

## 10-bit Current DAC

### 1.Features

- ±0.8% iDAC Positive Output Current Accuracy
- ±1.5% Idac Negative Output Current Accuracy
- Input Voltage Range: 2.5 V to 5.5 V
- High Impedance at IDAC Output When Disabled
- Wide IDAC Operation Voltage (1.8V to 3.0V)
- 10-Bit Programmable DAC Output Current
- Wide Range IDAC Output Current:
  - ±32  $\mu$ A to ±128  $\mu$ A
- 40 °C to +120 °C Temperature Range

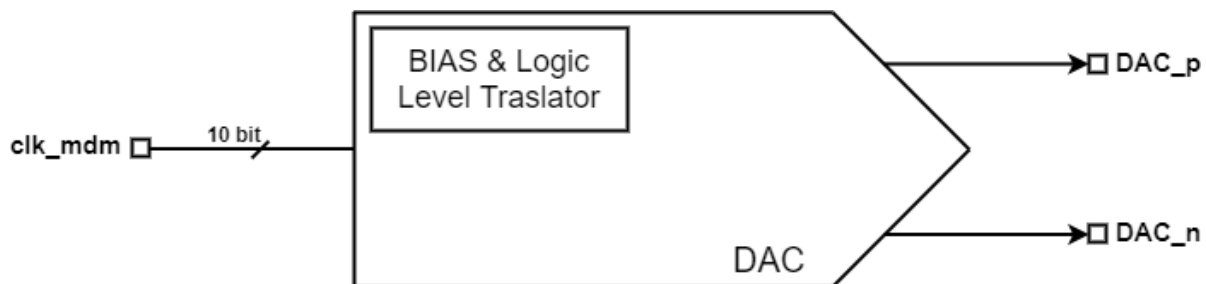
### 2.Applications

- 5G Mobile terminals
- Low power transceivers

### 3.Description

The WEA10IDA45 is a 10-bit current DAC. It accepts a current input of 4  $\mu$ A and is capable of sinking and sourcing current up to 4 mA. The DAC output has 1023 sink and 1023 source settings that is programmed using a parallel 10-bit digital bus. The current DAC output can be switched to high impedance state. The iDAC operates from a power supply ranging from 1.8 V to 3.0 V. The WEA10IDA45 absolute accuracy is maintained in a range of +/-300 mV from the supply rails.

Simplified Schematic



#### 4.Availability

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- Silicon proven in GF 45RFSOI
- Easily portable to GF 40nm, 22FDX

#### 5.Deliverables

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GDSII, Database, Measurement results, VerilogA/Matlab Functional models

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### About weasic

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**Weasic Microelectronics S.A.** designs, develops, and markets high quality complex analog and RF IP for the wired and the wireless communications industries, helping semiconductor and system companies to shrink the product design cycle. Weasic, silicon verified, IP is designed in the state-of-the-art CMOS and SiGe processes and can be easily ported and customized to serve the development of transceivers for 5G communications, Mobile Backhaul, RADAR sensors and 802.11.\* applications.

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### Contact us

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