**Pin FMA for Device Pins Short-Circuited to Ground**

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| **Pin Name** | **Pin No.** | **Description of Potential Failure Effect(s)** |
| R | 1 | Host unable to receive data from bus via transceiver. Increased output current and ICC when the output state is high. |
| RE# | 2 | Receiver output always enabled. |
| DE | 3 | Driver output always disabled |
| D | 4 | Host unable to transmit data to bus via transceiver. Output state is low when the driver is enabled. |
| GND | 5 | Intended operation. |
| A | 6 | Non-inverting signal stuck low; bus unable to reach differential high level. Communication errors likely. |
| B | 7 | Inverting signal stuck low; bus unable to reach differential high level. Communication errors likely. |
| Vcc | 8 | Device unpowered; neither transmit nor receive functionality available. Large current load on the external VCC regulator. |

**Pin FMA for Device Pins Open-Circuited**

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| --- | --- | --- |
| **Pin Name** | **Pin No.** | **Description of Potential Failure Effect(s)** |
| R | 1 | Host unable to receive data from the bus via transceiver |
| RE# | 2 | Receiver output always disabled. |
| DE | 3 | Driver output always disabled. |
| D | 4 | Host unable to transmit data to the bus via transceiver. Output state is indeterminate when the driver is enabled. |
| GND | 5 | Device unpowered; neither transmit nor receive functionality available. |
| A | 6 | Communication errors likely; may work with degraded margin if the bus termination is not implemented. |
| B | 7 | Communication errors likely; may work with degraded margin if the bus termination is not implemented. |
| Vcc | 8 | Device unpowered; neither transmit nor receive functionality available. |

**Pin FMA for Device Pins Short-Circuited to Adjacent Pin**

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| --- | --- | --- | --- |
| **Pin Name** | **Pin No.** | **Shorted to** | **Description of Potential Failure Effect(s)** |
| R | 1 | RE# | Undetermined state of shared net; receive functionality unlikely to work. |
| RE# | 2 | DE | Receiver is enabled when driver is disabled, and the driver is enabled when  the receiver is disabled. Transceiver state may not be well-defined when this  short results in contention between two active control lines from the host. |
| DE | 3 | D | Driver output can only be output-high or disabled (high-Z). State may not be  well-defined due to contention between host control lines |
| GND | 5 | A | Non-inverting signal stuck low; bus unable to reach differential high level.  Communication errors likely |
| A | 6 | B | Bus unable to reach differential-high or differential-low states; communication  cannot occur on bus |
| B | 7 | Vcc | Inverting signal stuck high; bus unable to reach differential high level.  Communication errors likely |

**Pin FMA for Device Pins Short-Circuited to supply**

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| **Pin Name** | **Pin No.** | **Description of Potential Failure Effect(s)** |
| R | 1 | Host unable to receive data from bus via transceiver. Increased input current when the output state is low. |
| RE# | 2 | Receiver output always disabled. |
| DE | 3 | Driver output always enabled. |
| D | 4 | Host unable to transmit data to bus via transceiver. Output state is high when driver is enabled. |
| GND | 5 | Device unpowered; neither transmit nor receive functionality available. Large current load on the external VCC regulator. |
| A | 6 | Non-inverting signal stuck high; bus unable to reach differential high level. Communication errors likely. |
| B | 7 | Inverting signal stuck high; bus unable to reach differential high level. Communication errors likely. |
| Vcc | 8 | Intended operation |