

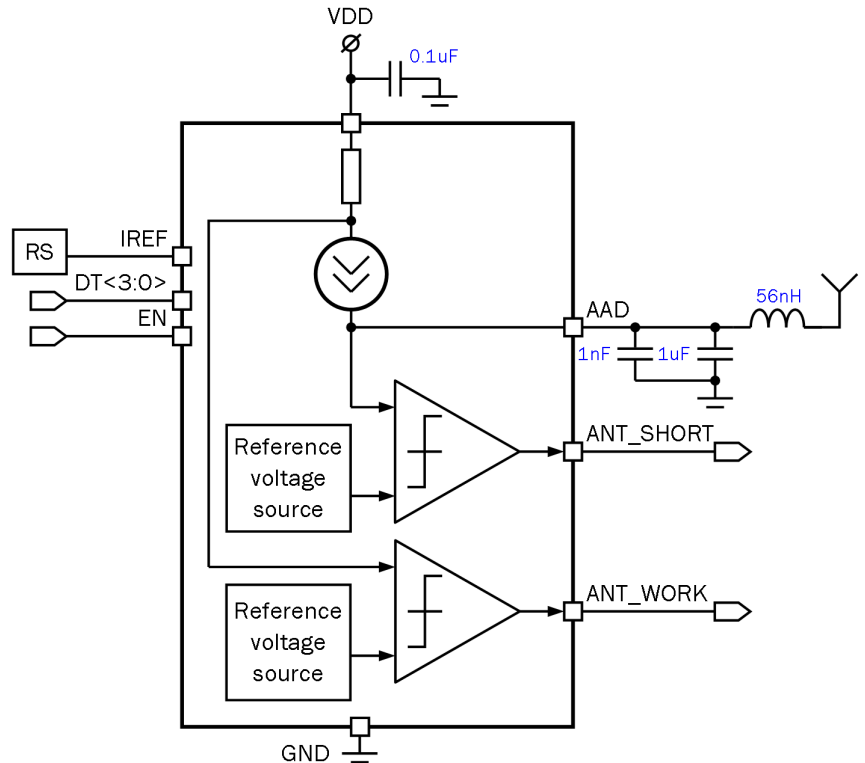
Active antenna detector with load current limit
OVERVIEW

180TSMC_AAD_01 is antenna detector which supplies an active antenna and is able to detect both open and short circuits and normal operation. A current limiter restricts the antenna current to a safe level in case of a short detection in order to protect an antenna. **ANT_SHORT** flag turns to logic one in case of short detection and **ANT_WORK** flag turns to logic one in case of supplied current is within programmed threshold.

IP technology: TSMC SiGe BiCMOS 180nm.

IP status: silicon proven.

Area: 0.15mm².


ELECTRICAL CHARACTERISTICS

| Parameter | Symbol | Conditions | Value | | | Units |
|----------------------------------|------------------|--------------------------------|--------------------|-----------------------|-----------------------|-------|
| | | | min | typ. | max | |
| Supply voltage | V _{DD} | - | 2.8 | 3.3 | 3.6 | V |
| Operating temperature range | T _j | - | -40 | +27 | +125 | °C |
| Supply current | I _{DD} | - | - | 140 | - | uA |
| Adjustable nominal current | I _{nom} | DT<3:0>= "0000" | - | 2 | - | mA |
| | | DT<3:0>= "1111" | - | 32 | - | mA |
| Detection current | I _{AW} | - | - | 0.23×I _{nom} | - | mA |
| Short circuit protection current | I _{AS} | In case of the short circuit | - | 2×I _{nom} | - | mA |
| Stand-by current | I _{STB} | - | - | - | 25 | nA |
| Input logic-level high | V _{IH} | For digital inputs EN, DT<3:0> | 0.7V _{DD} | - | V _{DD} +0.25 | V |
| Input logic-level low | V _{IL} | | -0.25 | - | 0.3 | V |