CLAIMS

1. A device for signal processing, the device comprising:
a receiver configured to receive a parameter associated with a bandwidth-extended audio stream; and
a high-band excitation signal generator configured to:
determine a value of the parameter; and
in response to the parameter having a first value:
select filter information associated with the bandwidth-extended audio stream;
determine filter coefficients based on the filter information; and
generate a high-band excitation signal based on the filter information, wherein the high-band excitation signal is generated based on application of a filter having the filter coefficients to a first high-band excitation signal.

2. The device of claim 1, wherein the high-band excitation signal generator is further configured to, in response to the parameter having a second value distinct from the first value, select target gain information indicating a frame gain, a gain shape, or both.

3. The device of claim 2, wherein the target gain information includes high-band reference gain information, temporal sub-frame residual gain shape information, or both.

4. The device of claim 2, wherein the receiver is further configured to receive the target gain information from an encoder.

5. The device of claim 1, wherein the parameter comprises a high resolution (HR) configuration indicator associated with a time-domain bandwidth extension (TBE) bit stream generated from the bandwidth-extended audio stream.

6. The device of claim 1, wherein the receiver is further configured to receive the filter information from an encoder, and wherein the filter information is associated with filter coefficients.

7. The device of claim 1, wherein the filter information indicates filter coefficients of a finite impulse response (FIR) filter, and further comprising a filter configured according to the filter information.

8. The device of claim 1, wherein the high-band excitation signal generator includes a high-band excitation estimator configured to receive a harmonically extended high-band excitation signal and a low-band voicing factor (LB VF).

9. The device of claim 1, wherein the first high-band excitation signal is generated based on a low-band excitation signal harmonically extended in a time-domain.

10. The device of claim 1, wherein the first high-band excitation signal is combined with a noise signal prior to the application of the filter.

11. The device of claim 1, wherein the application of the filter to the first high-band excitation signal generates a filtered signal, and wherein the high-band excitation signal is generated based on a combination of the filtered signal and another signal that is based on a noise signal.

12. The device of claim 1, wherein the filter comprises a finite impulse response (FIR) filter.

13. The device of claim 1, further comprising:

an antenna coupled to the receiver, wherein the receiver is configured to receive an encoded audio signal;

a demodulator coupled to the receiver, the demodulator configured to demodulate the encoded audio signal; and

a decoder coupled to a processor associated with the high-band excitation signal generator, the decoder configured to decode the encoded audio signal, wherein the encoded audio signal corresponds to the bandwidth-extended audio stream, and wherein the processor is coupled to the demodulator.

14. The device of claim 13, wherein the receiver, the demodulator, the processor, and the decoder are integrated into a mobile communication device.

15. The device of claim 13, wherein the receiver, the demodulator, the processor, and the decoder are integrated into a base station, the base station further comprising a transcoder that includes the decoder.

16. The device of claim 1, wherein the receiver and the high-band excitation signal generator are integrated into a media playback device or a media broadcast device.

17. A signal processing method comprising:

determining, at a device, a value of a parameter associated with a bandwidth-extended audio stream; and

in response to the parameter having a first value:

selecting filter information associated with the bandwidth-extended audio stream;

determining filter coefficients based on the filter information; and

generating, at the device, a high-band excitation signal based on the filter information, wherein the high-band excitation signal is generated based on application of a filter having the filter coefficients to a first high-band excitation signal.

18. The method of claim 17, further comprising in response to the parameter having a second value distinct from the first value and in lieu of generating the high-band excitation signal based on the filter information, generating the high-band excitation signal based on target gain information.

19. The method of claim 18, wherein the high-band excitation signal is generated based on particular target gain information that comprises gain shape data, high-band (HB) target gain data, or gain information.

20. The method of claim 17, wherein determining the value and generating the high-band excitation signal are performed in a particular device that comprises a media playback device or a media broadcast device.

21. The method of claim 17, wherein determining the value and generating the high-band excitation signal are performed in a particular device that comprises a mobile communication device.

22. The method of claim 17, wherein determining the value and generating the high-band excitation signal are performed in a particular device that comprises a base station.

23. The method of claim 17, wherein the parameter indicates a high resolution (HR) configuration mode.

24. The method of claim 17, wherein the application of the filter to the first high-band excitation signal generates a filtered signal, and wherein the high-band excitation signal is generated by combining the filtered signal with another signal that is based on a noise signal.

25. A computer-readable medium including instructions that, when executed by a processor, cause the processor to perform operations comprising:

receiving a parameter associated with a bandwidth-extended audio stream;

determining a value of the parameter; and

in response to the parameter having a first value:

selecting filter information associated with the bandwidth-extended audio stream;

determining filter coefficients based on the filter information; and

generating a high-band excitation signal based on the filter information, wherein the high-band excitation signal is generated based on application of a filter having the filter coefficients to a first high-band excitation signal.

26. The computer-readable medium of claim 25, wherein the operations further comprise receiving a harmonically extended high-band excitation signal and generating the high-band excitation signal based on the harmonically extended high-band excitation signal.

27. An apparatus comprising:

means for receiving a parameter associated with a bandwidth-extended audio stream; and

means for generating a high-band excitation signal, the means for generating configured to:

determine a value of the parameter; and

in response to the parameter having a first value:

select filter information associated with the bandwidth-extended audio stream;

determine filter coefficients based on the filter information; and

generate a high-band excitation signal based on the filter information, wherein the high-band excitation signal is generated based on application of a filter having the filter coefficients to a first high-band excitation signal.

28. The apparatus of claim 27, wherein the means for receiving and the means for generating are integrated into a media playback device or a media broadcast device.

29. The apparatus of claim 27, wherein the means for receiving and the means for generating are integrated into a base station.

30. The apparatus of claim 27, wherein the means for receiving and the means for generating are integrated into a mobile communication device.