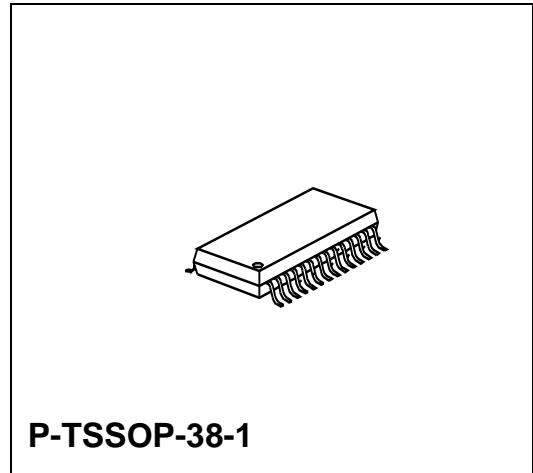


## BiCMOS IC

### Overview

- Bluetooth Transceiver for the 2.4 GHz ISM Band (RF range 2378-2497 MHz)
- Part of complete Infineon Bluetooth chipset solution
- Completely integrated receiver with outstanding RF performance:
  - best in class sensitivity and blocking
- Low current consumption
- No external IF filters or RF filters necessary
- B6HFC BiCMOS technology, 25 GHz  $f_t$
- fully balanced self adjusting VCO with integrated varactor diodes for receive and transmit mode
- Prescaler and PLL on-chip with 1 MHz charge pump reference frequency
- Supply voltage regulators for the VCO and the analogue part
- Internal current reference for PLL charge pump to get constant lock-in time
- Small outline P-TSSOP-38 package (PMB 6625) or very small VQFN 40 package (PMB6627)
- low-if receiver topology solution
  - Benefits: + no IF SAW-filter necessary or RF ceramic filter necessary
  - + reduced component count
- 2.5 GHz RF Power amplifier included, output power adjustable with external resistor,
  - Benefits: + No external PA necessary for Bluetooth power class 2 operation
  - + direct interface to power class 1 PA via small matching circuits
  - + reduced RF front end component count
- On-chip LNA for optimum sensitivity and blocking
- 70 dB RSSI dynamic range, high stability
- Data Slicer including specialized offset compensation or analogue output



Type	Ordering Code	Package
PMB 6625		P-TSSOP-38
PMB 6627		VQFN 40