

## 5G Front-End Module 26-30GHz

### 1. Features

Integrated LNA, PA, SW, PD, TS, ADC, SPI  
 Frequency range 26GHz-30GHz  
 Tx PAE = 23% at 18 dBm Output Power  
 18dBm Tx Output 1dbCP  
 Rx Noise Figure < 4dB, including Switch  
 18dB Rx Gain  
 0dBm Rx Input Referred IP3  
 3.6V Supply Voltage

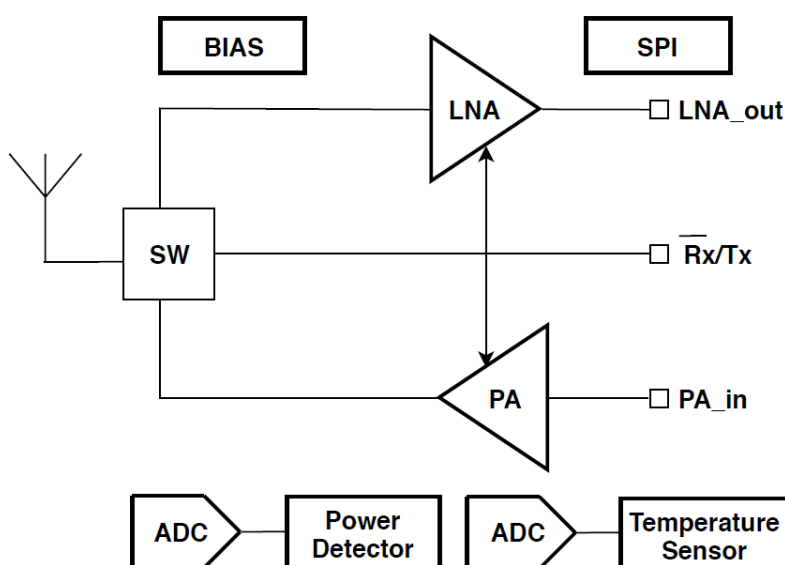
### 2. Applications

5G mm-Wave Terminals and Infrastructure  
 Microwave Backhaul

### 3. Description

The WEA2630F45 is a high-performance RF front-end module designed for 5G mobile terminals. The front-end combines a low noise high linearity LNA, a low insertion-loss, high-isolation TR switch, a high-efficiency PA, a Power Detector and a Temperature Sensor with ADCs and a SPI. The WEA2630F45 is powered from a single 3.6V supply and the biasing is generated with an on-chip bandgap reference voltage. The receive path (LNA+SW) is designed to provide 18dB of gain and a noise figure less than 4dB. The transmit path (PA+SW) provides saturated output power of 18dBm. The WEA2630F45 is fabricated on GlobalFoundries 45RFSOI process occupying a total silicon area of 1.5mm<sup>2</sup>.

### Simplified Schematic



#### 4. Availability

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Silicon proven in GlobalFoundries 45RFSOI process.

#### 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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