WHAT IS CLAIMED IS:

1. A flexible circuit to connect an integrated circuit of a print component to a host controller, the flexible circuit comprising:

a first portion comprising an electrical interconnect pad array to connect to the host controller, the electrical interconnect pad array including:

a first electrical interconnect pad on a first lateral side of the first portion; and

a second electrical interconnect pad on a second lateral side of the first portion;

a second portion separate from the first portion, including a contact pad array to connect to the integrated circuit, the contact pad array on the first surface the second portion including:

a first contact pad to connect to a fluid ejection device;

a second contact pad to connect to the fluid ejection device;

a first trace connecting the first electrical interconnect pad to the first contact pad; and

a second trace connecting the second electrical interconnect pad to the second contact pad, wherein the first trace is configured to conduct a higher voltage than the second trace., wherein the first electrical interconnect pad, the second electrical interconnect pad, the first contact pad, the second contact pad, the first trace, and the second trace are on a same surface of the flexible circuit.

2. The flexible circuit of claim 1, wherein the electrical interconnect pad array is provided in two parallel columns along two lateral sides of a center axis and equidistant from the center axis, one column on the first side and one column on the second side of the first portion, and/or wherein a width of the electrical interconnect pad array is less than four times the width of the surface of a contact pad; and/or wherein the first trace is wider than the second trace.

3. The flexible circuit of any of claims 1-2, wherein the corresponding traces extending at least partially parallel to the center axis and to each other in at least the first portion, optionally wherein the parallel portion of the traces in the first portion extend at least partially between the interconnect pads.

4. The flexible circuit of any of claims 1-3, wherein the first electrical interconnect pad comprises at least one of: a high power supply, logic power that is lower than the high power supply, fire that is lower power than the high power supply, reset and/or ground, and wherein the at least one second electrical interconnect pad comprises at least one of a data, clock, mode and/or analog read pad.

5. The flexible circuit of any of claims 1-4, wherein the first trace is to deliver power to the fluid ejection device to drive fluid ejection, and/or wherein the second trace is an analog reading trace to communicate analog values corresponding to data and/or to at least one sensed characteristic of the fluid ejection device; and/or wherein the fluid ejection device is configured to transmit analog data signals to the host controller.

6. The flexible circuit of any of claims 1-5, wherein the first trace and the second trace include at least one chamfered corner.

7. The flexible circuit of any of claims 1-6, wherein the fluid ejection device comprises drop generators to eject fluid.

8. The flexible circuit of any of claims 1-7, wherein the second contact pad is closer to a distal edge of the second portion than the first contact pad.

9. A thin circuit to attach to a print component that is replaceable with respect to a host printer, the thin circuit comprising:

an insulative support structure;

an electrical interconnect pad array to enable the replaceable component to communicate with a host printer circuit;

the electrical interconnect pad array consisting of two parallel columns at each side of a center axis, each column comprising a plurality of pads, the columns at opposite sides of an axis;

wherein a first column of the two parallel columns includes pads to conduct higher energy signals including a high power supply pad, a logic pad lower than the high power supply pad, a fire pad that is lower power than the high power supply pad, a reset pad, and/or a ground pad;

a second column of the two parallel columns includes pads to conduct lower energy signals, which energy is lower than the higher energy signals, the pads including a data pad, a clock pad, a mode pad, and/or an analog reading signal pad; and

parallel routings extending from the electrical interconnect pad array to connect to an integrated circuit of the component.

10. The thin circuit of claim 9, wherein the first column includes:

a first higher energy electrical interconnect pad to conduct a voltage greater than 4 VDC, and/or

a second higher energy electrical interconnect pad to conduct a voltage greater than 10 VDC, and wherein

the second column includes:

a first lower energy electrical interconnect pad to transmit a logic low value of approximately 0 V and a logic high value of approximately 3.3 V, and/or

a second lower energy electrical interconnect pad that transmits analog voltage values between 0 and 3.3 V; and/or

wherein the first column includes at least one lower energy electrical interconnect pad to transmit a logic low value of approximately 0 V value and a logic high value of approximately 3.3 V, and/or the second column includes a plurality of lower energy electrical interconnect pads to transmit a logic low value of approximately 0 V and a logic high value of approximately 3.3 V.

11. The thin circuit of any of claims 9-10, wherein the integrated circuit is configured to transmit memory and/or analog values using lower energy signals over the lower energy pads, in response to instruction signals over the lower energy pads.

12. The thin circuit of any of claims 9-11, wherein the integrated circuit comprises a fluid ejection device to eject fluid based on the lower energy and higher energy signals; and/or wherein the integrated circuit comprises a fluid ejection device or a replacement memory device for a fluid ejection device.

13. The thin circuit of any of claims 9-12, wherein a first distance between a power routing of the parallel routings and an analog reading signal routing of the parallel

routings is greater than a second distance between the analogue reading signal routing and a mode routing of the parallel routings, optionally wherein the first distance is greater than or equal to two times the second distance.

14. The thin circuit of any of claims 9-13, wherein the parallel routings include at least one chamfered corner.

15. A fluid ejection device assembly comprising:

a fluid ejection device; and

the flexible circuit of any of claims 1-8 or the thin circuit of any of claims 9-14.