

Rosenberger (Ex. B-1)

Sonos contends that U.S. Patent No. 8,340,975 (“Rosenberger”) anticipates and/or renders obvious each of the Asserted Claims of the ’311 Patent. Ex. B-1 at 1. Sonos contends that Rosenberger, filed on October 4, 2011 and published on December 25, 2012, qualifies as prior art to the ’311 patent under 35 U.S.C. §§102(a)(1), (a)(2) (AIA). Ex. B-1 at 1.

Accordingly, Google understands that Sonos does not allege this reference (or any other alleged prior art) to post-date any of the priority dates Google has asserted for the Asserted Claims and the Domestic Industry Claims, October 9, 2014, April 1, 2015, and October 3, 2016. *See also* Invalidity Contentions at 16 (“each limitation of the Asserted Claims was well-known to POSITAs before [the earliest possible priority date of October 9, 2014], as set forth in the attached Invalidity Charts and Riders”). Thus, Google understands there is no material issue regarding Google’s assertion of priority dates for the Asserted Claims and the Domestic Industry Claims. To the extent that Sonos supplements, modifies, or amends its invalidity contentions to rely on prior art dated after October 9, 2014, Google reserves its right to supplement, modify or amend its response.

Sonos only contends that Rosenberger invalidates the Asserted Claims only “under Google’s apparent interpretation of the asserted claims.” Sonos has proposed different constructions for certain terms of the ’311 patent and has not alleged that Rosenberger invalidates any claim of the ’311 patent under Sonos’s claim constructions.

For at least the following reasons, Rosenberger fails to disclose and/or render obvious each of the Asserted Claims of the ’311 Patent.

A. Rosenberger Does Not Anticipate or Render Obvious Independent Claims 1, 10, and 16 of the ’311 Patent

[REDACTED]

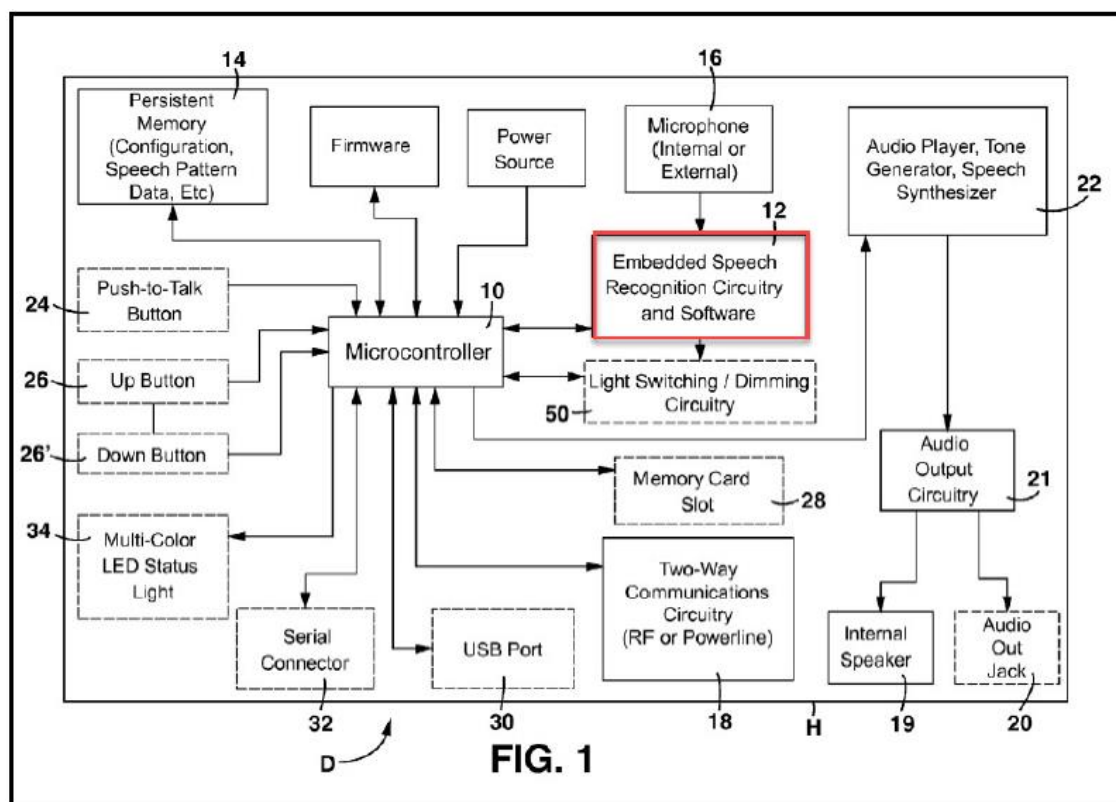
Sonos has not shown that Rosenberger discloses each element of independent claims 1, 10, and 16 of the '311 Patent.

First, Rosenberger does not disclose “detecting a voice input from a user” as recited in limitation [10.1] and “determining a first value associated with the voice input” as recited in limitation [10.2].¹ A POSITA would readily understand that these limitations require a device to perform a voice “detection” process, distinct from speech recognition. Rosenberger does not disclose voice “detection” or determining a first value associated with such a “detected” voice input. To the contrary, Rosenberger explains that it is directed to a “speech recognition” device. *See, e.g.*, Rosenberger at Abstract (“A self-contained wireless interactive speech recognition control device and system that integrates with automated systems and appliances to provide totally hands-free speech control capabilities for a given space. Preferably, each device comprises a programmable microcontroller having embedded speech recognition and audio output capabilities, a microphone, a speaker and a wireless communication system through which a plurality of devices can communicate with each other and with one or more system controllers or automated mechanisms.”), 3:30-3:35 (“In view of the foregoing discussion, an object of this invention is to provide an improved interactive speech recognition control device of the above type in which the aforementioned “duplicate response” problem is avoided when several devices simultaneously recognize the same speech command or trigger phrase.”), cl. 1.

¹ References to limitations of claim 10 herein also apply equally to corresponding limitations of claims 1 and 16, respectively, because for those claims Sonos generally cites the corresponding limitations of claim 10. Although claim 10 is not necessarily representative of claims 1 and 16, Google responds to Sonos’s arguments as presented with respect to claim 10.

Further, for the parties’ convenience Google refers to the limitations of the '311 patent using the notation used by Sonos in its invalidity contentions (e.g., [10.0], [10.1]).

Rosenberger also makes clear that the described weighted signal (WS) values are generated based on speech recognition, not detection. *See* Rosenberger at 10:47-67 (“Embedded speech recognition IC modules and software (e.g., the above-noted Model LD3320 from IC Route and Model NLP-5x from Sensory, Inc.) calculate and return these measures each time they successfully match (i.e. recognize) a spoken word or phrase with their active vocabulary or grammar.”). *See also* Rosenberger Figure 1, showing an “Embedded Speech Recognition” module:



That Rosenberger is directed to “speech recognition,” and does not disclose voice “detection” or “determining a quality score for the detected voice input” is confirmed by the prosecution history for the ’311 patent. For example, the Examiner cited Rosenberger during prosecution of related U.S. Patent Application No. 14/675,932. *See*, ’932 Application, Oct. 1, 2015 Office Action at 6-8. In response, Applicants argued that Rosenberger describes

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“[e]mbedded speech recognition IC modules and software,” which is different from “before beginning automated speech recognition processing on the audio data processing the audio data using a classifier that classifies audio data as including a particular hotword or as not including the particular hotword” and “determining, based on the processing the audio data using the classifier that classifies audio data including a particular hotword or as not including the particular hotword, a first value that reflects a first likelihood that the utterance includes the particular hotword.” *See* ’932 Application, Dec. 7, 2015 Response at 12. The Examiner allowed the claims, finding that the prior art including Rosenberger “teaches VAD to confirm that keywords are present prior to ASR, multiple VAD output comparison to determine a consensus score and threshold, multiple ASR units to compare input at different devices prior to executing the actual command,” but did not teach the above-referenced limitations. *See* ’932 Application, Jan. 25, 2016 Notice of Allowance at 4-5; *see also* U.S. Application No. 15/088,477, May 25, 2016 Office Action, Aug. 3, 2016 Amendment, and Sep. 16, 2016 Notice of Allowance.

During prosecution of the ’128 patent, the Examiner allowed claims reciting “detecting a voice input” and “determining a quality score for the detected voice input” over prior art including Rosenberger, stating:

Independent claims 1, 6, and 11 are allowed because while the prior art teaches VAD to confirm that keywords are present prior to ASR, multiple VAD output comparison to determine a consensus score and threshold, multiple ASR units to compare input at different devices prior to executing the actual command, and comparison of speech input and phonemes at different applications, it fails to teach the complex claims as a whole.

U.S. Patent Application No. 15/284,483, Jun. 23, 2017 Notice of Allowance. Further, during prosecution of the ’311 patent, the Examiner described Rosenberger as being directed to “Human vs robot ASR.” U.S. Patent Application No. 16/786,943, Apr. 5, 2021 Notice of Allowance.