CLAIMS

1. A speaker system, comprising:

an enclosure having a back and a front defining a front plane, the enclosure adapted to engage with a first rear-firing acoustic driver;

a first folded horn within the enclosure, the first folded horn configured to output a sound from the first rear-firing acoustic driver to the front plane; and

a second folded horn within the enclosure, the second folded horn configured to output the sound from the first rear-firing acoustic driver to the front plane, wherein the first folded horn and the second folded horn each includes a single 180° fold for directing the sound from the first rear-firing acoustic driver to the front plane of the enclosure.

2. The speaker system of claim 1, wherein the second folded horn is at least partially nested within the first folded horn.

3. The speaker system of claim 1, further comprising:

a second acoustic driver engaged with the enclosure.

4. The speaker system of claim 1, wherein the front plane of the enclosure is flat or rectilinear.

5. The speaker system of claim 1, wherein the front plane of the enclosure is curved and has one or more distinct radii.

6. The speaker system of claim 1, wherein the first acoustic driver is a low-range woofer housed in a working volume.

7. The speaker system of claim 1, wherein the first acoustic driver is a low-range woofer housed in a bowl-shaped enclosure or a configuration of nested folded horns.

8. The speaker system of claim 1, wherein the first acoustic driver is a low-range woofer housed in a cylindrical, conical, or spherical enclosure.

9. The speaker system of claim 1, wherein the first acoustic driver is a low-range woofer housed in asymmetrical or symmetrical enclosure created by a mold.

10. The speaker system of claim 3, wherein the second acoustic driver is a mid-range woofer.

11. The speaker system of claim 3, wherein the second acoustic driver is a low-or mid-range woofer housed in a rectilinear or trapezoidal volume.

12. The speaker system of claim 3, wherein the second acoustic driver is a low-range woofer housed in a bowl-shaped enclosure or a configuration of nested curved folded horns.

13. The speaker system of claim 3, wherein the second acoustic driver is a low-or mid-range woofer housed in a cylindrical, conical, or spherical enclosure.

14. The speaker system of claim 3, wherein the second acoustic driver is a low-or mid-range woofer housed in an asymmetrical or symmetrical enclosure created by a mold.

15. The speaker system of claim 1, wherein:

the first folded horn approximates a first U shape;

the second folded horn approximates a second U shape; and

the second U shape is at least partially nested within the first U shape.

16. The speaker system of claim 13, wherein the first acoustic driver is a rear firing driver aimed at a central region within the first U shape such that the output of the first acoustic driver is bifurcated between the two ends of the first U shape.

17. The speaker system of claim 16, wherein the central region is a compression chamber.

18. The speaker system of claim 7, wherein the first acoustic driver is a rear firing driver aimed at a central region within the first bowl shape such that the output of the first acoustic driver exits the system from a flared end of a bowl-shaped enclosure defined by the outer bowl and the first nested bowl.

19. The speaker system of claim 7, wherein the first acoustic driver is a rear firing driver aimed at a central region within the first curved plate-shape such that the output of the first acoustic driver exits the system from a rectilinear opening defined by the outer curved plate and the first nested curved plate.

20. The speaker system of claim 15, wherein the first acoustic driver is a rear firing driver aimed at a splash plate within the enclosure which serves to distribute the output of the first acoustic driver.

21. The speaker system of claim 1, wherein the first folded horn is defined at least in part by inner surfaces of one or more walls formed within the enclosure.

22. The speaker system of claim 1, wherein the second folded horn is defined at least in part by inner surfaces of one or more walls formed within the enclosure.

23. The speaker system of claim 3, wherein the first acoustic driver, the second acoustic driver, or both, are forward- or rear-firing.

24. The speaker system of claim 1, further comprising one or more mid- and/or high-frequency drivers or tweeters.

25. The speaker system of claim 1, wherein the speaker system comprises at least one of a loudspeaker, a smart speaker, a laptop speaker, a desktop speaker, a speaker, earphones, earbuds, and headphones.

26. A loudspeaker system, comprising:

a cabinet having a back and a front defining a front plane;

a first enclosure in the cabinet housing a first rear-firing acoustic driver forming a first folded horn; and

a second enclosure in the cabinet housing a second rear-firing acoustic driver forming a second folded horn,

wherein the first and second folded horns have outputs aligned with the front plane of the cabinet, and

wherein the first and second folded horns each includes a single 180° fold for directing the sound from the first and second rear-firing acoustic drivers, respectively, to the front plane of the cabinet.

27. The loudspeaker system of claim 26, wherein the front plane of the enclosure is flat or rectilinear.

28. The loudspeaker system of claim 26, wherein the front of the enclosure is curved and has one or more distinct radii.

29. The loudspeaker system of claim 26, wherein the first acoustic driver is a low-range woofer housed in a rectilinear or trapezoidal volume.

30. The loudspeaker system of claim 26, wherein the first acoustic driver is a low-range woofer housed in a cylindrical, conical, or spherical enclosure.

31. The loudspeaker system of claim 26, wherein the first acoustic driver is a low-range woofer housed in an asymmetrical or symmetrical enclosure created by a mold.

32. The loudspeaker system of claim 26, wherein the second acoustic driver is a mid-range woofer.

33. The loudspeaker system of claim 26, wherein the second acoustic driver is a low- or mid-range woofer housed in a rectilinear or trapezoidal volume.

34. The loudspeaker system of claim 26, wherein the second acoustic driver is a low- or mid-range woofer housed in a cylindrical, conical, or spherical enclosure.

35. The loudspeaker system of claim 26, wherein the second acoustic driver is a low- or mid-range woofer housed in an asymmetrical or symmetrical enclosure created by a mold.

36. The loudspeaker system of claim 26, wherein:

the first folded horn approximates a first U shape;

the second folded horn approximates a second U shape; and

the second U shape is at least partially nested within in first U shape.

37. The loudspeaker system of claim 36, wherein the first acoustic driver is a rear-firing driver aimed at a central region within the first U shape such that the output of the first acoustic driver is divided between the two ends of the first U shape.

38. The loudspeaker system of claim 36, wherein the first acoustic driver is a rear-firing driver aimed at a splash plate within the enclosure which serves to bifurcate the output of the first acoustic driver.

39. The loudspeaker system of claim 36, wherein the second acoustic driver is a rear-firing driver aimed at a central region within the second U shape such that the output of the second acoustic driver is divided between the two ends of the second U shape.

40. The loudspeaker system of claim 26, wherein first folded horn has configurable surfaces to approximate different waveform guide geometries.

41. The loudspeaker system of claim 26, wherein second folded horn has configurable surfaces to approximate different waveform guide geometries.

42. The loudspeaker system of claim 26, wherein the second enclosure is movable within the first enclosure to vary the geometry of the second folded horn.

43. The loudspeaker system of claim 26, wherein the back of the cabinet is vertically chambered.

44. The loudspeaker system of claim 26, wherein the first folded horn is defined at least in part by inner surfaces of the cabinet and outer surfaces of the first enclosure.

45. The loudspeaker system of claim 26, wherein the second folded horn is defined at least in part by inner surfaces of the first enclosure and outer surfaces of the second enclosure.

46. The loudspeaker system of claim 26, wherein the first enclosure, the second enclosure, or both, are ported.

47. The loudspeaker system of claim 26, wherein the first acoustic driver, the second acoustic driver, or both, are forward- or rear-firing.

48. The loudspeaker system of claim 26, further including one or more mid-and/or high-frequency drivers or tweeters.

49. The loudspeaker system of claim 26, further including one or more active or passive crossovers.

50. A sound waveform guide, comprising:

an enclosure having a back and a front defining a front plane;

a first folded horn within the enclosure, the first folded horn configured to output a sound from a first rear-firing source to the front plane; and

a second folded horn within the enclosure, the second folded horn configured to output the sound from the first rear-firing source to the front plane,

wherein the first folded horn and the second folded horn each includes a single 180° fold for directing the sound from the first rear-firing source to the front of the enclosure.

51. The sound waveform guide of claim 50, wherein the first folded horn is at least partially nested within the second folded horn.

52. The sound waveform guide of claim 50, wherein:

the first folded horn approximates a first U or bowl shape;

the second folded horn approximates a second U or bowl shape; and

the second U or bowl shape is at least partially nested within the first U or bowl shape.