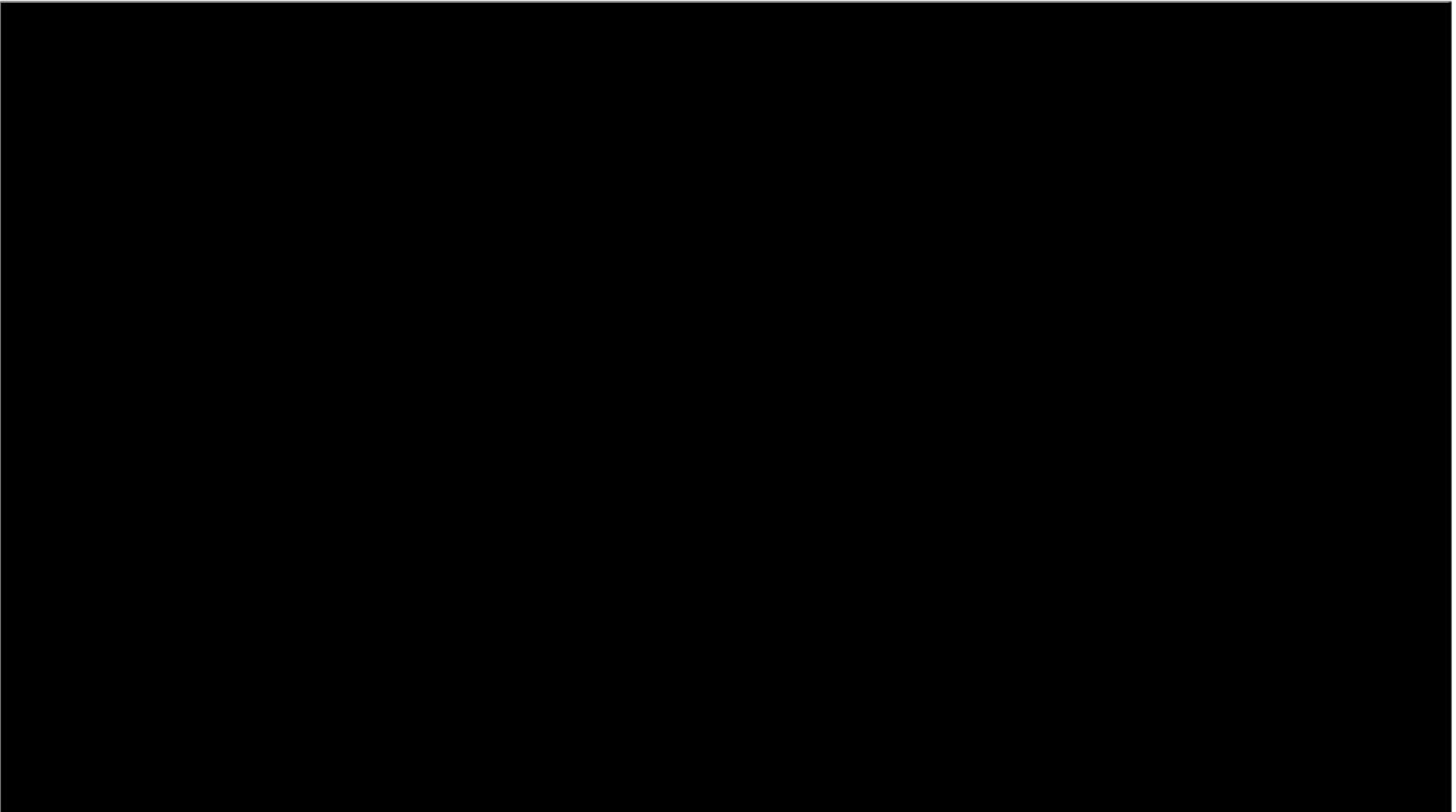


Exhibit B

Claim Chart of Infringement of U.S. Patent No. 7,564,665		
Claim	Claim Language	Infringement
[REDACTED]		

[REDACTED]

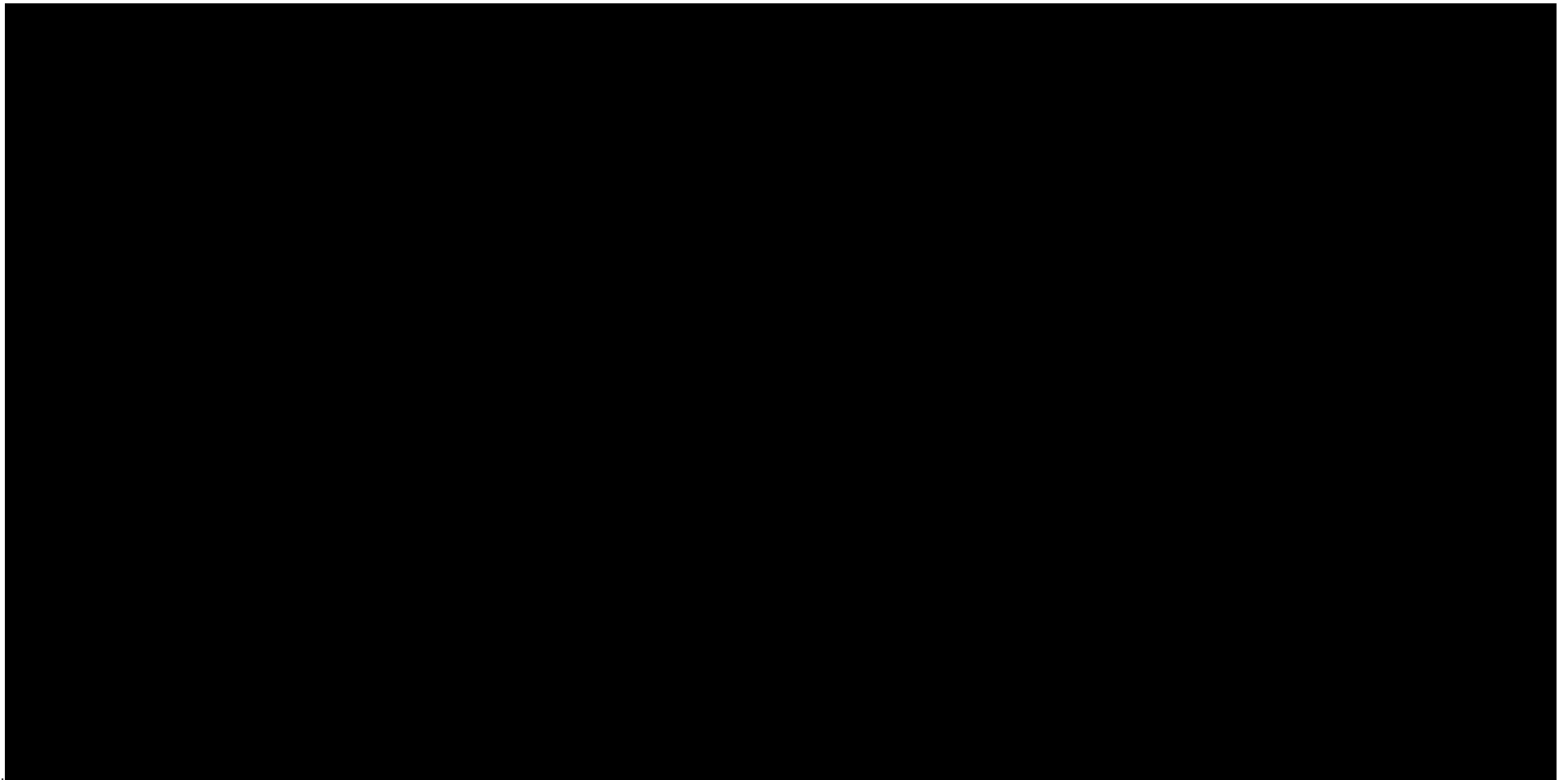
		
1.5	a clamp device configured between a second voltage rail and a third voltage rail to reduce, when turned on, the maximum voltage developed in the system	The Aptiv Accused Products practice this element literally and/or under the doctrine of equivalents. Circuit schematics derived from a teardown of the Boston-2 chip reveal that the ESD protection circuitry includes a clamp device configured between a second voltage rail and a third voltage rail, depicted below. The second voltage rail is electrically connected to the first voltage rail. <i>See, e.g.</i>, U.S. Pat. No. 7,564,665, 5:62-63 (“In general, the ESD rail and the power supply rail can be the same supply rail, and separate supply rails . . . may not be required.”).

	as the result of the ESD event;	
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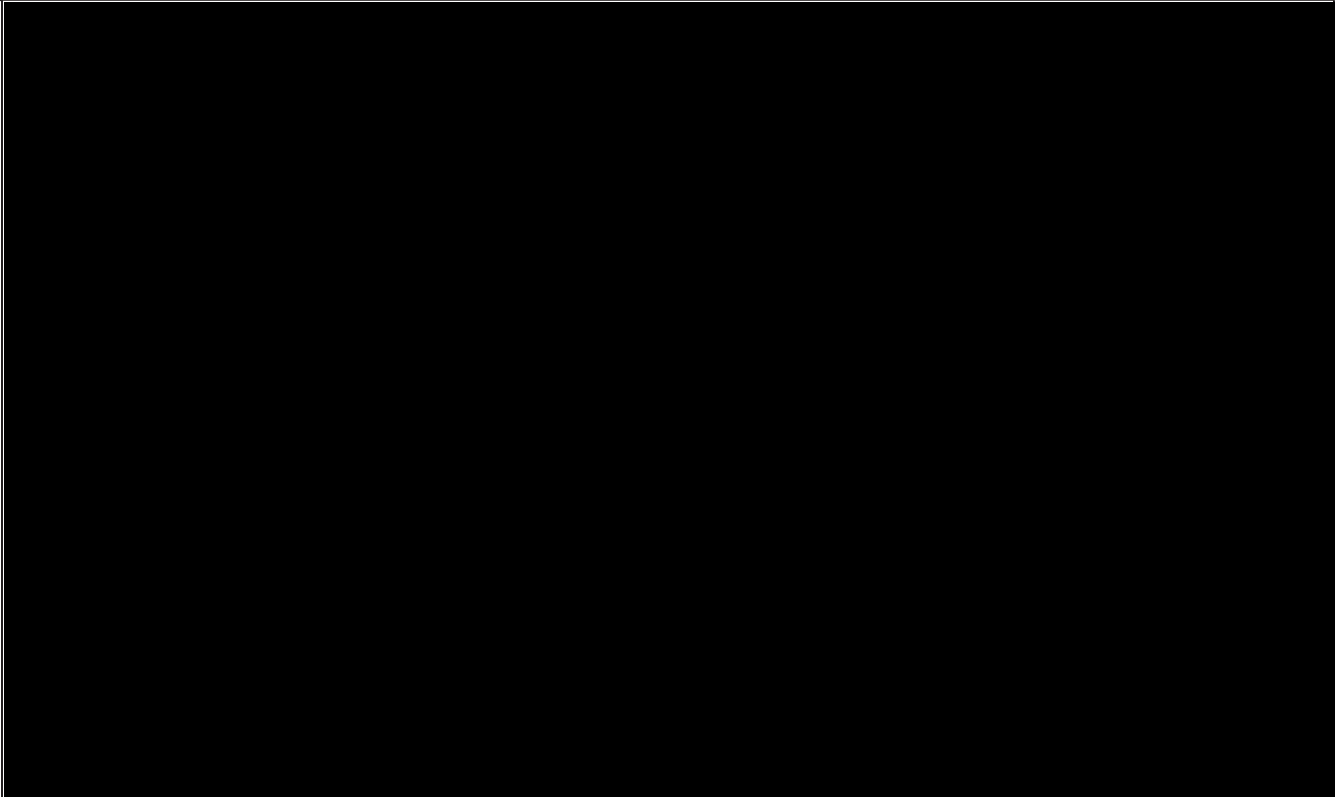
1.7	wherein the second voltage rail is configured to provide power to the enable circuitry, and wherein the third voltage rail has a value below the first voltage rail.	The Aptiv Accused Products practice this element literally and/or under the doctrine of equivalents. Circuit schematics derived from a teardown of the Boston-2 chip reveal that the second voltage rail of the ESD circuitry is configured to provide power to the enable circuitry. Namely, the second voltage rail is electrically connected to V_{DD}. As depicted below, during an ESD event, power for the enable circuitry is supplied from this rail.

Circuit schematics derived from a teardown of the Boston-2 chip further reveal that the third voltage rail has a value below the first voltage rail. Namely, as depicted above, the third voltage rail is grounded (“GND”), and therefore is at a lower voltage than the second voltage rail, which is connected to V_{DD} .

Microchip has sought discovery from Aptiv of the original circuit schematics and design documents underlying the ESD circuitry of the Boston-2, Huron, and Superior chips, which Microchip expects will further confirm that the Accused Products practice this element. However, to date, Aptiv has not produced such documents.



6.3	a clamp device coupled between a first supply rail and a low supply rail, wherein the clamp device is configured to absorb, when turned on, a portion of an energy generated by the ESD event, to reduce the maximum voltage developed in the	The Aptiv Accused Products practice this element literally and/or under the doctrine of equivalents. Circuit schematics derived from a teardown of the Boston-2 chip reveal that the ESD circuitry includes a clamp device coupled between a first supply rail and a low supply rail, depicted below.
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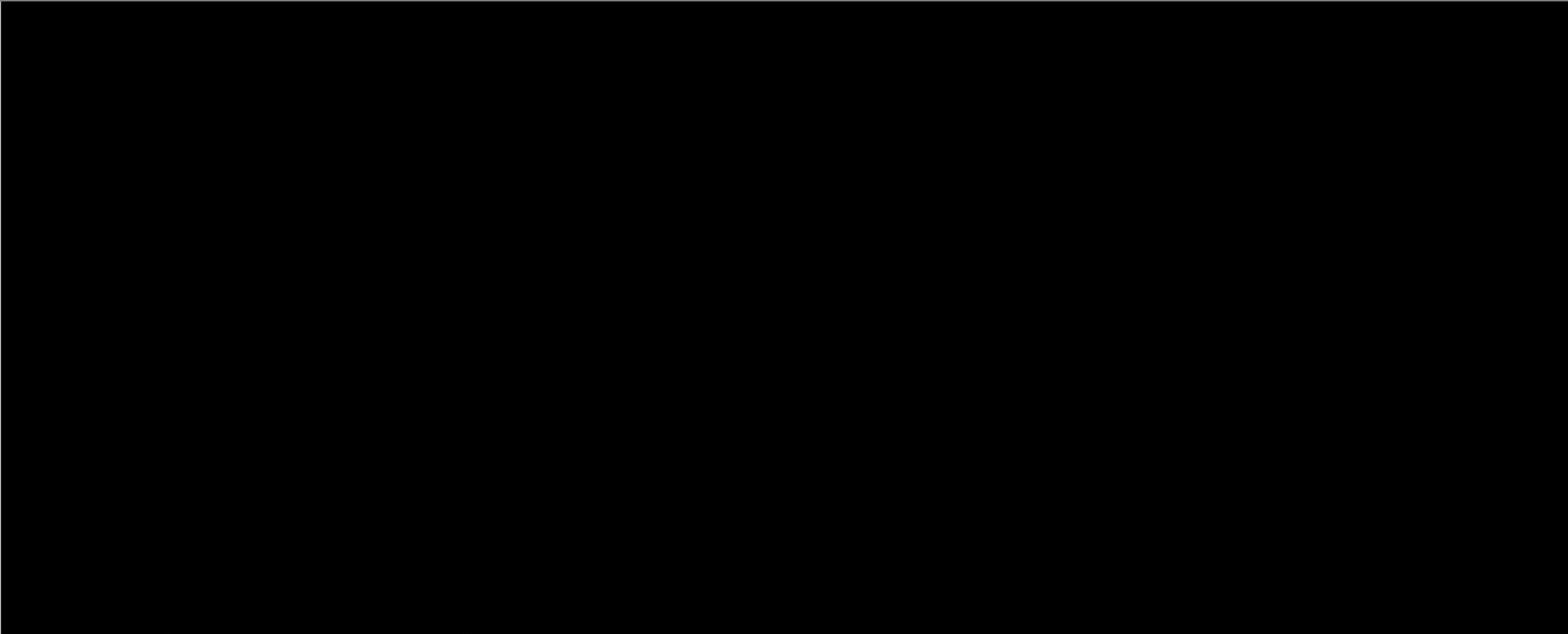
	system as the result of the ESD event; and	 This clamp device is configured to absorb, when turned on, a portion of an energy generated by the ESD event, to reduce the maximum voltage developed in the system as the result of an ESD event. Namely, as detailed above with respect to element 1.4, during an ESD event, the ESD event powers the circuitry of the control block and control circuit (further described below with respect to element 6.4). The control block and control circuit in turn enable the transistors of the clamp device, which shorts the pads to ground, as depicted below.
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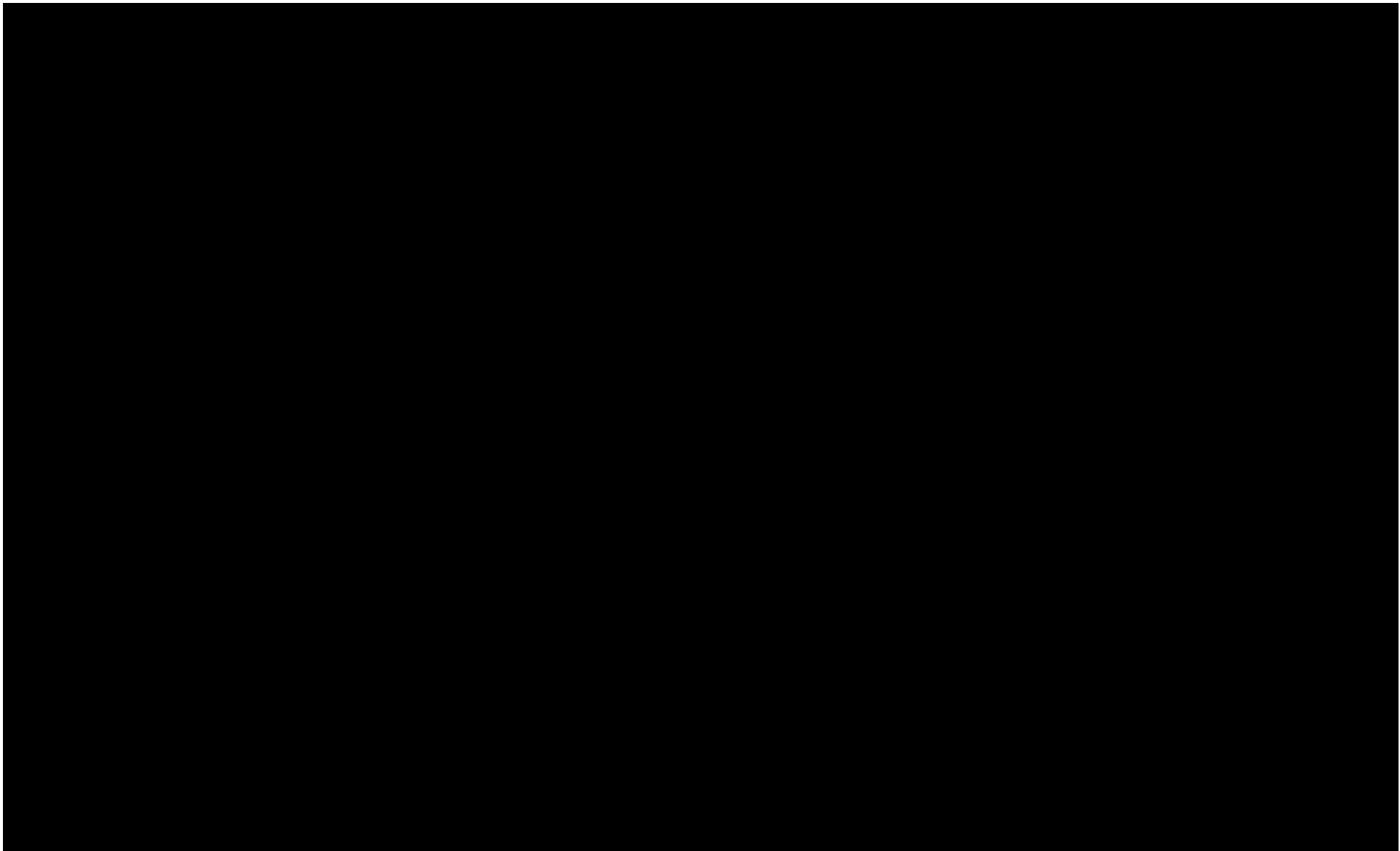
Thus, when turned on, the clamp device absorbs a portion of an energy generated by the ESD event (which is shorted to ground) to reduce the maximum voltage developed in the system as the result of the ESD event.

To the extent this claim language is interpreted to require that the clamp device is coupled *directly* between a first supply rail and a low supply rail, the clamp of the Boston-2 chip still satisfies this limitation either (1) because the PMOS transistor in the upper right corner of the above circuit diagrams can be considered part of the clamp; or (2) under the doctrine of equivalents, because the configuration of the Boston-2 clamp performs the same function, in the same way, to achieve the same result as a clamp that is coupled *directly* between a first supply rail and a low supply rail.

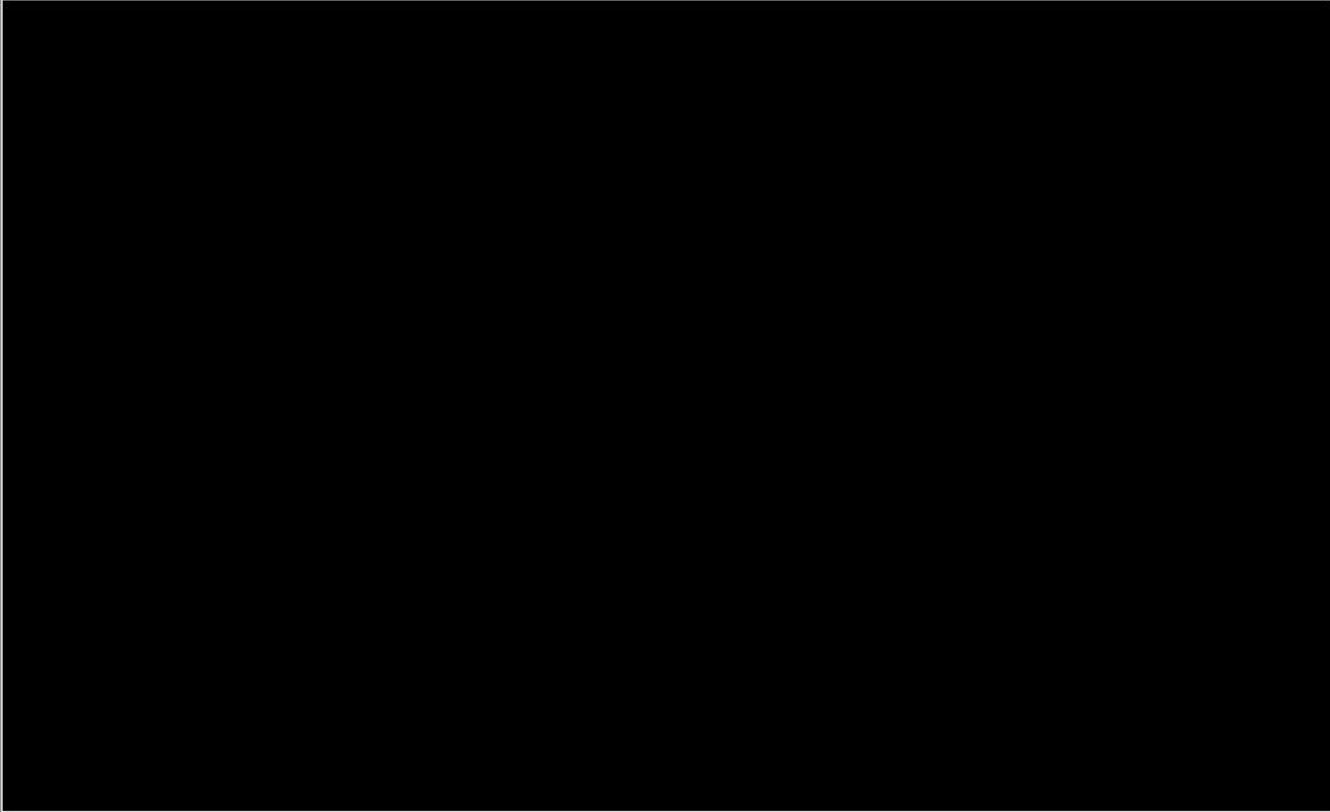
Microchip has sought discovery from Aptiv of the original circuit schematics and design documents underlying the ESD circuitry of the Boston-2, Huron, and Superior chips, which Microchip expects will further confirm that the Accused Products practice this element. However, to date, Aptiv has not produced such documents.

6.5	wherein the first supply rail is configured to provide power to the control circuit.	The Aptiv Accused Products practice this element literally and/or under the doctrine of equivalents. Circuit schematics derived from a teardown of the Boston-2 chip reveal that the first supply rail is configured to provide power to the control circuit. Namely, the first supply rail is V_{DD}, and it supplies power to the control circuit, as depicted below.
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7.1	The circuit of claim 6, wherein the output buffer comprises: one or more PMOS devices coupled between a second supply rail and the physical pad; and	The Aptiv Accused Products practice this element literally and/or under the doctrine of equivalents. Circuit schematics derived from a teardown of the Boston-2 chip reveal that the output buffer comprises a PMOS device coupled between a second supply rail and the physical pad, as depicted below. The second voltage rail is electrically connected to the first voltage rail. <i>See, e.g.</i> , U.S. Pat. No. 7,564,665, 5:62-63 (“In general, the ESD rail and the power supply rail can be the same supply rail, and separate supply rails . . . may not be required.”).



17.1	The system of claim 16, further comprising a second supply rail configured to power the respective output buffer	The Aptiv Accused Products practice this element literally and/or under the doctrine of equivalents. Circuit schematics derived from a teardown of the Boston-2 chip reveal that a second supply rail configured to power the respective output buffer of the respective pad circuit of each pad, as depicted below. The second voltage rail is electrically connected to the first voltage rail. <i>See, e.g.</i>, U.S. Pat.
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	of the respective pad circuit of each pad.	No. 7,564,665, 5:62-63 (“In general, the ESD rail and the power supply rail can be the same supply rail, and separate supply rails . . . may not be required.”).  To the extent that this claim language is interpreted to require that the second voltage rail and the first voltage rail are separate voltage rails, the Boston-2 chip still satisfies this limitation under the doctrine of equivalents, because it performs the same function, in the same way, to achieve the same results as a system employing separate voltage rails. Microchip has sought discovery from Aptiv of the original circuit schematics and design documents underlying the ESD circuitry of the Boston-2, Huron, and Superior chips, which Microchip expects will further confirm that the Accused Products practice this element. However, to date, Aptiv has not produced such documents.
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