

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DEXCOM, INC.,
Petitioner,

v.

ABBOTT DIABETES CARE INC.,
Patent Owner.

IPR2023-01251
U.S. Patent No. 11,298,056

**PETITIONER'S REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE**

Pursuant to the Board email of November 27, 2023, Petitioner Dexcom, Inc. submits this Reply to the Patent Owner Preliminary Response (Paper 7, “POPR”).

Paradigm REAL-Time (EX1011, hereinafter “Paradigm”) teaches re-populating gaps in continuous glucose monitoring (“CGM”) data displayed in graphs on a user device. *E.g.*, EX1011, 8 (cited by Petition, 45). The POPR wrongly argues that additional PDF reports generated by a separate CareLink product negate these teachings. POPR, 17-23, 27-35; EX2007. In recharacterizing the Paradigm publication based on new evidence (EX2007), the POPR focuses myopically on only certain aspects of the FAQs and ignores critical context that informs the Paradigm teachings. The POPR also ignores that a purpose of CGM was “providing accurate glucose concentrations and trend information in real-time,” thus motivating POSITAs to “convey as much accurate glucose information to a user as possible without providing inaccurate information.” Petition, 29; EX1008, ¶¶55, 60, 80.

A POSITA would have incorporated these Paradigm teachings on graphs, data gaps, and re-population of data into the Patel-2009/Paradigm Combination. *See* Petition, 26-27. The resulting combination provides “glucose graphs that accurately display the failed reception of glucose data” and “re-populate gaps in continuous glucose monitoring data,” thus “satisfy[ing] the data gap and backfill aspects of the challenged claims.” *E.g.*, Petition, 28 (citing EX1008, ¶¶77-78; EX1011, 8, 71, 73).

A. Paradigm (EX1011) Teaches Displaying Real-Time Graphs On The User Display, With Gaps When The Connection Is Lost And Repopulation Of Graph Data When The Connection Resumes

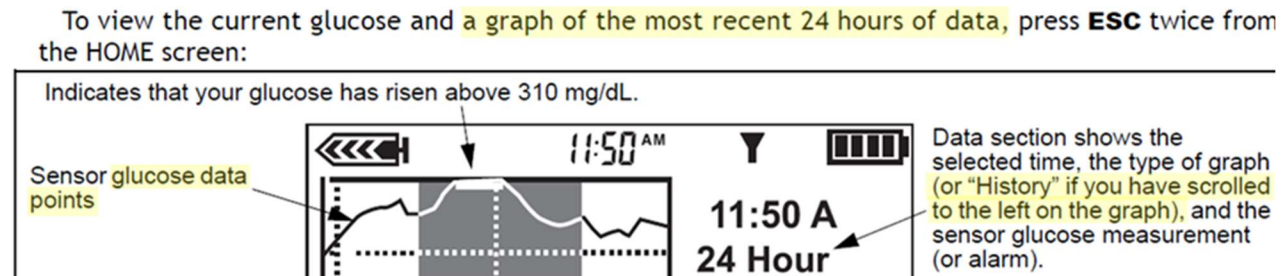
On its face, Paradigm describes repopulating data in the context of displaying data on the screen of the insulin pump. For example, under the Paradigm MiniLink FAQ Section, it describes how the transmitter “holds 40 minutes worth of memory” so that “continuous glucose monitoring (CGM) data can be repopulated in the insulin pump.” EX1011, 8 (6th FAQ under MiniLink, titled “How much data ...”). The POPR admits that the pump receives and stores this repopulated data but urges that it is not displayed on the pump’s graph because users may optionally display it later after uploading to a PC with separate CareLink software. POPR, 21. Not only does this assertion defy logic by suggesting that the described system withholds important data from a user, it is also belied by the next FAQ, which describes the continuous display of data and the re-population of that data. That next FAQ states in part:

As long as the transmitter is within 6 feet (approximately 2 meters) of the insulin pump, continuous glucose monitoring (CGM) data will be displayed on the insulin pump's screen. If the MiniLink REAL-Time Transmitter and insulin pump are out-of-range for longer than 40 minutes, only the last 40 minutes will be re-populated. When reviewing historical reports, you would notice a "data gap" where information is missing during this period of time.

EX1011, 8 (annotated); *see also* Petition, 25-28, 45; EX1008, ¶76. The first sentence describes how CGM “data will be displayed on the insulin pump’s screen” so long as the pump and transmitter are within 6 feet. EX1011, 8. And the next sentence then indicates that “the last 40 minutes will be re-populated” once the transmitter and pump reconnect after being “out-of-range.” *Id.* Simply put, a data gap up to 40

minutes is re-populated to the screen of the user device (in this case, a pump).

Paradigm describes the display of “glucose data points” in a graph on the pump, using the term “History” for graph data prior to the current glucose reading:

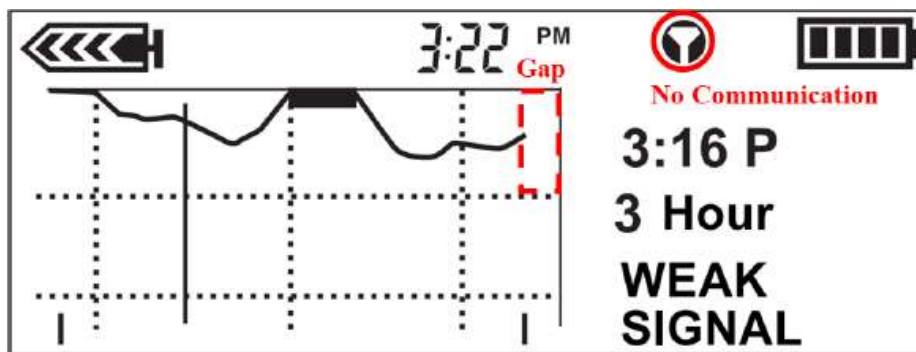


Id., 64 (excerpted, highlighting added; also showing 3 hour graph “History”); *id.*, 65 (“Each data point on the graph indicates your sensor glucose reading at that time.”).

In this context, the FAQs teach that up to the last 40 minutes of CGM data is repopulated on the graph on the user device screen once the two devices are back in range. This natural reading aligns with Paradigm’s repeated emphasis—including in the FAQs—on providing continuous real time data to users. *E.g.*, EX1011, 9 (“An important benefit ... is REAL-time readings and trend graphs. ... The trend graphs allow you to see when glucose is trending up or trending down and how fast it is moving. These things help you manage your diabetes more effectively ...”), 15 (“displays on-screen REAL-Time data to help you understand more about your glucose control ... 3-hour and 24-hour glucose trend graphs”), 18 (“help prevent lows and highs”).

The POPR wrongly suggests that repopulating data gaps as described in the FAQs relates only to CareLink reports. *E.g.*, POPR, 28-29. The FAQs’ description

of what happens to “out-of-range” devices (EX1011, 8) is informed by figures showing that being out of range leads to a “weak signal,” causing data gaps on the History graphs:



EX1011, 73 (red annotations added) (cited by Petition, 26, 43-44). The data gap caused by a weak signal appears quickly, as it may be “recorded on the sensor graphs” even before the user receives a weak signal alarm. EX1011, 73. In other words, the gap appears on the graph once the data is unavailable due to a weak signal.

B. “Historical Graphs” Refers To The Patel/Paradigm Combination

The POPR grounds its CareLink arguments in an accusation that the Petition conflates “historical reports” with “historical graphs.” POPR, 17-18, 22. But the Petition’s use of “historical graphs” simply reflects Patel-2009’s “graphs of historical data,” which are part of the Patel-2009/Paradigm Combination. Petition, 23, 26-28 (citing EX1012, [0066]). Thus, when the Petition explains that “gaps in continuous glucose monitoring (CGM) data are entirely re-populated and do not persist in *historical graphs*” (Petition, 45 (quoted by POPR, 22)), it is merely explaining what results when Paradigm’s teachings on data gaps and repopulating

are applied to a historical graph as disclosed by Patel-2009. *See also* Petition, 26-30.

Contrary to Patent Owner's contention that the Petition relies on only Paradigm (POPR, 26, 31), the Petition asserts the "Patel-2009/Paradigm Combination re-populates gaps in continuous glucose monitoring data with glucose values synchronized from Patel-2009's glucose sensor transceiver." Petition, 28. The Petition notes pertinent disclosures from each reference (*i.e.*, Paradigm and Patel-2009) to further show how the Combination satisfies each claim element. *E.g.*, *id.*, 45 ([1.K]) (citing EX1008, ¶¶60, 112-113); *see also id.*, 30-48. The Combination is supported by testimony that "POSITAs would find it obvious to re-populate missing analyte data when it becomes available after failed communication is resolved." EX1008, ¶112 (cited by Petition, 45); *see also id.*, ¶60 (same). This is so at least because POSITAs were "motivated to ... convey as much accurate glucose information to a user as possible ... [i]n particular, ... re-populating th[e] display" of historical graphs disclosed in Patel-2009. Petition, 29 (citing EX1008, ¶¶60, 80).

Indeed, it is the POPR that sows confusion by itself drawing a false association between the Petition's "historical graphs" and the term "historical reports" (POPR, 22) and then suggesting that the Petition relies exclusively on the description of "historical reports" in Paradigm (POPR, 29-31). But given the Petition's clear explanation of the Patel-2009/Paradigm Combination (Petition, 26-30), the POPR's contrived association between historical graphs and historical reports breaks down.

Contrary to the POPR’s assertions (POPR, 28), the Petition relies on applying Paradigm’s graph teachings (which arise in the context of an insulin pump display) to “graphs of historical data” as taught by Patel. EX1008, ¶80 (POSITAs would have been motivated to re-populate any available “mechanism of display”); *see also* Petition, 23-24 (citing EX1012, [0076]).

C. Patent Owner’s Focus On “Historical Reports” Is Misplaced

The POPR also wrongly pegs “historical reports” to reports allegedly created by a separate CareLink product and argues that they somehow limit Paradigm’s broader teachings. *E.g.*, POPR, 17-23; *id.*, 27-35. Even if “historical reports” also encompass post-hoc reports from CareLink software, in context the FAQs inform the 3- and 24-hour “History” graphs taught by Paradigm. The FAQs in question are in a section for the MiniLink transmitter that focuses on the interactions between the MiniLink and Paradigm devices, without any mention of the separate CareLink product. EX1011, 7-8. Skilled artisans would have read the description of “Historical Reports” as informing the “History” of glucose data points displayed in real-time trend graphs. Even if *arguendo* “historical reports” were wrongly interpreted as limited to CareLink PDFs, that does not change Paradigm’s other teachings—including in the FAQs—on the display of graphs with data gaps and repopulating missing data to fill these gaps, to provide as much real-time data as possible to the user. *Supra* Section A.

Respectfully submitted,

Dated: December 7, 2023

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CERTIFICATE OF SERVICE
IN COMPLIANCE WITH 37 C.F.R. § 42.6(E)(4)

The undersigned certifies that on December 7, 2023, a complete copy of
**PETITIONER'S REPLY TO PATENT OWNER'S PRELIMINARY
RESPONSE** was served on Patent Owner via electronic mail as follows:

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