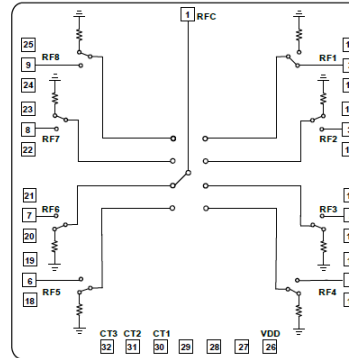


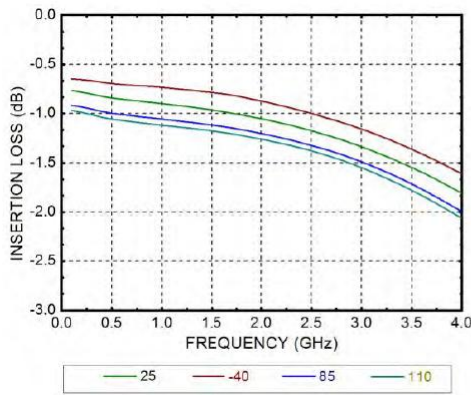
Features

- Isolation: 40dB@4GHz
- Insertion Loss: 1.8dB@1.8GHz
- Die Size: 1.3x1.5x 0.1 mm

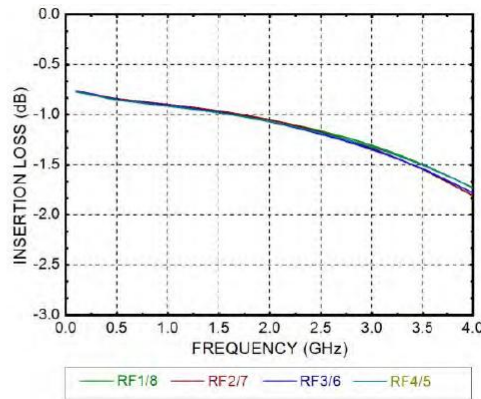
Functional Block Diagram

Electrical Specifications
TA = +25°C, VDD= 5V ,CT1/CT2/CT3=0V/ VDD

Parameters	Condition		Min.	Typ.	Max.	Units
Insertion Loss	0.1GHz-2.0GHz			1.0	1.1	dB
	2.0GHz-4.0GHz			1.5	1.8	dB
RFC-RFX Isolation	0.1GHz-2.0GHz			45	42	dB
	2.0GHz-4.0GHz			40	36	dB
RFX-RFX Isolation	0.1GHz-2.0GHz			50	45	dB
	2.0GHz-4.0GHz			40	37	dB
Input Return Loss	0.1GHz-2.0GHz			20	18	dB
	2.0GHz-4.0GHz			12	8	dB
Output Return Loss "ON" state	0.1GHz-2.0GHz			25	20	dB
	2.0GHz-4.0GHz			15	12	dB
Switching Speed	ON	50% V _{CTL} to 90% RF		80		ns
	OFF	50% V _{CTL} to 10% RF		60		ns
Input Power 0.1dB Compression				30		dBm
IIP3	P _{out} =12dBm/tone			56		dBm
Control Voltage Input Level Range	VDD=+5V	Low level (V _{IL})	0		0.6	V
		High level (V _{IH})	1.3		VDD	V
	VDD=+3V	Low level (V _{IL})	0		0.6	V
		High level (V _{IH})	1.3		VDD	V
Power Consumption	VDD=+5V			60		uA
	VDD=+3V			60		uA

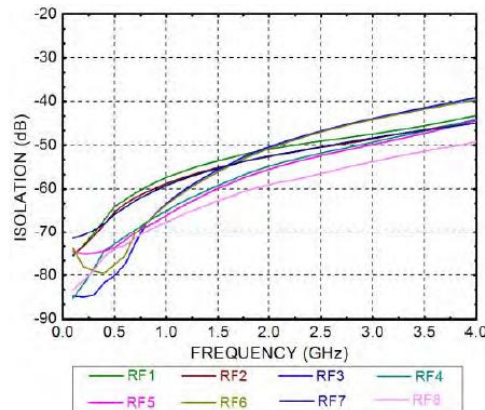
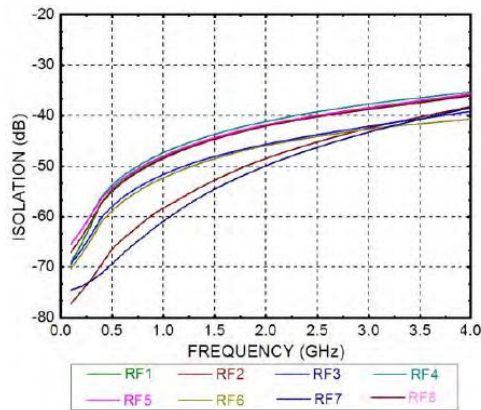
Insertion Loss vs temperature



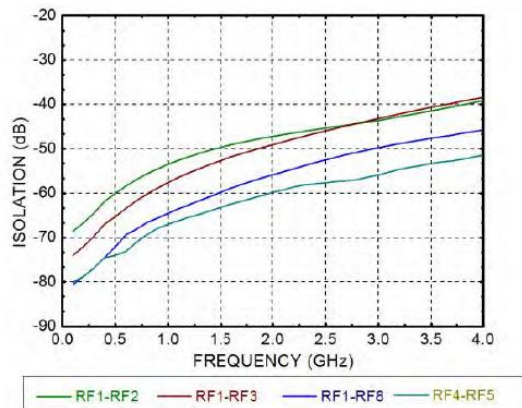
Insertion Loss vs frequency



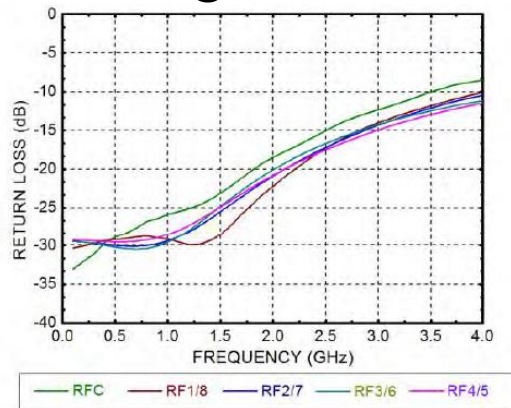
RFC-RFX Isolation(labor ports conducted) RFC-RFX Isolation(opposite ports conducted)



RFX-RFX Isolation

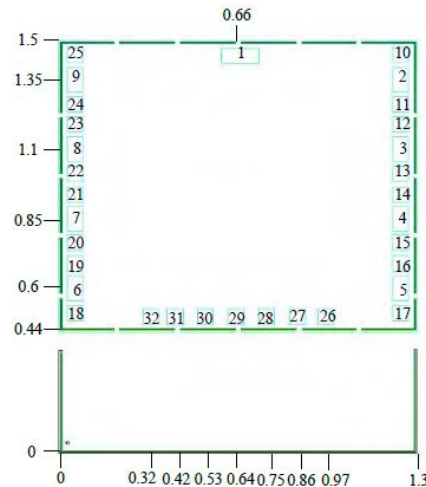


Return Loss @ "ON" State





Outline Drawing:
All Dimensions in mm



Pad Description

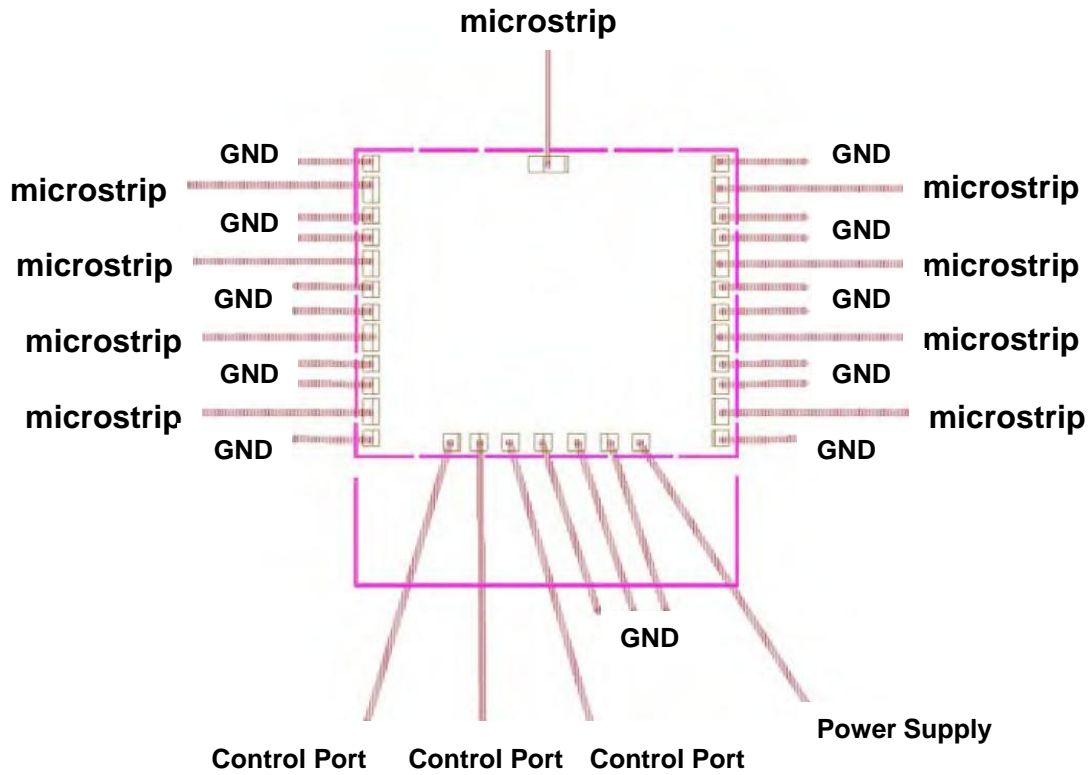
PAD	Function	Description
1	RFC	RF input port, the pad is DC coupling and matched to 50Ω. If RF voltage is not 0V, then blocking capacitor is required externally.
2-5 6-9	RF1-RF4 RF5-RF8	RF output ports, the pads are DC coupling and matched to 50Ω. If RF voltage is not 0V, then blocking capacitor is required externally.
26	VDD	Driver circuit power supply port, connected to +5V voltage(100pF and 0.1uF decoupling capacitor needed).
30,31,32	CT1,CT2,CT3	Control signal input port.
others	GND	Connected to ground.

True Table(0: low level voltage, 1: high level voltage)

	CT1	CT2	CT3
RF1	0	0	0
RF2	1	0	0
RF3	0	1	0
RF4	1	1	0
RF5	0	0	1
RF6	1	0	1
RF7	0	1	1
RF8	1	1	1



Assembly Drawing



Recommended PCB

