

Bluetooth™ Radio Transceiver

The Bluetooth Radio PBA 313 05 from Infineon Technologies is a short-range microwave frequency radio transceiver for Bluetooth communication links.

Provided in a compact LGA package. No external shield is required. The Bluetooth Radio offers a combination of compact size, low power consumption, and cost effective assembly.

The PBA 313 05 forms a complete radio with only the addition of an antenna, a 13 MHz reference frequency crystal, and a digital control functionality. As a result, designers can benefit from a pre-tested PBA 313 05 and ready-to-use device, providing a robust Bluetooth Radio function in the final OEM application.

PBA 313 05 is built around an RFCMOS ASIC. Antenna filter, RX and TX baluns are all integrated into the circuit. Operating from a 2.6 V supply, the module has a typical supply current consumption of only 50 mA (receive mode) or 60 mA (transmit mode), thus helping to extend battery life for portable equipment. Standby mode provides further power savings.



Bluetooth

Key Features

- RF output power class 2
- Pre-qualified for Bluetooth specification 1.1
- Forms a complete radio with only:
 - an antenna
 - a reference frequency
- Small LGA package (9 ×9 ×1.6 mm)
- A small, cost effective Bluetooth Radio, based on RFCMOS technology
- Requires no external shielding

Applications

- Mobile phones
- PC peripherals
- Wireless accessories
- Cable replacement

Note: The Bluetooth trademarks are owned by Bluetooth SIG, Inc. and used by Infineon Technologies under license.

www.infineon.com/bluetooth

PBA 313 05 Radio Transceiver



Key data

Parameter	Condition	Min	Type	Max	Unit
Frequency range		2.402		2.480	Ghz
Reference clock frequency			13		MHz
Receiver sensitivity level			-80		dBm
Current consumption	Transmit		60		mA
	Receive		50		mA
	Stand by		70		µA
Output power		-4		4	dB
Supply Voltage		2.6	2.8	2.9	V
Temperature range		-20		+75	°C
Size			9x9x1.6	mm	

Control interface

Operation together with a Bluetooth Baseband using the Ericsson Bluetooth Core is recommended.

Antenna interface

50 Ohm Bluetooth ISM band antenna (2.4-2.5GHZ).

Ordering information

This Bluetooth radio from Infineon Technologies may be ordered as: PBA 313 05.

How to reach us:

<http://www.infineon.com>

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Infineon Technologies is an approved CECC manufacturer.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office in Germany or our Infineon Technologies Representatives worldwide.

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