|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ANALOG MULTIPLIER - in case of DC INPUT( slow dc with 100Hz & 50Hz frequency )** | | | | | | | |
| **Various Detected Faults in Analog Multiplier in the presence of faults with deviations (< 5%)** | | | | | | | |
| **Injected Faults** |  | **=500, = 0.0103**  **Optimal Order - 16th** | | **=1000, = 0.0108**  **Optimal Order - 15th** | | **=2000, = 0.0110**  **Optimal Order - 15th** | |
| **No. of Coefficients Out of Bound** | **Fault Detection Status** | **No. of Coefficients Out of Bound** | **Fault Detection Status** | **No. of Coefficients Out of Bound** | **Fault Detection Status** |
| R11 1%  **↓** |  |  | **X** |  | **X** |  | **X** |
| R11 3%  **↑** |  |  | **√** |  | **X** |  | **√** |
| R12 2%  **↑** |  |  | **X** |  | **X** |  | **X** |
| R12 1%  **↓** |  |  | **√** |  | **X** |  | **X** |
| R21 3%  **↑** |  |  | **√** |  | **√** |  | **√** |
| R21 2.5%  **↓** |  |  | **√** |  | **√** |  | **X** |
| R22 2%  **↑** |  |  | **√** |  | **√** |  | **√** |
| R22 3%  **↓** |  |  | **√** |  | **√** |  | **√** |
| R31 4%  **↑** |  |  | **√** |  | **√** |  | **√** |
| R31 3.5%  **↓** |  |  | **X** |  | **X** |  | **√** |
| R32 1%  **↑** |  |  | **√** |  | **√** |  | **X** |
| R32 3%  **↓** |  |  | **√** |  | **√** |  | **√** |
| R41 2%  **↑** |  |  |  |  |  |  |  |
| R41 1%  **↓** |  |  |  |  |  |  |  |
| R42 3%  **↑** |  |  |  |  |  |  |  |
| R42 1%  **↓** |  |  |  |  |  |  |  |
| R51 1.5%  **↑** |  |  |  |  |  |  |  |
| R51 1.8%  **↓** |  |  |  |  |  |  |  |
| R52 2.3%  **↑** |  |  |  |  |  |  |  |
| R52 2.9%  **↓** |  |  |  |  |  |  |  |