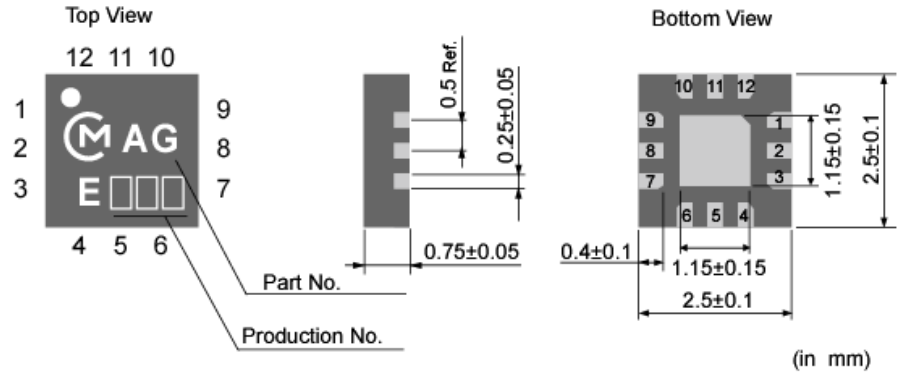
2.5GHz WiMAX band tuned (C4,C5=2pF)

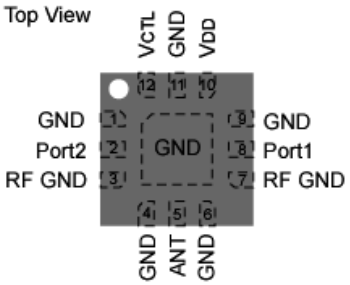
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
I_{DD}	Current Consumption	-	-	-	150	μA
f_0	Operation Frequency	-	2.3	-	2.7	GHz
IL	Insertion Loss	ANT-Port1/2	-	0.3	0.55	dB
ISO	Isolation	ANT-Port1/2@2.5GHz	27	40	-	dB
		Port1-Port2@2.5GHz	25	30	-	dB
$P_{in0.5dB}$	Input Power for 0.5dB Compression	ANT-Port1/2@2.5GHz	31	34	-	dBm

3.5GHz WiMAX band tuned (C4,C5=1pF)

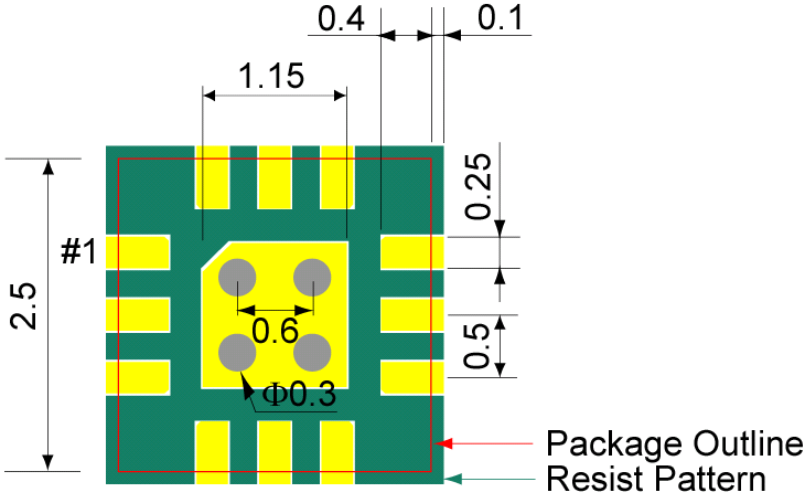
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
I_{DD}	Current Consumption	-	-	-	150	μA
f_0	Operation Frequency	-	3.3	-	3.8	GHz
IL	Insertion Loss	ANT-Port1/2	-	0.35	0.65	dB
ISO	Isolation	ANT-Port1/2@3.5GHz	25	30	-	dB
		Port1-Port2@3.5GHz	20	25	-	dB
$P_{in0.5dB}$	Input Power for 0.5dB Compression	ANT-Port1/2@3.5GHz	29.5	32.5	-	dBm

Pin Connections





Land Pattern



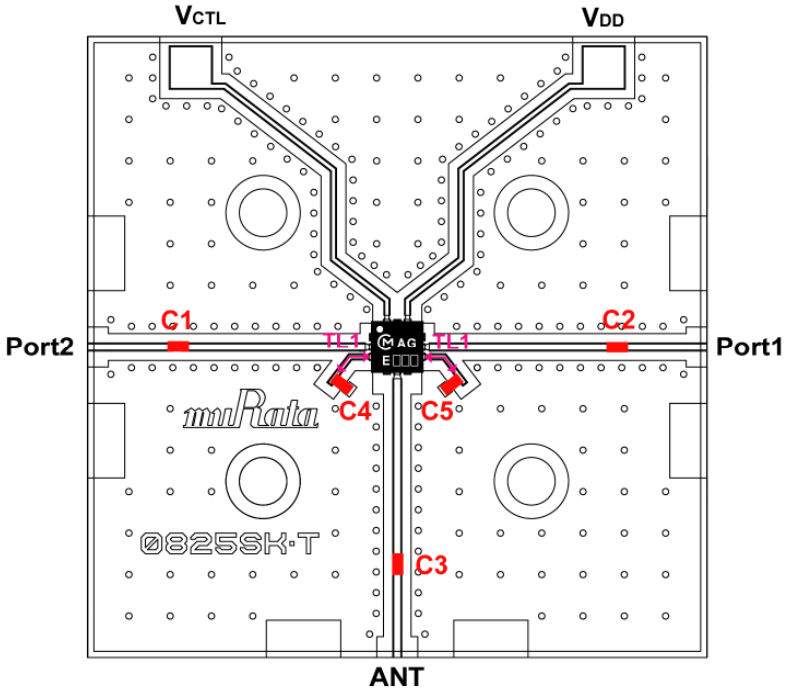
Truth Table

VDD=2.6V

ON PORT	VCTL
ANT-Port1	H
ANT-Port2	L

H: +1.8V~VDD
L: 0V

Evaluation Board



Parts List
C1-C3 value

Frequency	Products	Value
0.8-3.8GHz	GRM155(Murata)	47 pF

C4,C5 value

Frequency	Products	Value
0.8-2.5GHz	GRM155(Murata)	4 pF
2.3-2.7GHz		2 pF
3.3-3.8GHz		1pF

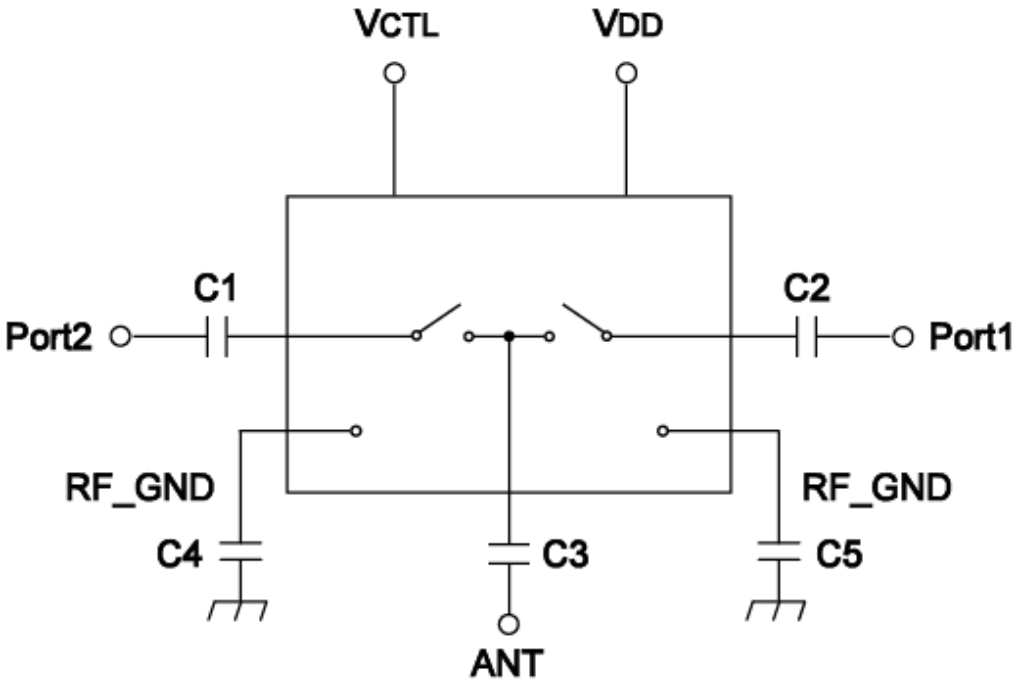
Substrate

Transmission Line: 50Ω

Material :FR4 (ε_r = 4.4)
Size : 30mm x 30mm
Thickness : 0.2mm + Dummy 0.4mm

TL1
Width: 0.2mm
Length: 2mm

Evaluation Circuit



Cellular band tuned (C4,C5=4pF)

- **Typical Performance Data (On Evaluation Board, Fixture's Loss de-embedded)**

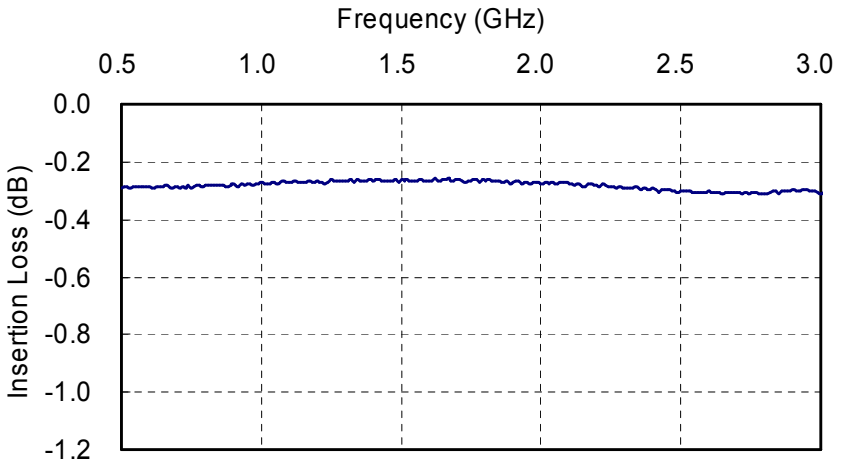


Fig.1 Insertion Loss vs. Frequency

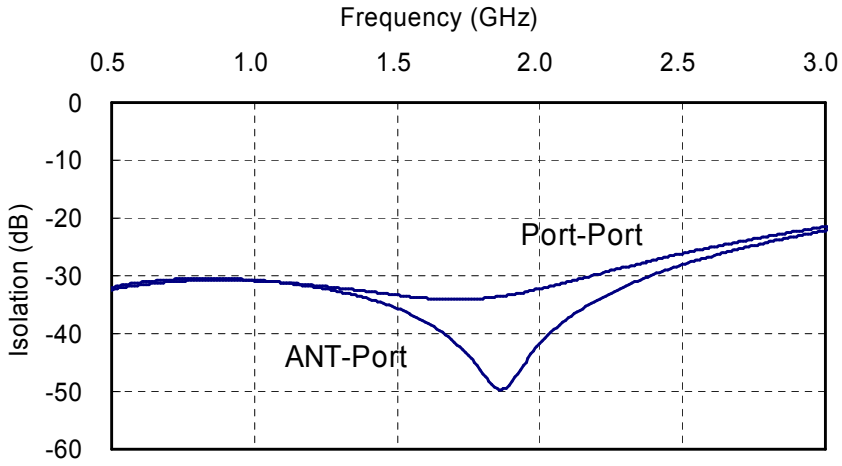


Fig.2 Isolation vs. Frequency

Typical Performance Data (On Evaluation Board, Fixture's Loss de-embedded)

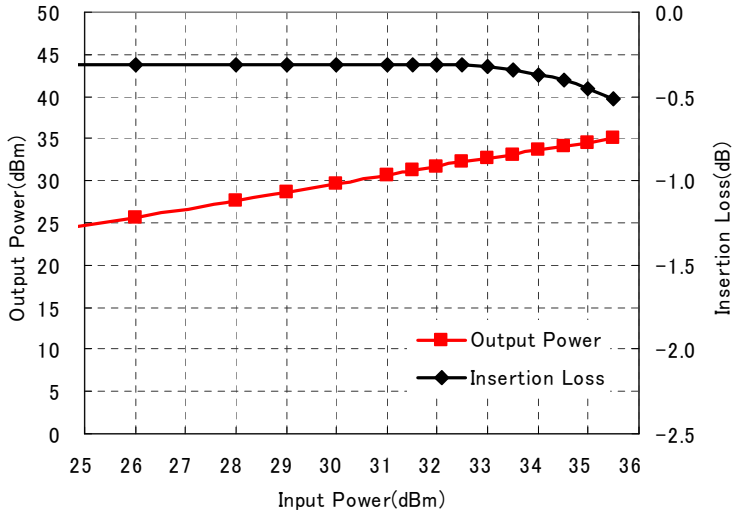


Fig.3 Output Power and Insertion Loss vs. Input Power (f=2.0GHz)

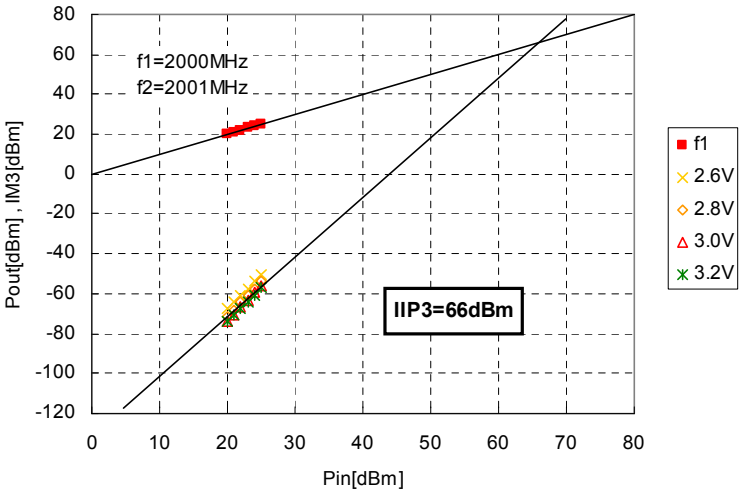


Fig.4 Input IIP3 (f=2.0GHz)

2.5GHz WiMAX band tuned (C4,C5=2pF)

- **Typical Performance Data (On Evaluation Board, Fixture's Loss de-embedded)**

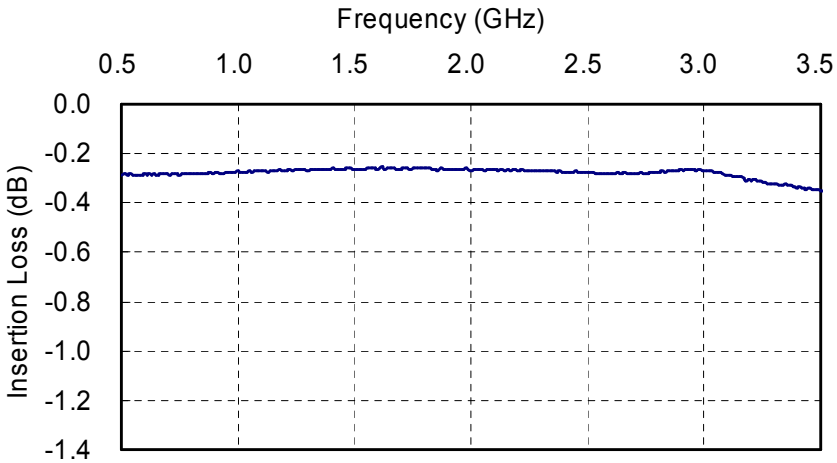


Fig.5 Insertion Loss vs. Frequency

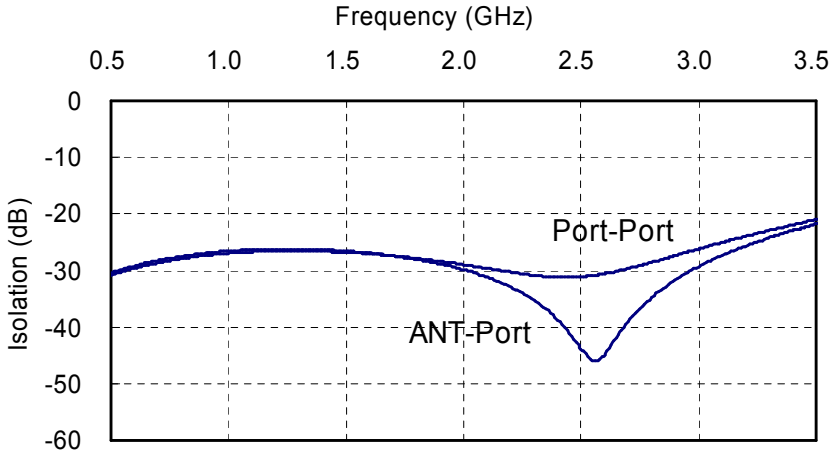


Fig.6 Isolation vs. Frequency

Typical Performance Data (On Evaluation Board, Fixture's Loss de-embedded)

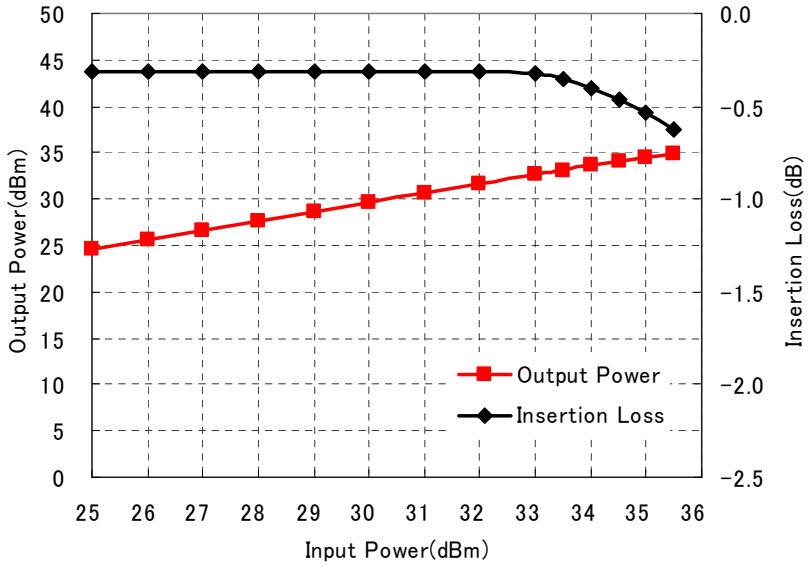


Fig.7 Output Power and Insertion Loss vs. Input Power (f=2.5GHz)

3.5GHz WiMAX band tuned (C4,C5=1pF)

Typical Performance Data (On Evaluation Board, Fixture's Loss de-embedded)

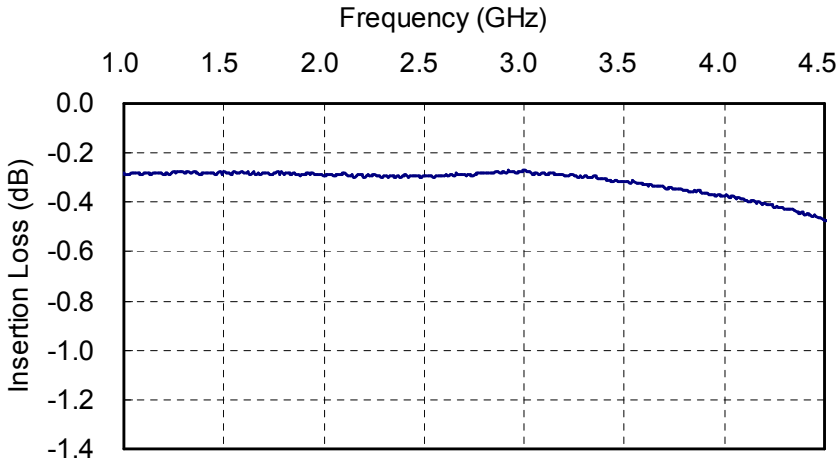


Fig.8 Insertion Loss vs. Frequency

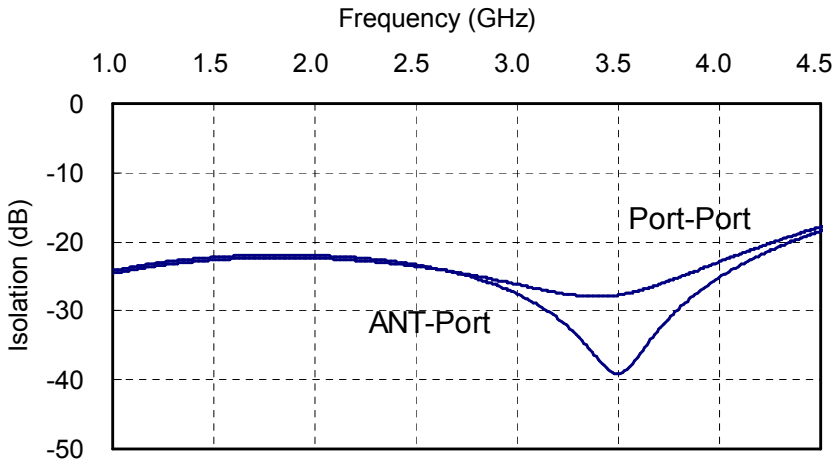


Fig.9 Isolation vs. Frequency

Typical Performance Data (On Evaluation Board, Fixture's Loss de-embedded)

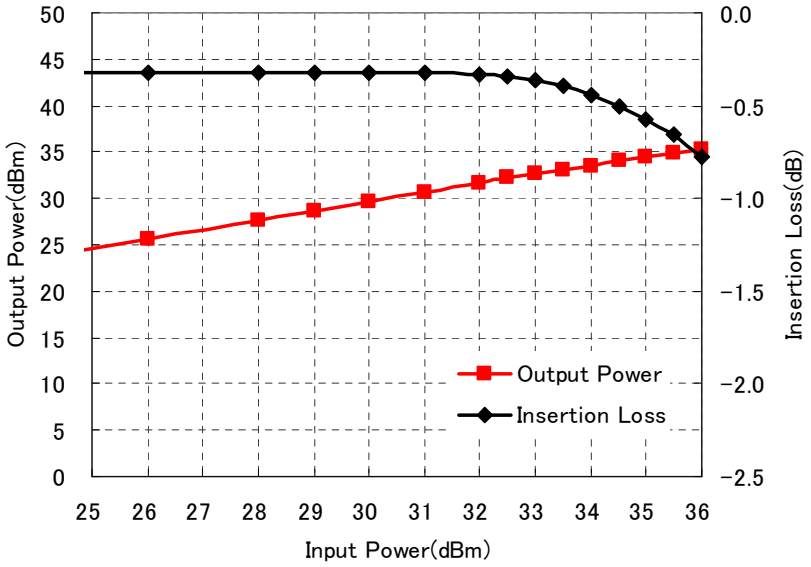


Fig.10 Output Power and Insertion Loss vs. Input Power (f=3.5GHz)

⚠

CAUTION -Limitation of Applications-

The product is designed and manufactured for consumer application only and is not available for any application listed below which requires especially high reliability for the prevention of such defect as may directly cause damage to the third party's life, body or property.

- Aircraft equipment.
- Aerospace equipment.
- Undersea equipment.
- Medical equipment.
- Transportation equipment (vehicles, trains, ships, etc.).
- Traffic signal equipment.
- Disaster prevention / crime prevention equipment.
- Application of similar complexity and/ or reliability requirements to the applications listed in the above.