

UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

Before the Honorable Charles E. Bullock
Chief Administrative Law Judge

In the Matter of

CERTAIN VIDEO SECURITY EQUIPMENT
AND SYSTEMS, RELATED SOFTWARE,
COMPONENTS THEREOF, AND
PRODUCTS CONTAINING SAME

Investigation No. 337-TA-1281

**RESPONDENT VERKADA, INC.'S
RESPONSE TO THE COMPLAINT AND NOTICE OF INVESTIGATION**

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Pursuant to 19 C.F.R. § 210.13, Respondent Verkada, Inc. (“Verkada” or “Respondent”) submits this response (“Response”) to the Complaint Under Section 337 of the Tariff Act of 1930, as Amended (“Complaint”), filed by Complainants Motorola Solutions, Inc., Avigilon Corporation, Avigilon Fortress Corporation, Avigilon Patent Holding 1 Corporation, and Avigilon Technologies Corporation (collectively, “Complainants”) on August 6, 2021, and to the Notice of Investigation issued by the United States International Trade Commission on September 8, 2021 (“Notice”). This Response further contains Respondent’s preliminary affirmative defenses, prayer for relief, and statement pursuant to 19 C.F.R. § 210.13(b).

RESPONSE TO THE COMPLAINT

Founded in 2016 in Menlo Park, California, Verkada develops enterprise building safety and monitoring solutions using disruptive technology that sweeps away traditional surveillance approaches. Verkada’s products include security cameras, environmental sensors, door access control systems, and alarm systems, that all integrate seamlessly and allow customers to easily utilize the data from a centralized command center. Despite being a relatively recent entrant, Verkada’s ground-breaking solutions have already earned the trust of over 7,800 enterprise customers around the world—including numerous law enforcement agencies, school districts, hospitals, banks and financial institutions, and businesses in all sectors and of all sizes. In short, Verkada’s modern safety solutions are leading the market for enterprise surveillance products, most of which use out-of-date designs that have been around for decades.

In contrast to Verkada, Complainants are among the suppliers offering enterprise surveillance products based on the traditional approaches and designs. The Complaint evinces and underscores Complainants’ failure to understand the innovative technology on which Verkada’s products and solutions are based. Simply, the Complaint represents a contorted reading of Verkada’s marketing statements and other public materials. Instead, the patents

describe concepts that were not new, were already known in the field, and were obvious and dated by the time of the patent applications. In fact, Complainants have not shown a “domestic industry” in these technologies, or an act of infringement; and the outdated approaches described in the three asserted patents are no basis to exclude Verkada’s products from the marketplace and thereby deprive thousands of public organizations and private enterprises of solutions they rely on to keep their premises safe and secure.

* * *

Verkada denies that it has engaged in unfair competition or violated Section 337 of the Tariff Act of 1930, as amended, by importing, selling for importation, or selling within the United States after importation any products that infringe any valid and enforceable intellectual property rights at issue in this investigation. Verkada further denies that any patent claims asserted against it in this investigation are valid or enforceable. The responses below reflect the current status of Verkada’s knowledge and beliefs regarding the subject matter of the allegations to which it responds. Verkada reserves the right to supplement, modify, and/or amend its responses based on any additional facts or developments that become available or that arise after the filing of this Response.

Verkada denies each and every allegation averred in the Complaint that is not expressly admitted below. Any factual allegation admitted below is admitted as to only the specific admitted facts, and not as to any purported conclusions, characterizations, implications, or speculations that might follow from the admitted facts. Verkada responds to the numbered paragraphs of the Complaint as follows. The paragraph numbering in these responses corresponds to the numbered paragraphs in the Complaint.

I. INTRODUCTION¹

1.1. Verkada admits that Complainants purport to have filed the Complaint pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 (“Section 337”). Verkada further admits that Complainants purport to base their Complaint on the alleged unlawful importation into the United States, sale for importation into the United States, and/or sale within the United States after importation of certain video security equipment and systems, related software, components thereof, and products containing same. Except as specifically admitted, Verkada denies any remaining allegations and characterizations contained in Paragraph 1.1 of the Complaint.

1.2. Verkada admits that video security solutions are offered by suppliers using the name Avigilon or similar. To the extent Paragraph 1.2 of the Complaint contains allegations of fact, particularly concerning the activities of Complainants, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

1.3. To the extent Paragraph 1.3 of the Complaint contains allegations of fact, particularly concerning the activities of Complainants or third parties, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them. Verkada admits that Exhibit 15 purports to be a publication, *Intelligent Systems: Avigilon Appearance Search*, from Benchmark Technological Innovation &

¹ For ease of reference, Verkada repeats the headings set forth in the Complaint. In doing so, Verkada makes no admissions regarding the substance of the headings or any other allegations of the Complaint. Unless explicitly otherwise stated, to the extent that a particular heading can be construed as an allegation, Verkada specifically denies all such allegations.

Smart Solutions. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 1.3 of the Complaint.

1.4. Verkada admits that the Complaint purports to name Verkada as the Respondent. Verkada further admits that it is involved in the development, manufacturing, and sales of the Accused Products—but denies that any of its products or solutions, including the Accused Products, infringe or violate any intellectual property rights. Verkada further admits that certain video security equipment and systems, components thereof, and/or products containing the same, are manufactured in Taiwan on behalf of Verkada. Verkada further admits that certain video security equipment and systems, components thereof, and/or products containing the same, are imported into the United States. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 1.4 of the Complaint.

1.5. Verkada admits that it was founded in 2016 and did not offer for sale or sell security solutions or products prior to 2016. Verkada further admits that Exhibit 17 purports to be an internet post, *Verkada Announces People Analytics to Simplify Investigations*, from Verkada. Verkada denies all other allegations and characterizations contained in Paragraph 1.5 of the Complaint.

1.6. Verkada admits that Exhibit 18 purports to be an internet post, *Reducing Bandwidth Consumption of a Cloud Camera to 20kbps*, from Verkada. Verkada further admits that Exhibit 19 purports to be an internet post, *Securing Your Video Surveillance Network*, from Verkada. Verkada denies all other allegations and characterizations contained in Paragraph 1.6 of the Complaint.

1.7. To the extent Paragraph 1.7 of the Complaint contains conclusions of law, no response is necessary. Verkada denies that it infringes any of the asserted patents; that any of the

Accused Products use the '912 Patent, '312 Patent, or '607 Patent; and that '912 Patent, '312 Patent, and '607 Patent disclose any protectable invention(s). Verkada denies any characterizations relating to the asserted patents to the extent they purport to attribute to the asserted patents anything that is not stated therein. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 1.7 of the Complaint.

1.8. To the extent Paragraph 1.8 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 1.8 of the Complaint contains allegations of fact, particularly as to Complainants' activities, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 1.8 of the Complaint.

1.9. Verkada acknowledges that Complainants purport to seek a permanent limited exclusion order barring entry into the United States certain video security equipment and systems, related software, components thereof, and products containing the same, that directly or indirectly infringe the asserted patents. Verkada further acknowledges that Complainants purport to seek cease and desist orders that would prevent Verkada from marketing, distributing, selling, offering for sale, warehousing inventory for distribution, or otherwise transferring or importing into the United States the infringing video security equipment and systems, related software, components thereof, and/or products containing same. Verkada further acknowledges that Complainants purport to seek the imposition of a bond during the Presidential Review Period. Verkada denies that Complainants are entitled to any form of remedy and/or relief based on the allegations set forth in the Complaint. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 1.9 of the Complaint.

II. COMPLAINANTS

2.1. To the extent a response is required, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 2.1 of the Complaint, and therefore denies them.

2.2. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 2.2 of the Complaint, and therefore denies them.

2.3. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 2.3 of the Complaint, and therefore denies them.

2.4. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 2.4 of the Complaint, and therefore denies them.

2.5. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 2.5 of the Complaint, and therefore denies them.

2.6. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 2.6 of the Complaint, and therefore denies them.

III. PROPOSED RESPONDENT

3.1. Verkada admits that it is organized under the laws of Delaware with its principal place of business at 405 E 4th Avenue, San Mateo, California 94401. Verkada also admits that it offers, *inter alia*, video security equipment, systems, and software; and that some of Verkada's customers are headquartered in the United States.

3.2. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products are infringing. Except as specifically admitted, Verkada denies the allegations and characterizations of Paragraph 3.2, which incorporates by reference Section VII, of the Complaint.

IV. TECHNOLOGY AND PRODUCTS AT ISSUE

4.1. Verkada admits that the Complaint purports to assert infringement based on certain accused products. Verkada denies that such an assertion is correct or proper, and denies that the scope of the accused products is appropriate. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 4.1 of the Complaint.

4.2. Verkada admits that the Complaint purports to assert infringement based on certain accused products. Verkada denies that such an assertion is correct or proper, and denies that the scope of the accused products is appropriate. Verkada admits that it provides or has provided camera products under the following trade/product names: (a) the Verkada Dome Series, (b) the Verkada Mini Series, (c) the Verkada Fisheye Series, (d) the Verkada Bullet Series, and (e) the Verkada D-Series.² Verkada further admits that its customers include, but are not limited to, manufacturing, retail, hospitality, property management, education, and government entities. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 4.2 of the Complaint.

4.3. Verkada admits that the Complaint purports to identify Avigilon's H5 Pro Cameras, H5 Analytics Cameras, H5 Sensor Cameras, H5 Mini Cameras, H5 Dual Head Cameras, H5 Corner Cameras, H4 Pro Cameras, H4 Analytics Cameras, H4 Sensor Cameras, H4

² Pursuant to 19 CFR § 210.13(b), photos of Verkada's camera products can be found in **Appendix C**.

Multisensor Cameras, H4 Mini Dome Cameras, and H4 Thermal Cameras, and video infrastructure, software, and components, including at least the Artificial Intelligence Network Video Recorder (“AI NVR”), as domestic articles. Verkada further admits that Exhibit 20 purports to be case studies titled *Avigilon Success Stories*. Except as specifically admitted, Verkada lacks sufficient knowledge to admit or deny the remaining allegations and characterizations contained in Paragraph 4.3 of the Complaint, and therefore denies them.

V. THE ASSERTED PATENTS AND NON-TECHNICAL DESCRIPTIONS OF THE INVENTIONS³

5.1. Verkada admits that Appendices A1, B, and C of the Complaint purport to be copies of the certified prosecution history of the asserted patents; and Appendices D–F purport to be the references mentioned in the prosecution histories of the asserted patents. Verkada further admits that Appendix A2 purports to be a certified copy of *inter partes* reexamination proceedings for the ’912 Patent, and Appendix A3 purports to be a copy of *ex parte* reexamination proceedings for the ’912 Patent. Verkada lacks sufficient knowledge to admit or deny the remaining allegations and characterizations contained in Paragraph 5.1 of the Complaint, and therefore denies them.

A. Non-Technical Description of U.S. Patent No. 7,868,912

5.2. Verkada denies the allegations and characterizations in Paragraph 5.3 of the Complaint insofar as they purport to attribute to the ’912 Patent anything that is not stated therein. Verkada admits that the ’912 Patent is titled “Video Surveillance System Employing Video Primitives”; and that it issued on January 11, 2011 and its application was filed on April 5, 2005. Verkada admits that the ’912 Patent purports to be a continuation-in-part of U.S. Patent

³ Section V of the Complaint states that the “descriptions and other non-technical descriptions in the Complaint are for illustrative purposes only.” To the extent a response is required, Verkada responds as follows.

Application No. 11/057,154, filed on February 15, 2005. Verkada admits that the '912 Patent, to the extent it is valid, will expire no later than March 24, 2025. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the remaining allegations and characterizations contained in this Paragraph of the Complaint, and therefore denies them.

5.3. Verkada denies the allegations and characterizations in Paragraph 5.3 of the Complaint insofar as they purport to attribute to the '912 patent anything that is not stated therein. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the remaining allegations and characterizations contained in this Paragraph of the Complaint, and therefore denies them.

B. Non-Technical Description of U.S. Patent No. 10,726,312

5.4. Verkada denies the allegations and characterizations in Paragraph 5.4 of the Complaint insofar as they purport to attribute to the '312 Patent anything that is not stated therein. Verkada admits that the '312 Patent is titled "System and Method for Appearance Search"; and that it issued on July 28, 2020, its application was filed on December 5, 2017, and it purports to claim priority of a provision applications filed June 30, 2017 and December 5, 2016. Verkada denies that the '312 Patent is entitled to filing date of the provisional applications filed June 30, 2017 and December 5, 2016. Verkada admits that the '312 Patent, to the extent it is valid, will expire no later than October 2, 2038. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the remaining allegations and characterizations contained in this Paragraph of the Complaint, and therefore denies them.

5.5. Verkada denies the allegations and characterizations in Paragraph 5.5 of the Complaint insofar as they purport to attribute to the '312 patent anything that is not stated therein. Verkada is currently without knowledge or information sufficient to form a belief as to

the truth of the remaining allegations and characterizations contained in this Paragraph of the Complaint, and therefore denies them.

C. Non-Technical Description of U.S. Patent No. 8,508,607

5.6. Verkada denies the allegations and characterizations in Paragraph 5.6 of the Complaint insofar as they purport to attribute to the '607 Patent anything that is not stated therein. Verkada admits that the '607 Patent is titled "Method and System for a Programmable Camera for Configurable Security and Surveillance Systems"; and that it issued on August 13, 2013 and its application was filed on September 6, 2005. Verkada denies that the '607 Patent, to the extent it is valid, will expire on August 1, 2030. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the remaining allegations and characterizations contained in this Paragraph of the Complaint, and therefore denies them.

5.7. Verkada denies the allegations and characterizations in Paragraph 5.7 of the Complaint insofar as they purport to attribute to the '607 patent anything that is not stated therein. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the remaining allegations and characterizations contained in this Paragraph of the Complaint, and therefore denies them.

D. Foreign Patents and Applications

5.8. Verkada denies the allegations in Paragraph 5.8 of the Complaint insofar as they purport to attribute to the '912 Patent, '312 Patent, and/or '607 Patent anything that is not stated therein. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the remaining allegations and characterizations contained in Paragraph 5.8 of the Complaint, and therefore denies them.

5.9. To the extent a response is required, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 5.9 of the Complaint, and therefore denies them.

E. Licensees

5.10. To the extent a response is required, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 5.10 of the Complaint, and therefore denies them.

F. Related Litigation

5.11. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 5.11 of the Complaint, and therefore denies them.

5.12. Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 5.12 of the Complaint, and therefore denies them.

5.13. To the extent a response is required, Verkada denies any purported “unfair acts by Respondent.” Verkada admits it has not been the subject of other court or agency litigation pertaining to the subject matter alleged in the Complaint. Except as specifically admitted, Verkada denies the allegations and characterizations in Paragraph 5.13 of the Complaint.

VI. UNLAWFUL AND UNFAIR ACTS OF PROPOSED RESPONDENT — PATENT INFRINGEMENT

A. U.S. Patent No. 7,868,912

6.1. Verkada admits that the Complaint purports to assert infringement of based on certain accused products. Verkada denies that such an assertion is correct or proper, and denies that the scope of the accused products is appropriate. Verkada admits that it provides or has

provided camera products under the following trade/product names: (a) the Verkada Dome Series, (b) the Verkada Mini Series, (c) the Verkada Fisheye Series, (d) the Verkada Bullet Series, and (e) the Verkada D-Series. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products are infringing. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.2 of the Complaint. To the extent Paragraph 6.2 of the Complaint contains conclusions of law, no response is necessary.

6.2. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products are infringing—whether directly or indirectly. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.3 of the Complaint. To the extent Paragraph 6.3 of the Complaint contains conclusions of law, no response is necessary.

6.3. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products, or users or purchasers who deploy and use these products, infringe any claim of the asserted patents—whether directly or indirectly. Verkada further denies that it has had knowledge of the '912 Patent since at least 2019. Verkada admits that Exhibit 21 purports to be a publication/post, *Intellectual Property*, from Verkada; and Exhibit 22 purports to be a publication/post, *5 Factors Driving Hybrid Cloud Solutions for Commercial Security*, from Verkada. Except as specifically admitted, Verkada denies the

remaining allegations and characterizations contained in Paragraph 6.4 of the Complaint. To the extent Paragraph 6.4 of the Complaint contains conclusions of law, no response is necessary.

6.4. To the extent Paragraph 6.5 of the Complaint contains conclusions of law, no response is necessary. Verkada denies that its camera products are unusable if not adapted to infringe by running Verkada firmware and software; Verkada denies that its accused products, including firmware and software, infringe any claim of the asserted patents—whether directly or indirectly. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.5 of the Complaint.

6.5. Verkada admits that Exhibit 7 purports to contain exemplary claim charts allegedly mapping a subset of the accused Verkada products to the claims of the '912 Patent. Verkada admits that it has sold or provided products under the trade/product names Verkada CM41 Indoor Mini Dome Camera, Verkada CD31 Indoor Dome Camera, and Verkada CB51-E Outdoor Bullet Camera, in the United States. Verkada further admits that Exhibits 23 and 24 purport to be a quotation and packing list for Verkada products; and Exhibit 25 purports to be photos showing a manufacturing location outside the United States. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.6 of the Complaint.

B. U.S. Patent No. 10,726,312

6.6. Verkada admits that the Complaint purports to assert infringement of based on certain accused products. Verkada denies that such an assertion is correct or proper, and denies that the scope of the accused products is appropriate. Verkada admits that it provides or has provided camera products under the following trade/product names: (a) the Verkada Dome Series, (b) the Verkada Mini Series, (c) the Verkada Fisheye Series, (d) the Verkada Bullet Series, and (e) the Verkada D-Series. Verkada admits that certain of its products are sold in the

United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products are infringing.

Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.7 of the Complaint. To the extent Paragraph 6.7 of the Complaint contains conclusions of law, no response is necessary.

6.7. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products are infringing—whether directly or indirectly. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.8 of the Complaint. To the extent Paragraph 6.8 of the Complaint contains conclusions of law, no response is necessary.

6.8. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products, or users or purchasers who deploy and use these products, infringe any claim of the asserted patents—whether directly or indirectly. Verkada further denies that it has had knowledge of the '312 Patent since at least its issuance; Verkada denies that it engages, or has engaged, in “monitoring and targeting of Complainants’ products and features.” Verkada admits that Exhibit 22 purports to be a publication/post, *5 Factors Driving Hybrid Cloud Solutions for Commercial Security*, from Verkada. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.9 of the Complaint. To the extent Paragraph 6.9 of the Complaint contains conclusions of law, no response is necessary.

6.9. To the extent Paragraph 6.10 of the Complaint contains conclusions of law, no response is necessary. Verkada denies that its camera products are unusable if not adapted to infringe by running Verkada firmware and software; Verkada denies that its accused products, including firmware and software, infringe any claim of the asserted patents—whether directly or indirectly. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.10 of the Complaint.

6.10. Verkada admits that Exhibit 8 purports to contain exemplary claim charts allegedly mapping a subset of the accused Verkada products to the claims of the '312 Patent. Verkada admits that it has sold or provided products under the trade/product names Verkada CM41 Indoor Mini Dome Camera, Verkada CD31 Indoor Dome Camera, and Verkada CB51-E Outdoor Bullet Camera, in the United States. Verkada further admits that Exhibits 23 and 24 purport to be a quotation and packing list for Verkada products; and Exhibit 25 purports to be photos showing a manufacturing location outside the United States. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.11 of the Complaint.

C. U.S. Patent No. 8,508,607

6.11. Verkada admits that the Complaint purports to assert infringement of based on certain accused products. Verkada denies that such an assertion is correct or proper, and denies that the scope of the accused products is appropriate. Verkada admits that it provides or has provided camera products under the following trade/product names: (a) the Verkada Dome Series, (b) the Verkada Mini Series, (c) the Verkada Fisheye Series, (d) the Verkada Bullet Series, and (e) the Verkada D-Series. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products are infringing.

Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.12 of the Complaint. To the extent Paragraph 6.12 of the Complaint contains conclusions of law, no response is necessary.

6.12. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products are infringing—whether directly or indirectly. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.13 of the Complaint. To the extent Paragraph 6.13 of the Complaint contains conclusions of law, no response is necessary.

6.13. Verkada admits that certain of its products are sold in the United States, sold for importation into the United States, or sold within the United States after importation by or on behalf of Verkada. Verkada denies that these products, or users or purchasers who deploy and use these products, infringe any claim of the asserted patents—whether directly or indirectly. Verkada further denies that it has had knowledge of the '607 Patent since at least 2019; Verkada denies that it has “monitored and targeted” Avigilon’s website. Verkada admits that Exhibit 21 purports to be a publication/post, *Intellectual Property*, from Verkada; and Exhibit 22 purports to be a publication/post, *5 Factors Driving Hybrid Cloud Solutions for Commercial Security*, from Verkada. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.14 of the Complaint. To the extent Paragraph 6.14 of the Complaint contains conclusions of law, no response is necessary.

6.14. To the extent Paragraph 6.15 of the Complaint contains conclusions of law, no response is necessary. Verkada denies that its camera products are unusable if not adapted to infringe by running Verkada firmware and software; Verkada denies that its accused products,

including firmware and software, infringe any claim of the asserted patents—whether directly or indirectly. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.15 of the Complaint.

6.15. Verkada admits that Exhibit 9 purports to contain exemplary claim charts allegedly mapping a subset of the accused Verkada products to the claims of the '607 Patent. Verkada admits that it has sold or provided products under the trade/product names Verkada CM41 Indoor Mini Dome Camera, Verkada CD31 Indoor Dome Camera, and Verkada CB51-E Outdoor Bullet Camera, in the United States. Verkada further admits that Exhibits 23 and 24 purport to be a quotation and packing list for Verkada products; and Exhibit 25 purports to be photos showing a manufacturing location outside the United States. Except as specifically admitted, Verkada denies the remaining allegations and characterizations contained in Paragraph 6.16 of the Complaint.

VII. SPECIFIC INSTANCES OF UNFAIR IMPORTATION AND SALE

7.1. Verkada admits that certain of its video security equipment and systems, components thereof, and/or products containing the same, are imported, sold for importation, and/or sold within the United States by or on behalf of Verkada. Verkada further admits that certain of its video security equipment and systems, components thereof, and/or products containing the same, are manufactured outside of the United States. To the extent Paragraph 7.1 of the Complaint contains conclusions of law, no response is necessary. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 7.1 of the Complaint.

7.2. Verkada admits that certain of its video security equipment and systems, components thereof, and/or products containing the same, are manufactured in Taiwan. Verkada further admits that it has sold certain of its video security equipment and systems, components

thereof, and/or products containing the same in the United States after importation. Verkada admits that: Exhibit 26 purports to be an article, *Setting the Industry Standard*, from Verkada; Exhibit 27 purports to be a Verkada *Dome Series Datasheet*; Exhibit 28 purports to be a Verkada *Mini Series Datasheet*; Exhibit 29 purports to be a Verkada *Fisheye Series Datasheet*; Exhibit 30 purports to be a Verkada *Bullet Series Datasheet*; and Exhibits 31 through 34 each purport to be a Verkada *Case Study*. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 7.2 of the Complaint.

7.3. Verkada admits that it has sold the CM41 Indoor Mini Dome Camera, CD31 Indoor Dome Camera, and CB51-E Outdoor Bullet Camera in the United States. Verkada further admits that certain of its video security equipment and systems, components thereof, and/or products containing the same, may be marked “Made in Taiwan.” Verkada also admits that: Exhibit 23 purports to be a quotation for Verkada camera products; Exhibit 24 purports to be a Verkada packing list; and Exhibit 25 purports to be photos of Verkada camera products. To the extent Paragraph 7.3 of the Complaint contains allegations of fact concerning the activities of Complainants, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 7.3 of the Complaint.

7.4. To the extent Paragraph 7.4 of the Complaint contains conclusions of law, no response is necessary. To the extent a response is necessary, Verkada denies any unlawful importation, sale for importation, and/or sale within the United States after importation of certain of its video security equipment and systems, related software, components thereof, and/or products containing the same. Verkada denies that it, or any of its products, infringe any of the

asserted patents. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 7.4 of the Complaint.

VIII. HARMONIZED TARIFF SCHEDULE ITEM NUMBERS

8.1. Verkada admits that certain of its products, or components thereof, have been imported into the United States under classification 8525.80 of the Harmonized Tariff Schedule. Except as specifically admitted, Verkada denies the allegations and characterizations contained in Paragraph 8.1 of the Complaint.

IX. DOMESTIC INDUSTRY

9.1. To the extent Paragraph 9.1 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 9.1 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

9.2. To the extent Paragraph 9.2 of the Complaint contains conclusions of law, no response is necessary. Verkada admits that the Complaint purports to identify Avigilon's H5 Pro Cameras, H5 Analytics Cameras, H5 Sensor Cameras, H5 Mini Cameras, H5 Dual Head Cameras, H5 Corner Cameras, H4 Pro Cameras, H4 Analytics Cameras, H4 Sensor Cameras, H4 Multisensor Cameras, H4 Mini Dome Cameras, and H4 Thermal Cameras, and the AI NVR, as domestic articles. To the extent Paragraph 9.2 of the Complaint contains additional allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the remaining allegations, and therefore denies them.

9.3. To the extent Paragraph 9.3 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 9.3 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

D. Technical Prong

9.4. To the extent Paragraph 9.4 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 9.4 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

9.5. To the extent Paragraph 9.5 of the Complaint contains conclusions of law, no response is necessary. Verkada admits that the Complaint purports to assert Avigilon's H5 Pro Cameras, H5 Analytics Cameras, H5 Dual Head Cameras, H5 Corner Cameras, H4 Pro Cameras, H4 Analytics Cameras, H4 Multisensor Cameras, and video infrastructure, including at least the AI NVR, as domestic articles in connection with the '912 Patent. Verkada admits that Exhibit 10 purports to be an exemplary claim chart comparing Avigilon's H5 Pro Cameras, H5 Analytics Cameras, H5 Dual Head Cameras, H5 Corner Cameras, H4 Pro Cameras, H4 Analytics Cameras, H4 Multisensor Cameras, and AI NVR products, to claim 1 of the '912 Patent. To the extent Paragraph 9.5 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

9.6. To the extent Paragraph 9.6 of the Complaint contains conclusions of law, no response is necessary. Verkada admits that the Complaint purports to assert Avigilon's H5 Pro Cameras, H5 Analytics Cameras, H5 Dual Head Cameras, H5 Corner Cameras, H4 Pro Cameras, H4 Analytics Cameras, H4 Multisensor Cameras, and video infrastructure, including at least the AI NVR, as domestic articles in connection with the '312 Patent. Verkada admits that Exhibit 11 purports to be an exemplary claim chart comparing Avigilon's H5 Pro Cameras, H5 Analytics Cameras, H5 Dual Head Cameras, H5 Corner Cameras, H4 Pro Cameras, H4 Analytics Cameras, H4 Multisensor Cameras, and AI NVR products, to claim 1 of the '312 Patent. To the extent

Paragraph 9.6 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

9.7. To the extent Paragraph 9.7 of the Complaint contains conclusions of law, no response is necessary. Verkada admits that the Complaint purports to assert Avigilon's H5 Pro Cameras, H5 Analytics Cameras, H5 Sensor Cameras, H5 Mini Cameras, H5 Dual Head Cameras, H5 Corner Cameras, H4 Analytics Cameras, H4 Sensor Cameras, H4 Multisensor Cameras, H4 Mini Dome Cameras, and H4 Thermal Cameras, as domestic articles in connection with the '607 Patent. Verkada admits that Exhibit 12 purports to be an exemplary claim chart comparing Avigilon's H5 Pro Cameras, H5 Analytics Cameras, H5 Dual Head Cameras, H5 Corner Cameras, H4 Pro Cameras, H4 Analytics Cameras, H4 Multisensor Cameras, and AI NVR products, to claim 1 of the '607 Patent. To the extent Paragraph 9.7 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

E. Economic Prong

9.8. To the extent Paragraph 9.8 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 9.8 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

1. Domestic Industry Under 19 U.S.C. § 1337(a)(3)(A)

9.9. To the extent Paragraph 9.9 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 9.9 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

9.10. To the extent Paragraph 9.10 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 9.10 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

2. Domestic Industry Under 19 U.S.C. § 1337(a)(3)(B)

9.11. To the extent Paragraph 9.11 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 9.11 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

3. Domestic Industry Under 19 U.S.C. § 1337(a)(3)(C)

9.12. To the extent Paragraph 9.12 of the Complaint contains conclusions of law, no response is necessary. To the extent Paragraph 9.12 of the Complaint contains allegations of fact, Verkada is currently without knowledge or information sufficient to form a belief as to the truth of the allegations, and therefore denies them.

X. REQUESTED RELIEF

10.1. To the extent a response is necessary, Verkada denies that Complainants are entitled to any relief whatsoever, including without limitation the relief requested in Paragraph 10.1 of the Complaint, including subparagraphs (a) through (f) thereof.

RESPONDENT'S ADDITIONAL AFFIRMATIVE DEFENSES⁴

1. Verkada asserts the following additional affirmative defenses. Verkada's inclusion of these affirmative defenses in this Response is not a concession that Verkada bears

⁴ The following headings and numbered paragraphs do not correspond to headings and numbered paragraphs in the Complaint.

the burden of proof with respect to any of them. Discovery is ongoing as of the time of this Response and thus Verkada has not fully collected and reviewed all of the information that may be relevant to the matters and issues raised herein. Accordingly, pursuant to 19 C.F.R. §§ 210.14(b) and 210.14(c), Verkada reserves the right to seek amendment of, modify, and/or expand these defenses, and to take further positions as discovery proceeds in this investigation.

**FIRST AFFIRMATIVE DEFENSE
(Invalidity)**

2. The asserted claims of the asserted patents are each invalid for failure to meet the requirements set forth in 35 U.S.C. §§ 101, 102, 103, 112, 116, and/or 256.

3. All asserted claims of the asserted patents are invalid under 35 U.S.C. § 102 and/or § 103 in view of at least the dozens of prior art references and systems identified in **Appendix B**, either alone or in combination. As discovery is ongoing, Verkada reserves the right to rely on additional prior art. Verkada is in the process of obtaining additional relevant prior art, including through discovery, which has just begun in this Investigation. Verkada reserves the right to modify, supplement, and/or amend its invalidity defenses upon obtaining additional prior art. Verkada will also provide its invalidity contentions in accordance with the forthcoming Procedural Schedule and consistent with its agreement with Complainants for the timing of responses to contention interrogatories.

**SECOND AFFIRMATIVE DEFENSE
(Non-Infringement)**

4. Verkada does not directly infringe, indirectly infringe, contribute to infringement, or induce infringement of any valid or enforceable claim of the asserted patents, either literally or under the doctrine of equivalents, and have not otherwise committed any acts in violation of 35 U.S.C. § 271 or 19 U.S.C. § 1337. This Investigation has just begun, and Verkada reserves the right to amend their response, including offering claim charts establishing non-infringement of

the asserted claims, after further discovery in this Investigation. Verkada will also provide its non-infringement contentions in accordance with the forthcoming Procedural Schedule and consistent with its agreement with Complainants for the timing of responses to contention interrogatories.

**THIRD AFFIRMATIVE DEFENSE
(Lack of Domestic Industry)**

5. To the extent that Verkada determines through discovery and investigation that no protectable industry exists or is being established in the United States as defined under Section 337 with respect to any of the claims of the patents asserted against Verkada, Verkada reserves the right to assert the lack of domestic industry as a defense. Discovery has just begun, and much of the relevant documentation and information regarding domestic industry is in Complainants' possession, custody, and control. Verkada will also provide its contentions on the lack of domestic industry in accordance with the forthcoming Procedural Schedule and consistent with its agreement with Complainants for the timing of responses to contention interrogatories.

**FOURTH AFFIRMATIVE DEFENSE
(Equitable Estoppel)**

6. On information and belief, Complainants' claims against Verkada are barred by the doctrine of equitable estoppel. Complainants have been aware of Verkada's technologies and products since they entered the marketplace and industry. Complainants were aware of the accused technologies and allowed Verkada to continue using its technologies and did not assert the patents against Verkada. Upon information and belief, Complainants performed these actions with the intention that Verkada rely and act upon them, and Verkada did in fact so rely and act to its detriment.

**FIFTH AFFIRMATIVE DEFENSE
(Waiver)**

7. On information and belief, Complainants' claims against Verkada are barred by the doctrine of waiver. Upon information about belief, throughout this time Complainants were aware that they was required to assert any patents they believed Verkada to have infringed, but failed to do so. Thus, Complainants knowingly waived their right to assert the at-issue patents.

**SIXTH AFFIRMATIVE DEFENSE
(Prosecution History Estoppel)**

8. On information and belief, due to admissions and statements made to the United States Patent and Trademark Office during the prosecution of the applications that resulted in the asserted patents or related patent applications, Complainants are estopped from construing a valid and enforceable claim, if any, of the asserted patents as infringed literally or under the doctrine of equivalents by the accused products.

9. For example, the following statements were made during prosecution or reexamination/review of the asserted patents, which limit the scope of the asserted claims, literally or under the doctrine of equivalents:

10. **'912 Patent:**

- “filtering”
- “stream”
- “analyzing a combination of the received determined attributes” or “wherein analyzing the combination of the received determined attributes comprises filtering”
- “event”
- “independent”
- “analyzing only the attributes”

11. **'312 Patent:**

- “learning machine”

12. **'607 Patent:**

- “programmable sensor agent”
- “device programming file”
- “programming key”
- “configurable device”
- “programming...to perform at least said selected at least one new feature”
or “programs...to perform at least said selected at least one new feature”
- “verif[ying/ies] said programming”

13. This Investigation has just begun, no procedural schedule has been set, the parties have not exchanged any proposed claim terms or proposed claim term constructions, and Complainants have not yet disclosed their infringement contentions. Verkada reserves the right to modify, supplement, and/or amend this defense after the parties exchange proposed claim terms and proposed claim term constructions.

RESPONDENT’S PRAYER FOR RELIEF

WHEREFORE, Verkada requests that the Commission issue an order:

14. Denying all relief against Respondent requested in the Complaint;
15. Finding that Respondent has not violated Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337;
16. Finding that Respondent has not directly infringed, contributorily infringed, and/or induced infringement of any of the asserted claims of the asserted patents;
17. Finding that the asserted claims of the asserted patents are invalid and/or unenforceable;
18. Finding that there is no domestic industry for any of the asserted patents;

19. Awarding Respondent its attorneys' fees and costs incurred in responding to the Complaint and defending themselves in this Investigation;
20. Finding that it is not in the public interest to grant any relief to Complainants;
21. Dismissing the present Complaint and terminating the present Investigation; and
22. Awarding such other and further relief as the Commission deems just and proper.

RESPONSE TO THE NOTICE OF INVESTIGATION

23. Verkada acknowledges that the Commission has instituted an investigation as set forth in the Commission's Notice of Investigation, dated September 8, 2021, and published in the Federal Register on September 14, 2021. Verkada denies that it is in violation of 19 U.S.C. § 1337 or that it has engaged in the unlawful importation into the United States, the sale for importation, or the sale within the United States after importation of certain video security equipment and systems, related software, components thereof, and products containing same, that infringe the asserted claims of the asserted patents.

24. Verkada admits that, as set forth in the Summary in the Commission's Notice of Investigation, the Complaint alleges that an industry in the United States exists, but Verkada lacks sufficient information and knowledge to form a belief as to the truth of Complainants' allegation that the domestic industry requirement is met, and Verkada denies such allegation on that basis.

25. Verkada denies that Complainants are entitled to, or that the Commission should issue, any kind of exclusion order, cease and desist order, or any other form of relief based on the allegations set forth in the Complaint.

STATEMENT PURSUANT TO COMMISSION RULE 210.13(b)

26. Pursuant to Commission Rule 210.13(b), Verkada provides the following information with the sole intention of supplying statistical and other data required by the

Commission Rule. Verkada specifically denies that any of the supplied data refers or relates to any unlawful act under Section 337 or otherwise.

27. The approximate statistical data related to quantity and value of imports of the Accused Products, and applicable item numbers under the Harmonized Tariff Schedule of the United States, are set forth in **Confidential Appendix A** hereto.

28. **Confidential Appendix A** also sets forth Verkada's statement on manufacturing capacity.

29. The United States market is significant to Verkada's operations and more information is provided in **Confidential Appendix A**.

30. Verkada's manufacturing partners and suppliers in connection with the Accused Products are also described in **Confidential Appendix A**.

Dated: September 29, 2021

Respectfully submitted,

/s/ S. Alex Lasher

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Counsel for Respondent Verkada, Inc.

[REDACTED]
[REDACTED]
**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

**Before the Honorable Charles E. Bullock
Chief Administrative Law Judge**

In the Matter of

**CERTAIN VIDEO SECURITY
EQUIPMENT AND SYSTEMS,
RELATED SOFTWARE, COMPONENTS
THEREOF, AND PRODUCTS
CONTAINING SAME**

Investigation No. 337-TA-1281

**[REDACTED] APPENDIX A TO RESPONDENT VERKADA, INC.'S
RESPONSE TO THE COMPLAINT AND NOTICE OF INVESTIGATION**

[REDACTED]

I. APPROXIMATE STATISTICAL DATA RELATED TO QUANTITY AND VALUE OF IMPORTS OF THE ACCUSED PRODUCTS

To the best of Verkada’s present knowledge, information, and belief as this request is understood, the statistical data on the quantity and value of imports of the Verkada Accused Products are estimated as:

	2019	2020	2021 (through Sept. 21, 2021)
Quantity (units)	[REDACTED]		
Value (USD) <i>Cost Basis</i>	[REDACTED]		

II. VERKADA’S CAPACITY TO PRODUCE THE SUBJECT ARTICLES AND RELATIVE SIGNIFICANCE OF THE UNITED STATES MARKET TO ITS OPERATIONS

To the best of Verkada’s present knowledge, information, and belief as this request is understood, Verkada provides information concerning the production capacity for the Accused Products, as well as the relative significance of the United States market to Verkada’s operations:

- Production Capacity: approximately [REDACTED] of the Accused Products.
- United States market: approximately [REDACTED] in the United States.

III. HARMONIZED TARIFF SCHEDULE ITEM NUMBER(S) FOR IMPORTATIONS OF ACCUSED PRODUCTS

To the best of Verkada’s present knowledge, information, and belief as this request is understood, Verkada’s Accused Products have been imported under item number 8525.80.3010 of the Harmonized Tariff Schedule of the United States.

[REDACTED]

[REDACTED]

IV. NAME AND ADDRESS OF SUPPLIERS OF VERKADA'S ACCUSED IMPORTS

[REDACTED]

V. SPECIMEN OF THE ACCUSED PRODUCTS

In light of circumstances related to the response to COVID-19, Verkada cannot submit physical specimens of any Verkada products at this time.

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

**Before the Honorable Charles E. Bullock
Chief Administrative Law Judge**

In the Matter of

**CERTAIN VIDEO SECURITY
EQUIPMENT AND SYSTEMS,
RELATED SOFTWARE, COMPONENTS
THEREOF, AND PRODUCTS
CONTAINING SAME**

Investigation No. 337-TA-1281

**APPENDIX B TO RESPONDENT VERKADA, INC.'S
RESPONSE TO THE COMPLAINT AND NOTICE OF INVESTIGATION**

I. **PRIOR ART FOR U.S. PATENT NO. 10,726,312**

A. **U.S. Issued Patents & Patent Applications**

Patent / Publ. Number	Issue / Publication Date	Name Inventors
4,847,604	7/1989	Doyle
5,063,603	11/1991	Burt
5,553,281	9/1996	Brown et al.
5,721,851	2/1998	Cline et al.
5,802,361	9/1998	Wang et al.
5,893,110	4/1999	Weber et al.
5,937,413	8/1999	Hyun et al.
6,014,644	1/2000	Erickson
6,038,333	3/2000	Wang
6,332,193	12/2002	Glass et al.
6,496,594	12/2002	Prokoski
6,556,709	4/2003	Kumar
6,973,201	12/2005	Colmenarez et al.
7,068,309	6/2006	Toyama et al.
8,954,432	2/2015	Frigon
9,959,291	5/2018	Frigon
2002/0039447	4/2007	Shniberg et al.
10,346,723	5/2018	Han et al.
2002/0106107	8/2002	MacDonald et al.
2013/0028468	1/2013	Brown et al.
2014/0328512	11/2014	Gurwicz et al.
2014/0333775	11/2014	Naikal et al.
2014/0347511	11/2014	Rodriguez-Serrano et al.

B. **Foreign Issued Patents & Patent Applications**

Patent / Publ. Number	Issue / Publication Date
JP2015002553A	1/2015

C. **Non-Patent Publications**

Description
“Deep Learning for Content-Based Image Retrieval” by Wan et al., (“Wan”)
“AMORE: A World-Wide Web Image Retrieval Engine” by Mukherjea et al., “Mukherjea”
“Image Search Engines: an Overview” by Gevers et al., (“Gevers”)

“Large-Scale Image Retrieval Using Similarity Preserving Binary Codes” by Gong et al., (“Gong”)
“NeTra: A Toolbox for Navigating Large Image Databases” by Manjunath et al., (“Manjunath”)

D. Non-Publications

Description
“Multisight – Video Service” available at https://web.archive.org/web/20150313200258/http://www.pelco.com/sites/global/en/solutions/multisight/multisight.page
“Multisight – People Counting” available at https://web.archive.org/web/20150217014900/http://blog.multisight.com/?p=23
“Multisight – Video Analytics” available at https://web.archive.org/web/20151026000706/http://blog.multisight.com/?p=317
“Multisight Case Study – Boyett Petroleum” available at https://library.net/document/z334978z-multisight-study-boyett-petroleum-october-multisight-boyett-petroleum.html
“Avigilon Video Surveillance Overview” available at https://web.archive.org/web/20150910062045/http://avigilon.com/products/video-surveillance/overview/
“Avigilon Video Analytics Solutions” available at https://web.archive.org/web/20150910062045/http://avigilon.com/products/video-analytics/solutions/
“Avigilon Control Center” available at https://web.archive.org/web/20150910062045/http://avigilon.com/products/video-surveillance/avigilon-control-center/
“Rialto I-4 Datasheet” available at https://web.archive.org/web/20150906083834/http://4a54f0271b66873b1ef4-ddc094ae70b29d259d46aa8a44a90623.r7.cf2.rackcdn.com/assets/Uploads/en_US/RialtoI4Dat asheet04172015.pdf
“Rialto A4 4 Channel Analog Analytics Appliance” available at https://web.archive.org/web/20150419131406/http://4a54f0271b66873b1ef4-ddc094ae70b29d259d46aa8a44a90623.r7.cf2.rackcdn.com/assets/Uploads/en_US/RialtoA4dat asheet01122015.pdf
“HD Bullet Camera with Self-Learning Video Analytics” available at https://web.archive.org/web/20150701163109/http://4a54f0271b66873b1ef4-ddc094ae70b29d259d46aa8a44a90623.r7.cf2.rackcdn.com/assets/Uploads/en_US/H3A-BOdatasheet05192015.pdf

II. PRIOR ART FOR U.S. PATENT NO. 8,508,607

A. U.S. Issued Patents & Patent Applications

Patent / Publ. Number	Issue / Publication Date	Name Inventors
7,302,562	11/2007	Jacobson et al.
9,342,978	5/2016	Hammadou
7,657,884	2/2010	Okonnen et al.
7,350,224	3/2008	Creamer et al.
7,095,435	8/2006	Hartman et al.
6,778,212	8/2004	Deng et al.
7,127,067	10/2006	Wachtler et al.
6,157,721	12/2000	Shear et al.
6,088,457	7/2000	Parkinson et al.
5,825,877	10/1998	Dan et al.
5,724,425	3/1998	Chang et al.
5,715,403	2/1998	Stefik et al.
7,281,214	12/2004	Fadell
7,508,941	3/2009	O'Toole et al.
7,647,562	10/2004	Ghercioiu et al.
7,868,812	8/2009	Huthoefer et al.
2004/0143602	7/2004	Ruiz et al.
2005/0137833	6/2005	Sistla

B. Foreign Issued Patents & Patent Applications

Patent / Publ. Number	Issue / Publication Date
DE 102005030590B4	3/2011
WO 99/48296	9/1999
EP0706275A2	4/1996

C. Non-Patent Publications

Description
“Assessing the Value of a Quality Assurance Certificate for Software: An Exploratory Investigation” by Jobber et al., (“Jobber”)
“Comparison of NI LabVIEW and Vision Builder Environments in Fast Prototyping of Video Processing Algorithms for CCTV Using Smart Camera” by Chmielewska et al., “Chmielewska”

D. Non-Publications

Description
“Smart Cameras for Embedded Machine Vision – NI 17xx Smart Cameras”

III. PRIOR ART FOR U.S. PATENT NO. 7,868,912

A. U.S. Issued Patents & Patent Applications

Patent / Publ. Number	Issue / Publication Date	Name Inventors
8,004,563	8/2011	Talmon et al.
5,969,755	10/1999	Courtney
7,932,923	4/2011	Lipton et al.
8,564,661	10/2013	Lipton et al.
6,954,498	10/2005	Lipton
2005/0162515	7/2005	Venetianer et al.
7,447,331	11/2008	Brown et al.
6,628,835	9/2003	Brill et al.
5,666,157	9/1997	Aviv
6,081,606	6/2000	Hansen
6,396,535	5/2002	Waters
6,646,676	11/2003	DaGraca et al.

B. Foreign Issued Patents & Patent Applications

Patent / Publ. Number	Issue / Publication Date
DE 101 53 484	5/2003
DE 198 48 490	4/2000
JP 1997-130783	5/1997

C. Non-Patent Publications

Description
“Event Recognition and Reliability Improvements for the Autonomous Video Surveillance System” by Frank Brill et al. (“Brill”)
“Aspectus Video Intelligence VI-System™” Brochure (“Aspectus”)
“Object-Oriented Conceptual Modeling of Video Data” by Young Francis Day et al., (“Day-I”)
(“Spatio-Temporal Modeling of Video Data for On-Line Object Oriented Query Processing,” Proceedings of the International Conference on Multimedia Computing and Systems, IEEE, May 1995. p. 98-105) by Young Francis Day et al., (“Day-II”)
“A Novel Method for Tracking and Counting Pedestrians in Real-Time Using a Single Camera” by Osama Masoud et al. (“Masoud”)
“Visual Memory” by Christopher J. Kellogg (“Kellogg”)
Shotton et al., “Object Tracking and Event Recognition in Biological Microscopy Videos,” Fifth International Conference on Pattern Recognition (ICPR'2000), September 2000. (“Shotton”)
“VIGILANT: Content-Querying Video Surveillance Streams,” Greenhill et al., (“Greenhill”)
“Wide Area Surveillance with a Multi Camera Network,” Black et al., (“Black”)

“Visual Surveillance in Retail Stores and in the Home,” Brodsky et al., (“Brodsky”)
“A New Network-Based Intelligent Surveillance System,” Liu et al., (“Liu”)
“ObjectVideo Forensics: Activity-Based Video Indexing and Retrieval For Physical Security Applications,” Lipton et al., (“Lipton”)
"Moving Object Detection and Event Recognition Algorithms for Smart Cameras," Proceedings of the 1997 Image Understanding Workshop, New Orleans, May 1997, pp. 159-175), Olson et al., (“Olson”)
“Autonomous Scene Monitoring System” by Bruce Flinchbaugh et al., (“Flinchbaugh”)
“Algorithms for Cooperative Multisensor Surveillance” by Collins et al., (“Collins”)
“Visual Surveillance for Moving Vehicles” by Ferryman et al., (“Ferryman”)
“Real-time Object Detection for ‘Smart’ Vehicles” by Gavrilu et al., (“Gavrila”)
“Image Retrieval by Example: Techniques and Demonstrations” by Stringa et al., (“Stringa”)
“Video Surveillance of Interactions” by Ivanov et al., (“Ivanov”)
“Aerial Video Surveillance and Exploitation” by Kumar et al., (“Kumar”)
“Design of Networked Visual Monitoring Systems” by Kuo et al., (“Kuo”)
“Robust Real-time Object Detection” by Viola et al., (“Viola”)
“Distributed Video Networks for Incident Detection and Management” by Trivedi et al., (“Trivedi”)
“A Cost Effective Approach to Real Time Video-Surveillance of Outdoor Scenes” by Goirizelaia et al., (“Goirizelaia”)
“Xilinx FPGA Implementation of a Pixel Processor for Object Detection Applications” by McCurry et al., (“McCurry”)
“VIGILANT: A Semantic Model for Content and Event Based Indexing and Retrieval of Surveillance Video” by Zerzour et al., (“Zerzour”)
“Network Management Within an Architecture for Distributed Hierachial Digital Surveillance Systems” by Soldatini et al., (“Soldatini”)
“Toward Efficient Collaborative Classification for Distributed Video Surveillance” by Diehl et al., (“Diehl”)
“A Compressed Video Editing and Parsing System” by Meng et al., (“Meng”)
“A System for Video Surveillance and Monitoring” by Collins et al., (“Collins”)
“AMORE: A World-Wide Web Image Retrieval Engine” by Mukherjea et al., (“Mukherjea”)
“An Image Processing System for Driver Assistance” by Handmann et al., (“Handmann”)

D. Non-Publications

Description
VSAM (Video Surveillance and Monitoring) Community Center, http://www.cs.cmu.edu/~vsam/OldVsamWeb/vsamhome.html
VSAM (Video Surveillance and Monitoring) Research, http://www.cs.cmu.edu/~vsam/research.html

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

**Before the Honorable Charles E. Bullock
Chief Administrative Law Judge**

In the Matter of

**CERTAIN VIDEO SECURITY
EQUIPMENT AND SYSTEMS,
RELATED SOFTWARE, COMPONENTS
THEREOF, AND PRODUCTS
CONTAINING SAME**

Investigation No. 337-TA-1281

**APPENDIX C TO RESPONDENT VERKADA, INC.'S
RESPONSE TO THE COMPLAINT AND NOTICE OF INVESTIGATION**

I. **VERKADA DOME SERIES¹**

A. **CD31**



¹ Except where otherwise noted, the images herein were derived from Verkada's website, <https://www.verkada.com/>.

B. CD41



C. CD51



D. CD61²



² Image from <https://www.cdw.com/product/verkada-cd61-network-surveillance-camera-with-30-days-of-storage/5848641> (last accessed Sept. 28, 2021).

II. VERKADA MINI SERIES

A. CM41



B. CM41-E



C. CM61



III. VERKADA FISHEYE SERIES

A. CF81-E



IV. VERKADA BULLET SERIES

A. CB51-E



B. CB61-E



C. CB51-TE



D. CB61-TE



V. **VERKADA D-SERIES**

A. **D30**



B. D40



C. D50



D. D80



**CERTAIN VIDEO SECURITY EQUIPMENT AND SYSTEMS, RELATED SOFTWARE,
COMPONENTS THEREOF, AND PRODUCTS CONTAINING SAME
Inv. No. 337-TA-1281**

CERTIFICATE OF SERVICE

I, Michael Kim, hereby certify that on September 29, 2021, copies of the foregoing document were served upon the following parties as indicated:

<p>Lisa R. Barton Secretary to the Commission U.S. International Trade Commission 500 E Street, S.W. Washington, D.C. 20436</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Hand Delivery <input type="checkbox"/> Via Express Delivery <input checked="" type="checkbox"/> Via EDIS</p>
<p>The Honorable Charles E. Bullock Chief Administrative Law Judge U.S. International Trade Commission 500 E Street, SW, Room 317 Washington, DC 20436 Email: Bullock337@usitc.gov</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Hand Delivery <input type="checkbox"/> Via Express Delivery <input checked="" type="checkbox"/> Via Electronic Mail</p>
<p>Irina Kushner U.S. International Trade Commission Attorney Advisor to Hon. Charles E. Bullock 500 E Street, SW Washington, DC 20436 Email: Irina.Kushner@usitc.gov</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Hand Delivery <input type="checkbox"/> Via Express Delivery <input checked="" type="checkbox"/> Via Electronic Mail</p>
<p><i>Counsel for Complainants.</i> Lisa M. Kattan BAKER BOTTS L.L.P. 700 K Street, N.W. Washington, D.C. 20001 Email: Lisa.Kattan@bakerbotts.com; DLMSIITC@BakerBotts.com</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Hand Delivery <input type="checkbox"/> Via Express Delivery <input checked="" type="checkbox"/> Via Electronic Mail</p>

/s/ Michael Kim
Michael Kim