Claims

1. An inkjet printhead comprising:

a fluidic chamber substrate, the fluidic chamber substrate having at least two droplet units provided in an array therein, each of the at least two droplet units comprising:

a fluidic chamber,

a first fluidic port and a second fluidic port provided at a first surface of the fluidic chamber substrate, wherein the first and second fluidic ports are in fluidic communication with the fluidic chamber,

a nozzle formed in a nozzle layer provided at a second surface of the fluidic chamber substrate and in fluidic communication with the fluidic chamber;

a vibration plate provided at the first surface of the fluidic chamber substrate, the vibration plate comprising an actuator for effecting pressure fluctuations within the fluidic chamber; and

wherein the droplet units are arranged adjacent each other about an axis extending substantially in a width direction of the droplet units, wherein the first fluidic ports of the droplet units are staggered a first stagger offset distance from each other substantially in a length direction of the droplet units, wherein a wiring layer extends over the first surface of the fluidic chamber substrate and between the first fluidic ports, and wherein the second fluidic ports are staggered a second stagger offset distance from each other substantially in the length direction of the droplet units.

2. The inkjet printhead according to any preceding claim, wherein the wiring layer which extends between the first fluidic ports comprises an electrical trace.

3. The inkjet printhead according to any preceding claim, wherein the wiring layer which extends between the first fluidic ports comprises one or more electrical traces.

4. The inkjet printhead according to claim 3, wherein at least one of the one or more electrical traces is configured to supply a signal to a corresponding actuator of the droplet units.

5. The inkjet printhead according to any of claims 3 or 4, wherein a thickness of the one or more electrical traces is less than 2 micrometres (μm).

6. The inkjet printhead according to any preceding claim, wherein the wiring layer which extends between the first fluidic ports comprises a protecting cover material.

7. The inkjet printhead according to claim 6, wherein the protecting cover material comprises a passivation material.

8. The inkjet printhead according to any preceding claim, wherein the wiring layer extends over the first surface of the fluidic chamber substrate and between the second fluidic ports.

9. The inkjet printhead according to any preceding claim wherein a separation gap is provided between a sidewall of the wiring layer and the first fluidic ports.

10. The inkjet printhead according to any preceding claim, wherein a separation gap is provided between the wiring layer and the second fluidic ports.

11. The inkjet printhead according to any preceding claim, wherein the first fluidic ports are fluidic inlet ports.

12. The inkjet printhead according to any preceding claim, wherein the second fluidic ports are fluidic outlet ports.

13. The inkjet printhead according to any preceding claim, wherein the corresponding fluidic chambers, nozzles and/or actuators of the droplet units are staggered the first or second stagger offset distance substantially in the length direction of the droplet units.

14. The inkjet printhead according to any preceding claim, wherein the stagger offset distance is greater than the length of a widest region (WR) of the first fluidic port.

15. The inkjet printhead according to any preceding claim, wherein the first stagger offset distance is substantially equal to the second stagger offset distance.

16. The inkjet printhead according to any preceding claim wherein one or more of the first fluidic ports or the second fluidic ports are shaped to have reflection symmetry.

17. The inkjet printhead according to claim 16, wherein the first fluidic ports are substantially: triangular shaped, square shaped, rectangular shaped, pentagonal shaped, hexagonal shaped, rhombus shaped, oval shaped or circular shaped.

18. The inkjet printhead according to any of claims 16 or 17, wherein the second fluidic ports are substantially: triangular shaped, square shaped, rectangular shaped,

pentagonal shaped, hexagonal shaped, rhombic, oval shaped or circular shaped.

19. The inkjet printhead according to any of claims 1 to 15, wherein one or more of the first fluidic ports or second fluidic ports are shaped to have reflection asymmetry.

20. The inkjet printhead according to any preceding claim, wherein the wiring layer is provided on one or more layers provided on the first surface of the fluidic chamber substrate.

21. An inkjet printer comprising an inkjet printhead of any of claims 1 to 20.

22. A fluidic chamber substrate, the fluidic chamber substrate having at least two droplet units provided in an array therein, each of the at least two droplet units comprising:

a fluidic chamber,

a first fluidic port and a second fluidic port provided at a first surface of the fluidic chamber substrate, wherein the first and second fluidic ports are in fluidic communication with the fluidic chamber,

a nozzle formed in a nozzle layer provided at a second surface of the fluidic chamber substrate and in fluidic communication with the fluidic chamber; and

a vibration plate provided at the first surface of the fluidic chamber substrate, the vibration plate comprising an actuator for effecting pressure fluctuations within the fluidic chamber; and

wherein the droplet units are arranged adjacent each other about an axis extending substantially in a width direction of the droplet units, wherein the first fluidic ports of the droplet units are staggered a first stagger

offset distance from each other substantially in a length direction of the droplet units, and wherein a wiring layer extends over the first surface of the fluidic chamber substrate and between the first fluidic ports and wherein the second fluidic ports are staggered a second stagger offset distance from each other substantially in the length direction of the droplet units.