



KONICA MINOLTA



RETHINK
WHAT'S POSSIBLE

PROPOSAL FOR:

**Oxnard Union High School District
Thermal Body Scanners**

PRESENTED BY:

Charles Turner
Services & Solutions Sales Executive
Konica Minolta Business Solutions U.S.A., Inc.



Executive Summary



KONICA MINOLTA

Executive Summary

Konica Minolta Business Solutions U.S.A., Inc. (“Konica Minolta”) is excited for the opportunity to provide Oxnard Union High School District with a response to BID: 641 Thermal Body Scanners. Our goal is to provide you with the best of class solution for a Thermal Temperature Screening technology with highlights that include:

- Real Time Immediate and Accurate Temperature Reading (within seconds)
- Touchless Scanning
- MxActivity Sensor can also be used in total darkness
- Able to read temperature from 6 feet away
- German Video Surveillance manufacturer
- Reusable asset

Konica Minolta is proposing to the Union High School District a combined solution based on our very own, Konica Minolta developed Intelligent Thermal IOT Camera technology. Based on the advanced capabilities within the MOBOTIX IOT Thermal Cameras, Konica Minolta can deliver an Intelligent Thermal IOT Camera technology that is easy to use on premise (local user) and optional cloud (HR/Admin) managed solution.

As you will read, the Konica Minolta proposed solution will meet all the Districts objectives. In addition, the investment in our solution can be utilized for alternate security needs in the future. Combined with the elaborate array of camera sensors, PIR sensor, microphone, and the analytic capabilities of the camera software (Mx Activity Sensor) video motion detection, event logic, people counting, it is now possible to detect large groups of people and play a recorded announcement expressing social distancing. Optionally our thermal cameras can be combined with our pro-active daily health-check, student/employee self-screening BEFORE coming onto campus; providing school liability acknowledgement, contact tracing, and reporting, as a subscription solution.

Konica Minolta works closely with school districts and is a solid partner who understands the needs of today’s compliance requirements. We support Oxnard Union High School Districts vision when you state that ‘enriching environment for students, schools must create a culture of collaboration, listen attentively to students and families, and understand the experience, knowledge, and culture students bring with them to school’. We share the Districts vision to ‘maintain facilities and infrastructures that support a safe school and provide a positive learning environment’. We hope that you will see that our solution can do just that.

Our Solution Options

Konica Minolta is proposing the Omnia Partners contract terms and conditions. In the event an award notice is given to Konica Minolta, the parties shall negotiate mutually agreeable terms and conditions for the resulting contract; however the Omnia Partners contract terms and conditions, including amendments and exhibits, will control any resulting contract.



Technical Proposal



KONICA MINOLTA

Technical Proposal

Konica Minolta will furnish, deliver our Intelligent Thermal Temperature screening cameras to each of the District's identified locations. The deliverables are as follows:

- Qty 22 - MOBOTIX DUAL THERMAL M16 CAMERA w/ 6MP Optical Color Sensor. Camera can be wall, tripod or Cart mounted.
- Qty 1- KMBS (TSA) Thermal Screening Application and Mobotix Management Center software links for download.
- 20 Hours of technical support (additional hours can be purchased).
- Annual onsite inspection of cameras, first year included.
- Training as needed to be included with each camera.

Overview:

Konica Minolta is proposing to the Oxnard Union High School District a solution comprising of a MOBOTIX Thermal TR camera,

Building Entry:

1. Touchless

Utilizing the Konica Minolta developed intelligent *Thermal Screening Application (TSA) and combining that with the Mobotix Thermal TR cameras, The solution is completely free flowing and highly accurate. * District provided Nvidia GPU Equipped PC is required to run the TSA software

The screenshot displays the 'Temperature Screening App Version 1.0.0.195' interface. At the top, it shows 'Passed = 62' and 'Failed = 15'. The main view is split into a live camera feed on the left and a thermal overlay on the right. The thermal overlay shows a person with a temperature of 35.0°C. Below the main view, there are several panels: 'Start screening' with fields for IP, User, and Password; 'Setting' with options for Reference mode, Absolute mode, Thermal Overlay, and various thresholds; 'Camera calibration' with fields for Scale, X offset, and Y offset; 'Threshold' with fields for Minimum width and height; 'Debug' with a list of metrics like ID, Area percentage, Thermal pixels over threshold, Max temp position, Confidence, Lost and past faces, and Tracing data; and a 'Log' panel showing a 'Connection failed' error. On the right side, there is a vertical list of scan results for individuals, each with a timestamp, temperature, and ID number.

Robotix Thermal Scanning



KONICA MINOLTA

2. Reading Temperature from 6-10 feet Away

Completely customizable, Konica Minolta's TSA software utilizing Face Object detection allows for easy configuration of parameters. This includes distance which is customizable per location

3. Real Time Quick Read of Body Temperature

The combined Mobotix thermal camera and Konica Minolta TSA software allow for real time, millisecond level screening. A visual Red and or Green icon along with Face Thumbnails allows for real time screening with millisecond latency

4. Ability to Set Allowable Temperature Range and Thresholds for Alarms or Warning Levels

All Temperature Alert Thresholds are customizable.

5. Ability to Identify and Read Temperature of a Person when Wearing a Mask

Please refer to the example above – the person is being screened with a mask on. There are no issues with masks as the system measures the inner canthus of the eye and or a person's forehead. Glasses and hats must be removed.

6. Describe temperature accuracy range $\leq \pm 0.9^{\circ}\text{F}$

The Mobotix camera on its own produces accuracy of less than .5F on average. Combine the solution with a Blackbody radiator and the accuracy can be as low as .1C

7. Access Controls: Through audio (voice or sound) or visual (e.g. red = denied access)

Mobotix cameras have built-in Speaker and Microphone (Embedded VOIP and ONVIF Audio) for audible and two way voice. The TSA application has built in Red/Green icons for visual verification along with Face thumbnails for easy person verification.

8. ADA Accessible

The Combined TSA app and The MOBOTIX Thermal camera's large field of view, the Face Object detection allows multiple persons screening simultaneously. This includes ADA compliance and persons of larger height at the same time.

- **Email alerting is possible directly from the camera or from an existing video management system.**

- **Integration into 3rd party Video Management Systems to include:**
 - Avigilon
 - Genetec
 - Milestone Systems
 - Others via ONVIF

MOBOTIX AG • Kaiserstraße • 67722 Langmeil • Germany
Konica Minolta Business Solutions U.S.A.
100 Williams drive
Ramsey, NJ 07446
United States of America

MOBOTIX AG
Legal Department
Kaiserstraße
D-67722 Langmeil
+49-6302-9816-0
+49-6302-9816-190
karolina.fuerst@mobotix.com

Your message	From	Our contact	Our token	Date
		Joe Byron		

Confirmation of MOBOTIX 's compliance with the National Defence Authorization Act (2019 NDAA Act 889)

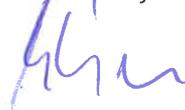
Dear Mr. Lisk,

The law, specifically section 889, prohibits federal agencies, their contractors and grant or loan recipients from procuring or using "covered telecommunications equipment or services" from specific Chinese companies - more specifically, equipment or services as a "substantial or essential component of any system, or as critical technology as part of any system." The ban includes telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation as well as video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company.

While this act requires GSA contractors to comply with the NDAA, Full Company Name's strategy is to be NDAA-compliant for all security products sold to our customers.

We hereby confirm, that all MOBOTIX products are compliant with the 2019 NDAA Act 889.

Yours faithfully



Klaus Kiener
MOBOTIX AG – CFO



Thomas Lausten
MOBOTIX AG – CEO



Bid Forms

BID BOND

(Note: If Bidder is providing a bid bond as its bid security, Bidder must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, Konica Minolta Business Solutions USA, Inc., as Principal ("Principal"),

And Westchester Fire Insurance Company, as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of California and authorized to do business as a surety in the State of California, are held and firmly bound unto the Oxnard Union High School District ("District") of Ventura County, State of California, as Obligee, in an amount equal to ten percent (10%) of the Base Bid plus alternates, in the sum of

Thirteen thousand nine hundred & forty five Dollars (\$ 13,945⁰⁰)

lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the District for all Work specifically described in the accompanying bid.

NOW, THEREFORE, if the Principal is awarded the Contract and, within the time and manner required under the Contract Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract, in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the Contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the written contract and to file the required performance and labor and material bonds, and to meet all other conditions to the Contract between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to execute the Contract within ten (10) days of the date of the District's Notice of Award to Principal.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work, or to the specifications.

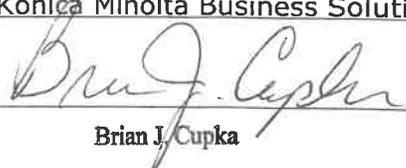
In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the District awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

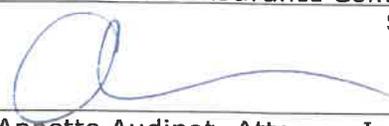
IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the 2nd day of November, 2020.

Konica Minolta Business Solutions USA, Inc.
Principal

By


Brian J. Cupka

VVP & General Counsel
Westchester Fire Insurance Company
Surety


By: Annette Audinot, Attorney-In-Fact

Brenda Wong
Name of California Agent of Surety

633 West Fifth Street, Los Angeles, CA 90071
Address of California Agent of Surety

213 / 346 - 5351
Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

END OF DOCUMENT

CALIFORNIA ALL- PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of NJ }
 County of Bergen }
 On 11/3/20 before me, ELAINE DEVLIN , Notary Public
(Here insert name and title of the officer)
 personally appeared Brian J. Cupka
 who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Elaine Devlin
 Notary Public, New Jersey
 My Commission Expires 7-19-22
 No. 2456749

 Elaine Devlin
 Notary Public Signature (Notary Public Seal)
 My Commission Expires: April 16, 2024

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

CAPACITY CLAIMED BY THE SIGNER

Individual (s)
 Corporate Officer

(Title)

Partner(s)
 Attorney-in-Fact
 Trustee(s)
 Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.

CHUBB®

Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company

Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint

Annette Audinot

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY have each executed and attested these presents and affixed their corporate seals on this 10th day of March, 2020.

Dawn M. Chloros

Dawn M. Chloros, Assistant Secretary

Stephen M. Haney

Stephen M. Haney, Vice President



STATE OF NEW JERSEY
County of Hunterdon ss.

On this 10th day of March, 2020 before me, a Notary Public of New Jersey, personally came Dawn M. Chloros and Stephen M. Haney, to me known to be Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros and Stephen M. Haney, being by me duly sworn, severally and each for herself and himself did depose and say that they are Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority.

Notarial Seal



KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316885
Commission Expires July 16, 2024

Katherine J. Adelaar
Notary Public

CERTIFICATION

Resolutions adopted by the Boards of Directors of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY on August 30, 2016; WESTCHESTER FIRE INSURANCE COMPANY on December 11, 2006; and ACE AMERICAN INSURANCE COMPANY on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Dawn M. Chloros, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY (the "Companies") do hereby certify that

- (i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
- (ii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this November 2, 2020



Dawn M. Chloros

Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:
Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com

WESTCHESTER FIRE INSURANCE COMPANY
STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis
 December 31, 2019
 (in thousands)

ASSETS		LIABILITIES AND SURPLUS TO POLICYHOLDERS	
Cash and Short Term Investments	\$ (17,346)	Outstanding Losses and Loss Expenses	\$ -
United States Government, State and Municipal Bonds	106,879	Reinsurance Payable on Losses and Expenses	-
Other Bonds	56,172	Unearned Premiums	-
Stocks	28	Ceded Reinsurance Premiums Payable	-
Other Invested Assets	<u>6,008</u>	Other Liabilities	<u>100,006</u>
TOTAL INVESTMENTS	<u>151,741</u>	TOTAL LIABILITIES	<u>100,006</u>
Investments in Affiliates	-	Capital Stock	5,000
Premiums Receivable	-	Paid-In Surplus	59,856
Other Assets	<u>92,830</u>	Unassigned Funds	<u>79,709</u>
TOTAL ADMITTED ASSETS	<u>\$ 244,571</u>	SURPLUS TO POLICYHOLDERS	<u>144,565</u>
		TOTAL LIABILITIES AND SURPLUS	<u>\$ 244,571</u>

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners, At December 31, 2019, investments with a carrying value of \$12,787,328 were deposited with government authorities as required by law.

STATE OF PENNSYLVANIA
 COUNTY OF PHILADELPHIA

John Taylor, being duly sworn, says that he is Senior Vice President of Westchester Fire Insurance Company and that to the best of his knowledge and belief the foregoing is a true and correct statement of the said Company's financial condition as of the 31 st day of December, 2019.

Subscribed and sworn to before me this April 14 2020

 John Taylor
 Senior Vice President

Diane Wright
 Notary Public

August 8, 2023
 My commission expires

Commonwealth of Pennsylvania - Notary Seal
 Diane Wright, Notary Public
 Philadelphia County
 My commission expires August 8, 2023
 Commission number 1235745
 Member, Pennsylvania Association of Notaries

BID FORM AND PROPOSAL

To: Governing Board of the Oxnard Union High School District ("District" or "Owner")

From: Konica Minolta Business Solutions U.S.A., Inc.

(Proper Name of Bidder)

The undersigned declares that Bidder has read and understands the Bid Documents, including, without limitation, the Notice to Bidders and the Instructions to Bidders, and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Bid Documents, including, without limitation, the Specifications of

Bid No. **641** ("Project") and will accept in full payment for that Work the following total lump sum amount, all taxes included:

Thermal Body Scanners

Specifications:

Sensor Type:	Amorphous Silicon Microbolometer
Thermal Resolution:	384 x 288
Spectral Response:	7-14µm
Drift Compensation:	Real-time continuous calibration (ext. TRS)
Thermal Accuracy:	±0.18°F
Measurement Range:	86°F to 113°F
Sensitivity:	≤50mK nominal
Horizontal Field of View:	24.6°
Sensor Type:	CMOS 1/3" Sensor
Day Resolution:	2688 x 1520 (4MP)
Horizontal Field of View:	Digitally synchronized to thermal image
Frame Rate:	Up to 50FPS
Contrast:	Automatic
Brightness:	Automatic
Isotherm Color Display:	Pseudocolour specifically for fever screening
Temperature Trigger:	User-defined temperature trigger threshold
Febrile Tracking:	Yes (Synchronized dual-sensor tracking)
Zoning:	Yes
Masking:	Yes
Alarm:	Audiovisual with intelligent febrile tracking
Storage:	Micro SD Card (Up to 256 GB) or/and NVR
Recording Output:	1080p
USB Connector:	USB 3.0 x 1, USB 2.0 x 2
Input Voltage:	110 – 230V AC
Operating Temperature:	60°F to 91°F
Storage Temperature:	-40°F to 185°F
Installation Options:	Wall Mounted, Ceiling Mounted or Mobile Pedestal

SCHOOL SITE	Total Quantity	Delivery Charge	Price Per Unit	TOTAL PRICE per SITE
Adolfo Camarillo HS	3	\$100	\$5,812.66	\$17,537.98
Channel Islands HS	3	\$100	\$5,812.66	\$17,537.98
Frontier HS	2	\$100	\$5,812.66	\$11,725.32
Hueneme HS	3	\$100	\$5,812.66	\$17,537.98
Oxnard HS	3	\$100	\$5,812.66	\$17,537.98
Pacifica HS	3	\$100	\$5,812.66	\$17,537.98
Rancho Campana HS	2	\$100	\$5,812.66	\$11,725.32
Rio Mesa HS	3	\$100	\$5,812.66	\$17,537.98
Annual Support (20 Hours) 12 Months from Receipt of Goods	20 Hours		\$4,000.00	\$4,000.00
Annual Inspection of All Units (postage paid by supplier)	22		\$6,779.66	\$6,779.66
2-Year Warranty	22			3 year manufacturer warranty included
Base Bid	22	\$800.00		\$139,458.18

Bidder acknowledges and agrees that the Base Bid accounts for any and all costs.

Bidder will supply the units within 10 calendar days of receipt of Purchase Order.

- A. The undersigned has reviewed the Work, Equipment and Specifications outlined in the Bid Documents and fully understands the scope of Work required in this Proposal, understands the delivery and project management function(s) described in the Bid Documents, and agrees that its Proposal, if accepted by the District, will be the basis for the Bidder to enter into a contract/purchasing order with the District in accordance with the intent of the Bid Documents.
- B. The undersigned has notified the District in writing of any discrepancies or omissions in the Bid Documents and has contacted the District Contact before bid date to verify the issuance of any clarifying Addenda.
- C. The undersigned agrees to deliver the units within the calendar days contractor specifies on this Bid Form.
- D. It is understood that the District reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.
- E. The following documents are attached hereto:
 - Bid Bond on the District's form or other security
 - Non-Collusion Declaration
 - Product Specifications

F. Receipt and acceptance of the following Addenda is hereby acknowledged:

No. <u>None</u> , Dated <u>N/A</u>	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____

G. Bidder hereby certifies that Bidder is able to furnish labor and equipment requested in this Bid Document.

Furthermore, Bidder hereby certifies to the District that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.

Dated this 4 day of November 2020

Name of Bidder: Konica Minolta Business Solutions U.S.A., Inc.

Type of Organization: Corporation

Signed by: Brian Cupka 

Title of Signer: Executive Vice President, General Counsel, & Secretary

Address of Bidder: 100 Williams Drive, Ramsey, NJ 07446

Taxpayer Identification No. of Bidder: 13-1921089

Telephone Number: (201) 825-4000

E-mail: cbdg@kmb.s.konicaminolta.us

END OF DOCUMENT

Due to the recent events involving COVID-19, also known as the Coronavirus, many Konica Minolta employees are working remotely. Konica Minolta has provided an electronic signature and if required, will provide a wet signature during the next stage of the RFP submission process or upon award.

Konica Minolta Business Solutions U.S.A., Inc. ("Konica Minolta") is proposing the Omnia Partners contract terms and conditions. In the event an award notice is given to Konica Minolta, the parties shall negotiate mutually agreeable terms and conditions for the resulting contract; however the Omnia Partners contract terms and conditions, including amendments and exhibits, will control any resulting contract.

NON-COLLUSION DECLARATION

STATE OF ~~CALIFORNIA~~ NEW JERSEY

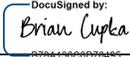
COUNTY OF BERGEN

Brian Cupka being first duly sworn, deposes

and says that he/she is Executive Vice President, General Counsel, & Secretary
(Title)

of Konica Minolta Business Solutions U.S.A., Inc., the party making the foregoing
(Name of Bidder)

bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company associations, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

DocuSigned by:


(Signature)

Brian Cupka
(Typed Name)

Due to the recent events involving COVID-19, also known as the Coronavirus, many Konica Minolta employees are working remotely. Konica Minolta has provided an electronic signature and if required, will provide a wet signature during the next stage of the RFP submission process or upon award.

SUBSCRIBED BEFORE ME on this _____ day of _____, 20____

Notary Public

Due to the recent events involving COVID-19, also known as the Coronavirus, many Konica Minolta employees are working remotely. If required Konica Minolta will provide a Notary Signature and Seal during the next stage of the RFP submission process or upon award.

My Commission Expires:

DRUG-FREE WORKPLACE CERTIFICATION

Due upon issuance of Purchasing Order to Awarded Bidder

Project/Contract between the Oxnard Union High School District ("District") and

_____Konica Minolta Business Solutions U.S.A., Inc._____ ("Contractor" or "Bidder").

This Drug-Free Workplace Certification form is required from the successful Bidder pursuant to Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990. The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by doing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and the contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

The District is not a "state agency" as defined in the applicable section(s) of the Government Code, but the District is a local agency and public school district under California law and requires all contractors on District projects to comply with the provisions and requirements of the Drug-Free Workplace Act of 1990.

Contractor must also comply with the provisions of Health & Safety Code section 11362.3 which prohibits the consumption or possession of cannabis or cannabis products in any public place, including school grounds, and specifically on school grounds while children are present.

Contractor shall certify that it will provide a drug-free workplace by doing all of the following:

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition.
- b. Establishing a drug-free awareness program to inform employees about all of the following:
 - (1) The dangers of drug abuse in the workplace.
 - (2) The person's or organization's policy of maintaining a drug-free workplace.
 - (3) The availability of drug counseling, rehabilitation, and employee-assistance programs.
 - (4) The penalties that may be imposed upon employees for drug abuse violations.

- c. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will publish a statement notifying employees concerning (a) the prohibition of controlled substance at the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by section 8355(a), and requiring that the employee agree to abide by the terms of that statement.

I also understand that if the District determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of the aforementioned Act.

I acknowledge that I am aware of the provisions of and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990 and Health and Safety Code section 11362.3.

Date: November 4, 2020

Signature:  Brian Cupka
B78A136C0D76495

Print Name: Brian Cupka

Title: Executive Vice President, General Counsel, & Secretary

END OF DOCUMENT

Due to the recent events involving COVID-19, also known as the Coronavirus, many Konica Minolta employees are working remotely. Konica Minolta has provided an electronic signature and if required, will provide a wet signature during the next stage of the RFP submission process or upon award.

TOBACCO-FREE ENVIRONMENT CERTIFICATION

Due upon issuance of Purchasing Order to Awarded Bidder

Project/Contract between the Oxnard Union High School District ("District") and
_____ Konica Minolta Business Solutions U.S.A., Inc. _____ ("Contractor" or "Bidder").

This Tobacco-Free Environment Certification form is required from the successful Bidder.

Pursuant to, without limitation, 20 U.S.C. section 6083, Labor Code section 6400 et seq., Health & Safety Code section 104350 et seq., Business and Professions Code section 22950 et seq., and District Board policies, all District sites, including the Project site, are tobacco-free environments. Smoking and the use of tobacco products by all persons is prohibited on or in District property. District property includes school buildings, school grounds, school-owned vehicles and vehicles owned by others while on District property. The prohibition on smoking includes the use of any electronic smoking device that creates an aerosol or vapor, in any manner or in any form, and the use of any oral smoking device for the purpose of circumventing the prohibition of tobacco smoking. Further, Health & Safety Code section 11362.3 prohibits the smoking or use of cannabis or cannabis products in any place where smoking tobacco is prohibited.

I acknowledge that I am aware of the District's policy regarding tobacco-free environments at District sites, including the Project site and hereby certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents, to use tobacco and/or smoke on the Project site.

Date: November 4, 2020

Signature:  _____
B78A138C0D76495...

Print Name: Brian Cupka

Title: Executive Vice President, General Counsel, & Secretary

END OF DOCUMENT

Due to the recent events involving COVID-19, also known as the Coronavirus, many Konica Minolta employees are working remotely. Konica Minolta has provided an electronic signature and if required, will provide a wet signature during the next stage of the RFP submission process or upon award.



References



KONICA MINOLTA

References

CLIENT NAME:	HOUSING AUTHORITY COUNTY OF SAN JOAQUIN
Contact & Title:	Tom Gerber, Information Technology Director
Phone:	(209) 460-5020
E-Mail:	tgerber@hacsj.org
Scope of Work:	Camera solutions
CLIENT NAME:	SAN JOAQUIN COUNCIL OF GOVERNMENTS
Contact & Title:	Vikram Sharma, Information Technology Manager
Phone:	(209) 235-0600
E-Mail:	sharma@jsocg.org
Scope of Work:	Camera solutions

Konica Minolta delivered, installed, programmed, and trained Painesville City Local Schools (see attached letter and link below):

<https://www.news5cleveland.com/news/getting-back-to-school/school-district-installs-thermal-imaging-cameras-to-check-staff-students-for-covid-19-symptoms>

Konica Minolta delivered, installed, programmed and trained the Hackensack Meridian Hospital on the MOBOTIX Thermal Temp Screening solution:

<https://www.nbcnewyork.com/news/hackensack-hospital-hankers-down-on-hygiene/2429676/>

Konica Minolta delivered, installed, programmed and trained the NY Giants on the MOBOTIX Thermal Temp Screening solution:

<https://www.giants.com/video/watch-giants-covid-19-task-force-transforms-team-facility>



Solution Brochures



KONICA MINOLTA

WORKPLACE
OF THE FUTURE™



MORE THAN MEETS THE EYE

MOBOTIX

INTELLIGENT VIDEO SECURITY SOLUTIONS

YOUR SECURITY IS OUR CONCERN.

More and more businesses have been called upon to provide better security for their employees, their premises and the surrounding areas. Employees want to navigate the darkened parking lots with ease and employers want to be more aware of threats, intruders and vandals with an eye toward proactive awareness of a breach and defusing highly dangerous situations.

With smart security solutions from Konica Minolta and MOBOTIX, we can provide actionable information for you to prevent a potential disaster within your offices, schools, stores or factory facilities and their perimeters.

The built-in intelligence our video solution offers can help you analyze processes, situations and behavior to make decisions now that will impact your future.

With the pioneering MOBOTIX applications for intelligent video and its proprietary analysis software, Konica Minolta can provide smart, autonomous IP (Internet-Protocol) cameras replicating the successful installations around the globe – safeguarding, for instance, airports, soccer stadiums or prisons.



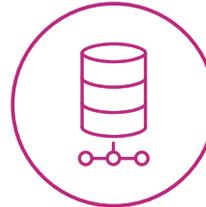
AUTOMATIC EVENT DETECTION



ALARM MESSAGING



VIDEO ANALYSIS



DIRECT NETWORK ATTACHED STORAGE (NAS)



REMOTE FUNCTION



TWO-WAY AUDIO WITH VOIP MESSAGING



PHONE CONNECTIVITY

INTELLIGENT VIDEO SECURITY SOLUTIONS.

Countless organizations record extensive amounts of video footage. Due to lack of time, only a fraction of this material is viewed and scrutinized. As a consequence, occurrences and undesired activities remain undetected and suspicious behavior is not discovered in time so that critical incidents cannot be averted.

Our intelligent video security solutions can automatically analyze the video image and record only when a pre-defined alert occurs. Applications range from straightforward analyses like motion and audio detection all the way to the complex detection of camera manipulation, people counting or virtual fencing as well as license plate detection. IT video systems can even filter video footage and specific data from data streams and integrate this material, for instance, into cash management or access control systems. You benefit from the information with attractive advantages and new business potential.

Taking this approach, your enterprise has fast retrieval of relevant video material, more efficient staff assignments, reduced infrastructure and the opportunity to apply the information to actionable initiatives.

Areas of Use

- **Surveillance:** Continuous monitoring of your property helps protect people and material assets
- **Deterrence:** Effectively averts break-ins and vandalism before offenders can cause any damage

- **Entry Control:** Easily done with video, intercom, RFID/Keypad, free software and APP
- **Perimeter Protection:** Directional movement detection with proactive, intelligent measures to deter entry including 2-way audio, control of lighting, alarming and notifications
- **Property Protection:** Instantaneous scene awareness for remote sites like construction, critical infrastructure, and mobile applications with logic controlled by sensory inputs
- **Quality Assurance:** Autonomous inspection of equipment, fire hazards, spontaneous combustion, leaks, production and people
- **Traffic Observation:** Remote monitoring of vehicle, train, ship and plane movements with high quality imagery
- **Behavioral Analysis:** People counting, people movement tracking for the gathering of critical data along with directional movement, restricted area alerting
- **Input Logic:** Monitoring of equipment, plants, and sensors to facilitate production and the reduction of losses

PEACE OF MIND

- Protect facility from theft & vandalism
- Protect staff – in parking lots, when skeleton crew is on shift, business location is not in the safest part of town, late night closings
- Protect students – visibility in grade schools to university campuses: in classes, in hallways, and outside the buildings
- Peace of mind – augment a fenced-in area at a commercial, military, penitentiary, law or luxury store to replace/supplement guards
- Vulnerable to hostility? Protect religious locations, controversial businesses, banks, dispensaries



Mobile Video Security

To protect against crime, theft and vandalism in public areas, at events, on construction sites, etc., a mobile video security system is the right solution:

Key Features

- **Self-sufficiency:** The camera solution does not require a DSL connection or power supply, as it can optionally be operated via battery and solar power.
- **Flexible and mobile:** Camera systems are assembled and connected in a minimum of time, and can thus be used anywhere or switched between various locations.
- **Everything in view:** Comprehensive camera surveillance allows simultaneous monitoring of all access points to the grounds at any time.
- **Control center:** This facilitates the classification of alarms and helps to avoid false alarms; it can be optionally added.
- **Visual and audible alarm:** In addition to the control center being alerted, floodlights or a siren can be installed or an announcement via loudspeaker arranged, all serving as deterrence.
- **Individual adaptation:** Customized solutions to fit specific requirements can easily be realized with unique hardware and/or software solutions.

Early Fire Prevention

The early detection and notification of possible hazards, such as smoldering fires, overheated appliances and other sources of heat or fire, is essential to protect your premises. MOBOTIX thermography ensures this, including the automatic triggering of alarms.

Key Features

- **Spot metering:** Absolute temperature detection via video sensor within a range of -40°F to + 1022°F; typical accuracy of $\pm 10^\circ\text{F}$.
- **Thermal radiometry:** Automatic alarm upon exceedance or shortfall of up to 20 defined temperature limits or ranges.
- **Thermal overlay:** Superimposing of the visual sensor image with "Hotspots" for easier identification of dangerous sources of heat or fire.

MARKET APPLICATIONS

- **Education** for playground bullying to campus intruders; property protection
- **Healthcare** for facility and premise safety
- **Commercial Operations** for protection of machinery & inventory; freight transportation security
- **Utilities:** Power | Telecom with temperature-critical processes; outdoor turbines, towers, transformers
- **Government** for Theft , Espionage, Vandalism protection; wild fires detection
- **Religious Organizations** for hostile breaches



Retail Analytics

The video security and analysis of their premises offers various advantages to superstores, car dealerships and other retailers. Counting visitor numbers, analyzing visitors' movements in specific areas of the premises and understanding these activities can help increase turnover and facilitate targeted conversions, help prevent employee fraud and shrink, plus have visibility into any odd behavior or breaches of your store or warehouse.

Key Features

- **Analysis of customer behavior:** Which in-store areas are most frequented by customers? Where do visitors spend most of their time? Heat maps show the most frequented hotspots as colorings in the camera image.
- **Optimized marketing:** What customer impact do advertising campaigns have? How effective is display advertising? Which other factors influence visitor numbers – the weather, day of the week, special offers?
- **Improved personnel planning:** What are the peak times in stores? This essential information can help to optimize staff assignment and increase overall efficiency.
- **Enhanced shopping experience:** How can the store layout be adapted to customer expectations and thus increase customer satisfaction?
- **Counting visitors:** How many customers visited the store last week? Which is the most frequented entrance, and which area of the store was visited the most?
- **Live view:** Usage of smartphones or tablets to see what is happening in various branches at any time – there's no need to be on site.



License Plate Recognition

License Plate Recognition increases the speed of vehicular access and departure, can open barriers automatically and relieve security staff of repetitive tasks. This facilitates the organization of the production, loading and/or parking processes, can shorten the dwell times of haulers, carriers and their drivers, and allows limiting access only to registered vehicles.

Key Features

- **Recording:** Locally or on a central file server; with individual filters for the recording of incidents.
- **Statistics:** Graphic visualization of the timeline of incidents in bar charts; these can be edited by applying various filters and graphic adjustments.
- **Counters:** Counting and listing of vehicles present at any time, with print option.
- **White list:** Access rights can be administrated in a list in CSV format, relating to individual stations, and can include time limits.
- **Blacklist:** Administration of a list of unauthorized vehicles; triggering of visual and acoustic alarms; recording of an alarm list including images; temporary blocking of exits.
- **Activities:** The range of activities can include the opening of barriers; visual and acoustic alarms; e-mail notifications; posting of notifications in a display.

SMART SECURITY TECHNOLOGY FROM KONICA MINOLTA & MOBOTIX.

The collaboration of Konica Minolta and MOBOTIX means that you benefit from our creative innovations and technologically advanced security systems. MOBOTIX is the pioneer of stand-alone intelligent IP video systems and has created the first IP cameras that do not require any central PC or software. This decentralized in-camera intelligence enables you to build cost-effective security systems that facilitate automatic video recording. These are the main highlights of the MOBOTIX cameras:

6 Mega Pixel Moonlight Technology for Low Light

The new generation of MOBOTIX cameras features 6 mega pixel Moonlight Technology, which provides outstanding image processing inside the camera, enabling the capturing of fast-moving objects in low light conditions such as moonlight.

No Blind Spots With 360° Hemispheric View

MOBOTIX invented the 360° hemispheric camera technology that allows you to secure an entire room without blind spots and virtual zoom. Onboard hemispheric processing helps increase the image quality and reduces network bandwidth.

Avoid False Alarms With Innovative Motion Detection

With comprehensive, built-in sensor technologies, MOBOTIX cameras are able to define precise events with the right notification activities. Reliably detecting motion during the most extreme conditions, the MxActivity sensor reduces false alarms by up to 90%.

Ensure Privacy and Data Security

Every MOBOTIX system includes comprehensive password security with supervisory protection for users and cameras. Layered with a fully encrypted two-wire MxBus connectivity system and power backup, MOBOTIX installations offer unrivalled system privacy and data security.

Beyond that, MOBOTIX offers numerous other advantages, such as:

- Efficient, optimized security video codec MxPEG
- Maintenance-free thanks to fiberglass-reinforced outer housing and no moving parts
- Green IP video – the MOBOTIX low power design saves energy





INNOVATIONS THAT SET MOBOTIX APART AND PROVIDE **ATTRACTIVE BENEFITS.**

Intelligent Dual-Camera Concept

- Dual cameras with two sensors and digital switching between day and night
- The most advanced security camera solution combining thermal, optical and MxActivitySensor
- Motion detection in complete darkness at up to a quarter of a mile in distance
- Privacy zones supported

Simultaneous Recording, Event Search & Live Viewing

- Each camera can handle live viewing for multiple users, recording and event search from anywhere in the world via a network connection
- Full image recording independent from the live view

Decentralized System With No Storage Limit

- Every camera is a complete security system in itself, with all features integrated
- Unlimited scalability allows adding cameras and storage at any time
- Lowest bandwidth and storage: each camera manages its own terabyte-sized storage device (NAS) via the network

Weatherproof With Sun and Backlight Compensation

- Cameras can be installed anywhere thanks to their weatherproof, robust and virtually maintenance-free design
- Fiberglass-reinforced composite housing with built-in cable protection
- High-quality CMOS sensor guarantees optimum exposure control and longest product lifetime

Lowest energy consumption

- Low-power design saves up to 80% of energy
- Each camera uses approx. 4 – 5 Watts with no heating/cooling required

Bandwidth Management for Optimized Remote Access

- Camera records high resolution without any loss of details
- Can manage frame rate and image size depending on the available bandwidth

Professional Video Management and Analytics

- Highly intuitive and easy to learn
- Analytics inside the camera counts objects and can monitor behavioral events such as turns, exceeding speed, and more
- Perfect tool to combine security and marketing needs

PARTNERSHIP

Konica Minolta can help give shape to your ideas and partner with you to achieve your corporate objectives. Contact us to realize opportunities in:

INFORMATION MANAGEMENT

Enterprise Content Management (ECM)
Document Management
Automated Workflow Solutions
Business Process Automation
Security and Compliance
Mobility
eDiscovery Services

IT SERVICES

Application Services
Cloud Services
IT Security
Managed IT Services
IT Consulting & Projects

TECHNOLOGY

Office Multifunction Business Solutions
Commercial and Production Printers
3D Printers
Wide Format Printers
Laptops, Desktops and Computer Hardware
Servers and Networking Equipment
Managed Print Services (MPS)
Managed Enterprise Services

For complete information on Konica Minolta products and solutions, please visit: reshapework.com

You can contact us at MOBOTIX@kmb.konicaminolta.us

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KONICA MINOLTA

KONICA MINOLTA BUSINESS SOLUTIONS U.S.A., INC.
100 Williams Drive, Ramsey, New Jersey 07446

CountOnKonicaMinolta.com



Item #: MobotixBro17
12/17-1



Technical Specifications



MOBOTIX M16B Thermal M16B Thermal TR

Twice As Secure. Even In Total Darkness.

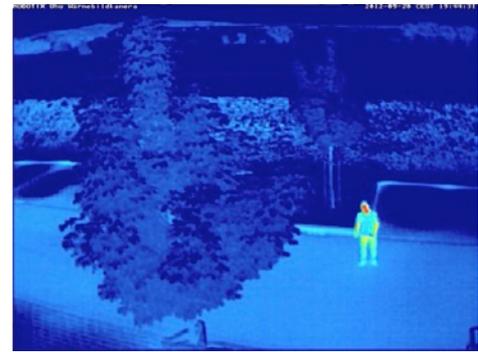
The intelligent video system with an integrated high-performance thermal image sensor takes full advantage of the M16B camera design. Thanks to the two directly adjacent lenses, there is also a thermal overlay function with image overlay (thermal and optical) to pinpoint the exact location of hotspots like smoldering fires in a visible image. The MOBOTIX TR cameras feature a calibrated thermal image sensor. Thermal radiation measurements made across the entire image area can be used to trigger an event based on the temperature increasing above or decreasing below an individually set trigger level (camera alarm, network message, activation of a signal output etc.).

- Mx6 system platform 2nd generation, with MxBus, H.264 and ONVIF compatibility
- Fixed premium thermal image sensor with an NETD of 50 mK
- Thermal Radiometry For measurable added value: calibrated thermal image sensor
- Thermal field of view: 45°, 25° or 17°
- Additional image sensor module options
- Recording on an internal MicroSD card (4GB as standard)
- Integrated microphone and speaker
- MxActivitySensor can also be used in total darkness
- PoE thermal camera with a power consumption of < 10 W

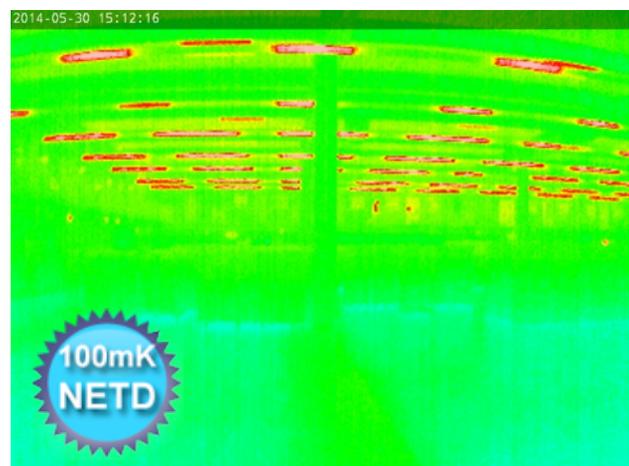
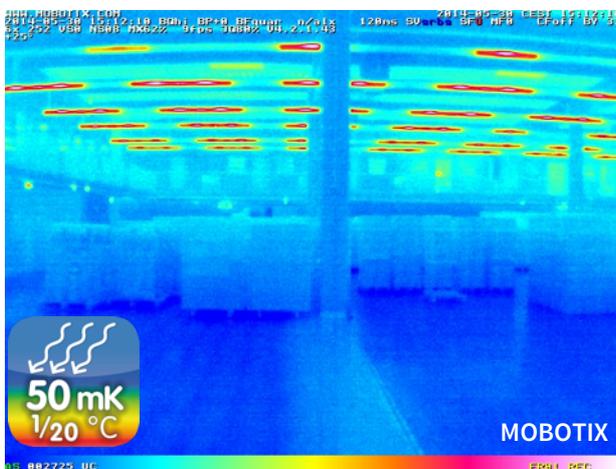
General Product Information

Basic Information On Thermal Imaging Technology

Thermal imaging technology is a contactless imaging procedure that makes it possible to see the thermal radiation from an object or body otherwise invisible to the human eye (mid-wavelength infrared). Thermal radiation is electromagnetic radiation emitted by a body based on its temperature. It is caused by thermal motion within a body's molecules. This is the result of accelerated charges that emit radiation in accordance with the laws of electrodynamics. Thermal imaging technology captures and displays temperature distribution across surfaces and objects. Thermographic cameras usually display heat intensity information in artificial colors (blue = cooler, red = warmer). In terms of the number of pixels, the resolution is considerably lower than that for cameras capturing the visible spectral range.



Unlike cameras with optical image sensors, one of the decisive quality criteria for a thermal camera is the camera's ability to capture the slightest differences in temperature and to produce an image that displays these differences in colors. The NETD, or Noise Equivalent Temperature Difference, is used to measure the sensitivity of a thermal sensor and is expressed in millikelvin. With an NETD of 50 mK, MOBOTIX thermal cameras can visualize temperature variations starting at 0.05°C, which places them in the top range of cameras currently available for general use.



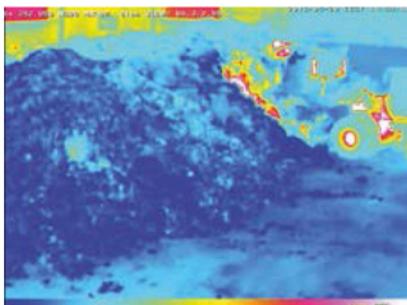
Thanks to an NETD of 50 mK, the MOBOTIX thermal image (left) shows significantly more details than a competitor's less powerful thermographic camera with an NETD of 100 mK (right).

Respecting Privacy

The detected thermal profile of a thermal camera shows no identifiable details for identification of persons and can therefore guarantee privacy. As soon as an object is moving into the relevant surveillance area, MOBOTIX dual camera system can automatically switch from thermal sensor to the optical sensor, producing visible high resolution video. This unique MOBOTIX feature combines two aspects, respecting the privacy aspect and at the same time optimal video surveillance.

Temperature Events And Thermal Overlay

Thermal radiometry (TR) cameras from MOBOTIX generate automatic alarms, defined by temperature limits or temperature ranges, which is vital to detect potential fire or heat sources. Up to 20 different temperature triggers can be defined at the same time within so-called TR (Thermal Radiometry) windows or the whole sensor image can be used over the temperature range of -40 to +550 °C. In this way critical situations can be analyzed in the control room in order to plan the next steps for effective fire prevention. Critical assets like emergency generators, wind turbines or radio stations can be cost-effectively maintained and tested remotely. MOBOTIX thermal dual camera systems offer thermal overlay to localize so-called hot spots in the visual image to prevent larger damage. The standard Power-over-Ethernet (PoE) compatibility and the extremely low power consumption of only 6 watts allows operation of MOBOTIX thermal camera systems in every situation.



Fire prevention



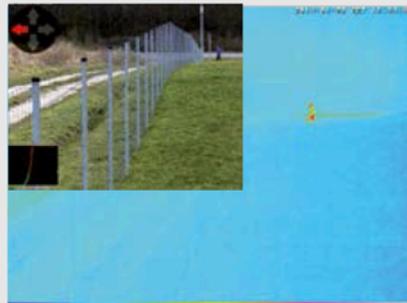
No smoking area



Thermal image overlay



Border control



Perimeter protection



Privacy zones

PLEASE NOTE – Special Export Regulations For Thermographic Cameras

Cameras with thermographic image sensors (“thermographic cameras”) are subject to special U.S. and ITAR (International Traffic in Arms Regulation) export regulations:

According to currently valid export regulations from the U.S. and ITAR, cameras with thermographic image sensors or their component parts cannot be exported to countries that have been embargoed by the U.S./ITAR. The corresponding delivery ban also applies to all individuals and institutions included on “The Denied Persons List” (see www.bis.doc.gov under Policy Guidance > Lists of Parties of Concern). These cameras and their installed thermographic image sensors are not to be used for the design, development, or production of nuclear, biological or chemical weapons or installed in these systems.

[Link to the Thermal End User Statement on MOBOTIX Website](#)

Technical Specifications: M16B Thermal/M16B Thermal TR

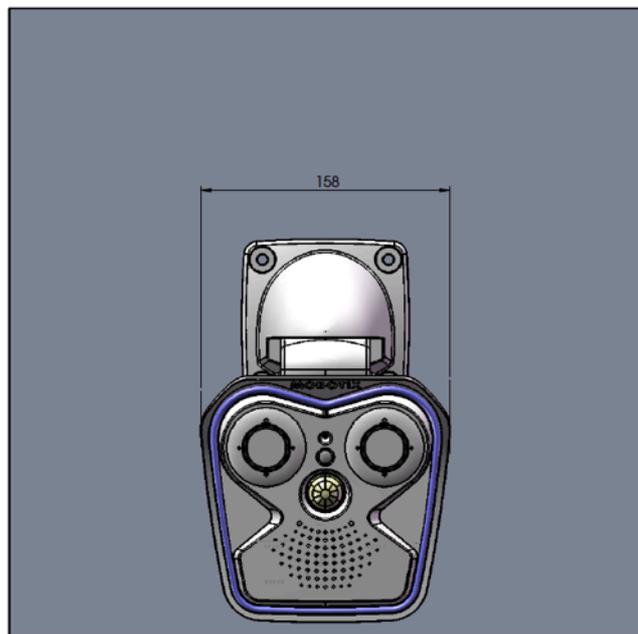
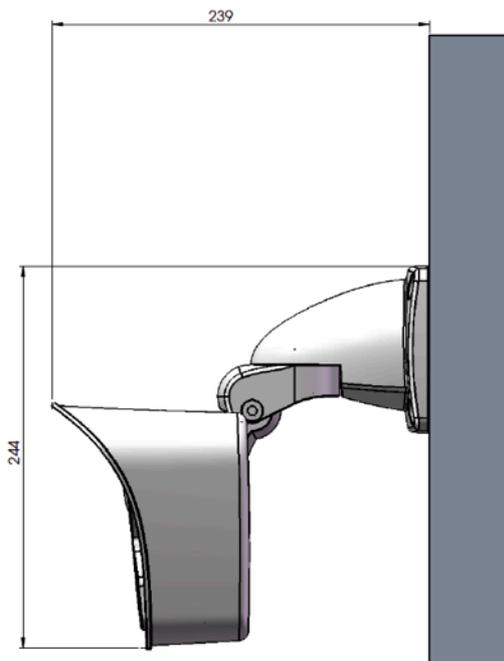
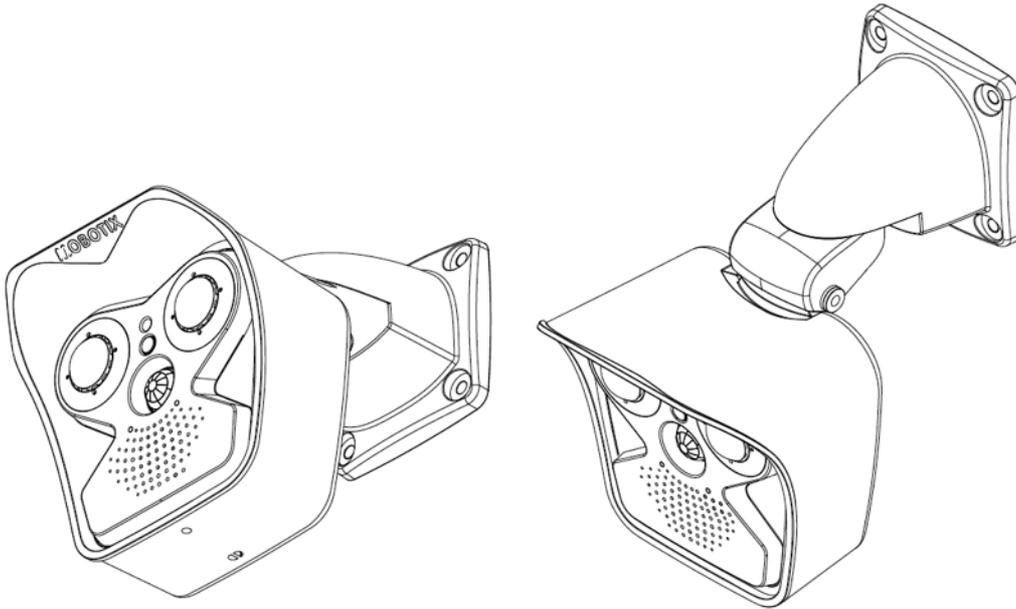
Camera Variants	M16B Thermal	M16B Thermal TR
Specialties	IP Thermographic camera with/without Thermal Radiometry technology (TR) and Germanium lens (3 different image angles available); can be optionally equipped with a second optical 6MP sensor module (day/color or night/black and white to be ordered separately for easy self-assembly)	
Main Differences	Temperature measurement only in the center of the image (Thermal Spot, 2x2 pixels), accuracy up to +/- 20°C	TR temperature measurement of each pixel in the whole image area, up to 20 independent temperature events, accuracy up to +/- 10°C
Thermal Lenses/Sensors, 50 mK, 336 x 252 (Factory-Assembled)	M16B Thermal	M16B Thermal TR
Thermal sensor, horiz./vert. image angle 45°/32	Mx-M16TB-T079	-
Thermal sensor, horiz./vert. image angle 25°/19°	Mx-M16TB-T119	-
Thermal sensor, horiz./vert. image angle 17°/13°	Mx-M16TB-T237	-
Calibrated Thermal sensor TR/Thermal Radiometry, horiz./vert. image angle 45°/32	-	Mx-M16TB-R079
Calibrated Thermal sensor TR/Thermal Radiometry, horiz./vert. image angle 25°/19°	-	Mx-M16TB-R119
Calibrated Thermal sensor TR/Thermal Radiometry, horiz./vert. image angle 17°/13°	-	Mx-M16TB-R237
Thermal image sensor	Uncooled microbolometer, 336 x 252 pixels, Pixel Pitch 17 µm, IR range 7,5 to 13,5 µm	
Sensitivity NETD (thermal resolution)	Typ. 50 mK, < 79 mK (50 mK is equal to temperature changes of 0,05°C)	
Thermal image representation	False colors or black and white	
Temperature measuring range (adjustable)	High Sensitivity: -40 to 160°C/-40 to 320°F – Low Sensitivity: -40 to 550°C/-40 to 1022°F	
Temperature measuring method (via camera)	In the center of the image (2x2 pixels)	Complete image areas (customizable temperature measurement windows)
Max. accuracy of temperature measurement	+/- 20°C	+/- 10°C
Optical Lenses/Sensors, 6MP, 3072 x 2048 (Available With Optional Sensor Module)	M16B Thermal	M16B Thermal TR
Sensor module with Fisheye Lens B016 (180° x 180°), night version optionally with long-pass filter (LPF)	Day/Color: Mx-O-SMA-S-6D016 Night/Black&White: Mx-O-SMA-S-6N016 LPF/Black&White: Mx-O-SMA-S-6L016	
Sensor module with Ultra Wide Lens B036 (103° x 77°), night version optionally with LPF	Day/Color: Mx-O-SMA-S-6D036 Night/Black&White: Mx-O-SMA-S-6N036 LPF/Black&White: Mx-O-SMA-S-6L036	
Sensor module with Super Wide Lens B041 (90° x 67°), night version optionally with LPF	Day/Color: Mx-O-SMA-S-6D041 Night/Black&White: Mx-O-SMA-S-6N041 LPF/Black&White: Mx-O-SMA-S-6L041	
Sensor module with Wide Lens B061 (60° x 45°), night version optionally with LPF	Day/Color: Mx-O-SMA-S-6D061 Night/Black&White: Mx-O-SMA-S-6N061 LPF/Black&White: Mx-O-SMA-S-6L061	
Sensor module with Standard Lens B079 (45° x 34°), night version optionally with LPF	Day/Color: Mx-O-SMA-S-6D079 Night/Black&White: Mx-O-SMA-S-6N079 LPF/Black&White: Mx-O-SMA-S-6L079	
Sensor module with Tele Lens B119 (31° x 23°), night version optionally with LPF	Day/Color: Mx-O-SMA-S-6D119 Night/Black&White: Mx-O-SMA-S-6N119 LPF/Black&White: Mx-O-SMA-S-6L119	
Sensor module with Distant Tele Lens B237 (15° x 11°), night version optionally with LPF	Day/Color: Mx-O-SMA-S-6D237 Night/Black&White: Mx-O-SMA-S-6N237 LPF/Black&White: Mx-O-SMA-S-6L237	
Sensor module with Super Tele Lens B500 (8° x 6°), night version optionally with LPF	Day/Color: Mx-O-SMA-S-6D500 Night/Black&White: Mx-O-SMA-S-6N500 LPF/Black&White: Mx-O-SMA-S-6L500	
Sensor module with CS-Mount (no lens included)	Day/Color: Mx-O-SMA-S-6DCS Night/Black&White: Mx-O-SMA-S-6NCS	

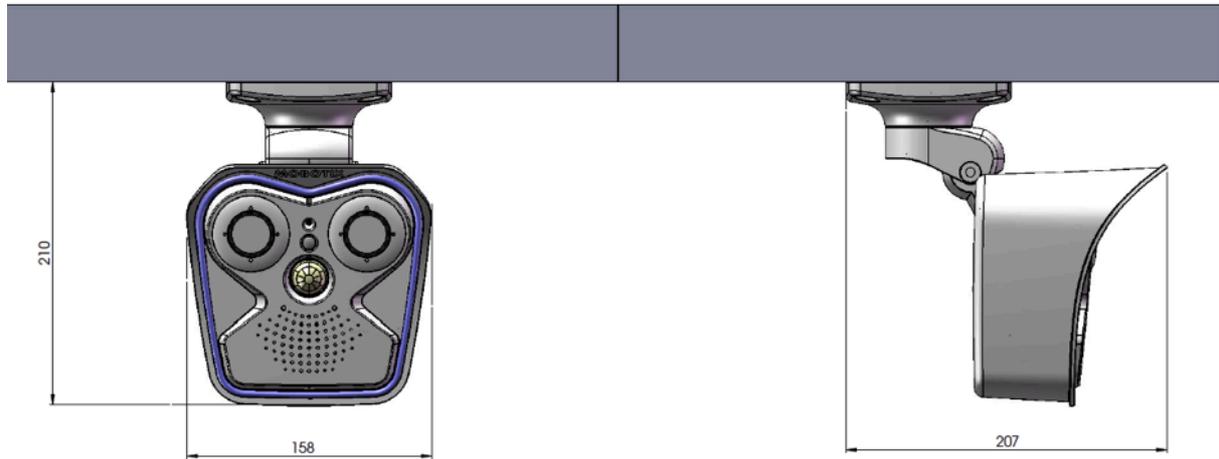
Technical Specifications: M16B Thermal/M16B Thermal TR

Optical Lenses/Sensors, 6MP, 3072 x 2048 (Available With Optional Sensor Module)	M16B Thermal	M16B Thermal TR
Sensor module with CSVario Lens B045-100-CS	Day/Color: Mx-O-SMA-S-6DCSV Night/Black&White: Mx-O-SMA-S-6NCSV	
Image sensor with individual exposure zones	1/1.8" CMOS, 6MP (3072 x 2048), Progressive Scan Color or Black And White	
Light sensitivity in lux at 1/60 s and 1/1 s	Color Sensor: 0,1/0,005 Black And White Sensor: 0,02/0,001	
Hardware	M16B Thermal	M16B Thermal TR
Microprocessor	i.MX 6 Dual Core incl. GPU (1 GB RAM, 512 MB Flash)	
H.264 Hardware-Codec	Yes, bandwidth limitation available; output image format up to QXGA	
Protection class	IP66 and IK06; with second 6MP sensor module: IK04 with B036 to B237, IK06 with B016	
Intended use	Not for use in hazardous areas (Ex area); no mounting behind glass windows	
Ambient temperature (range, incl. storage)	-40 to 60°C/-40 to 140°F (cold boot from -30°C/-22°F)	
Internal DVR, ex works	4 GB (microSD)	
Microphone/speaker	Yes/Yes	
16bit/16kHz HD wideband audio (Opus codec)	Yes (live and audio messages)	
Passive infrared sensor (PIR)	Yes	
Temperature sensor	Yes	
Shock detector (tamper detection)	Yes	
Power consumption (typically at 20°C/68°F)	9 W (10 W possible over the short term)	
PoE class (IEEE 802.3af)	Class 2 or 3 (variable), factory setting: class 3 (required for thermal operation)	
Interfaces Ethernet 100BaseT/MxBus/USB	Yes (MxRJ45)/Yes/Yes	
Interface RS232	With accessory (MX-232-IO-Box)	
Mounting options	Wall, pole or ceiling (wall and ceiling mount included)	
Dimensions (height x width x depth)	210 x 158 x 207 mm	
Weight	1,320 g	
Housing	PBT-30GF, color: white	
Standard accessory	Screws, dowels, screw caps, 2 allen wrenches, module key, VarioFlex wall and ceiling mount with rubber sealing, 0.5 m ethernet patch cable, 1 blind module, Quick Install	
Detailed technical documentation	www.mobotix.com > Support > Download Center	
Online version of this document	www.mobotix.com > Support > Download Center	
MTBF	> 80,000 hours	
Certifications	EN55032:2012 EN55022:2010; EN55024:2010 EN61000-6-1:2007; EN 61000-6-2:2005 EN61000-6-3:2007+A1:2011 EN61000-6-4:2007+A1:2011 AS/ NZS CISPR22:2009+A1:2010 CFR47 FCC part15B	
Protocols	IPv4, IPv6, HTTP, HTTPS, FTP, FTPS, RTP, RTSP, UDP, SNMP, SMTP, DHCP (client and server), NTP (client and server), SIP (client and server) G.711 (PCMA and PCMU) and G.722	
Manufacturer's warranty (since May 2018)	3 years	
Image Formats, Frame Rates, Image Storage	M16B Thermal	M16B Thermal TR
Available video codecs	MxPEG/MJPEG/H.264	
Image formats	Freely configurable format 4:3, 8:3, 16:9 or customized format (Image Cropping), such as 2592x1944 (5MP), 2048x1536 (QXGA), 1920x1080 (Full-HD), 1280x960 (MEGA)	
Multistreaming	Yes	
Multicast stream via RTSP	Yes	
Max. image format (dual image from both sensors)	2x 6MP (6144 x 2048)	

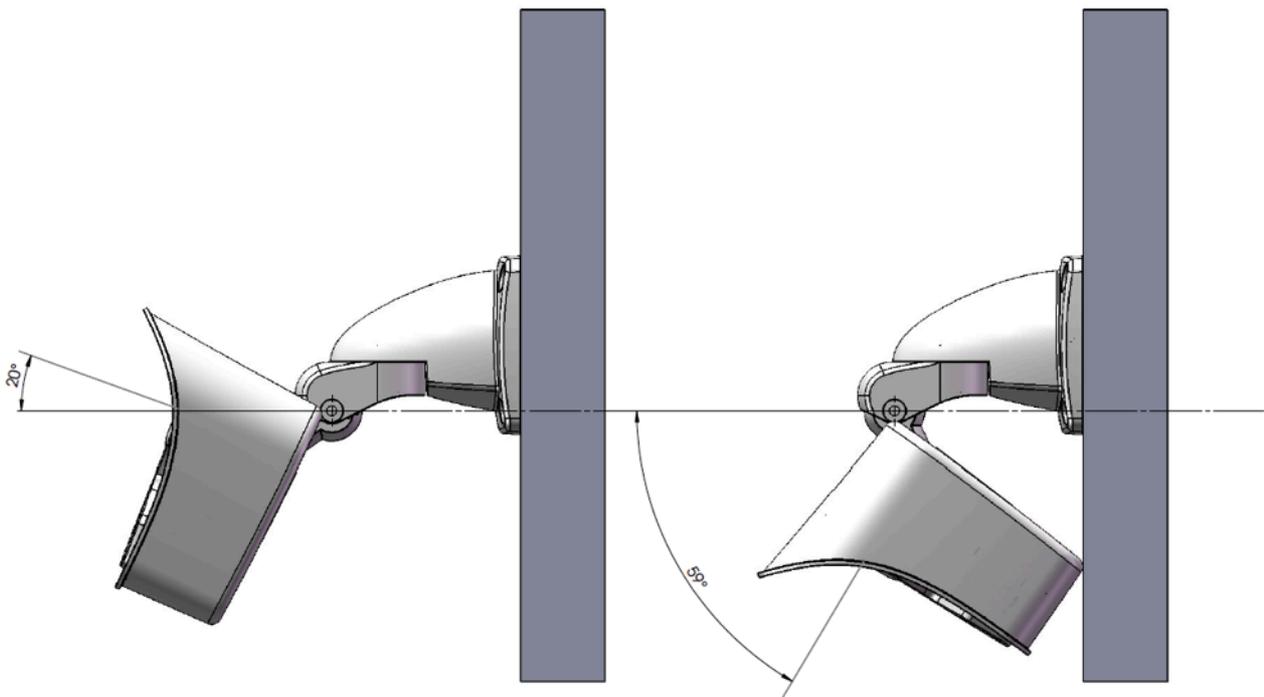
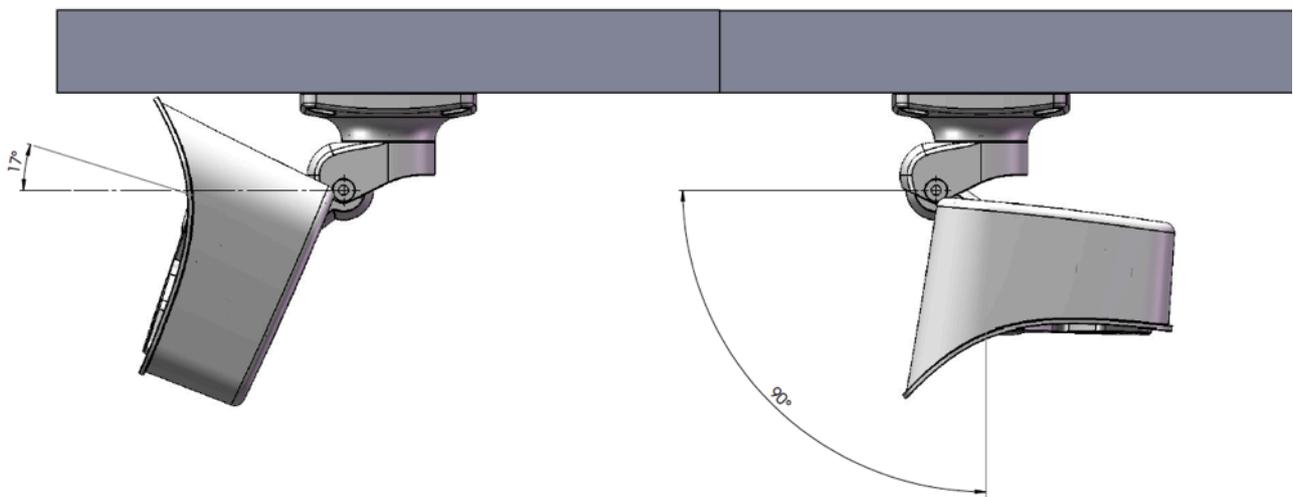
Technical Specifications: M16B Thermal/M16B Thermal TR

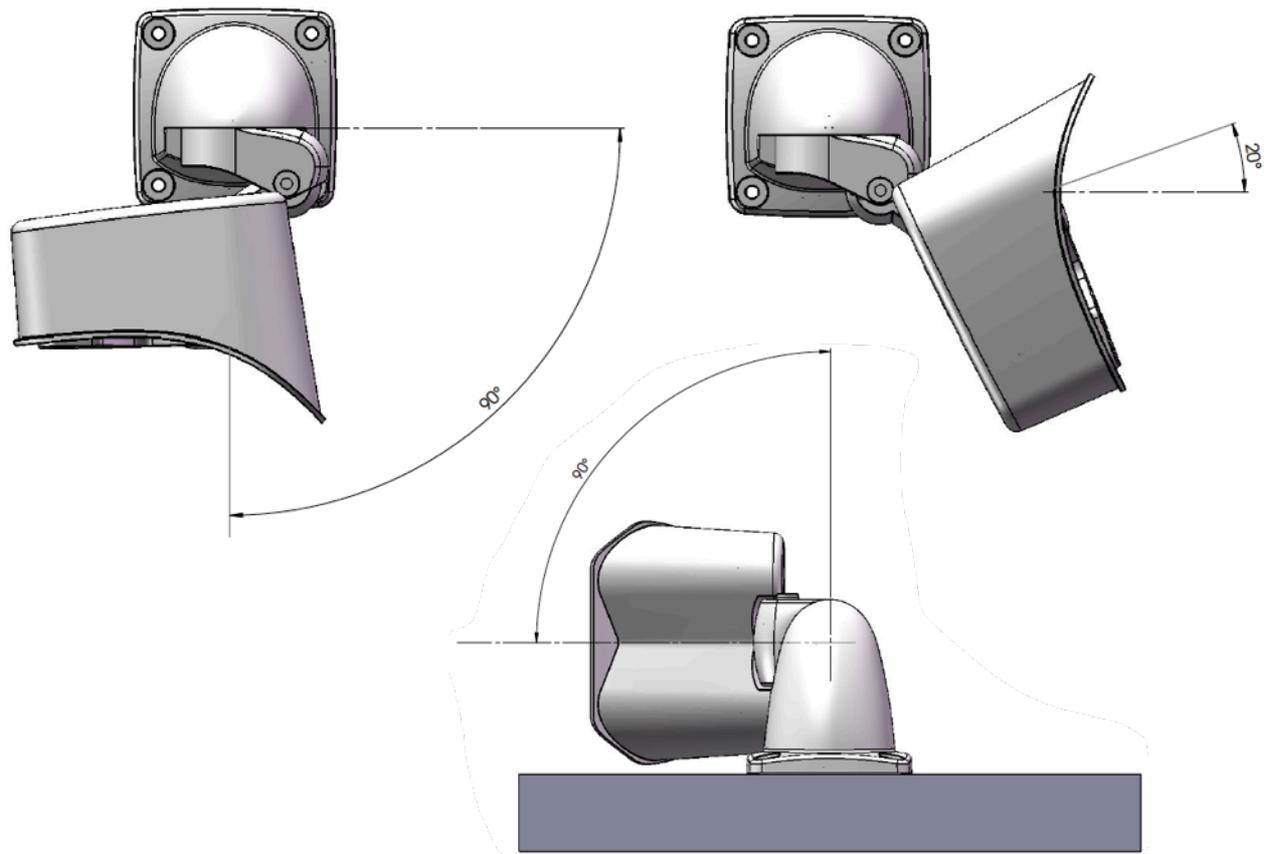
Image Formats, Frame Rates, Image Storage	M16B Thermal	M16B Thermal TR	
Max. frame rate for thermal images, Thermal Overlay and dual images (thermal & optical)	9 frames per second (fps)		
Max. frame rate for optional optical 6MP sensor module (fps, only single core used)	MxPEG: 42@HD(1280x720), 34@Full-HD, 24@QXGA, 15@5MP, 12@6MP, 6@2x 6MP MJPEG: 26@HD(1280x720), 13@Full-HD, 9@QXGA, 5@5MP, 4@6MP, 2@2x 6MP H.264: 25@Full-HD, 20@QXGA		
Number of images with 4 GB microSD (internal DVR)	CIF: 250,000, VGA: 125,000, HD: 40,000, QXGA: 20,000, 6MP: 10,000		
General Functions	M16B Thermal	M16B Thermal TR	
Temperature measurement of 2x2 pixels in the center of the image (Thermal Spot)	Yes	Yes	
TR temperature measurement in the whole image area	No	Yes	
Event trigger for temperatures above or below a limit between -40 to 550°C/-40 to 1022°F	Yes	Yes	
Digital zoom and pan	Yes		
ONVIF compatibility	Yes (Profile S, audio support with camera firmware V5.2.x and higher)		
Genetec protocol integration	Yes		
Programmable exposure zones	Yes		
Snapshot recording (pre/post-alarm images)	Yes		
Continuous recording with audio	Yes		
Event recording with audio	Yes		
Time controlled flexible event logic	Yes		
Weekly schedules for recordings and actions	Yes		
Event video and image transfer via FTP and email	Yes		
Playback and QuadView via web browser	Yes		
Bidirectional audio in browser	Yes		
Animated logos on the image	Yes		
Master/Slave functionality	Yes		
Privacy zone scheduling	Yes		
Customized voice messages	Yes		
VoIP telephony (audio/video, alert)	Yes		
Remote alarm notification (network message)	Yes		
Programming interface (HTTP-API)	Yes		
DVR/Storage Management	Inside camera via microSD card, externally via USB device and NAS, different streams for live image and recording, MxFFS with archive function, pre-alarm an post-alarm images, monitoring recording with failure reporting		
Camera and data security	User and group management, SSL connections, IP-based access control, IEEE802.1x, intrusion detection, digital image signature		
MxMessageSystem: Sending and receiving of MxMessages	Yes		
Video Analysis	M16B Day	M16B Night	M16B Day & Night
Video motion detector	Yes		
MxActivitySensor	Yes		
Video Management Software	M16B Day	M16B Night	M16B Day & Night
MxManagementCenter	Yes		
Mobile MOBOTIX App	Yes		





Dimensions in mm







MxMSP™ & MxLINQ™

The Cloud Service Platform for MOBOTIX

Secure Cloud Access & Storage | Intuitive & User-friendly | Scalable Remote Support & Updates

Take MOBOTIX's decentralized & durable video surveillance platform to the next level with our ever-expanding suite of cloud services components including: **Cloud Recording & Storage, Instant Access to Live Video Streams & Recordings, Advanced Analytics, and Real Time Situational Awareness Alerts & Feeds.**

- MxMSP's scalable, secure, multi-site, enterprise-wide monitoring solution enables easy & secure remote maintenance of your entire system – from anywhere at anytime.
- **More secure than most on-premise solutions** – MxMSP's 2-Factor Password Authentication & Encrypted Data (both Transmitted & RESTful) provide unparalleled security and peace of mind.
- **No on-premise software, no loading clients on customer devices or computers**, and all system updates & security are managed platform side.

Whether a new or existing MOBOTIX deployment, **onboarding and implementation are a breeze.**

Sneak Peek of Useful Features

Event ReCording

Breeze through Video Footage



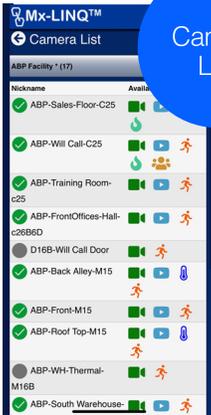
Event Recording



Time Lapse

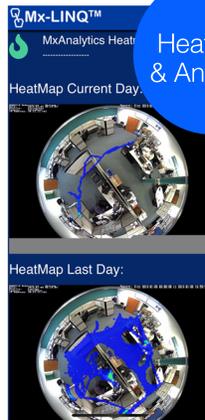
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Camera List



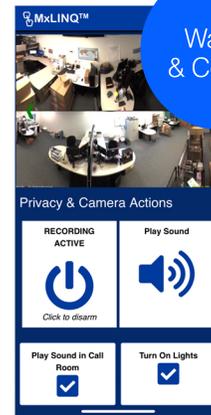
See all cameras live, event recording, arm activity, temperature alerts, and more

Heat Map & Analytics



Access special analytics features on your phone when and where you're most creative

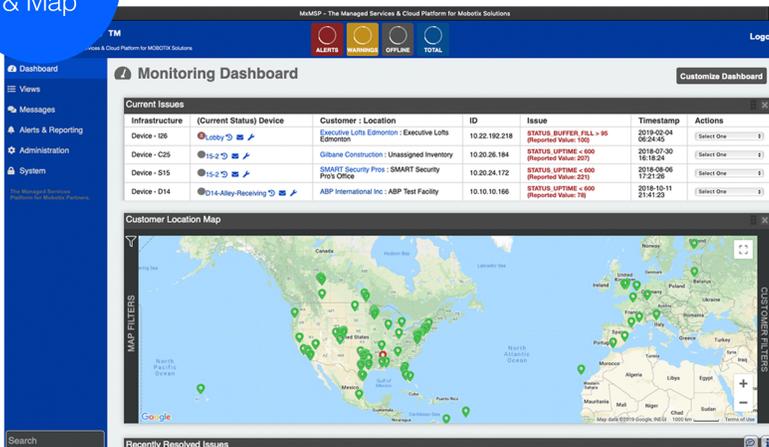
Watch & Control



Camera actions like Send audio, open gates, and turn on lights can be managed on MxLINQ™

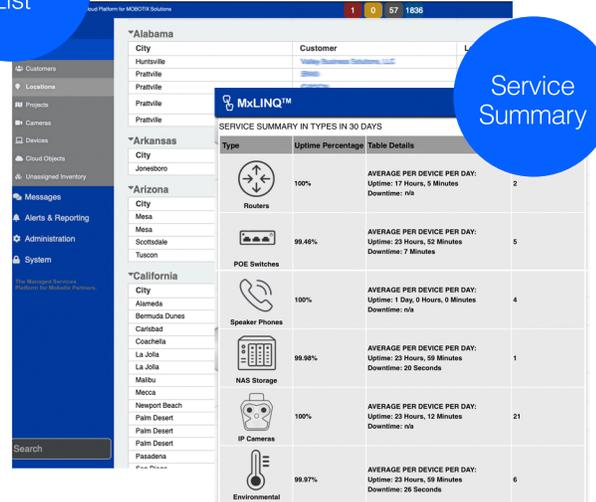
Dashboard & Map

Responsive design - works on any browsers. No software install needed



Location List

Manage large multi-site even in international projects



Service Summary

Features and Specifications

REMOTE ACCESS

- True BYOD (Bring Your Own Device) - iOS and Android (desktops, laptops, tablets and phones)
- No plug-ins, no clients and no download needed

VIDEO STORAGE & RETENTION

- In-camera SD Storage, in Cloud 30, 60, 90 - up to 365 days
- Archived video encrypted mp4 and encrypted MxPEG for better forensic analysis
- Automatic back-ups in world wide Tier 1 data centers

VIDEO SEARCH

- Search by Camera & Location
- Search by Date & Time
- Activity Index by Camera

VIDEO SHARING

- Video sharing and download in player
- Privilege can be restricted by user
- Unlimited viewers of cloud streams

CAMERA SETTINGS & SUPPORT

- Support for full camera functionality
- Easy cloud-based camera management

MANAGED UPDATES

- Platform can manage camera firmware updates
- There is no local software to manage
- Cloud platform is managed by operator
- Upgrade cost is included in License Fee

LIVE MONITORING

- Support for both local MOBOTIX On-Premise or cloud-based remote Live Monitoring available

ACTIVITY, PEOPLE & OBJECT DETECTION

- Platform offers Recent Activity view for seeing cameras that recently had activity to help get best situational awareness
- Notifications based on people count, traffic density, directional changes or behavioral analytics supported by in-camera or cloud analytics

VIDEO ANALYTICS

- Native support for MOBOTIX patented Activity Sensor for in-camera analytics
- All On-Camera Analytics like Traffic/People Count are supported with no extra costs. Additional advanced analytics can be added on cloud platform as extra options
- Notifications based on people behavior, direction changes, people count, traffic density, other behavioral analytics are all supported if configured in MOBOTIX in-camera analytics
- System Health and Predictive Maintenance Analytics
- Optional external analytics plug-in for LPR, FR, etc

BANDWIDTH CONSUMPTION

- View Mode Standard or HiRes
- Most optimized use of bandwidth ~ 250 Kps ~ 3 Mbps depending on configured resolution and frame rate
- No activity minimum bandwidth

CENTRALIZED ADMIN

- Single Maintenance & Support Dashboard
- Interactive Views of all Locations and Cameras
- Central Asset Management and Camera History

Features and Specifications

DATA & NETWORK SECURITY

- All cameras make secure encrypted tunnel connections to our private cloud.
- There are no unencrypted RTSP video stream transmissions and all data at rest is encrypted with state of the art AES256 with best practices key management

MOBOTIX & THIRD-PARTY INTEGRATION

- MOBOTIX + MxMSP™/MxLINQ™ offers a unique open architecture that allows other VMS or Access Control solutions to be easily and securely integrated.

USER ACTIONS

- MxLINQ™ can be configured to provide End-users full control from their phones for user actions like send audio, open gates and turn on lights.

DATA PRIVACY

- Platform design was made with EU-GDPR and security by design in mind. Video Data Storage can be held in different Geographical Locations depending on customer's location and legal requirements (currently US and U servers). MxMSP™ has unique privacy modes to protect the End-user. Arming, recording and FULL PRIVACY MODE can be managed and activated by the End-user primary account holder from their phone and not be deactivated by anyone else.

INTEROPERABILITY

- The Cloud Platform is designed to operate as a fully integrated, decentralized overlay to the MOBOTIX camera solution. This means that the MOBOTIX cameras can simultaneously operate in the cloud platform and still have a local VMS solution as a back up or for more specific local requirements or integrations.
- In that case the MxMSP™ platform serves as an excellent universal camera health monitoring, maintenance and FW update platform



Managed platform used to set up monitoring and maintaining systems, mainly managed by MOBOTIX Partners or IT Team



End user platform that links and grants easy access to the full system functionality

Benefits of VSaaS (Video Surveillance as a Service)

- Unlike on-site video surveillance, VSaaS is a security system that is hosted in the cloud. This provides additional security, better access and dynamic storage while requiring less hardware and customer resources.
- Users can remotely and securely access from anywhere and any device (phone, | tablets, laptops, desktops) without special network setup or software installs.
- Data stores 24/7 to the cloud and is encrypted and with automatic backup while providing users days, weeks or even years of storage on demand that is safe from local tampering in case of incidents.

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