Preliminary

SUMITOMO ELECTRIC INDUSTRIES, LTD.

00.09.14

P0621967H

1.9 GHz band

Power Amplifier Module

♦ Features

- 1.9 GHz frequency band
- Typical 37 dBm output power
- Low power consumption 17 W typ.
- Excellent IM3 < -55 dBc@P_{out}=20 dBm (S.C.L)
- Typical 31 dB power gain
- Low gain deviation
- Cost-effective metal package
- Low thermal resistance structure

♦ Applications

- For base station of PCS

♦ Description

The P0621967H is a power amplifier module for a base station of PCS Communication system, and is capable of 37 dBm output power with typical 31 dB gain at 1.9 GHz band, housed in a cost effective metal package. This device features a low power consumption owing to the exellent linearity and high gain of the pulse-doped GaAs MESFET developed by SEI, dissipating 1.7 A.

♦ *Absolute Maximum Ratings*

Case Temperature Tc=35 °C

Parameter	Symbol	Value	Units
DC Supply Voltage	Vd12,Vd3	11 *	V
	Vg12,Vg3	- 4	V
Input Power	Pin	13	dBm
Storage Temperature	Tstg	-20 to + 85	¡C
Operating Case Temperature	Topt	-20 to + 75	¡C
Supply Current	Id12	600	mA
	Id3	2000	mA

Notes: Operating of this device above any one of these parameters may cause permanent damage.

*Vg1,Vg2=-3.0 V

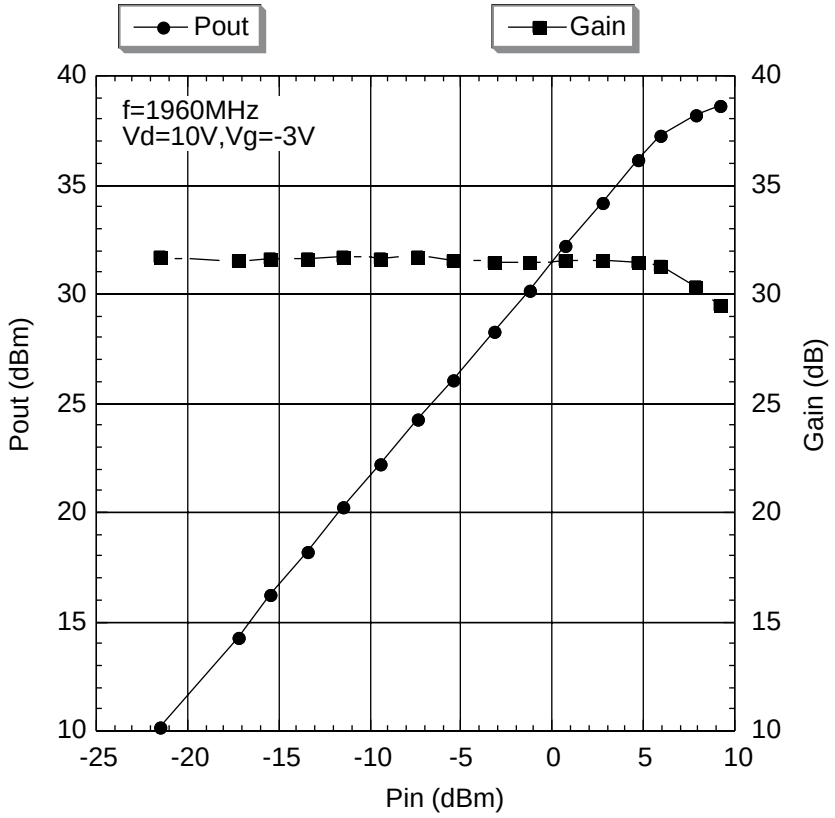
♦ *Electrical Specifications*

Case Temperature Tc=35 °C

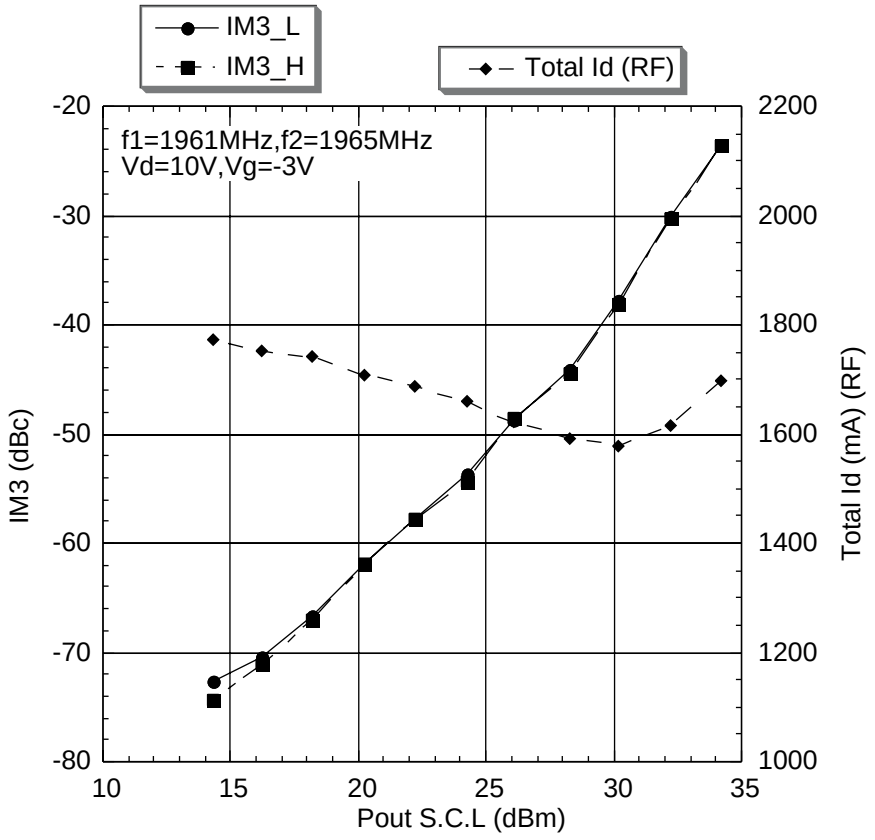
Parameter	Symbol	Test Conditions	Value			Units
			Min.	Typ.	Max.	
Frequency	f		1930	—	1990	MHz
Supply Current (under operation)	Id	Pout=20 dBm Vd=10 V Vg=-3.0 V	—	—	2000	mA
Gate Current	Ig		—	—	15	mA
Power Gain	Ga		29	31	—	dB
Input VSWR	—		—	2.0	3.0	—
Third Order Intermodulation Ratio	IM3	Pout=20 dBm* Δf=5 MHz	—	-60	-55	dBc

*Single Carrier Level

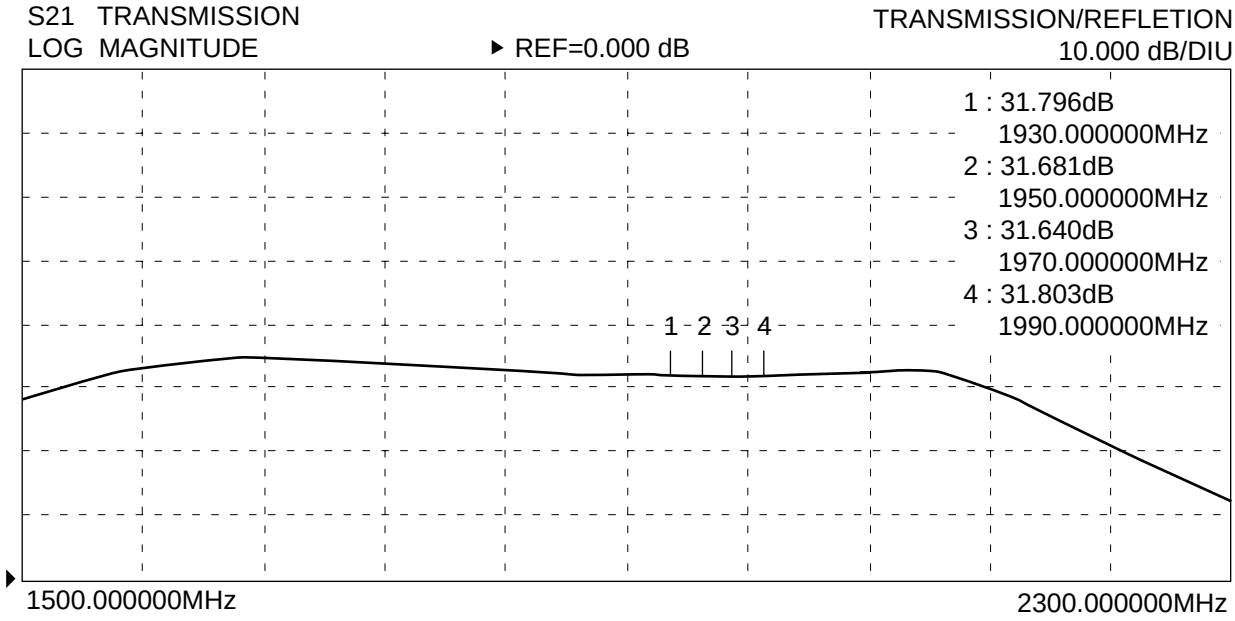
♦ *Power Characteristics*



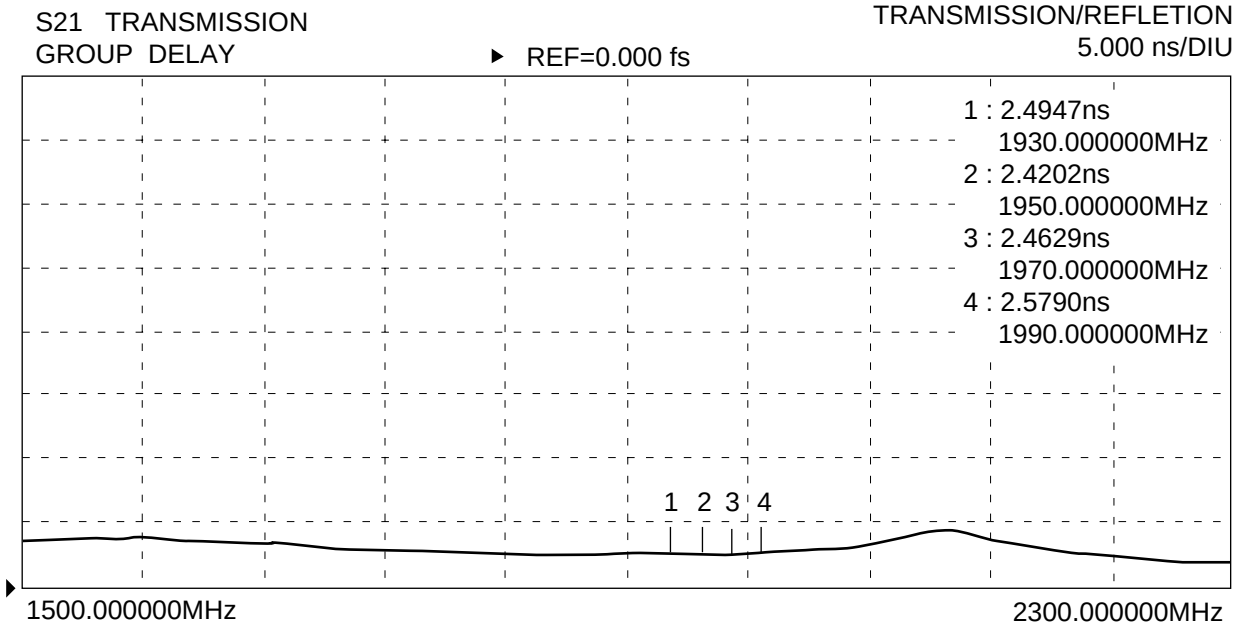
♦ *IM3*



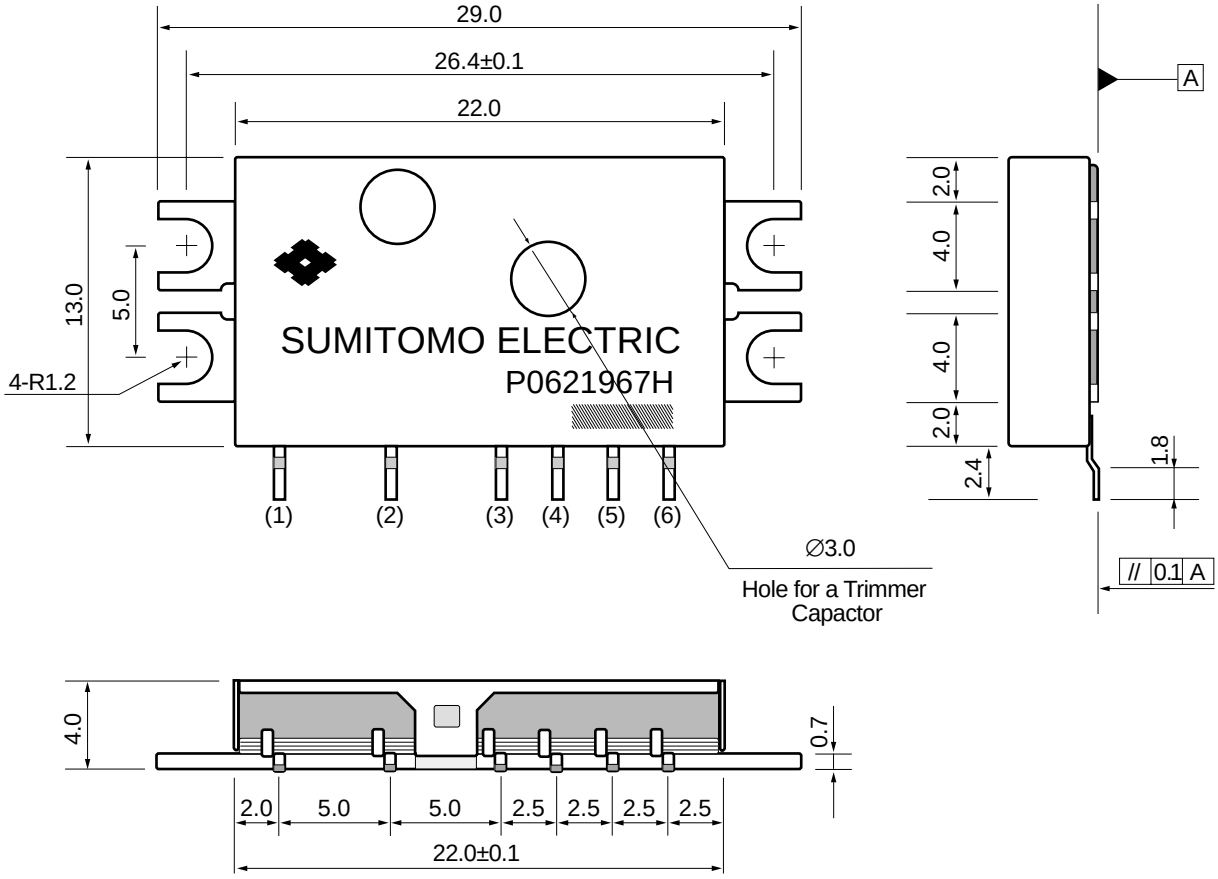
♦ *Gain*



♦ *Group Delay*



♦ *Package Drawings (Dimensions are mm)*



▒▒▒▒ :Lot No.

Dimensions are mm (±0.3mm)

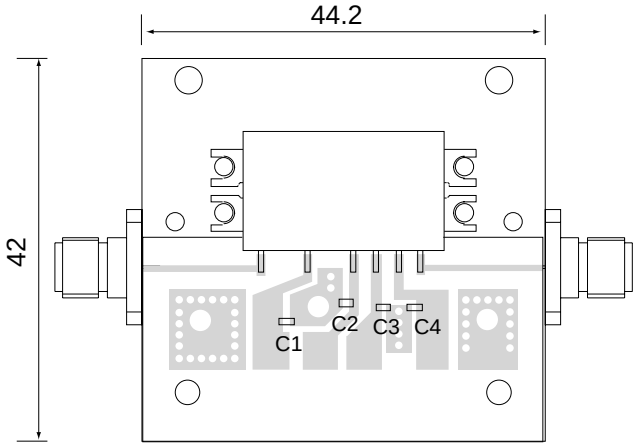
♦ *Pin Assignment*

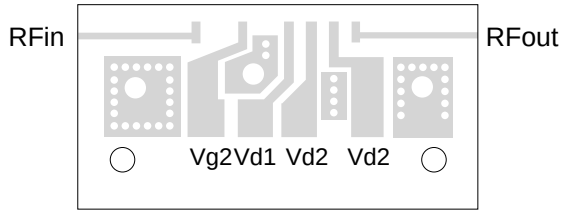
(1) RFin	(2) Vg1	(3) Vd1
(4) Vg2	(5) Vd2	(6) RFout

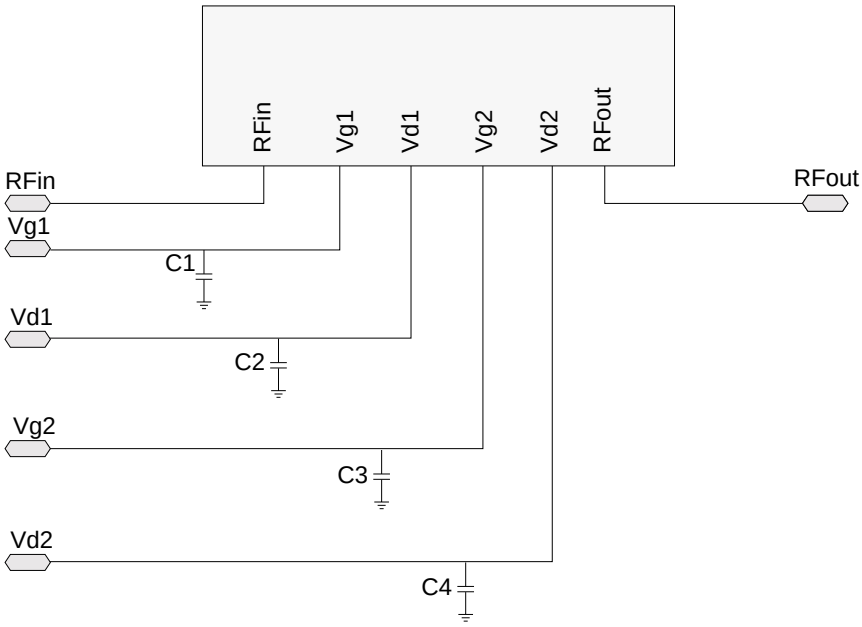
Case:GND

♦ *Evaluation Board Layout (Dimensions are mm)*

KP002J







DESIGNATION	VALUE
C1,C3	0.1µF
C2,C4	1.0µF