

ABSTRACT**SYSTEMS, METHODS, AND APPARATUS FOR HIGHBAND EXCITATION
GENERATION**

In one embodiment, a method of generating a highband excitation signal includes harmonically extending the spectrum of a signal that is based on a lowband excitation signal; calculating a time-domain envelope of a signal that is based on the lowband excitation signal; and modulating a noise signal according to the time-domain envelope. The method also includes combining (A) a harmonically extended signal based on a result of the harmonically extending and (B) a modulated noise signal based on a result of the modulating. In this method, the highband excitation signal is based on a result of the combining.

Figures 1a and 1b