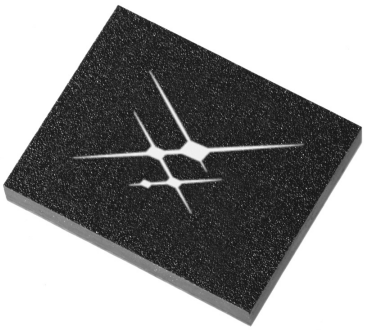
PRELIMINARY DATA SHEET

SKY65202: WLAN 802.11a RF Front-End Module

Features

- Single integrated RF module
- HBT PA, BP and LP filter, GaAs diversity switch
- EPHEMT LNA
- High linearity: 15 dBm (802.11a)
- Noise figure: 3.5 dB
- Gain 30 dB T_X, 10 dB R_X
- 3.3 V @ 170 mA operation
- Bias enable on PA and LNA
- Balanced RF T_X, R_X I/O
- Low cost laminate-based plastic package

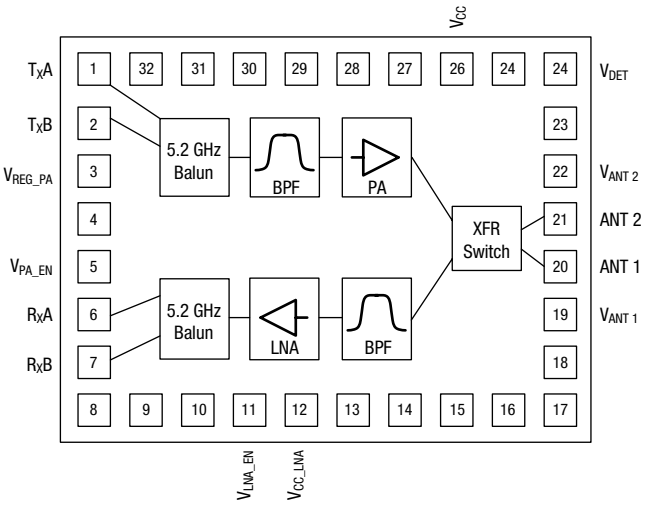
8 x 10 x 1.7 mm



Description

The SKY65202 is an integrated RF front-end module for 802.11a WLAN applications. A single supply voltage and positive supply diversity switch control simplifies bias requirements. PA manufactured on advanced InGaP HBT process. All modules are screened at operating frequency prior to shipment for guaranteed performance. SKY65202 is targeted for high-volume applications.

Pin Out (Top View)



Electrical Specifications @ 25 °C

Parameter	Condition	Min.	Typ.	Max.	Unit
Passband		4.9		6.0	GHz
Operating voltage			3.3		V

Receive

Parameter	Condition	Min.	Typ.	Max.	Unit
Noise figure			3.5	4.0	dB
Gain			12		dB
Current			15		mA

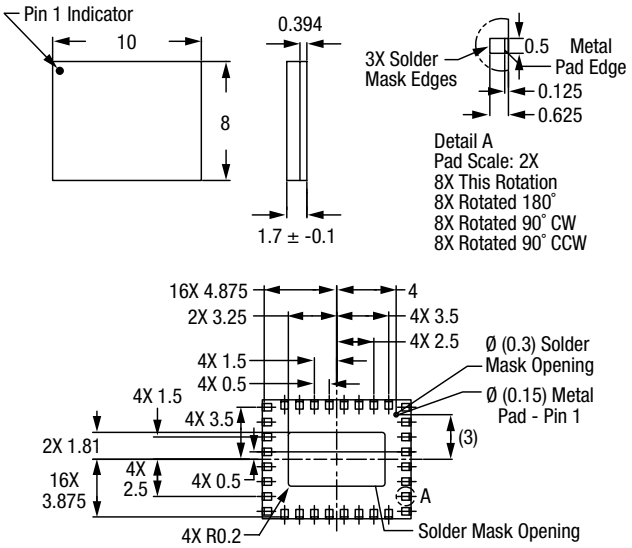
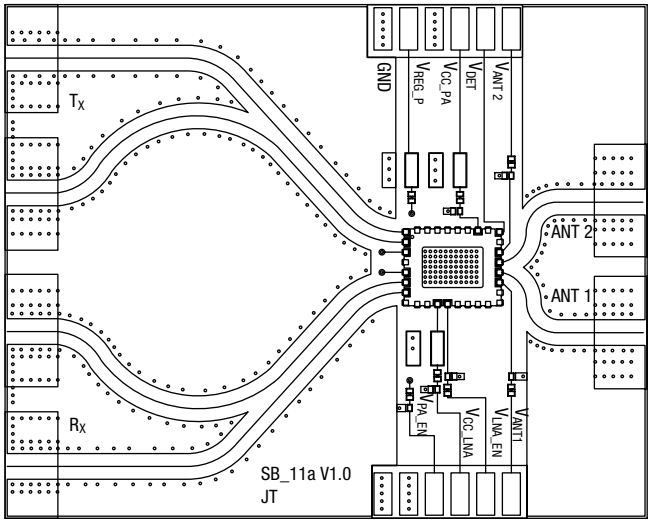
Transmit

Parameter	Condition	Min.	Typ.	Max.	Unit
Max. linear P_{OUT}	64 QAM, 54 MB/s, EVM 5.4%	14	15		dBm
Small signal gain		28	30		dB
Current	T_X - P_{OUT} @ 13 dBm		170	190	mA

Bias and Control Table

Mode	$V_{ANT\ 1}$	$V_{ANT\ 2}$	V_{CC_LNA}	V_{LNA_EN}	V_{CC_PA}	V_{REG_PA}	V_{PA_E}
Ant 1 to R_X	0	3.3	0	3.3	3.3	3.3	0
Ant 2 to R_X	3.3	0	0	3.3	3.3	3.3	0
T_X to Ant 1	3.3	0	3.3	3.3	3.3	3.3	3.3
T_X to Ant 2	0	3.3	3.3	3.3	3.3	3.3	3.3

Outline Drawing



Test Board Layout