

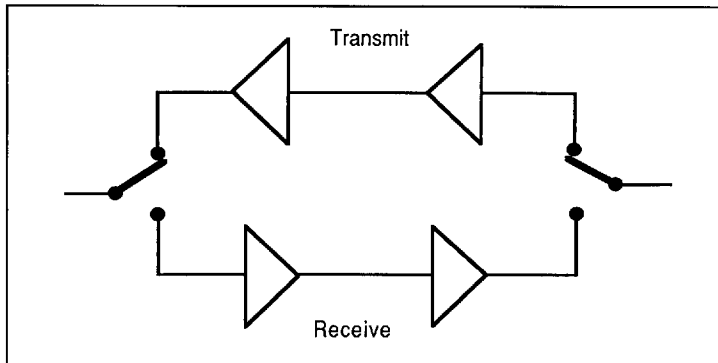
P35-4750

TRANSMIT/RECEIVE GAIN BLOCKS & SWITCHES FOR 2.5GHz WLAN APPLICATION

2.2 – 2.6 GHz

Advanced Product Information

This Gallium Arsenide Monolithic Microwave Integrated Circuit (GaAs MMIC) contains a two stage receive amplifier and a two stage transmit amplifier between Tx/Rx switches



Functional Block Diagram

Features

- Low receive current consumption
- Integrated RF routing switches
- Requires no external matching, RF coupling or biasing components

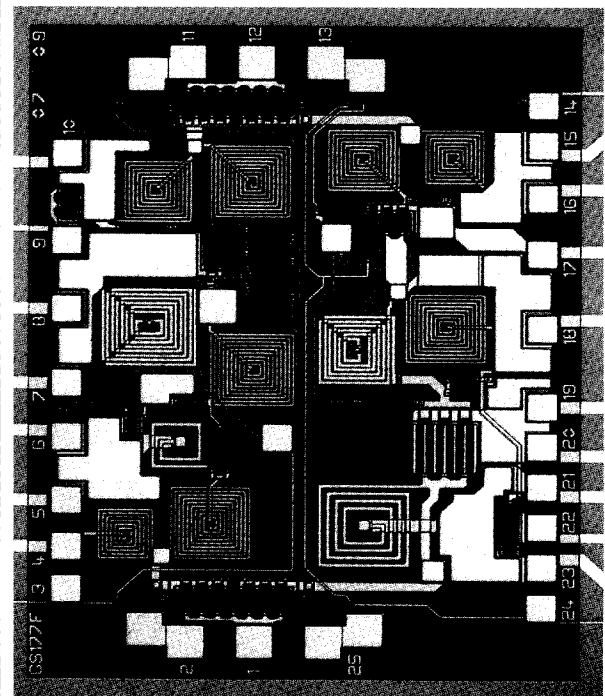
Typical Receive Performance

Frequency (GHz)	2.2	2.4	2.6
Gain (dB)	17.8	18.6	18.4
SSB noise figure (dB)	4.25	3.9	3.6
Current consumption (mA)			
+5V supply	10	10	10
-5V supply	<0.2	<0.2	<0.2
Input return loss (dB)	10	9	10
Output return loss	15	20	20

Typical Transmit Performance

Frequency (GHz)	2.2	2.4	2.6
Gain (dB)	21	20	19
P _{1dB} *	19	19	19
Current consumption (mA)			
+5V supply	135	135	135
-5V supply	<0.5	<0.5	<0.5
Input return loss (dB)	17	17	17
Output return loss (dB)	12	12	12

*Output power at which gain compresses by 1dB

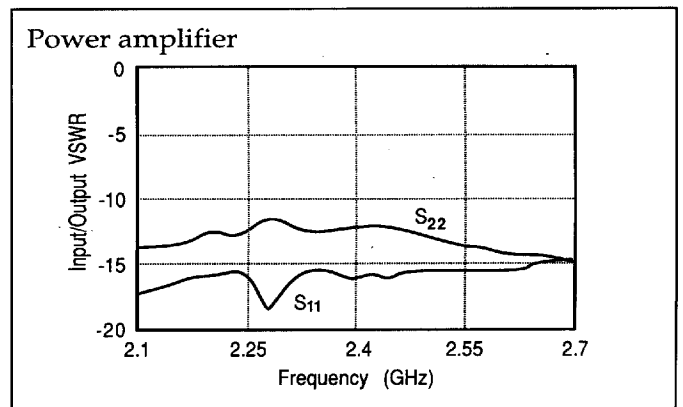
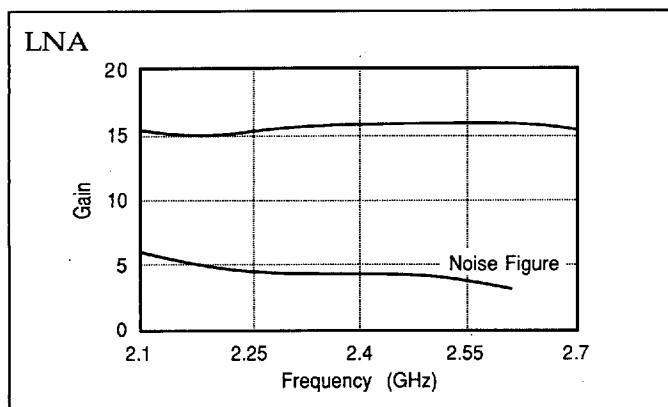
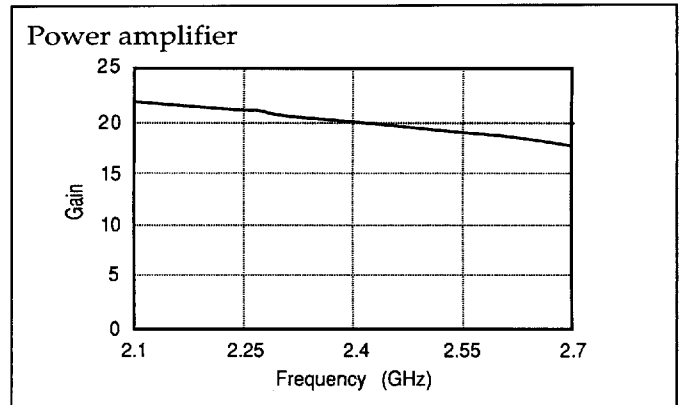
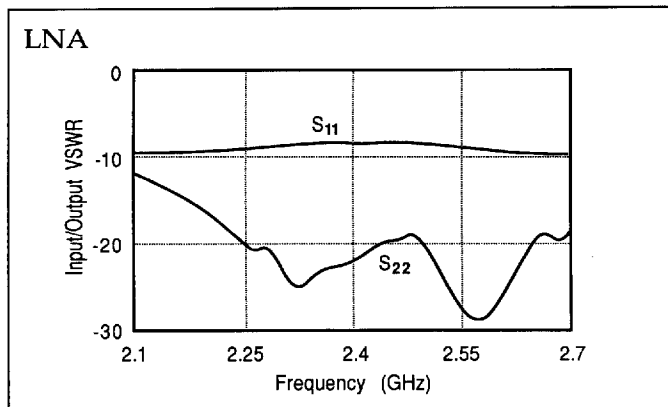


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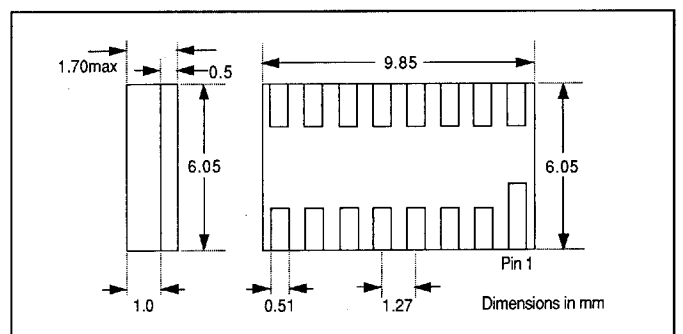
Outline Specification



Pin out

Pin	Function
1	LNA output/Power amplifier input
2	Ground
3	Ground
4	VDD Receive Amplifier (+5V)
5	Ground
6	Receive Control
7	Ground
8	Ground
9	LNA input/power amplifier output
10	Ground
11	Transmit Control
12	VDD Transmit Amplifier
13	Ground
14	V _{gg} (-5V)
15	Ground
16	Ground

Prototype samples available in chip form and 16 pin leadless chip carrier



Truth Table

Receive Control	Transmit Control	Input	Output	Function
0	-5	Pin 9	Pin 1	Receive
-5	0	Pin 1	Pin 9	Transmit