

HAYNES BOONE

Oral Argument on Behalf of Patent Owner ControlTec, LLC

IPR2025-00559

Anthony Inc. (Petitioner) v. ControlTec, LLC (Patent Owner)
U.S. Patent No. 7,207,181 — “Refrigeration Unit Condensation Prevention”

Robert P. Ziemian, Reg. No. 57,931



Agenda / Roadmap

Technical Background — The '181 Patent Innovation

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Housing Means / Thermal Isolation Not Disclosed

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Objective Indicia & Conclusion

The '181 Patent — Technical Background

The Problem: Condensation on refrigerated display case doors/frames in retail stores

The Invention: A dedicated anti-sweat system that:

- Senses dew point at each individual display case
- Activates frame/door heaters BEFORE dew point is reached
- Cycles heaters OFF at predetermined set point above dew point
- Conserves energy through case-specific control architecture
- Replaces legacy “always on” or coarse store-level approaches

Core Innovation: Dedicated dew point sensing + dual set-point hysteresis algorithm at each display case

The '181 Patent — Technical Background

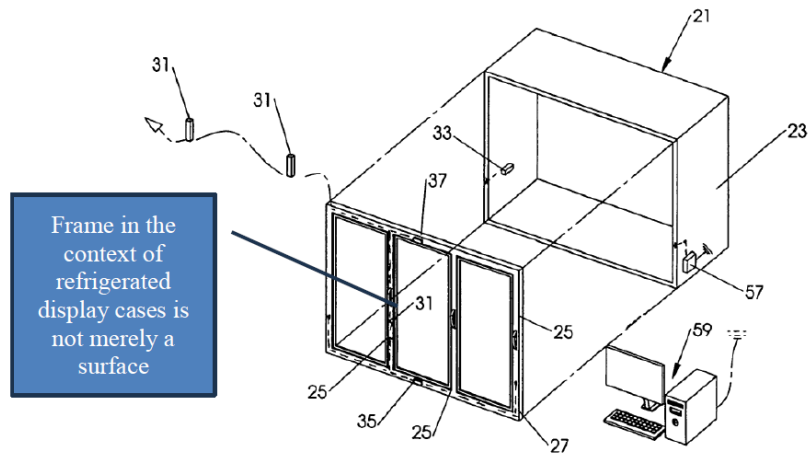


FIGURE 1

This Image (Fig. 1 of the '181 Patent) sets the stage for the invention. The invention operates in the context of refrigerated display cases.

The '181 Patent — Technical Background

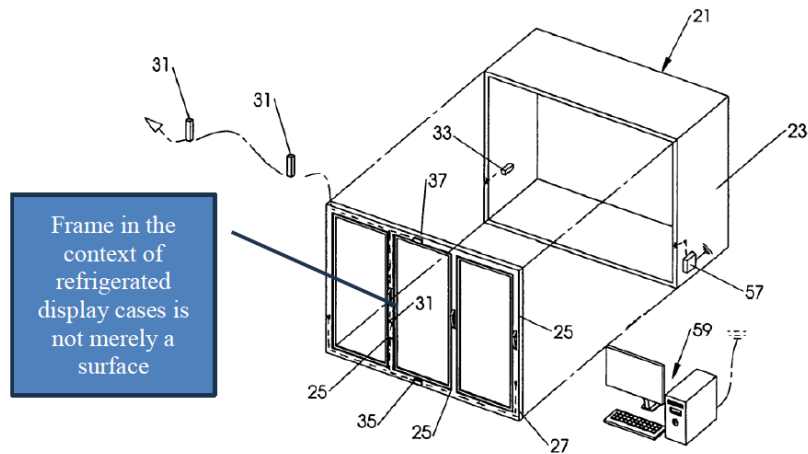
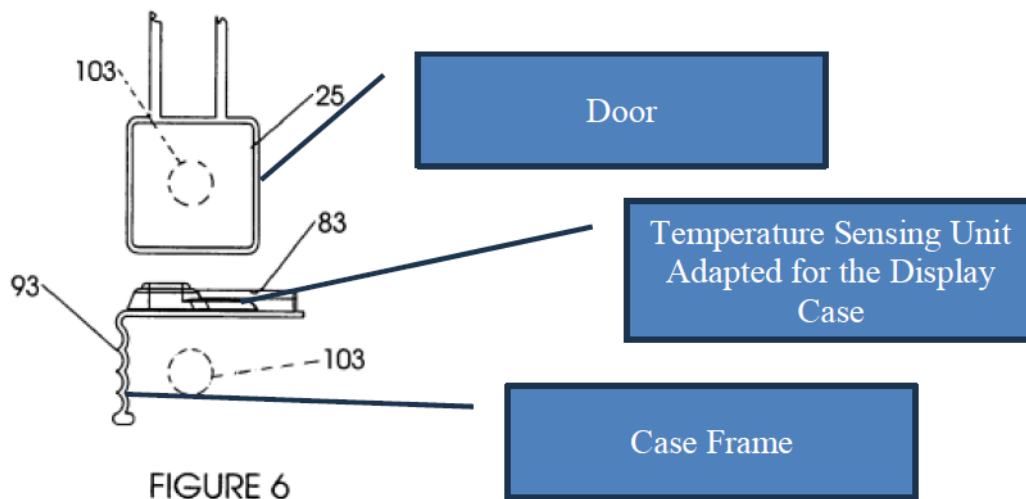


FIGURE 1

Refrigerated display cases have a frame that holds the glass in the doors.

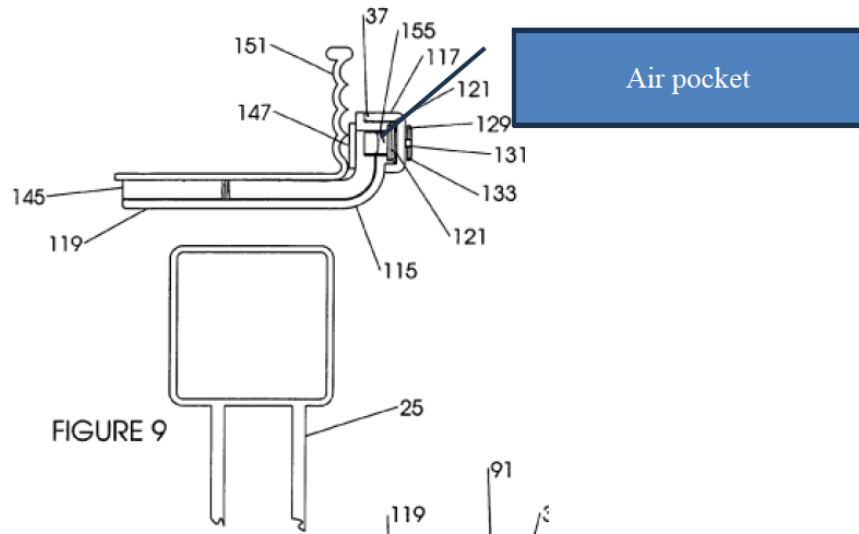
The '181 Patent — Technical Background



EX.1001, P.6 (annotated).

The Patent is replete with images of the frame and door and how the sensing units are adapted for the door and frame of a refrigerated display case.

The '181 Patent — Technical Background

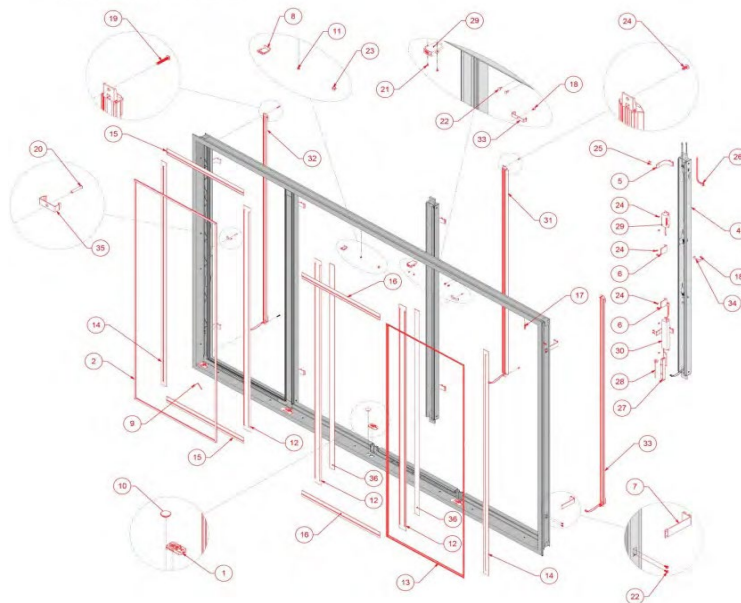


EX.1001, P.8 (annotated).

The air pocket defined by the Patent clearly separates the back of the sensor from the frame.

The '181 Patent — Technical Background

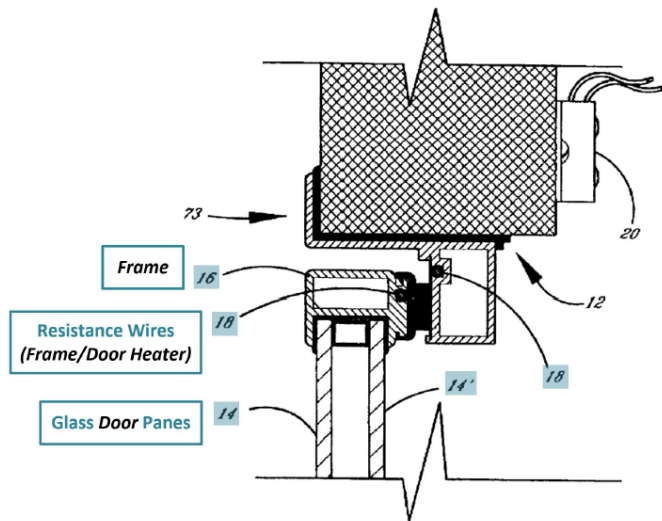
Figure 9.1 Frame Assembly for Infinity 60 Series Normal Temperature for Replacement Parts
(See Table 9.1 for Part Numbers)



Petitioner's own documentation defines a frame similarly.

The '181 Patent — Technical Background

Attorney Docket No. 43789-0259IP1
IPR of U.S. Patent No. 7,207,181



EX1006 (Beatenbough), Figure 2 (annotated)

Beatenbough defines an actual frame according to the Patent. In Beatenbough, unlike in Carter, what the Petition points to as a “frame” is actually a frame (part 16). EX.1006., 2:66.

Claim Construction: Preambles Are Limiting

“Refrigerated display case” (Claims 1, 14) and “array of refrigerated display cases” (Claim 8)

These preambles provide antecedent basis for later claim elements:

- “the display case door or display case frame” (Claim 1)
- “at each display case in the array” (Claim 8)
- “the display case frame” (Claim 14)

Key Authority:

- *Shoes by Firebug LLC, v. Stride Rite Children’s Grp.*, 962 F.3d 1362, 1367 (Fed. Cir. 2020) — preamble limiting when it provides antecedent basis
- *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1347-48 (Fed. Cir. 2002) — “life, meaning, and vitality”
- *Poly-America, L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1310-11 (Fed. Cir. 2004)

Claim Construction: “Adapted For” Limitations

“Adapted for” ≠ “Capable of”

Means “designed or constructed to be used” in a particular manner

Authority:

- *In re Giannelli*, 739 F.3d 1375, 1378-80 (Fed. Cir. 2014)
- MPEP 2111.04(I)(A) codifies this distinction

The '181 Patent specification describes structures specifically designed for display case doors

Critical Gap: Petition is SILENT on how any prior art reference is “adapted for” display cases

Claim Construction: Means-Plus-Function (§112(f))

Claim Term	Corresponding Structure
Processing/control means	Microprocessor executing dual-setpoint algorithm (2:47-54)
Housing means	Structure establishing thermal isolation by minimizing heat transfer contacts (9:47-50)
Means for thermally isolating	Dew point sensor held away from frame + air pocket behind board/carrier (7:33-43)
Data storing means / wireless access means	Communication board/transmitter/receiver (12:16-28)

Petition's "base and cover" construction for housing means violates claim differentiation — Claim 2 already recites this structure.

POSITA Definition & Expert Qualification

Person of Ordinary Skill in the Art (POSITA):

- Bachelor's degree in ME or EE
- PLUS at least 2 years working with refrigerated display cases

(EX.2014, ¶11; EX.1001, 1:6-8 — field = “remediat[ing] condensation build up in refrigerated display cases”)

Every claim of the '181 Patent recites refrigerated display cases

- Dr. Henze's own prior testimony (IPR2016-00294/00335): required “at least two years of practical experience” in the specific technology.
- *Axonics Modulation Techs. v. Medtronic*, IPR2020-00715 — Board adopted POSITA requiring specific subfield experience

Dr. Henze Is Not Qualified — Kyocera

Dr. Henze has ZERO experience with refrigerated display cases

(EX.2019, 163:10-167:14 — deposition testimony)

***Kyocera Senco Indus. Tools Inc. v. Int’l Trade Comm’n*, 22 F.4th 1369, 1377 (Fed. Cir. 2022):**

“Expert must meet the POSITA definition.”

Practical Ignorance Demonstrated:

- Dr. Henze suggested chilled mirror sensor (\$thousands–\$tens of thousands) for display cases (~\$300 product) (EX.2019, 52:8-20, 60:7-22)

See also *Centricut, LLC v. Esab Grp., Inc.*, 390 F.3d 1361, 1368-70 (Fed. Cir. 2004).

Dr. Henze's Lack of Experience — Deposition Admissions

Dr. Henze's Deposition (EX.2019, 163:10-167:14):

Q: Have you ever designed such a device for use on refrigerated display cases?

A: I have not.

Q: Have you ever designed a refrigerated display case?

A: I have not.

Q: Have you ever designed the doors or frame units of a refrigerated display case?

A: I have not.

Q: Have you ever worked on refrigerated display cases?

A: No, I have not.

Dr. Henze's Lack of Experience — Practical Consequences

Demonstrated Ignorance of the Field:

- Unable to identify where prior art adapts sensors to refrigerated display cases
- Misinterprets the term “frame” in the context of refrigerated display cases (EX.2014, ¶21)
- Suggested implementing a chilled mirror sensor for display cases (EX.2019, 52:8-20)

Chilled mirror sensors cost **thousands to tens of thousands of dollars** — the infringing device costs ~\$300

A POSITA working in the field would NEVER suggest such an approach

His “hyperbole” defense misses the point entirely — the question is not whether different laws of nature apply, but who qualifies as a POSITA

Dr. Henze Is Not Qualified — Legal Standard

***Kyocera Senco Indus. Tools Inc. v. Int'l Trade Comm'n*, 22 F.4th 1369, 1377 (Fed. Cir. 2022):**
Expert must at least meet the definition of a POSITA for the patent-in-suit.

Dr. Henze's Irreconcilable Inconsistency:

- In prior proceedings (IPR2016-00294/00335), Dr. Henze HIMSELF endorsed a POSITA definition requiring practical experience relating to the design and operation of chilled water systems including thermal energy storage.
- His position in this proceeding is irreconcilable with his prior testimony

POSITA Should Include At Least 2 Years' Experience with Refrigerated Display Cases:

- This approach is routinely adopted — *Best Med. Int'l, Inc. v. Elekta Inc.*, 46 F.4th 1346, 1354-55 (Fed. Cir. 2022)
- *Centricut, LLC v. Esab Grp., Inc.*, 390 F.3d 1361, 1368-70 (Fed. Cir. 2004)

Without Specific Experience in the Field the POSITA Dissolves

- Why require specific experience in the subfield according to *Axonics*?
- The Patent calls for it
 - In the Field of the Invention: “This invention relates to frame and/or door heating to remediate condensation build-up in refrigerated display cases...”
 - In the claims preambles: “Condensation control apparatus for a refrigerated display case having at least one door, a frame and at least one frame/door heater”
 - All over the specification:
 - In the Summary of the Invention: “efficiently eliminate door and frame condensation at widely utilized commercial freezer/refrigeration display case”
 - In the Description: “commercial freezer/cooler display unit”
 - In the Abstract: “efficient elimination of door and frame condensation at widely utilized commercial freezer/refrigeration display cases”
 - Without specific experience, is there really an art to be skilled in?

Carter Does Not Teach Deactivation According to Dew Point

- **Claim 8** recites: "for **deactivating** the frame/door heater when monitored display case door or frame temperature rises above a **second preselected set point above said dew point value**"
- **Claim 14** recites: "to **anticipate formation of condensation** at the display case and activating and **deactivating the frame/door heater responsive thereto**"
 - This aspect is part of a means for claim term "control means" therefore implicating the algorithm

Carter Does Not Teach the Claimed Control Logic

Carter (Prior Art)

- Activates at dew point + 2°C (constant)
- Deactivates when ambient = surface temp
- Single variable deactivation
- Heats all the way to ambient (~70°F, gain of 16°F)

'181 Patent (Claimed)

- Dew-point-referenced hysteresis
- BOTH activation AND deactivation above dew point
- Multivariate (humidity + barometric)
- Targets just above dew point (4.5°F gain)

Carter: “Floating Offset” Is a Fabrication

“Floating offset” appears NOWHERE in any reference

Dr. Henze’s deposition admissions:

- The term does not appear in Carter (EX.2019, 63:17-19)
- The term does not appear in any prior art reference (EX.2019, 45:17-18)
- It is Dr. Henze’s own characterization (EX.2019, 67:5-10)

Carter’s deactivation is NOT dew-point-based → fundamentally different control logic

DSS Tech. Mgmt., Inc. v. Apple Inc., 885 F.3d 1367, 1374 (Fed. Cir. 2018):
Common sense cannot supply a missing limitation unless “unusually simple.”

Improper Inherency — LBT IP Analysis

***LBT IP I LLC v. Apple Inc.*, 2023 U.S. App. LEXIS 14376 — directly on point**

Inherency requires limitation be “necessarily present” or “natural result” of prior art

Carter teaches:

- Activation when condensation anticipated
- Deactivation when temperature condition met

Carter does NOT teach:

- Deactivation responsive to anticipating condensation

Petition tries to fill gap with expert testimony → same error as in LBT IP

Dr. Henze admits heater could remain on despite no imminent condensation risk (EX.1003, ¶128)

Dr. Henze's Own Concessions Defeat Inherency

Dr. Henze concedes Carter can deactivate:

- “Too early” in humid conditions (EX.1003, ¶131)
- “Too late” in dry conditions (EX.1003, ¶131)

This proves Carter's deactivation is NOT necessarily responsive to anticipating condensation.

If deactivation can occur when condensation is still imminent (“too early” in humid conditions), the limitation is NOT inherently present.

Inherency cannot rest on probabilities — the claimed feature must be the inevitable result.

DSS Tech. Management – Common Sense Analysis

DSS Tech. Mgmt., Inc. v. Apple Inc., 885 F.3d 1367, 1374 (Fed. Cir. 2018)

Three Critical Caveats from DSS:

1. “Common sense is typically invoked to provide a known motivation to combine, not to supply a missing claim limitation.”
2. Courts “have invoked common sense to fill in a missing limitation only when the limitation in question was unusually simple and the technology particularly straightforward.”
3. Courts “repeatedly warn that references to ‘common sense’ — whether to supply a motivation to combine or a missing limitation — cannot be used as a wholesale substitute for reasoned analysis and evidentiary support.”

DSS Applied – Common Sense Cannot Supply the Missing Limitation

Here, common sense is being used to fill in a missing limitation (the deactivation technique)

The limitation is NOT “unusually simple” and the technology is NOT “particularly straightforward”:

- Dr. Henze had to construct a mathematical analysis to justify the substitution
- His analysis is premised on a term (“floating offset”) and a relationship of his own invention
- Dr. Henze created: “ambient temperature equals dew point plus floating offset” — this appears NOWHERE in any cited reference
- *Dr. Henze confirms: “ambient temperature is always equal to dew point temperature plus what I call a floating offset.” (EX.2019, 63:17-19)*
- When asked if he could point to any other source for this equation, he could not (EX.2019, 67:5-10)
- Mr. Pollock testified this is not how he would describe what is going on in Carter and Dr. Henze’s analysis is inaccurate (EX.2014, ¶¶64-66)

DSS Conclusion — Petition Fails on Claims 8 and 14

When qualified experts disagree on the characterization of a reference, the teaching at issue is NOT “unusually simple”

The “floating offset” is Dr. Henze’s fabrication:

- No identifiable source in any prior art reference
- Dr. Henze himself admits the term is his own (EX.2019, 63:17-19; 67:5-10)
- Mr. Pollock (Patent Owner’s expert) disagrees with the characterization (EX.2014, ¶¶64-66)

Because common sense cannot supply a missing limitation unless it is “unusually simple and the technology particularly straightforward,” the Petition fails as to Claims 8 and 14.

Key Takeaway:

- Common sense is being used as a wholesale substitute for reasoned analysis
- The “floating offset” relationship required expert mathematical construction — not common sense
- Expert disagreement proves the limitation is not “unusually simple”

“Adapted For” Limitations Not Met by Prior Art

Claims 1 and 8 require structures “adapted for” use with refrigerated display cases

Under Giannelli, this means “designed or constructed to be used” with display cases

None of the prior art references disclose structures designed for display cases:

- Carter — generic anti-condensation; no display-case-specific structure
- King — designed for automotive windshields
- Kotani — bench-top humidity/temperature module
- Beatenbough — general temperature sensing

The Petition is entirely silent on this limitation — it was never addressed.

“Adapted for” – Carter’s freezer does not have a frame

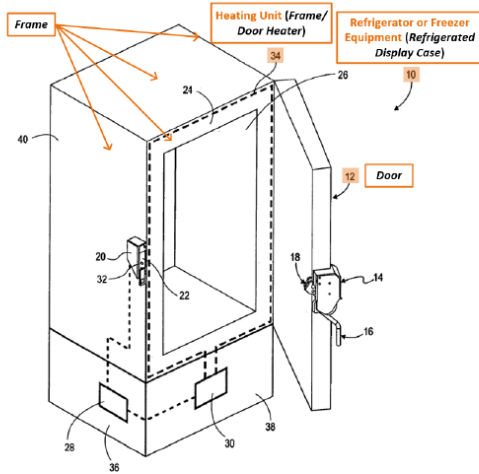
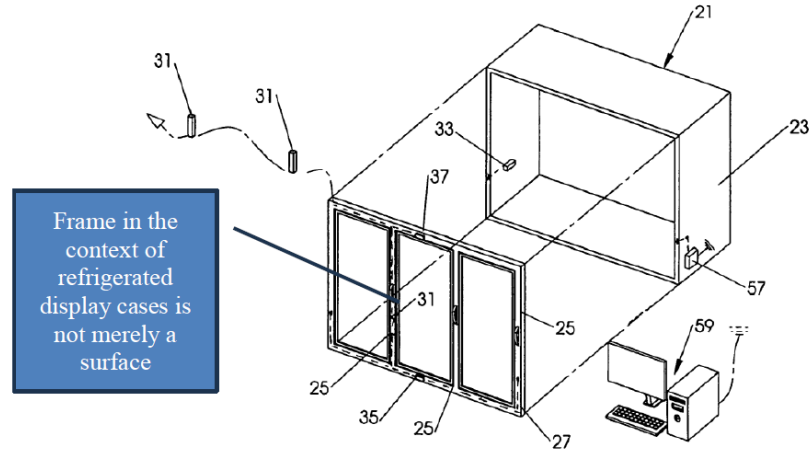


FIG. 1

EX1004, Figure 1 (annotated).



Frame in the context of refrigerated display cases is not merely a surface

FIGURE 1

Non-Analogous Art: King & Kotani

Legal Test (*In re Bigio*, 381 F.3d 1320, 1325-26 (Fed. Cir. 2004):

Same field of endeavor OR reasonably pertinent to the particular problem

King (EX.1005)

- Automotive windshield fog sensor
- Different field entirely
- Different physical environment
- Different problem (driver visibility vs. product display)

Kotani

- Bench-top humidity/temperature module
- Sealed chamber environment
- Opposite of claim requirement (ambient exchange needed)
- Not pertinent to refrigeration problem

See *In re Clay*, 966 F.2d 656, 659-60 (Fed. Cir. 1992); *Donner Tech. LLC v. Pro Stage Gear, LLC*, 979 F.3d 1353, 1358-60 (Fed. Cir. 2020)

Reply Conflates “Analogous Art” with “Same Field”

The Reply’s error:

Sharing a general function (e.g., “sensing humidity”) does NOT make references analogous art.

The ’181 Patent’s field of endeavor:

- Condensation control in refrigerated display cases at the frame

King’s field:

- Automotive windshield defog systems

These are distinct fields. Humidity sensing is a shared tool, not a shared problem.

Housing Means / Thermal Isolation Not Disclosed

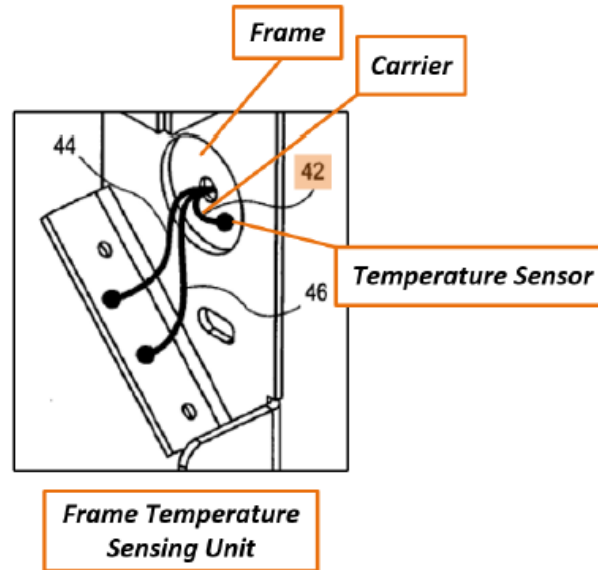
Claims require (EX.2014, ¶74-78):

- (1) Sensor held away from frame
- (2) Air pocket behind board/carrier for thermal isolation

Prior Art Failures:

- Carter's latch cover = generic enclosure, NOT insulated air pockets; sensors contact frame directly
- King's flex circuit is not a housing means; its dome/tray is designed for automotive glass
- Kotani's sealed chamber prevents ambient exchange — opposite of claim requirement

Carter's Sensors



Thermal Isolation — What the Claims Require

Claim 1 — “housing means” (EX.2014, ¶¶74-78):

- Establishes thermal isolation by minimizing heat transfer contacts
- Locates sensors amid insulated air pockets formed by the housing (EX.1001, 9:47-53)

Claim 15 — “means for thermally isolating”:

- *“means for thermally isolating said dew point sensing unit from variations in temperature of the display case frame or display case door” (EX.1001, 12:4-7)*

Corresponding Structure (EX.1001, 7:33-43):

- (1) Dew point sensor held away from frame
- (2) Air pocket behind board/carrier of sensor

Key: Rib/post features create insulated air pockets and interrupt conductive pathways

Thermal Isolation — Carter's Failures

Carter's latch cover is a generic enclosure — it does NOT create insulated air pockets or minimize heat transfer contacts

Carter's Deficiencies:

- Figure 2 shows sensors mounted on the surface they touch — sensors contact the frame directly
- Wire terminations indicate mounting on respective surfaces
- No air pocket behind the board or carrier of sensors
- Latch assembly is typically metal — conducts heat INTO sensors rather than minimizing heat transfer contacts
- The claimed rib or post features that create insulated air pockets and interrupt conductive pathways are ABSENT

Incidental voids in an enclosure are NOT insulated air pockets formed by the housing in the manner required by the claims and specification.

Thermal Isolation – King’s and Kotani’s Failures

King’s Failures:

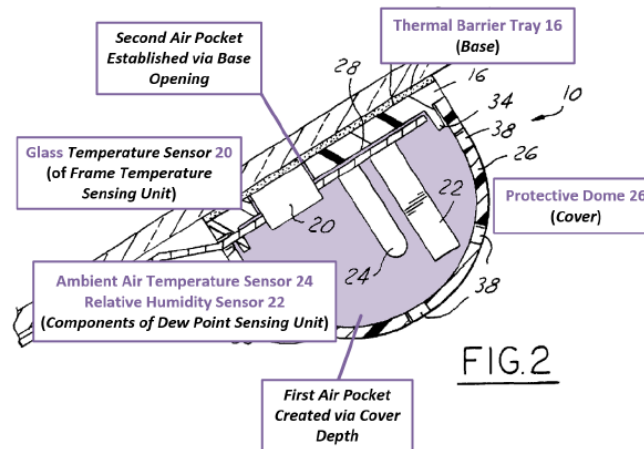
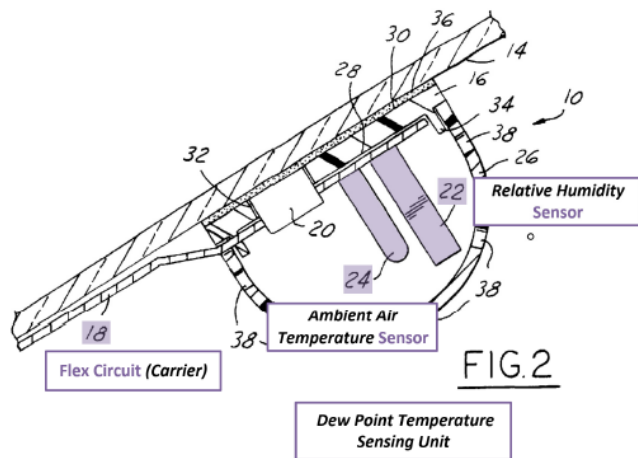
- King’s flex circuit is NOT a housing means
- Dome/tray designed for automotive glass, not refrigerated display cases
- Sensor unit sits on frame without minimizing contact and without air pocket behind board/carrier
- Does not disclose locating both units amid insulated air pockets

Kotani’s Failures:

- Kotani’s sealed “sensor room” is the OPPOSITE of what claims require
- It is a sealed chamber preventing ambient exchange — not a vented, insulated pocketing
- A sealed chamber cannot permit accurate ambient dew-point sensing while isolating from frame conduction

Conclusion: Incidental voids and ad hoc under-cover volumes are NOT insulated air pockets formed by the housing.

King's "Air Pockets"



EX1005, Figure 2 (annotated).

Sensor unit sits on frame without minimizing contact and without air pocket behind board/carrier

See Pet. 48 and 56.

Claims Not Disclosed – Claims 2, 4, 5, 6, 7, and 15

The Petition relies heavily on cross-references rather than actual analysis for dependent claims. Cross-referencing does not constitute substantive obviousness analysis.

Claim 2 (depends from Claim 1):

- Recites “said housing means includes a frame temperature sensing unit housing, said housing including a base and a cover, said cover having a depth creating a first one of said air pockets at one side of said temperature sensing unit...” (EX.1001, 9:55-59)
- Petition’s construction of housing means to include base and cover would violate claim differentiation — Claim 2 already recites this structure
- Carter and King do not disclose a base-and-cover housing creating air pockets

Claims 4, 5, 6, 7:

- Delve into specific features of refrigerated display cases and how the invention is tailored to them
- Petition provides only cursory analysis and cross-references
- Specific structural and functional requirements are not met by the cited art

Claim 15 – Independently Patentable (Key Distinctions)

Claim 15 Recites:

“means for thermally isolating said dew point sensing unit from variations in temperature of the display case frame or display case door” (EX.1001, 12:4-7)

Critical Differences from Claim 1 (portion 1.d):

- Claim 1.d recites “establishing thermal isolation” — Claim 15 recites “thermally isolating the dew point sensing unit from variations in temperature”
- **These are NOT necessarily the same concept, yet the Petition treats them as identical**
- Claim 15 references “variations in temperature of the display case frame or door” — a concept entirely absent from Claim 1.d
- Claim 1.d does not even reference “the display case” let alone “variations in temperature” of it

The Petition does NOT address whether “variations in temperature of the display case frame” refers to variations at a particular place, variation over different locations, or both.

Claim 15 – The Petition Provides NO Independent Analysis

Why Claim 15 Is Independently Patentable:

1. Distinct claim language: “thermally isolating” vs. “establishing thermal isolation” — different scope/function
2. References “variations in temperature of the display case frame or display case door” — absent from Claim 1.d entirely
3. Neither Carter nor King discloses means for thermally isolating from variations in display case frame/door temperature
4. Carter sensors contact the frame directly — no isolation from frame temperature variations
5. King’s flex circuit is not a means for thermally isolating from display case frame temperature variations
- 6. The Petition provides NO independent analysis — it simply cross-references Claim 1.d (Pet., 32)**
- 7. Under Ground 1B, the differences between portion 1.d and Claim 15 go entirely unexplained**

Claim 16: Recites “thermally isolating from variations in temperature of ambient air” — merely citing Claim 1.d does not address this either.

Claim 15 — Petition's Failure Is Fatal

The Petition's Treatment of Claim 15 (Pet., 32):

- Merely cites Claim 1.d for support without explaining how the prior art renders Claim 15 obvious despite material differences
- Does not address the concept of “variations in temperature of the display case”
- Does not explain whether Claims 15 and 1.d are argued to be the same or different
- Cross-referencing is insufficient to establish obviousness for a structurally distinct claim

Prior Art Deficiencies Specific to Claim 15:

- Carter: Sensors contact frame directly — no means for thermally isolating from frame/door temperature variations
- King: Flex circuit is not a means for isolating from display case temperature variations
- Kotani: Sealed chamber is the opposite of claimed thermal isolation

Claim 15 must be confirmed as patentable independently of any analysis of Claim 1.

Claim 16 – Thermally Isolating from Ambient Air Variations

Claim 16 (dependent from Claim 14) recites:

“thermally isolating from variations in temperature of ambient air”

Three Claims – Three DISTINCT Thermal Isolation Concepts:

- Claim 1.d: “establishing thermal isolation” — general isolation of sensing units from housing/heat transfer contacts
- Claim 15: Isolation from “variations in temperature of the display case frame or door” — frame/door temperature fluctuations
- **Claim 16: Isolation from “variations in temperature of ambient air” — ambient air temperature fluctuations**

Each addresses a DIFFERENT source of thermal interference.

The prior art must address EACH independently — cross-referencing one does not satisfy the others.

Claim 16 – The Petition’s Cross-Reference Fails

The Petition merely cites Claim 1.d to address Claim 16 (Pet., 32/63)

But Claim 1 does NOT recite – and the Petition does NOT analyze – any “variations in temperature of ambient air”

The Petition’s argument for Carter:

- *Carter’s latch provides “added protection from outside elements” and “helps localize the measurements...to generally produce more accurate temperature readings” (Pet., 22)*
- But the Petition fails to explain HOW “protection from elements” teaches “thermally isolating from variations in temperature of ambient air”
- **“Protection from outside elements” is NOT the same as thermal isolation from ambient air temperature variations – these are materially different concepts**

Dr. Henze’s Admission on Ambient Air Complexity (EX.2019, 126:22-127:3):

“It’s hard -- hard to specify exactly how much air flow... you don’t want a stale air pocket to be measured, so you want air flow.”

This admission confirms: managing ambient air interaction is a distinct engineering challenge NOT addressed by the prior art.

Claim 16 — Prior Art Does Not Disclose This Limitation

Prior Art Deficiencies Specific to Claim 16:

- Carter: Latch cover merely houses components; provides no mechanism for isolating from ambient air temperature variations; sensors are in thermal communication with both frame AND ambient air
- King: Automotive windshield sensor designed for cabin airflow — entirely different ambient air characteristics than refrigerated display case in a retail store
- Kotani: Sealed chamber PREVENTS ambient exchange entirely — the opposite of what Claim 16 requires (ambient exposure for dew-point sensing while isolating from temperature variations)

The '181 Patent's Solution (EX.1001, 7:1-5):

"Air space pocket 105 is created by the depth of cover 85 adjacent board/carrier 89, the cover also insulating the sensor chip from the ambient."

Conclusion:

- The Petition's cross-reference to Claim 1.d cannot satisfy Claim 16
- Claim 16 addresses a fundamentally different thermal isolation challenge (ambient air temperature variations) that none of the cited references teach or render obvious
- Claim 16 must be confirmed as patentable

§ 112(f) Structural Equivalence Not Shown

Claims 18-20: data storing means, wireless access means, communication control unit

Corresponding structure:

- Communication board / transmitter / receiver coordinated by communication control unit (EX.1001, 12:16-28)

Gatling's wireless temperature logging for HACCP ≠ claimed structure

- Petition identifies NO “communication control unit” in Gatling
- Petition identifies NO “reset/programming interface” in Gatling

Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1347-49 (Fed. Cir. 2015); *Blackboard v. Desire2Learn*, 574 F.3d 1371, 1384-86 (Fed. Cir. 2009).

Reply Introduces Impermissible New Evidence

37 C.F.R. § 42.23(b): Reply limited to responding to Patent Owner's arguments

48-page Supplemental Declaration of Dr. Henze (EX.1061)

New topics introduced:

- Detailed rebuttal to Pollock's charts (not responsive to POR)
- New grant application claim analysis
- New HVAC&R field analysis
- New arguments on Dr. Henze's qualifications (Jetaire, Red Rhino, AliveCor)
- New sensor adaptation arguments with infrared thermographic imaging
- New Oak Ridge National Laboratory study (EX.1024)

Logical Errors in Petitioner's Reply

A

"If obvious to Dr. Henze, then obvious to anyone"

Inverts the legal standard — test is from perspective of POSITA, not any expert

B

Internal contradiction on equivalent disclosure

Dismisses equivalent disclosure theory, then devotes pages defending it

C

"Cherry-picked values" accusation is selective

Dr. Henze's counterexamples use unrealistic conditions (dew point + 24.5°F; 85.7% RH vs. industry 55%)

D

Conflates analogous art with same field of endeavor

Sharing a general function $\neq$ same field (see Slide 29)

Objective Indicia of Non-Obviousness

- Industry adoption of dual set-point controllers
- Evidence of copying by competitors
- Long-felt need to move beyond continuous heating

Co-development agreement between Patent Owner and Petitioner

- Petitioner accepted the benefits of collaboration with ControlTec

Key Authority:

- *Diamond Scientific Co. v. Ambico, Inc.*, 848 F.2d 1220, 1224-1227 (Fed. Cir. 1988)
- *Minerva Surgical, Inc. v. Hologic*, 594 U.S. 559, 576 (2021)

Petitioner's own conduct demonstrates the value of ControlTec's innovation.

Why Each Ground Fails

Ground	Claims	Primary Deficiency
1A	1-2, 14-18	Carter alone lacks control logic + housing means
1B	1-7, 14-18	King non-analogous; no thermal isolation disclosed
1C	17-20	Gatling lacks §112(f) structural equivalence
1D	1-6	Kotani non-analogous; sealed chamber = opposite
1E	8-13	No “adapted for” showing; Gatling deficient

Relief Requested

Patent Owner respectfully requests that the Board:

- Confirm the patentability of all challenged claims (Claims 1-20) of U.S. Patent No. 7,207,181
- Find that Petitioner has failed to establish unpatentability by a preponderance of the evidence on any ground
- Exclude or give no weight to the impermissible new evidence and arguments raised for the first time in the Reply

HAYNES AND BOONE, LLP
Robert P. Ziemian | Reg. NO. 57,931

Thank You

Questions from the Board

HAYNES AND BOONE, LLP
Robert P. Ziemian | Reg. NO. 57,931

HAYNES BOONE