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[Your Name]

[Your Title]

[Your Company]

[Street Address, City, State ZIP]

May 14, 2026

[Opposing Counsel Name]

[Firm Name]

[Address]

**Re: U.S. Patent No. 12409014B2 — Response to Assertion of Infringement**

Dear Counsel,

We acknowledge receipt of your correspondence asserting infringement of U.S. Patent No. 12409014B2 (the "12409014B2 Patent"). After preliminary review, we have substantial concerns about the validity, enforceability, and scope of the asserted claims, summarized below. We reserve all rights and defenses.

## **1. Subject Patent — Summary**

Patent Summary: US 12,409,014 B2

Title: Systems and methods for orthodontic bracket design

Assignee: The patent was initially assigned to Lightforce Orthodontics Inc. and later records show a security interest assignment to Trinity Capital Inc.

Inventors: Alfred Charles Griffin, III; Kelsey A. Fafara

Filing Date: March 13, 2024

Issue Date: Based on the information available, the publication date is listed as September 9, 2025. This should be considered the projected issue date, as the current date is May 6, 2026.

Abstract: The patent describes a method for manufacturing customized ceramic labial/lingual orthodontic brackets using additive manufacturing. The process involves obtaining...

## **2. Validity Concerns under 35 U.S.C. § 102 — Prior Art**

We have identified prior-art references that, in our preliminary view, anticipate one or more asserted claims of the 12409014B2 Patent:

Analysis of Prior Art for US Patent 12,409,014 B2

Based on the file wrapper and the text of US Patent 12,409,014 B2, the following prior art references were cited during its prosecution. This analysis assesses their relevance to the

patent's claims, particularly focusing on potential anticipation under 35 U.S.C. § 102. The core invention of US 12,409,014 B2 is a method for manufacturing patient-specific orthodontic brackets using additive manufacturing (AM) with specific design features for improved performance and debonding. These features include a custom-contoured base, a fracture wall, a fracture groove, specific retentive structures, and compensation angles in the archwire slot.

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Cited U.S. Patent References:

1. U.S. Pat. No. 8,694,142 B2 (to Riton)

Full Citation: US Patent 8,694,142 B2, "Method for producing a customized orthodontic brace," assigned to Orametrix, Inc.

Publication/Filing Date: Publication Date: April 8, 2014; Filing Date: December 21, 2005.

Brief Description: This patent describes a method for producing a customized orthodontic brace (bracket) using...

### **3. Obviousness under 35 U.S.C. § 103**

Independent of § 102, we believe the asserted claims are obvious in view of combinations of prior art that a person having ordinary skill in the art would have been motivated to combine:

Obviousness Analysis of US Patent 12,409,014 B2 under 35 U.S.C. § 103

This analysis evaluates whether the invention claimed in US patent 12,409,014 B2 would have been obvious to a Person Having Ordinary Skill in the Art (PHOSITA) at the time the invention was made. A PHOSITA in this context would likely be an engineer or materials scientist with experience in dental appliance design, CAD/CAM technologies, and additive manufacturing processes for medical devices.

The analysis is based on the combination of prior art references cited in the patent's file wrapper:

- US 8,694,142 B2 (Riton): Teaches custom orthodontic brackets made via additive manufacturing (SLM) with a base contoured to the patient's tooth.
- US 8,623,264 B2 (Gmeiner): Teaches a specific method of lithography-based ceramic additive manufacturing (a slurry-based process), which is a suitable method for producing the brackets of '014 B2.
- US 2007/0015104 A1 (Cinader): Teaches a system for designing custom orthodontic appliances, including brackets, from a digital treatment plan based on a patient's scan.
- General...

### **4. Request**

In light of the foregoing, we request that your client (i) provide a detailed claim chart identifying each accused product or service and mapping every limitation of each asserted claim, (ii) identify any prior art known to your client, including any references cited during prosecution or reexamination, and (iii) substantiate the basis for any damages or licensing demand. We are prepared to discuss the matter further once we have received and reviewed the foregoing.

Sincerely,

[Your Name]

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