient lighting such as a street light
- Best for mid to long range distances when used in dark applications with ~1.0 ambient light
- Best for when color details are required at night

	2MP Color247 HD 4in1 LED Eyeball Camera	2MP Color247 HD 4in1 Eyeball Camera	2 MP Full Time Color Turret Camera
Model	**GX-HT-XHD705FA-LED-36CF**	**GX-HT-XHD705FA-36CF**	**DS-2CE72DFT-F**
Resolution	2MP Fixed Lens	2MP Fixed Lens	2MP Fixed Lens
Sensor	1/2.8 inch 2.16 Mega Pixels CMOS	Sony IMX327 1/2.8-in. CMOS image sensor / 1.0 Max Aperture	Panasonic CMOS image sensor F1.0 Max Aperture
Illumination	**Color247** 0.005Lux/F1.6, 30IRE, 0Lux white Light on	**Color247** Color: 0.001 lux F1.0 *Requires 1lux light*	**Full Time Color** Color: 0.0005 Lux @ (F1.0, AGC ON), 0 Lux with white light
Lens	3.6mm	3.6mm	3.6mm, 6mm
Audio	**Built-in Microphone**	**Built-in Microphone**	
WDR	DWDR	True WDR (120dB)	True WDR (130dB)
FPS	2MP 1920 (H)×1080 (V)	1080p@30fps	1080p@30fps
Environmental	IP67	IP67	IP67
Power	12V ±30% DC	**2.4W 12VDC**	3W 12VDC
Operating Temp	-40℃ to +60℃ (-40°F to 140°F)	-40℃ to +60℃ (-40°F to 140°F)	-40℃ to +60℃ (-40°F to 140°F)
Housing	**Metal Housing & Base**	**Metal Housing & Base**	Metal Housing & **Plastic** Base

Performance Comparison
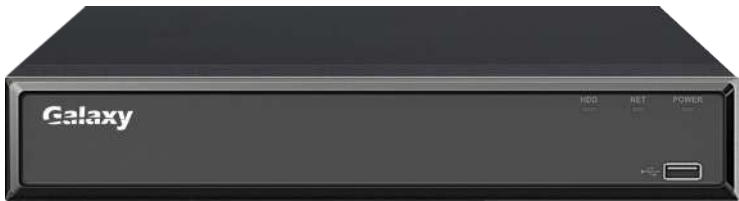

700 LED Series

GX-HT-XHD705FA-LED-36CF

700 Series

GX-HT-XHD705FA-36CF

GX-HT-XVR8504K-AI   **GX-HT-XVR8508K-AI**   **GX-HT-XVR8508K-AI**

Recommended

Color247 Camera can provide 24/7 clear image with minor details, 700 and 700 LED series can offer more useful features for further intelligent analysis when utilized with AI XVR.