



RESISTOR CONFIGURATION

| PIN NAME | PIN FUNCTION DESCRIPTION | RESISTOR CONFIGURATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|----------|------------------------------------|--|-------|---------|-------|---------|------------------------|-------|--------------------|----------------------|------------------------|-------|-------|-------|------------------------|-------|-------|-------|------------------------|-------|-------|-------|------------------------|-------|-------|-------|------------------------|--|--|--|
| EN | With Internal 200k-ohm pull-up resistor Low: Power down mode High: Normal Operation | R10=Open, Normal Operation R10=0ohm, Power down Mode | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A_EQ B_EQ | Tri-level input with internal 100kohm pull-up resistor and 100kohm pull-down resistor | Equalization is controlled by R9&R6 for Channel A, R1&R8 for Channel B. <table border="1"> <thead> <tr> <th rowspan="2">Resistor</th> <th colspan="3">Input Equalization for Channel A&B</th> </tr> <tr> <th>1.5Gb/s</th> <th>3Gb/s</th> <th>6Gb/s</th> </tr> </thead> <tbody> <tr> <td>Ch A: R6=0ohm, R9=Open</td> <td>1.0dB</td> <td>2.5dB</td> <td>3.0dB</td> </tr> <tr> <td>Ch B: R1=0ohm, R8=Open</td> <td>2.5dB</td> <td>5.0dB</td> <td>6.0dB</td> </tr> <tr> <td>Ch A: R6=Open, R9=Open</td> <td>2.5dB</td> <td>5.0dB</td> <td>6.0dB</td> </tr> <tr> <td>Ch B: R1=Open, R8=Open</td> <td>4.0dB</td> <td>7.5dB</td> <td>9.0dB</td> </tr> <tr> <td>Ch A: R6=Open, R9=0ohm</td> <td>4.0dB</td> <td>7.5dB</td> <td>9.0dB</td> </tr> <tr> <td>Ch B: R1=Open, R8=0ohm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Resistor | Input Equalization for Channel A&B | | | 1.5Gb/s | 3Gb/s | 6Gb/s | Ch A: R6=0ohm, R9=Open | 1.0dB | 2.5dB | 3.0dB | Ch B: R1=0ohm, R8=Open | 2.5dB | 5.0dB | 6.0dB | Ch A: R6=Open, R9=Open | 2.5dB | 5.0dB | 6.0dB | Ch B: R1=Open, R8=Open | 4.0dB | 7.5dB | 9.0dB | Ch A: R6=Open, R9=0ohm | 4.0dB | 7.5dB | 9.0dB | Ch B: R1=Open, R8=0ohm | | | |
| Resistor | Input Equalization for Channel A&B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.5Gb/s | 3Gb/s | 6Gb/s | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ch A: R6=0ohm, R9=Open | 1.0dB | 2.5dB | 3.0dB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ch B: R1=0ohm, R8=Open | 2.5dB | 5.0dB | 6.0dB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ch A: R6=Open, R9=Open | 2.5dB | 5.0dB | 6.0dB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ch B: R1=Open, R8=Open | 4.0dB | 7.5dB | 9.0dB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ch A: R6=Open, R9=0ohm | 4.0dB | 7.5dB | 9.0dB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ch B: R1=Open, R8=0ohm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A_EM B_EM | Output Emphasis/Swing Adjustment it is digital control with internal 200kohm pull-up resistor | Emphasis/Swing is controlled by R3 for Channel A, R4 for Channel B. <table border="1"> <thead> <tr> <th rowspan="2">R3&R4</th> <th colspan="2">Emphasis/Swing for Channel A&B</th> </tr> <tr> <th>3Gb/s</th> <th>6Gb/s</th> </tr> </thead> <tbody> <tr> <td>0ohm</td> <td>500mVpp</td> <td>600mVpp</td> </tr> <tr> <td>Open</td> <td>500mVpp+3dB Pre-em</td> <td>600mVpp+1.5dB Pre-em</td> </tr> </tbody> </table> | R3&R4 | Emphasis/Swing for Channel A&B | | 3Gb/s | 6Gb/s | 0ohm | 500mVpp | 600mVpp | Open | 500mVpp+3dB Pre-em | 600mVpp+1.5dB Pre-em | | | | | | | | | | | | | | | | | | | | |
| R3&R4 | Emphasis/Swing for Channel A&B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3Gb/s | 6Gb/s | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0ohm | 500mVpp | 600mVpp | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Open | 500mVpp+3dB Pre-em | 600mVpp+1.5dB Pre-em | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TDet_EN | With Internal 200k-ohm pull-up resistor Low: Disable termination detect function High: Enable termination detect function | R2=Open, Enable termination detect function R2=0ohm, Disable termination detect function | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TDet_A# TDet_B# | Termination Detect Output, Active High, Open Drain. Low: HDD Termination Present High: HDD Termination NOT Present Only if TDet_EN is high, the chip has this function | --- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |