

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OPTIVER US LLC and OPTIVER TRADING US LLC,
Petitioners

v.

HFT SOLUTIONS, LLC,
Patent Owner.

Case No. IPR2026-00384
U.S. Patent No. 10,763,865

Unopposed Motion for Leave to File

Corrected Petition and Corrected Expert Testimony

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I. INTRODUCTION

Petitioners respectfully seek leave to file a corrected petition and a corrected expert declaration in this proceeding. These corrections are clerical or typographical errors, and it is self-evident that the errors are inadvertent. Indeed, Patent Owner reviewed the redlines of these proposed corrections and confirmed it will not oppose Optiver's corrections as "all edits appear to be formatting, grammatical, and cleric edits rather than anything substantive."¹

No new substance is added, and there are no material changes to the analyses presented in the Petition. The errors are readily apparent, Petitioners diligently sought correction, correction would neither prejudice Patent Owner nor negatively impact this proceeding, and Patent Owner does not oppose this request. Accordingly, pursuant to 37 C.F.R. § 42.104(c), Petitioner's Motion should be granted.

¹ Petitioners emailed counsel for Patent Owner on June 8, 2026 to confirm whether counsel will represent Patent Owner in this proceeding and to convey Petitioners' intent to seek the corrections at issue. On June 9, 2026, counsel for Patent Owner confirmed representation, and requested Petitioners for the proposed corrections. On the same day, Petitioners provided Patent Owner with redlines of all proposed corrections. On June 11, 2026, Patent Owner confirmed "all edits appear to be formatting, grammatical, and cleric edits rather than anything substantive," and as such it will not oppose Optiver's corrections.

II. FACTUAL BACKGROUND

On June 2, 2026, Petitioners filed a Petition requesting *inter partes* review of U.S. Patent No. 10,763,865. Subsequent to filing the Petition, Petitioner noticed typographical and clerical errors in the Petition and the accompanying Declaration of Dr. Ben Carrion-Schaefer, and further the absence of Dr. Benjamin Carrion-Schaefer's CV in the filings. On June 8, 2026, Petitioners promptly contacted the Board administrative staff to inquire on recommendations for correcting the errors and was advised to communicate with Patent Owner. On the same day, the Petition was accorded a filing date by the Board. After confirmation that Patent Owner does not oppose Petitioners' corrections, on June 11, 2026, Petitioners contacted the Board via email seeking permission to file the corrective documents. On June 18, 2026, the Board authorized filing this Motion.

Petitioners now moves the Board for leave to file the corrected Petition to make the corrections noted below.²

Page	Current	Correction
vi	Claims 1– ~~12~~ of U.S. Patent No. 10,763,865	Claims 1– ~~21~~ of U.S. Patent No. 10,763,865
vii	There are no other administrative proceedings at issue.	There are no other administrative proceedings at issue. Petitioners have filed or intend to file petitions for <i>inter partes</i> review regarding

² In addition, Petitioners intend to update the word count after corrections and execute the signature lines with lead counsel's signature on the date of filing.

Page	Current	Correction
		four additional patents—U.S. Pat. Nos. 12,107,587 (IPR2026-00383); 11,018,678 (IPR2026-00385); 10,771,069 (IPR2026-00386); and 11,329,655 (IPR2026-00387)—in the same patent family as the '865 patent.
5	The public availability of the cited prior art is further supported by the Declarations of Carrie Gardner (Ex. 1004), which further includes cites to Declaration of Gordon MacPherson (Ex. 1011).	The public availability of the cited prior art is further supported by the Declaration of Carrie Gardner (Ex. 1004), which further includes cites to Declaration of Gordon MacPherson (Ex. 1011).
16	Kaviani describes its Clock Generator (which includes multiple decoders) and Control Circuit as separate circuits, supporting these are implementable in different physical regions.	Kaviani describes its Clock Generator (which includes multiple decoders) and Control Circuit as separate circuits, supporting that these are implementable in different physical regions.
19	Virtex-UG, by incorporation, become part of the disclosures of Giordano.	Virtex-UG, by incorporation, becomes part of the disclosures of Giordano.
21	Claims 19 and 20 add to claim 1 the limitation for the “first serial data stream” comprise market data, and claim 19 also adds that the “second serial data stream” comprise order entry data.	Claims 19 and 20 add to claim 1 that the limitation for the “first serial data stream” comprises market data, and claim 19 also adds that the “second serial data stream” comprises order entry data.
26	Ex. 1005, 195–196, 5 ; Ex. 1003, ¶147.	Ex. 1005, 195–196; Ex. 1003, ¶147.
29	Ex. 1010, Fig. 5–6; Ex. 1003, ¶158.	Ex. 1010, Figs. 5–6; Ex. 1003, ¶158.
45	This discloses claims 2.	This discloses claim 2.

Page	Current	Correction
63	Raymond emphasized the importance of minimizing latency in communication devices, particularly for applications such as financial exchange.	Raymond emphasizes the importance of minimizing latency in communication devices, particularly for applications such as financial exchange.
69	[20]: “The method of claim 1, wherein the first serial data stream includes market data and the second serial data stream includes trading data”	[20]: “The method of claim 1, wherein the first serial data stream includes market data and the second serial data stream includes trading data.”
71	Giordano in view of Kaviani and Virtex-UG renders obvious these claims. Section VI.A.2 (Ground 1, cls. Analysis).	Giordano in view of Kaviani and Virtex-UG renders obvious these claims. Section VI.A.2 (Ground 1, Analysis).
72	Raymond further discloses claims 5–9, 19– 21 . Sections VI.B.2.c–VI.B.2.k (Ground 2, cls. 5–9, 19– 21).	Raymond further discloses claims 5–9, 19– 20 . Sections VI.B.2.c–VI.B.2.k (Ground 2, cls. 5–9, 19– 20).

In addition, Petitioners moves the Board for leave to file the corrected Declaration of Dr. Benjamin Carrion-Schaefer to make the corrections noted below, in red:

Page(s)	Current	Correction
NA	-	Addition of Dr. Benjamin Carrion-Schaefer’s CV as Appendix A
19	Claims 1– 12 of U.S. Patent No. 10,763,865	Claims 1– 21 of U.S. Patent No. 10,763,865
19, 42	R. Giordano and A. Aloisio, <i>Fixed-Latency, Multi-Gigabit</i>	R. Giordano and A. Aloisio, <i>Fixed-Latency, Multi-Gigabit</i>

Page(s)	Current	Correction
	<i>Serial Links with Xilinx FPGAs</i> , 58-1 IEEE Transactions on Nuclear Science 194 (2011)	<i>Serial Links with Xilinx FPGAs</i> , 58-1 IEEE Transactions on Nuclear Science 194 (2011)
51	PLLS and DLLs were used for frequency, synthesis, phase alignment, and deskewing of clock signals.	PLLs and DLLs were used for frequency, synthesis, phase alignment, and deskewing of clock signals.
57	Their implementation in FPGA fabric requires only programming existing silicon resources and configuring curicuit board components according to well-documented procedures.	Their implementation in FPGA fabric requires only programming existing silicon resources and configuring circuit board components according to well-documented procedures.
58	Ground 1: Claims 1-18 and 21 Are Rendered Obvious By Giordano in view of Kaviani	Ground 1: Claims 1–18 and 21 Are Rendered Obvious By Giordano in view of Kaviani
58	<i>Id.</i> , 4 ; Ex. 1009, 50 (discussing the “analog nature of some blocks” within the GTP transceiver).	<i>Id.</i> , 194 ; Ex. 1009, 50 (discussing the “analog nature of some blocks” within the GTP transceiver).
59	The proposed combination uses Giordano’s Xilinx Virtex-5 GTP transceiver, FPGA Fabric, and FPGA circuit board, where the FPGA Fabric is programmed to implement Kaviani’s Clock Generator and circuit board is modified to include Kaviani’s control circuit.	The proposed combination uses Giordano’s Xilinx Virtex-5 GTP transceiver, FPGA Fabric, and FPGA circuit board, where the FPGA Fabric is programmed to implement Kaviani’s Clock Generator and the circuit board is modified to include Kaviani’s control circuit.
61	It is my opinion that a POSITA have been motivated to combine Giordano and Kaviani because they address synchronization and	It is my opinion that a POSITA would have been motivated to combine Giordano and Kaviani because they address synchronization and phase

Page(s)	Current	Correction
	phase alignment of clock signals in FPGA transceivers.	alignment of clock signals in FPGA transceivers.
65	Virtex-UG, by incorporation, become part of the disclosures of Giordano.	Virtex-UG, by incorporation, becomes part of the disclosures of Giordano.
69, 70,	[T]he Giordano's Receiver Unit PMA discloses ...	Giordano's Receiver Unit PMA discloses ...
70, 71, 77, 88	This mirrors the '865 patent, which describe a ...	This mirrors the '865 patent, which describes a ...
73	As such, in light of Giordano's teachings, it is my opinion that a POSITA would have known to implement the Clock Generator on the FPGA Fabric, and the Control Circuit off the FPGA chip but still on the circuit board (e.g., FPGA system). Section VI.A.1.	As such, in light of Giordano's teachings, it is my opinion that a POSITA would have known to implement the Clock Generator on the FPGA Fabric, and the Control Circuit off the FPGA chip but still on the circuit board (e.g., FPGA system). Section IX.A.1.
83	Giordano's providence of XCLK from the Shared PLL to the Transmitter Unit PCS, and disclosure of treating XCLK the same as TXUSRCLK, renders obvious this limitation.	Giordano's provision of XCLK from the Shared PLL to the Transmitter Unit PCS, and disclosure of treating XCLK the same as TXUSRCLK, renders obvious this limitation.
90	The method of claim 1, wherein the third frequency corresponds to the first frequency.	"The method of claim 1, wherein the third frequency corresponds to the first frequency."
94	As discussed in claim 6, Giordano renders obvious internal parallel data width to be same on both receiver and transmitter sides.	As discussed in claim 6, Giordano renders obvious internal parallel data width to be the same on both receiver and transmitter sides.
95	The method of claim 6, wherein the first amount of data streams and the second amount of data	"The method of claim 6, wherein the first amount of data streams and the second amount of data

Page(s)	Current	Correction
	streams are equal to thirty-three (33) times two (2) to the power of N, where N is an integer.	streams are equal to thirty-three (33) times two (2) to the power of N, where N is an integer.”
96	The method of claim 1, wherein the fourth frequency is equal to x times the fifth frequency, where x is the second amount of data streams.	“The method of claim 1, wherein the fourth frequency is equal to x times the fifth frequency, where x is the second amount of data streams.”
96, 97, 98, 100	Giordano disclosure of 10-bit words as the claimed “second amount” means that ...	Giordano’s disclosure of 10-bit words as the claimed “second amount” means that ...
107	It is my opinion that Giordano in view of Kaviani further in view of Raymond render obvious each and every element of claims 1–21.	It is my opinion that Giordano in view of Kaviani further in view of Raymond renders obvious each and every element of claims 1–21.
108	A POSITA would have recognized Giordano in view of Kaviani as an attractive solution for the PLL functionality depicted in Raymond’s system, and motivated to look to Giordano and Kaviani to combine with Raymond.	A POSITA would have recognized Giordano in view of Kaviani as an attractive solution for the PLL functionality depicted in Raymond’s system, and would have been motivated to look to Giordano and Kaviani to combine with Raymond.
109	A POSITA would have had a reasonable expectation of success in combing Giordano, Kaviani, and Raymond.	A POSITA would have had a reasonable expectation of success in combining Giordano, Kaviani, and Raymond.
109	Section VI.A.1.a (Motivation to Combine Giordano and Kaviani).	Section IX.A.1.a (Motivation to Combine Giordano and Kaviani).
114	“The method of claim 1, wherein the first serial data stream includes market data and the second serial data stream includes trading data ”	“The method of claim 1, wherein the first serial data stream includes market data and the second serial data stream includes trading data. ”

Page(s)	Current	Correction
115	It is my opinion that Giordano in view of Kaviani further in view of Virtex UG render obvious each and every element of claims 1–18, and 21.	It is my opinion that Giordano in view of Kaviani further in view of Virtex UG renders obvious each and every element of claims 1–18, and 21.
115	<i>See generally</i> , 1009.	<i>See generally</i> , Ex. 1009.
116	Section VI.A.1.a (Motivation to Combine Giordano and Kaviani).	Section IX.A.1.a (Motivation to Combine Giordano and Kaviani).
116	A POSITA would have had a reasonable expectation of success in combing Giordano, Kaviani, and Virtex-UG.	A POSITA would have had a reasonable expectation of success in combining Giordano, Kaviani, and Virtex-UG.
116	Section VI.A.1.a (Motivation to Combine Giordano and Kaviani).	Section IX.A.1.a (Motivation to Combine Giordano and Kaviani).
116	It is my opinion that Giordano in view of Kaviani, Virtex-UG, and Raymond render obvious each and every element of claims 1–21.	It is my opinion that Giordano in view of Kaviani, Virtex-UG, and Raymond renders obvious each and every element of claims 1–21.
117	Motivation to Combine Giordana , Kaviani, and Virtex-UG	Motivation to Combine Giordano , Kaviani, and Virtex-UG
117	Because Giordano in view of Kaviani and Virtex-UG renders claims 1–18 and 21 obvious, the combination of Giordano, Kaviani, Virtex -UG, and Raymond also renders claims 1–18 and 21 obvious.	Because Giordano in view of Kaviani and Virtex-UG renders claims 1–18 and 21 obvious, the combination of Giordano, Kaviani, Virtex -UG, and Raymond also renders claims 1–18 and 21 obvious.
119	Accordingly, the consideration of “secondary” or “objective” evidence of nonobviousness does not change my opinion that claims 1–21 of the ’865 patent would	Accordingly, the consideration of “secondary” or “objective” evidence of non-obviousness does not change my opinion that claims 1–21 of the ’865 patent would

Page(s)	Current	Correction
	have been obvious to one of skill in the art	have been obvious to one of skill in the art

The errors are based on incorrect cross-referencing, incomplete or incorrect supporting citations, and minor typographical and clerical errors. The proposed changes correct the errors for clarity.

III. ARGUMENT

Under 37 C.F.R. § 104(c), “[a] motion may be filed that seeks to correct a clerical or typographical mistake in the petition.” In deciding such motion, the Board may consider the nature of the error; the Petitioner’s diligence in reporting such error; prejudice to the Patent Owner, if any, by allowing the proposed corrections; and whether the proposed corrections have any impact on the proceeding. *Samsung Electronics Co., Ltd. et al v. Staton Techiya, LLC*, IPR2022-00243, Paper 10 at 2 (P.T.A.B. Feb. 2, 2022); *id.*, Paper 9 at 1–2 (“When ruling on a § 42.104(c) motion, the Board considers various nonexclusive factors such as: ‘(1) the nature of the error, and whether the party requesting relief provides adequate explanation for how the error occurred, including how the error was discovered; (2) the length of time elapsed between learning of the error and bringing the error to [the Board’s] attention; (3) prejudice to the other party, if any, by allowing the proposed corrections; and (4) whether the proposed corrections have any impact on the

proceeding.”) (citing *Ivantis, Inc. v. Glaukos Corp.*, IPR2018-01180, Paper 14 at 9 (P.T.A.B. Dec. 6, 2018)).

Here, Petitioners seek to correct inadvertent errors that do not have material impact to the substantive analysis of the Petition. Correcting the Petition and accompanying expert Declaration do not introduce any new analysis.

A. The Errors Are Readily Apparent

Each error is readily apparent from the petition and declaration. For example, the Petition includes a table of abbreviations, which incorrectly notes the Challenged Claims as “Claims 1–12 of U.S. Patent No. 10,763,865.” But other than this single instance, the Petition consistently identifies claims 1–21 of the ’865 patent as the Challenged Claims of which Petitioners request cancellation thereof. This includes identification of challenge and relief requested, which expressly notes Petitioners’ request to cancel claims 1–21 based on the four grounds detailed in the Petition.

In addition, Petitioners seek to add information inadvertently omitted at the time of filing the Petition. This includes identifying four other *inter partes* review proceedings directed to patents in the same patent family as the ’865 patent, and inclusion of Dr. Benjamin Carrion-Schaefer’s CV. These errors, again, are readily apparent omissions.

Petitioners further identify various misspellings and grammatic errors, which do not affect the substance of the Petition or Declaration, and are apparent from reading of the Petition.

B. Petitioners Acted Diligently To Correct The Errors

Petitioners learned of these errors shortly after filing, and reached out to the Board and Patent Owner within a week from filing of the Petition. After obtaining Patent Owner's consent, Petitioners promptly contacted the Board and filed this motion within a week of obtaining the Board's permission to do so, roughly three weeks since filing this Petition.

C. Correcting The Errors Will Not Prejudice Patent Owner

Correcting the errors does not add any new analysis and thus will not change the Patent Owner's substantive analysis. As the Patent Owner agrees, the proposed corrections are clerical and grammatical in nature. There is no material change to the substance of the Petition. As such, the correction of the errors does not prejudice Patent Owner's ability to submit a preliminary response, should it choose to do so. Patent Owner indicated that it does not oppose Petitioners' correction of these errors.

D. Correction Will Not Have Negative Impact

As discussed above, correcting the errors does not add any new analysis, and will not negatively impact the Board's analysis. Thus the corrections will not materially change the Board's analysis. Rather, the proposed corrections will

provide clarity and address clerical and grammatical issues that further benefit the Board's assessment of the Petition.

IV. CONCLUSION

For the reasons discussed above, Petitioners respectfully request that the Board grant leave and allow Petitioners to submit a corrected Petition and a corrected Declaration.

DATED: June 22, 2026

Respectfully Submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies service pursuant to 37 C.F.R. §§42.6(e) and 42.105(b) on the Patent Owner electronically on the Patent Owner at the following email addresses:

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DATED: June 22, 2026

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