IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

THETA IP, LLC,	§	
	§	
Plaintiff,	§	Civil Action No. 6:23-cv-00314-ADA
	§	
v.	§	
	§	
APPLE INC.,	§	
	§	
Defendant.	§	
	§	
	§	
	§	

DEFENDANT APPLE INC.'S INITIAL NARROWING OF PRIOR ART

Pursuant to the Court's Order Governing Proceedings and Scheduling Order in this case, and pursuant to agreement between the parties, and to reduce the number of issues to be tried, Defendant Apple Inc. ("Apple") identified the following prior art references for its initial narrowing of prior art. As agreed to, the prior art references from the co-pending *Inter Partes* Review proceedings—IPR2024-00816, IPR2024-00817, IPR2024-00818, IPR2024-00819, and IPR2024-00820—particularly, Behbahani, Leete and Tan, constitute a single prior art reference. In some instances, for certain identified system art and/or prior invention, Apple may rely on multiple disclosures that describe the system/invention – collectively, all disclosure related to the system/invention constitute a single prior art reference.

1. U.S. Patent No. 5,909,645 ("Abramsky '645")
2. U.S. Patent No. 5,999,056 ("Fong '056")
3. U.S. Patent No. 6,035,312 ("Hasegawa '312")
4. U.S. Patent No. 6,134,430 ("Younis '430")

IPR2024-00819
Theta EX2026

5. U.S. Patent No. 6,339,711 ("Otaka '711")

6. U.S. Patent No. 6,392,487 ("Alexanian '487")

7. U.S. Patent No. 6,687,491 ("Wieck '491")

8. U.S. Patent No. 6,766,156 ("Hayashihara '156")

9. U.S. Patent No. 7,299,021 ("Parsinnen '021")

10. U.S. Patent Pub. No. 2002/0193958 ("Underbrink '958")

11. European Patent Pub. No. EP1168645A2 ("Rohmer '645")

12. WO 2000/19644 ("Cox '644")

13. WPIC System

14. IPR prior art references

    a. Behbahani, "Adaptive Analog IF Signal Processor for a Wide-Band CMOS Wireless Receiver," IEEE Journal of Solid-State Circuits, Vol. 36, No. 8 ("Behbahani")

    b. Farbod Behbahani, *et al*, "A 2.4-GHz Low-IF Receiver for Wideband WLAN in 0.6-µm CMOS—Architecture and Front-End," IEEE Journal of Solid-State Circuits, Vol. 35, No. 12 ("Leete")

    c. F. Behbahani, Weeguan Tan, A. Karimi-Sanjaani, A. Roithmeier and A. A. Abidi, "A broad-band tunable CMOS channel-select filter for a low-IF wireless receiver," IEEE Journal of Solid-State Circuits, vol. 35, no. 4, pp. 476-89 ("Tan")

15. Analog Devices, AD9870

16. Qualcomm IFR3000

17. Qualcomm Prior Invention (including [redacted], RFR 6125, RFR6500, and/or RFR5200)

18. Zhu, Jiahua et al, "A Multi-IDT Input Tunable Surface Acoustic Wave Filter," IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, Vol. 48, No.5

19. De Los Santos, Hector et al, "MEMS for RF/Microwave Wireless Applications: The Next Wave – Part II," Microwave Journal

20. Newman, X-Amp,™ A New 45-dB 500-MHz Variable Gain Amplifier (VGA) Simplifies Adaptive Receiver Designs, Analog Dialogue 36-01

Dated: May 7, 2025

/s/ Eamonn Gardner

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CERTIFICATE OF SERVICE

The undersigned certifies that on May 7, 2025, a true and correct copy of the foregoing **DEFENDANT APPLE INC.'S INITIAL NARROWING OF PRIOR ART** was caused to be served via electronic mail to counsel of record for all parties.

Dated: May 7, 2025

/s/ Eamonn Gardner
Eamonn Gardner