

Arctic Sentinel

Technical Data Sheet



The **Arctic Sentinel** is a cutting-edge design intended to meet the surveillance demands of extremely cold and harsh environments without access to grid power.

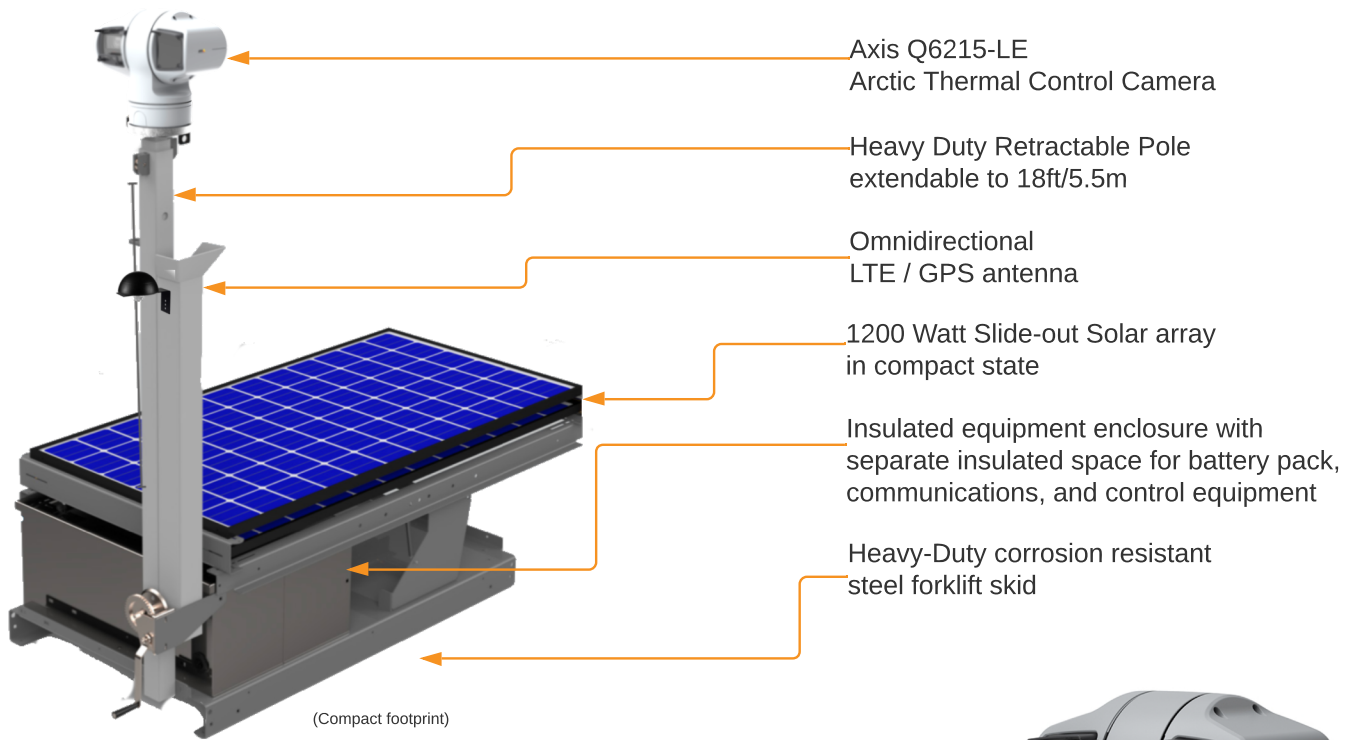
The camera, control system, and equipment enclosures are mounted onto a corrosion resistant steel skid with a retractable pole that provides excellent stability in its deployed state and can easily be collapsed into a compact footprint for relocation.

Ultra-low power equipment and deep-sleep capabilities provide limited daily PTZ camera usage based on solar availability. Equipped with a 1200 watt solar power system, a low-power microcontroller provides 24/7/365 availability to control and automate tasks for use with a variety of add-on features.



(Deployed footprint)

Component Overview



Axis Q6215-LE Camera Specifications

Camera Information*	
Image Sensor	1/1.9" progressive scan RGB CMOS
Lens	Zoom lens, 6.7–201 mm, F1.6–5.3 Horizontal field of view: 58.6°–2.2° Vertical field of view: 34.1°–1.2° Autofocus, automatic day/night IR cut filter
PTZ Features	Pan: 360° endless, 0.05°/s to 150°/s Tilt: -90° to +90°, 0.05°/s to 150°/s Zoom: 30x optical zoom, 21x digital zoom Preset accuracy: 0.10° 256 preset positions, tour recording, guard tour, control queue, orientation aid PTZ
Operating Temperature	-58 °F to 131 °F (-50 °C to 55 °C)
Power Consumption	25 Watts (typical), 71 Watts (maximum), 0 Watts (deep-sleep)
Dimensions	4 5/16" x 13" x 12 5/16" (210 x 330 x 313 mm)
Weight	19.3 lbs. (8.7 kg)
Axis Warranty	5 Years

*See manufacturer data sheet for more detailed specifications

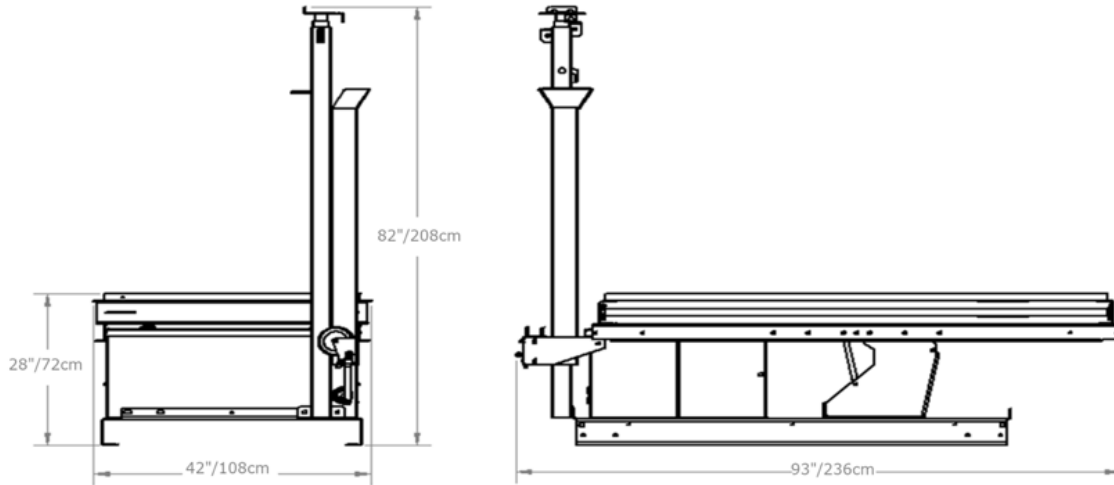
Deployed Profile



LTE Radio, Antenna, and Microcontroller Specifications

LTE Radio and Antenna Specifications	
LTE Radio Type	Cat 6 (300Mbps DL/150Mbps UL)
4G LTE Bands	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 700(B12), 700(B13), 800(B20), 1900(B25), 850(B26), 700(B29), TDD B41
3G HSPA/HSPA+ Bands	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 900(B8)
Antenna Type	2 x MIMO 4G LTE Cellular + 1 x GPS, (optional) high-gain directional and semi-directional antennas available
LTE Frequency Range	698-960 / 1710-2700 MHz
Gain	+5dBi LTE, 28dB GPS
V.S.W. R.	< 2.0
Polarization	Linear
GPS Technology	GPS, GLONASS
GPS Frequency Range	1575.42±3MHz
LTE Radio Power Consumption	1Watt (idle), 5 Watts (maximum), 60mW (deep-sleep)
LTE Radio Warranty	3 Years
LTE Antenna Warranty	5 Years
Microcontroller Specifications	
Power Consumption	6 Watts (typical), 10 Watts (maximum), 100mW (deep-sleep)
Temperature Monitoring	-67° F to 257° F (-55°C to 125°C)
Operating Temperature	-40°F to 140°F (-40°C to 60°C)
Microcontroller Warranty	2 Years

Solar Skid Compact Dimensions



Solar Skid Specifications

Solar Skid Dimensions & Details	
Build Material	ASTM A1011 CS, 10 gauge 3/16" low carbon steel plate
Build Material Finish	Painted Steel with 2 coats of Industrial Epoxy Primer and Polyurethane Topcoat, (optional) Line-X XS-350 Polyurea Coating
Fastener Hardware	Type 316 Stainless Steel
Compact Footprint (L x W x H)	93"/236cm x 42"/108cm x 82"/208cm
Deployed Footprint (L x W)	93"/236cm x 117"/297cm
Mast Height (Extended)	18'/5.5m
Mast Height (Collapsed)	8.5'/2.6m
Max Mast Payload	65 lbs./29kg
Equipment Cabinet (L x W x H)	26"/66cm x 35"/89cm x 16"/41cm
Total Weight	~850lbs/386kg (with 2 x 200Ah Batteries) ~1,200lbs/544kg (with 4 x 200Ah Batteries)
Skid Warranty	2 Years
Integrated Solar Panels & Charge Controller	
Solar Array Size	1200 Watts
Solar Charge Technology	Advanced MPPT
Health Monitoring	Local web dashboard displaying solar production, battery levels, and environmental statistics, (optional) Remote monitoring
AC Power Input	120VAC (Charges batteries through UPS function)
Power Self-consumption	~20mA
Operating Temperature	-40° to 140°F (-40°C to 60°C)
Anti-theft Measures	Lockable Doors, GPS Location Tracking
Protections	Output short circuit / Over temperature
Safety Standards	EN/IEC 62109-1, UL 1741, CSA C22.2
Charge Controller Warranty	5 Years
Solar Panel Warranty	25 Years
Batteries (To Be Provided by Customer)	
Material/Type	SLA Sealed Lead Acid – AGM, (optional) LiFePo4 batteries *, **
Battery Capacity	Up to 4 x 200Ah for a max. total of 800Ah (batteries may lose up to 50% of their capacity at temperatures below 32°F/0°C)
System Voltage	24 VDC

*LiFePo4 battery support requires solar charge controller upgrade

**LiFePo4 batteries generally cannot be charged by solar panels in freezing conditions, check with battery manufacturer for exact specifications