Presized OTA Simulation

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Screenshot of Cadence Schematic

## DC OPERATING POINT VALUES

| Mx (W/L) (um) | VTH (mV) | VDSsat (mV) | VOV (mV) | VDS (mV) | Id (uA) | Gm (mS) | ro (kOhm) | Cgg (fF) | Cdd (fF) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| M1 (8/0.5) |  |  |  |  |  |  |  |  |  |
| M2 (8/0.5) |  |  |  |  |  |  |  |  |  |
| M3 (24/0.5) |  |  |  |  |  |  |  |  |  |
| M4 (24/0.5) |  |  |  |  |  |  |  |  |  |
| M5 (96/0.5) |  |  |  |  |  |  |  |  |  |
| M6 (32/0.5) |  |  |  |  |  |  |  |  |  |
| M7 (16/0.5) |  |  |  |  |  |  |  |  |  |
| M8 (8/0.5) |  |  |  |  |  |  |  |  |  |

*TRANSISTOR CODE*

|  |  |  |
| --- | --- | --- |
| = nmos (diff pair input) | = pmos (diff pair load) | = nmos (current mirror) |

### OTA CHARACTERIZATION OPEN-LOOP GAIN



|  |
| --- |
| STABILITY PARAMETERS *MILLER COMP. W/ SERIES RESISTOR* |



|  |  |  |
| --- | --- | --- |
| *PARAMETER* | *CALCULATED ESTIMATE* | *SIMULATION VALUE* |
| *DC Gain* |  |  |
| *GBW* |  |  |
| *UGF* |  |  |
| *PM* |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |
| --- | --- |
| *PARAMETER* | *SS EQ. CIRCUIT*  *SIMULATION VALUE* |
| *DC Gain* |  |
| *GBW* |  |
| *UGF* |  |
| *PM* |  |
|  |  |
|  |  |
|  |  |







