

alhua

TECHNOLOGY

POWERED

RapiDetect™

BY PURETECH

TECHNICAL DATASHEET

CODE: RAPIDETECT-DAHUA



AirShield

TECHNICAL DATASHEET

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OVERVIEW - RAPIDETECT

Introducing our rapid deployment alarm unit, the perfect solution for sites with little existing infrastructure. Our wireless and solar-powered unit offers complete perimeter protection with the added advantage of cameras for clear identification of potential intruders. Powered by Dahua Airshield technology, it is fully compatible with DMSS mobile access and DSS for professional monitoring solutions. With its ease of deployment, you can rest assured that your site is secure, no matter the location.

WHY CHOOSE RAPIDETECT?

- ✓ Visual Verification of Alarms
- ✓ Solar & Battery Powered
- ✓ Filters Out False Triggers (Wildlife etc).
- ✓ Compliant with Manual Handling Regulations
- ✓ 15m 360° Intruder Detection Zone

APPLICATIONS



- ✓ Outdoor Events
- ✓ Construction Sites & Vacant Properties
- ✓ Agricultural Equipment/Assets/Livestock
- ✓ Remote Facilities

COMPONENTS

TALL ENCLOSURE

Acts as an effective visual deterrent

EXTERNAL CAMERA

PIR detector with microwave and visual alarm verification

EXTERNAL SIREN

Adjustable volume, up to 110dB

4X SOLAR PANELS

For consistent power and ease of install onsite



Information is subject to change without notice.

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BUILD PROFILE

Device	Quantity
30W Solar Panel	x4
Bluetooth Enabled Smart Solar Controller	x1
12V 36Ah Lithium Iron Phosphate Battery	x1
Dahua Hub2	x1
Dahua Cameras PIRs	x4
Dahua External Siren	x1

RAPIDETECT DIMENSIONS & WEIGHTS

Information	Measurements
Height	Approx. 1470mm
Length	Approx. 650mm
Bottom Section	Approx. 25kg
Middle Section	Approx. 14kg
Top Section Weight	Approx. <1kg



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30W SOLAR PANELS

Specifications - SPM040301200

Nominal Voltage (±3% Tolerance)	12V
Cell Type	Monocrystalline
Number of Cells in Series	36
Maximum System Voltage	1000V
Temperature Co-Efficient of MPP (%)	-0.45/°C
Temperature Co-Efficient of Voc (%)	-0.35/°C
Temperature Co-Efficient of Isc (%)	+0.04/°C
Temperature Range	-40°C~85°C
Surface Maximum Load Capacity	200 kg/m ²
Allowable Hail Load	23 m/s, 7.53kg
Junction Box Type	PV-LH0805
Cable Type	No Cable
Output Tolerance	±3%
Frame	Aluminium
Dimensions	560mm x 350mm x 25mm
Weight	2.2kg

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BLUETOOTH ENABLED SMART SOLAR CONTROLLER

Specifications - MPPT-75/10

Battery Voltage (Auto-Select)	12/24 V
Rated Charge Current	10A
Nominal PV Power, 12V	145W
Nominal PV Power, 24V	290W
Maximum PV Short Circuit Current	13A
Automatic Load Disconnect	Yes
Maximum PV Open Circuit Voltage	75V
Peak Efficiency	98%
Self Consumption - Load On	12V: 19mA / 24V: 16mA
Self Consumption - Load Off	12V: 10mA / 24V: 8mA
Charge Voltage: 'Absorption'	14.4V / 28.8V (Adjustable)
Charge Voltage: 'Float'	13.8V / 27.6V (Adjustable)
Charge Algorithm	Multi-Stage Adaptive
Temperature Compensation	-16 mV / °C resp. -32mV / °C
Maximum Continuous Load Current	15A
Low Voltage Load Disconnect	11.1V / 22.2V / 44.4V or 11.8V / 23.6V / 47.2V or Battery Life Algorithm
Low Voltage Load Reconnect	13.1V / 26.2V / 52.4V or 14V / 28V / 56V or Battery Life Algorithm
Protection	Output Short Circuit / Overheat
Operating Temperature	-30°C~60°C (Full Rated Output Up To 40°C)
Operating Humidity	95%; Non-Condensing
Communication	Bluetooth
Colour	Blue (RAL 5012)
Power Terminals	6mm ² / AWG10
Protection Category	IP43 (Electrical Components) / IP22 (Connection Area)
Weight	0.5kg
Dimensions (H x W x D)	100mm x 113mm x 40mm
Safety Certifications	EN/IEC 62109-1, UL 1741, CSA C22.2
Maximum PV Open Circuit Voltage	75V
Data Stored	Battery voltage, current and temperature, as well as load output current, PV voltage and PV current.
Number of Days Trend Data is Stored	46

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12V 36Ah LITHIUM IRON PHOSPHATE BATTERY

Specifications - SLAUMXL136-12

Nominal Voltage	12.6V
Rated Capacity (20 Hour Rate)	36Ah
Terminal	M6
Capacity Retention	>80% at 28 Days
Cycle Life	>80% at 1500 Cycles
1.5 Hour Discharge to 10.5V	9.0A
Internal Resistance	<80 mΩ
Charge Voltage	14.4±0.1V
Charge Current	<40A
Continuous Current	50A
Maximum Pulse Current	150A (<5ms)
Discharge Cut-Off Voltage	8V
Charge Temperature	-20°C~60°C (-4°F~140°F)
Discharge Temperature	0°C~45°C (32°F~113°F)
Storage Temperature	-20°C~60°C (-4°F~140°F)
Dimensions (H x W x D)	172mm x 133mm x 194mm
Weight	4.3kg

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DAHUA WIRELESS ALARM HUB 2

Specifications - DHI-ARC3800H-FW2-868

PORT

Wireless Zone	Expandable to 64 wireless devices
Network Mode	Ethernet, 4G cellular
Network Port	1 RJ-45, 10 Mbps/100 Mbps Ethernet port
Storage Battery	One built-in 4,750 mah rechargeable lithium battery

FUNCTION

Indicator Light	The indicator indicates the status of alarms, arming and disarming, the network connection and device failure.
Button	Includes a reset button, power switch button and AP switch button
Video Linkage	Yes
Offline Cache	Stores up to 50 alarm messages.
Arm and Disarm	App, keyboard, remote control, card, scheduled arming and disarming
Low Battery Detection	Yes
Tamper	Yes
Logs	Up to 5,000 entries

WIRELESS

Carrier Frequency	868.0–868.6 MHz
Communication Mechanism	Two-way
Encryption Mode	AES128
Frequency Hopping	Yes

GENERAL

Operating Temperature	When battery is not charging: -10 °C to +55 °C (+14 °F to +131 °F) When battery is charging : 0 °C to +45 °C (+32°F to +113 °F)
Operating Humidity	10%–90% (RH)
Product Dimensions	174.8 mm × 174.8 mm × 38.3 mm (6.88" × 6.88" × 1.51") (L × W × H)
Net Weight	510 g (1.12 lb)
Gross Weight	860 g (1.90 lb)
Casing Material	PC + ABS
Certifications	CE

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DAHUA PIRs

Specifications - DHI-ARD2251E-W2-868V

VIDEO & AUDIO

Field of View	110° (H); 60° (V)
Image Type	JPEG
Resolution	1280 × 960; 640 × 480; 320 × 240; 160 × 120
Frame Rate	2
Illumination Mode	Infrared Light
Illumination Range	15 m (49.21 ft)
Day/Night Switch	Color; Black and White

FUNCTION

Indicator Light	1 × green alarm indicator
Button	1 × power switch
Remote Update	1 × detection range adjustment switch
Tamper Alarm	Yes
Moving Detection	Yes

TECHNICAL

Detection Mode	PIR + Microwave
Sensitivity	PIR:3 levels adjustable
Detection Range	Angle: 90° Range:15 m (49.21 ft), the installation height is 1 m (3.28 ft)
Detection Speed	0.3 m/s–2 m/s
Microwave Frequency	24 G
Pet Immunity Level	<80 cm (2.62), about 40 kg (88.19 lb)
White Light Resistance Level	10,000 lux
Anti-masking	Yes
Two-way Digital Temperature Compensation	Yes

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DAHUA PIRs - CONT.

Specifications - DHI-ARD2251E-W2-868V

WIRELESS

Carrier Frequency	868.0 MHz-868.6 MHz
Communication Mechanism	Two-way
Communication Distance	RF: Up to 1,600 m (5,249.34 ft) in an open space
RF-HD: Up to 1,400 m (4593.18 ft) in an open space	RF-HD: Up to 1,400 m (4593.18 ft) in an open space
Encryption Mode	AES128
Frequency Hopping	Yes

GENERAL

Power Supply	CR123A x 4
Battery Life	Without Camera: 5 years (triggers 10 alarms a day) With Camera: 3.5 years (triggers alarms twice a week)
Operating Temperature	-25 °C to +60 °C (-13 °F to +140 °F)
Operating Humidity	10%-90% (RH)
Product Dimensions	263 mm x 106 mm x 94 mm (10.35" x 4.17" x 3.70")
Net Weight	763 g (1.68 lb)
Gross Weight	1.06 kg (2.34 lb)
Casing Material	PC + GF
Protection	IP66
Certifications	CE
Anti-corrosion Level	Basic Protection
Storage Temperature	-25 °C to +60 °C (-13 °F to +140 °F)
Storage Humidity	10%-90% (RH)

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DAHUA SIREN

Specifications - DHI-ARA13-W2-BLUE

FUNCTION

Indicator Light 1 x green alarm indicator

WIRELESS

Carrier Frequency 868.0 MHz-868.6 MHz

Communication Distance Up to 1,600 m (5,249.34 ft) in an open space

Communication Mechanism Two-way

Frequency Hopping Yes

GENERAL

Battery 4x CR123A batteries

Operating Temperature -25 °C to +60 °C (-13 °F to +140 °F)

Operating Humidity 10%-90% (RH)

Product Dimensions 200 mm x 200 mm x 52.5 mm
(7.87" x 7.87" x 2.07") (L x W x H)

Net Weight 610 g (1.34 lb)

Gross Weight 920 g (2.03 lb)

Casing PC + ABS

Protection IP65

Certifications CE

TECHNICAL

Scenario Outdoor

Sound & Light Alarm Light alarm / Multiple alarm sounds, including fire, medical, intrusion, panic & more

Volume Level 110dB

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