EmbIR™
MISSION READY.

GEN 3
OEM THERMAL IMAGING

IN PRODUCTION. BUILT FOR SCALE.

YOUR PROGRAM IS READY TO MOVE.

SO ARE WE.

Low-SWaP thermal imaging for defense UAS.

EmbIR GEN 3 / CAMERA FAMILY



Lens configurations shown. Lensless weight and dimensions on page 2.

640 × 480

LWIR RESOLUTION

BLUE UAS

NDAA COMPLIANT

Gen 3 specifications and configuration notes → page 2.

Compact by design.

An OEM thermal camera for platforms where size, weight and power matter.



6.1 g

Starting weight without lens; configuration dependent.

19 × 19 × 10 mm

Size without lens.

SPECIFICATION	EmbIR GEN 3
Resolution	640 × 480
Spectral band	8 µm to 14 µm
Thermal detector	Uncooled VOx microbolometer
Sensitivity [NEdT]	<40 mK
Pixel pitch	12 µm
Frame rate	30 Hz
Non-uniformity correction	Factory-calibrated shutterless NUC
Input voltage	3.8–5.5 V
Power consumption	<1 W
Operating temperature	−20 °C to 60 °C
Digital zoom	1× to 4×
Output	USB2 (UVC), Analog

Field of view is for the 640 × 480 detector. Other lenses are available on request.

FOCAL LENGTH	FIELD OF VIEW
25 mm	17.4°
14 mm	32°
11 mm	42°
7 mm	65°
4.7 mm	94°

Blue UAS Framework Listed

NDAA compliant

RoHS compliant

Specifications and status: RPX MG2608503-E1, 31 August 2026. Values vary by configuration; confirm final configuration before design release.

Born for small UAS. Built for scale.

EmbIR began with a demanding challenge: thermal imaging for very small unmanned aircraft. That focus connects its Army-funded development origins to today’s production platform.



Purpose-built origins.

RPX developed EmbIR through U.S. Army-funded development contracts for nano-UAVs. Size, weight and power shaped the engineering problem from the start.

In production.

Today, EmbIR is a production product. RPX has expanded manufacturing capacity and works with OEMs on camera configuration, integration needs and recurring production demand.

2017

Army development contract
nano-UAV thermal imaging

2018

Army development contract
continued development

TODAY

In production.
Built for scale.

> Define the platform. Align the configuration.
> Plan the ramp.

Development lineage: U.S. Army-funded development contracts in 2017 and 2018.

EmbIR™

MISSION READY.

YOUR NEXT PRODUCTION PROGRAM

TALK PRODUCTION.

Tell us what you're building, where your program stands and the production rate you're working toward. Let's align the configuration, integration needs and ramp.

01 **Your platform**

Aircraft, gimbal or embedded system. Use case, program stage and integration constraints.

02 **Your camera configuration**

Optics, mechanical envelope, power and interface requirements.

03 **Your production plan**

Target monthly rate, desired start, ramp profile and recurring delivery needs. Dedicated production line options are available.

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Explore EmbIR at rpxtech.com