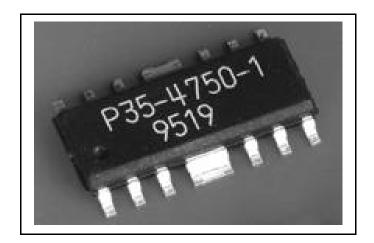


TRANSMIT/RECEIVE GAIN BLOCKS AND SWITCHES FOR 2.5GHz WLAN APPLICATIONS

Features

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



Description

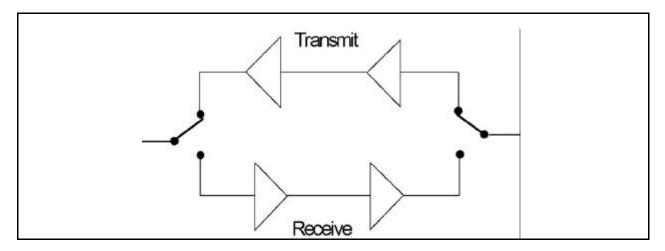
This Gallium Arsenide Monolithic Integrated Circuit (GaAs MMIC) contains a two stage receive amplifier and a two stage transmit amplifier between Tx/Rx switches.

Typical Chip Performance @ 2.4GHz (25°C)

Receive		Transmit	
Gain (dB)	21	Gain (dB)	22
SSB noise figure (dB)	3.7	$P_{-1dB^*}(dBm)$	19
Current consumption (mA) +5V supply (VDD) -5V supply (Vgg)	11 <0.2	Current consumption (mA) +5V supply (VDD) -5V supply (Vgg)	135 <0.5
Input return loss (dB)	20	Input return loss (dB)	17
Output return loss (dB)	18	Output return loss (dB)	17

^{*}Output power at which gain compresses by 1dB

Functional Block Diagram



Marconi Caswell Limited, Caswell, Towcester, Northamptonshire, NN12 8EQ

Telephone: + 44 (0) 1327 350581 Fax: + 44 (0) 1327 356775 Website: www.caswelltechnology.com

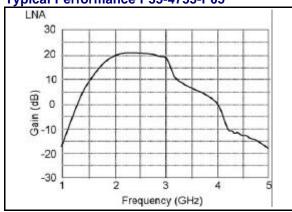
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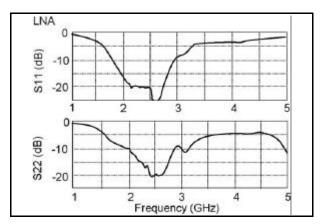
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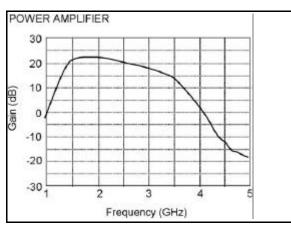
463/SM/00081/200 Issue 2/2 A Marconi company

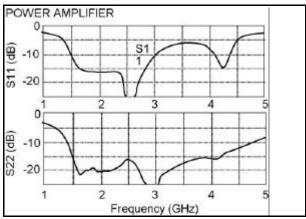


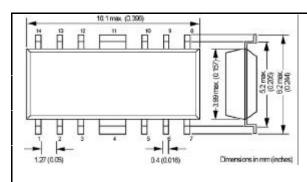
Typical Performance P35-4755-P05











Pin	Function	Pin	Function
1	GND	8	Tx control
2	GND	9	GND
3	Vdd Rx	10	Vdd Tx Amp
4	GND Amp	11	GND
5	Rx control	12	Vgg
6	GND	13	GND
7	LNA in Pa out	14	LNA out / PA in

Switching Truth Table

Receive Control	Transmit Control	Input	Output	Function	
0V					
-5V	-5V	Pin 7	Pin 14	Receive	
-5V	0V	Pin 14	Pin 7	Transmit	
	-5V	N/A	N/A	Standby	

Ordering Information

P35-4750-1 SOIC Package

Marconi Caswell Limited, Caswell, Towcester, Northamptonshire, NN12 8EQ

 $\label{eq:thm:condition} Telephone: + 44~(0)~1327~350581~\textit{Fax:} + 44~(0)~1327~356775~\textit{Website:} www.caswell technology.com \\ \textit{Caswell Technology is the trading name of Marconi Caswell Limited which is a wholly owned subsidiary of Marconi plc}$

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