

REMARKS

The Applicants appreciate the continued thorough examination of this application. By this amendment, changes have been made in certain claims as set forth above to overcome the Examiner's rejections and more concisely and specifically claim and describe the present invention. Claims 4, 10, 12, 13, 15-20 and 25 remain in the application for reconsideration by Examiner Wimer. The Examiner's allowance of all pending claims is earnestly solicited.

Claims 4, 10-13, 15-20 and 25 stand rejected under Section 102(e) as anticipated by Javor (US Patent Number 6,952,144).

The principle difference between Javor and the present invention is the use of an antenna with a controllable input impedance (by changing various antenna structural features) by the present Applicants, while Javor uses a separate variable impedance matching circuit interposed between the power amplifier and the antenna. Admittedly, Javor's matching circuit is controlled by the power amplifier output impedance, as he explains in the first full paragraph in column 3, but the Applicants teach an antenna having structural features that are controllable to change the input impedance of the antenna. The Applicants' control element (referred to in the claims as an "antenna impedance controller") is responsive to the power control signal, to the power amplifier output power or to the power amplifier output impedance.

As Javor explains, matching the power amplifier output impedance to the input impedance of the antenna (or in Javor's case, to the input impedance of the variable impedance matching circuit) may permit the power amplifier to operate more efficiently. Javor accomplishes this objective by the use of a separate variable impedance matching circuit that includes switches 150 for switching in or out one or more of the capacitors 160. In contrast, the Applicants accomplish this objective by using an antenna having a variable input impedance and controlling that input impedance to match or approximately match the variable output impedance of the power amplifier, which varies as more or less power is demanded from the power amplifier. The Applicants control the antenna's input impedance by modifying one or

more of the antenna's structural features. They do not use Javor's separate variable impedance matching circuit 130. The present invention is also not regarded as an obvious variant of Javor's separate impedance matching circuit.

Claim 4 has been amended, as set forth above, to better highlight the features of the present invention and better distinguish the Javor reference. In particular, the claim now includes an antenna having an active element, an antenna impedance controller and controllable structural features controllable by the latter. Controlling these structural features controls the antenna impedance.

These concepts are explained in and support for the claim amendments can also be found in paragraphs [0035] through [0044] of the application as filed. See, for example, paragraph [0043] where the location of the feed and ground points are discussed for changing the antenna input impedance.

Thus by modifying antenna features, rather than using an interposed antenna impedance matching circuit (Javor's element 130), the Applicants are able to adjust the impedance into which the power amplifier operates. The results may be similar (more efficient operation of the power amplifier) but the means for accomplishing these results are patentable distinct.

Independent claim 10 has been amended in a manner similar to the amendments to independent claim 4 described above. However, in claim 10 the impedance controlling element is responsive to an operation parameter of the power amplifier or responsive to a characteristic of the signal (i.e., the signal supplied by the power amplifier to the antenna). This difference from claim 4 is not believed to affect the patentable distinctions between claim 10 and the Cooper and Harrington combination.

Rejected dependent claims 12, 13, 15-20 and 25 depend from independent claim 10. Claim 11 has been cancelled by this Amendment. The Applicants contend that each of these claims includes one or more elements that further distinguish the invention over the art of record. These dependent claims should therefore be in condition for allowance.

The Applicants hereby petition for an extension of time of three months until June 23, 2009 under 37 C.F.R. 1.136. The extension of time fee has been paid by charging to a credit card concurrent with the filing of this amendment according to the EFS filing procedure.

The Applicants have responded to the claim rejections in the pending Office Action and it is believed that the claims remaining in the application are now in condition for allowance. In view of the foregoing amendments and discussion, it is respectfully submitted that Examiner Wimer's claim rejections have been overcome and therefore the application should be in condition for allowance. However, if Examiner Wimer has any suggestions for further claim amendments to move the case to issuance, he is invited to call the undersigned to discuss and consider such amendments.

Respectfully submitted,

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