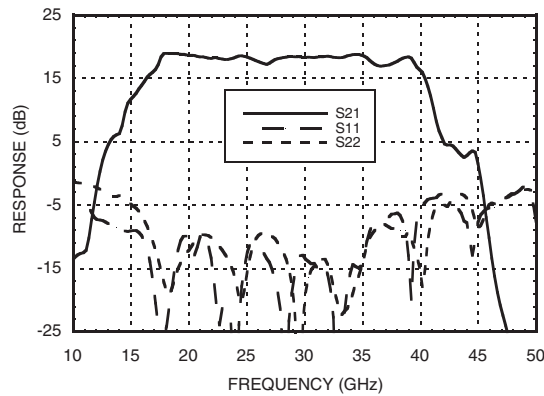
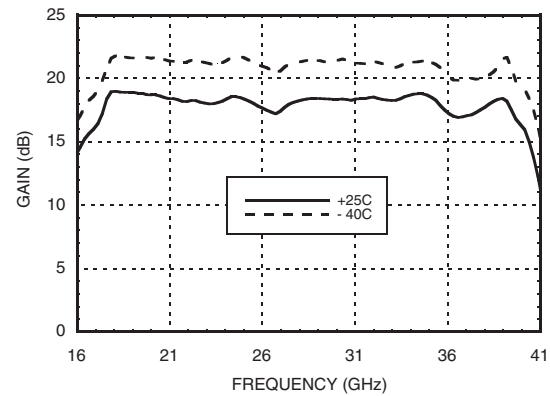


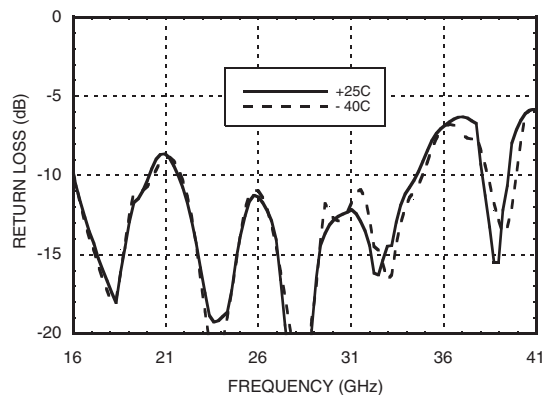
Broadband Gain & Return Loss [1]



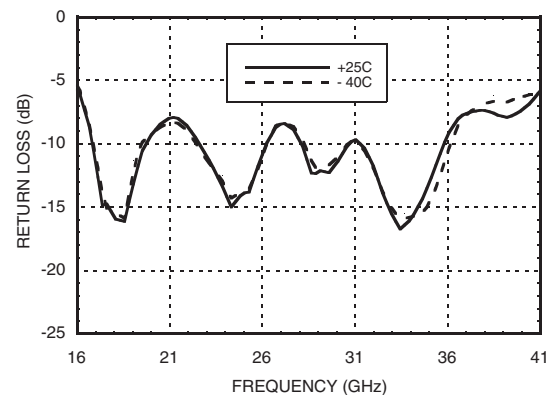
Gain vs. Temperature [1]



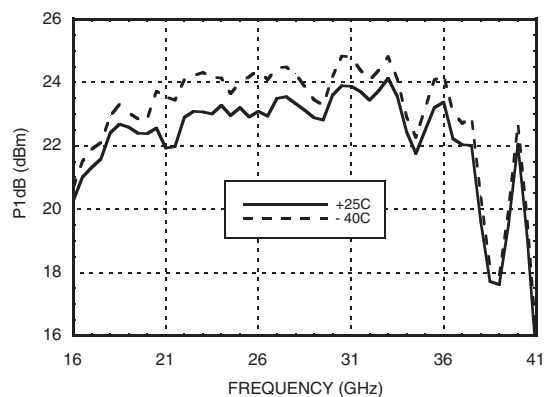
Input Return Loss vs. Temperature



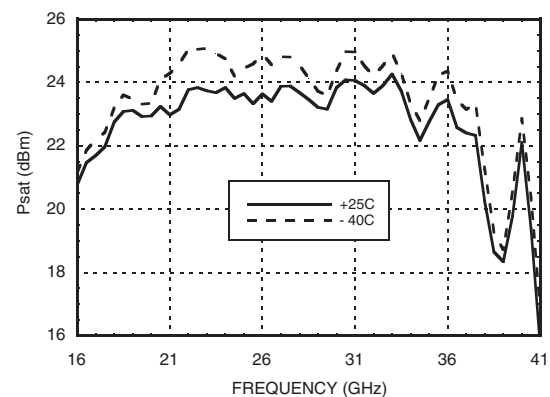
Output Return Loss vs. Temperature



P1dB vs. Temperature [1]

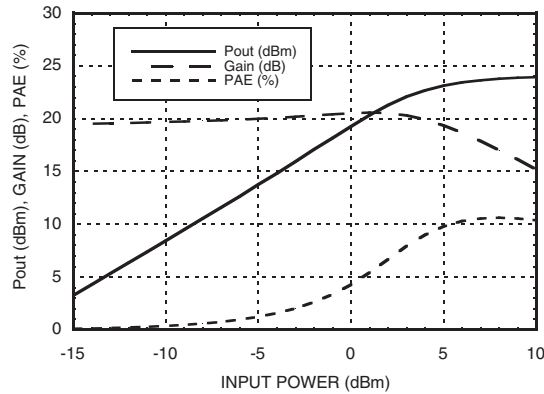


Psat vs. Temperature [1]

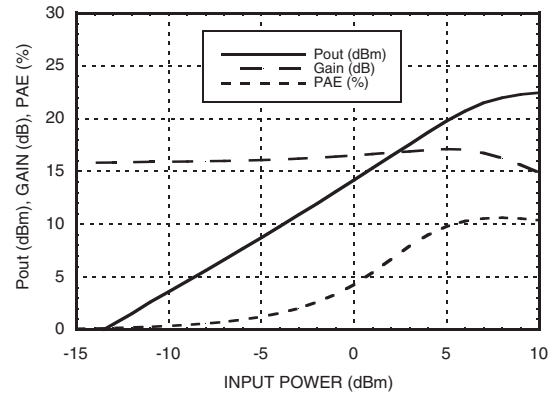


[1] Board loss subtracted out for gain, power and noise figure measurements.

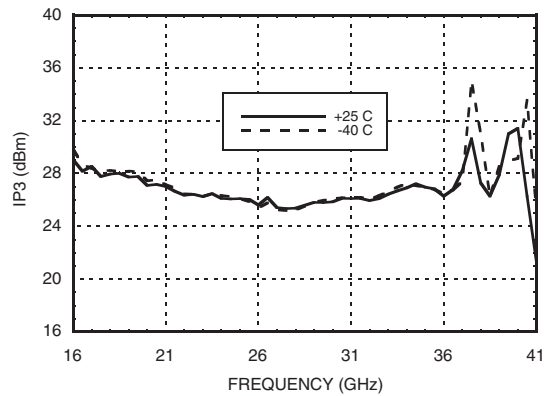
Power Compression @ 30 GHz [1]



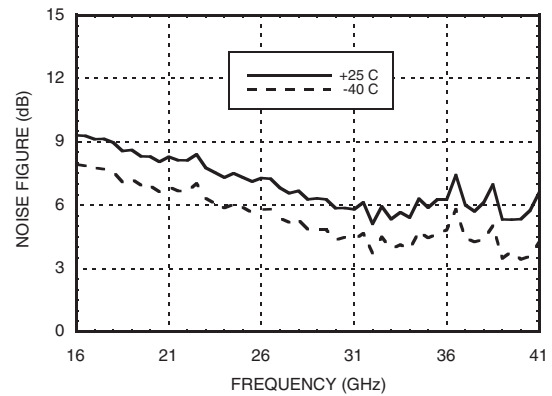
Power Compression @ 40 GHz [1]



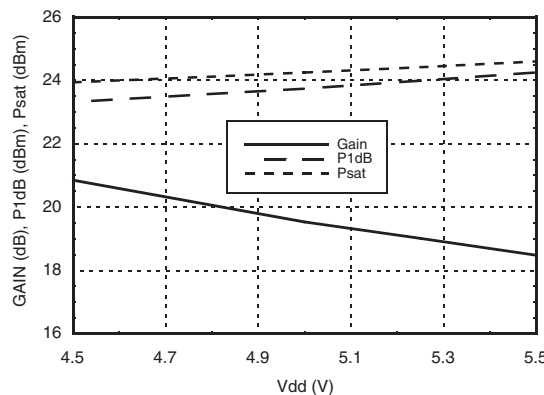
Output IP3 vs. Temperature



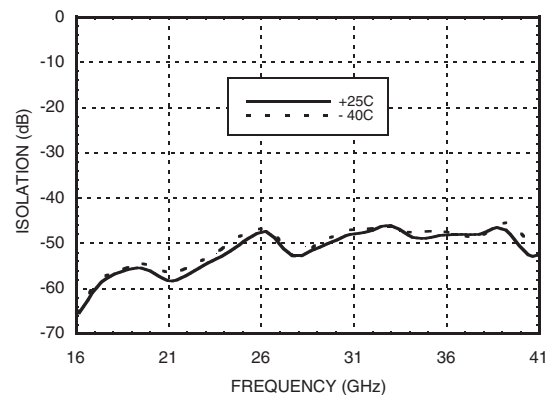
Noise Figure vs. Temperature [1]



**Gain & Power vs.
Supply Voltage @ 30 GHz [1]**



Reverse Isolation vs. Temperature



[1] Board loss subtracted out for gain, power and noise figure measurements.

Absolute Maximum Ratings

Drain Bias Voltage (Vdd1, 2, 3, 4)	+5.5V
Gate Bias Voltage (Vgg1,Vgg2)	-3 to 0V
RF Input Power (RFIN)(Vdd = +5 Vdc)	15 dBm
Channel Temperature	175 °C
Continuous P _{diss} (T= 70 °C) (derate 15.1 mW/°C above 70 °C)	1.575 W
Thermal Resistance (channel to package base)	66.4 °C/W
Storage Temperature	-65 to +150 °C
Operating Temperature	-55 to +70 °C

Typical Supply Current vs. Vdd

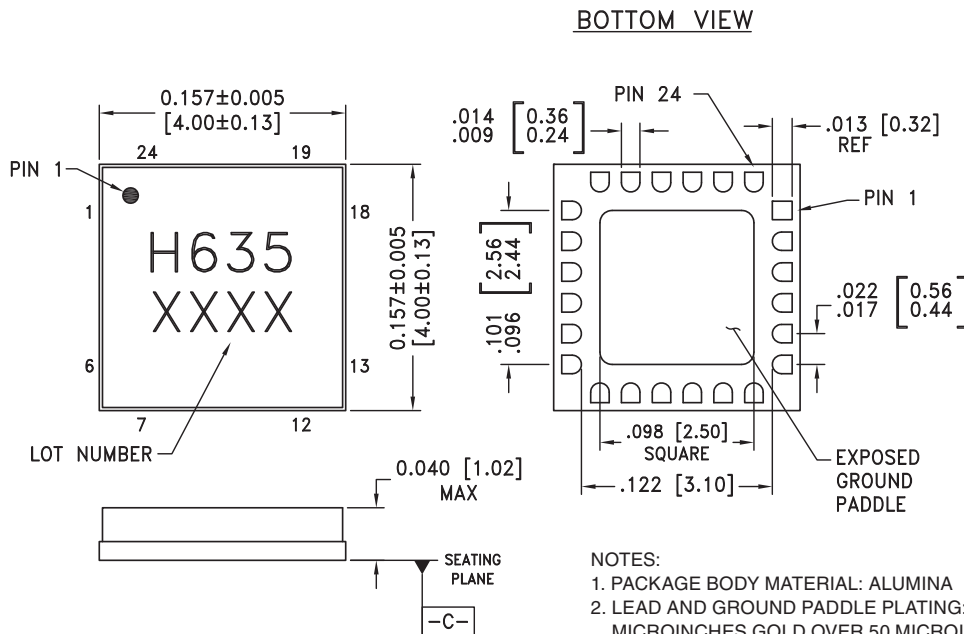
Vdd (V)	Idd (mA)
4.5	277
5.0	280
5.5	286

Note: Amplifier will operate over full voltage ranges shown above



**ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS**

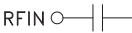
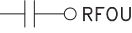
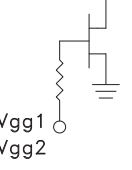
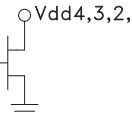
Outline Drawing



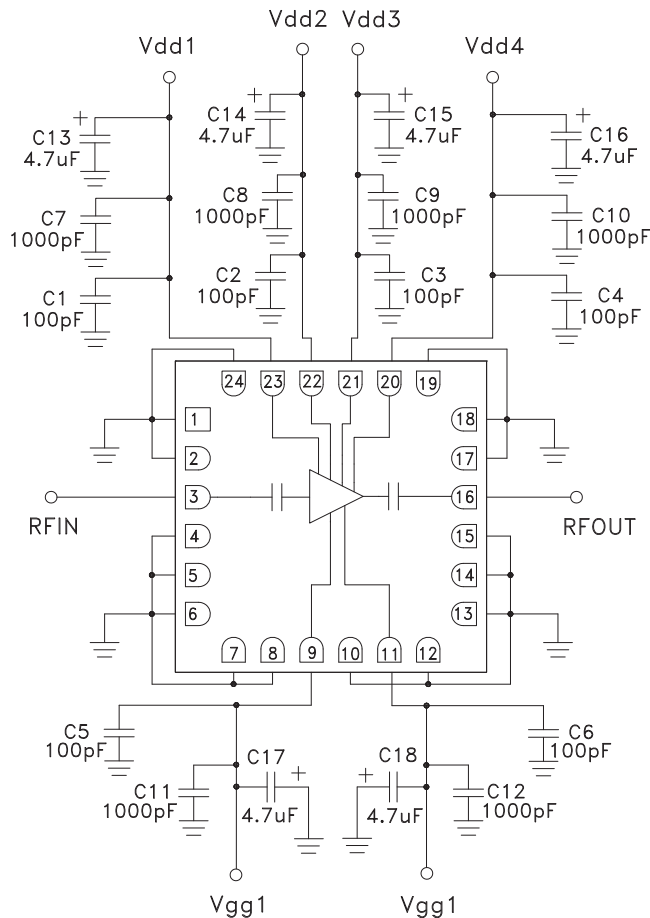
NOTES:

1. PACKAGE BODY MATERIAL: ALUMINA
2. LEAD AND GROUND PADDLE PLATING: 30-80 MICROINCHES GOLD OVER 50 MICROINCHES MINIMUM NICKEL.
3. DIMENSIONS ARE IN INCHES [MILLIMETERS].
4. LEAD SPACING TOLERANCE IS NON-CUMULATIVE.
5. PACKAGE WARP SHALL NOT EXCEED 0.05mm DATUM -C-
6. ALL GROUND LEADS AND GROUND PADDLE MUST BE SOLDERED TO PCB RF GROUND.

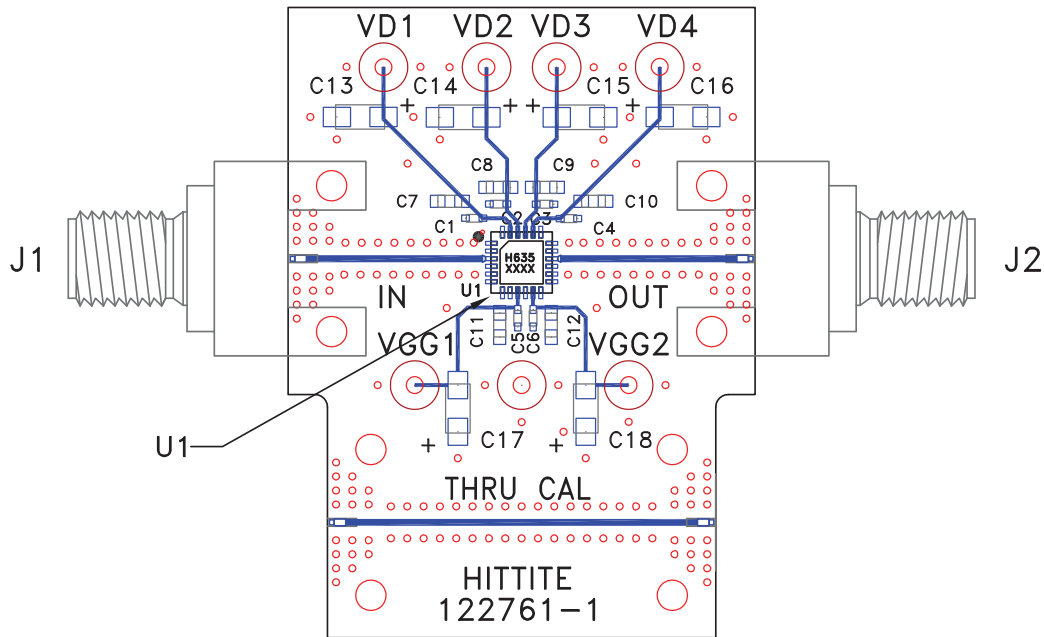
Pin Descriptions

Pin Number	Function	Description	Interface Schematic
1, 2, 4 - 8, 10, 12 - 15, 17 - 19, 24, Ground Paddle	GND	These pins and package bottom must be connected to RF/DC ground	
3	RFIN	This pad is AC coupled and matched to 50 Ohms.	
16	RFOUT	This pad is AC coupled and matched to 50 Ohms.	
9, 11	Vgg1, Vgg2	Gate control for amplifier, please follow "MMIC Amplifier Biasing Procedure" application note. See assembly diagram for required external components.	
20 - 23	Vdd4 - Vdd1	Power Supply Voltage for the amplifier. See assembly diagram for required external components.	

Application Circuit



Evaluation PCB



List of Materials for Evaluation 122763 ^[1]

Item	Description
J1 - J2	2.92 mm PC Mount K-Connector
VD1 - VD4, VGG1, VGG2	DC Pin
C1 - C6	100 pF Capacitor, 0402 Pkg.
C7 - C12	1000 pF Capacitor, 0603 Pkg.
C13 - C18	4.7 μ F Capacitor, Tantalum, Case A
U1	HMC635LC4 Driver Amplifier
PCB ^[2]	122761 Evaluation PCB ^[3]

[1] Reference this number when ordering complete evaluation PCB

[2] Circuit Board Material: Rogers 4350 or Arlon 25FR

[3] Due to the very high frequency operation of this product a custom LC4 PCB footprint and solder stencil are required for this design. Performance shown in this data sheet was produced using this custom footprint. DO NOT USE Hittite's standard LC4 footprint. Please contact Applications for details.

The circuit board used in the final application should use RF circuit design techniques. Signal lines should have 50 ohm impedance while the package ground leads and exposed paddle should be connected directly to the ground plane similar to that shown. A sufficient number of via holes should be used to connect the top and bottom ground planes. The evaluation board should be mounted to an appropriate heat sink. The evaluation circuit board shown is available from Hittite upon request.

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<http://moschip.ru/get-element>

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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