

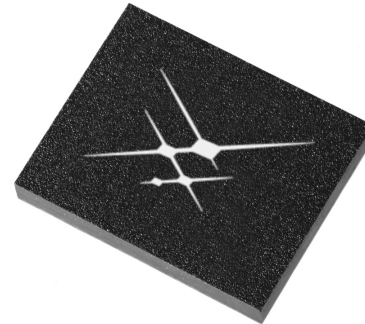
PRELIMINARY DATA SHEET

SKY65205: WLAN 802.11b/g RF Front-End Module

Features

- Single integrated RF module
- HBT PA, BPF, T/R and antenna switches
- Balun on Rx
- High linearity: 16 dBm (802.11g)
- High gain 25 dB
- 3.3 V operation
- Laminate based plastic package
- Available on tape & reel

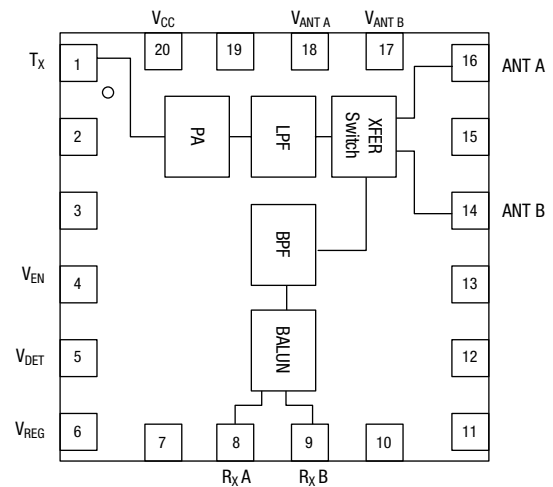
6 x 6 x 1.7 mm



Description

The SKY65205 is an integrated RF front-end module for 802.11b/g WLAN applications. A single supply voltage, and positive supply switch controls simplifies bias requirements. PA manufactured on advanced InGaP HBT process. All modules are screened at operating frequency prior to shipment for guaranteed performance. SKY65205 is targeted for high-volume WLAN applications.

Pin Out (Top View)



Electrical Specifications at 25°C (V_{CC} = 3.3 V)

802.11b/g Receive

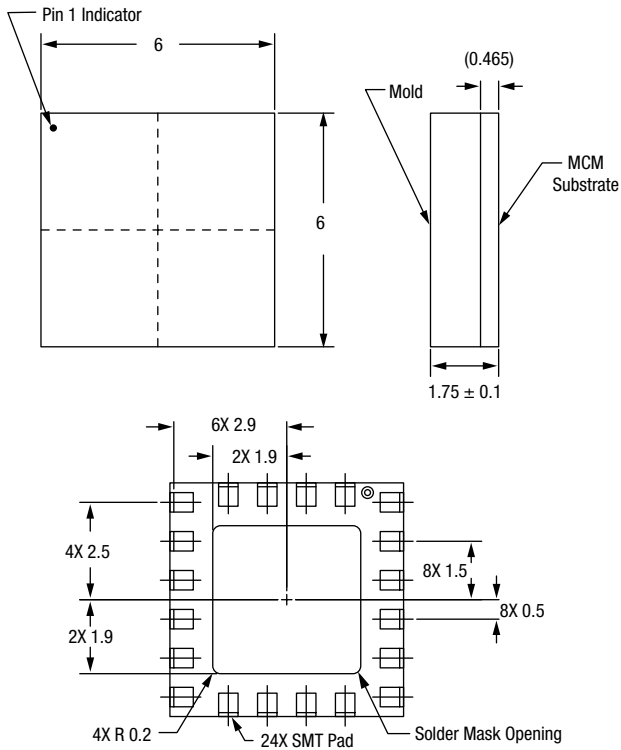
Parameter	Condition	Min.	Typ.	Max.	Unit
Frequency band		2.4		2.5	GHz
Insertion loss			3.5		dB
Input return loss		15		dB	
Output return loss		10		dB	
In-band ripple	2.4–2.5 GHz		0.1	0.3	dB
R _X rejection	DC–1.9 GHz	32	35		dB
	5 GHz	30	35		dB
Diversity isolation	Antenna to antenna, loaded 50 Ω		18		dB
T _X to R _X isolation	Terminated 50 Ω		18		dB
Switch bias current	3.3 V			100	μA

802.11b/g Transmit

Parameter	Condition	Min.	Typ.	Max.	Unit
Frequency band		2.4		2.5	GHz
Linear power out	802.11b compliant	20	21		dBm
	802.11g compliant		16		dBm
Gain			25		dB
Input return loss			15		dB
Output return loss			10		dB
Bias current @ 3.3 V	Quiescent		80		mA
	Mask compliant CCK-11		160		mA
	54 Mbit/s, OFDM, EVM < -25dB		180		mA
Detector voltage range	802.11b (P ₀ = 0–22 dBm)	35		1750	mV
	802.11g (P ₀ = 0–17 dBm)	40		910	mV
Detected voltage at full compliant power	Mask compliant CCK-11		1200		mV
	54 Mbit/s, OFDM, EVM < -25dB		850		mV

Standard EVM measurement at the antenna port.

Pin Out (Top View)



Evaluation Board

