

# TSEN – Temperature sensor

## ULTRA LOW-POWER TEMPERATURE SENSOR FOR X-FAB 350 NM

Fraunhofer IPMS offers an ultra low power analog temperature sensor generating temperature dependent clock outputs. Optional digital counter logic is available.

### Features

- Silicon proven in X-FAB XH035
- Input Voltage: 2.0 – 3.3 V
- Power consumption: 80  $\mu$ W typical
- Temperature dependent clock outputs
- Optional digital counter logic
- Adjustable power vs. measurement time

### Benefits

- Low power systems
- Battery-free IoT devices
- Wireless sensor modules
- Sensor modules with long lifetime

### Deliverables

- Datasheet & integration guide
- HDL model
- GDSII layout
- Customer support

### Applications

- IoT devices
- Wireless modules
- Sensor modules
- Medical devices

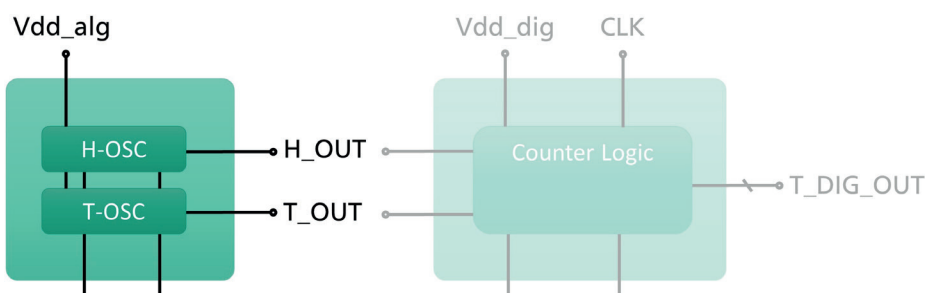
### Contact

Monika Beck  
+49 351 8823 - 274  
monika.beck@  
ipms.fraunhofer.de

Dr. Frank Deicke  
+49 351 88 23 - 385  
frank.deicke@  
ipms.fraunhofer.de

Fraunhofer Institute for  
Photonic Microsystems IPMS  
Maria-Reiche-Str. 2  
01109 Dresden  
Germany

[www.ipms.fraunhofer.de](http://www.ipms.fraunhofer.de)



Block diagram