

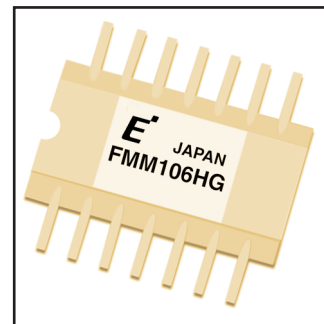
FEATURES

- Operation to 6.5 GHz
- Divided by 8, OUT and $\overline{\text{OUT}}$ Outputs
- External 50 ohm Load Driving Capability
- -5V DC or +5V DC Single Power Supply
- Metal/Ceramic 14-pin Hermetic Flat Package
- Wide Operation Temperature -55°C to +85°C

DESCRIPTION

The FMM106HG is a GaAs Microwave Frequency Divider that has been designed to divide an input signal by 8 over a frequency range from 2.0 to 6.5 GHz. The FMM106HG is designed for Microwave Frequency Synthesizer and Phase-Locked Oscillator applications.

Eudyna's stringent Quality Assurance Program assures the highest reliability and consistent performance.



ABSOLUTE MAXIMUM RATINGS (Ambient Temperature Ta=25°C)

Parameter	Symbol	Ratings	Unit
Supply Voltage	V _{SS}	-7.0 to 0	V
Input Voltage	V _{in}	V _{SS} to 0	V
Input Power	P _{in}	+13.0	dBm
Storage Temperature	T _{stg}	-55 to +150	°C
Power Dissipation	P _D	1.0	W

RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Limit			Unit
		Min.	Typ.	Max.	
Supply Voltage	V _{SS}	-5.5	-5.0	-4.5	V
Ambient Temperature	T _a	-55	-	+85	°C

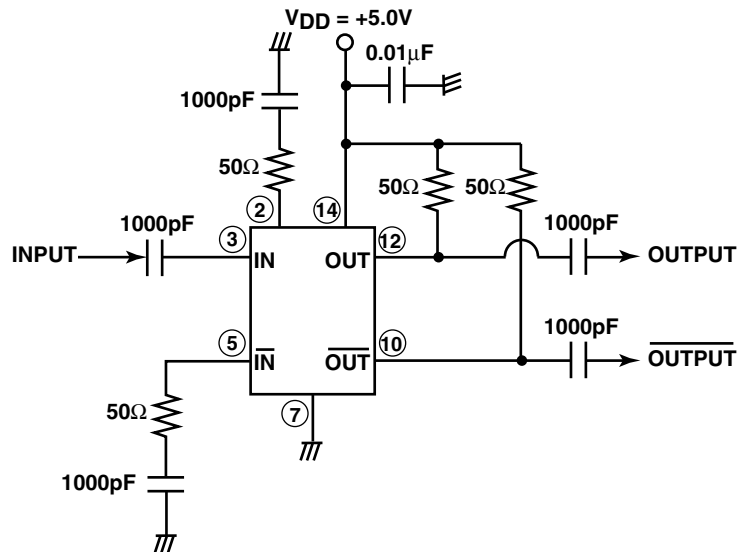
ELECTRICAL CHARACTERISTICS (Ambient Temperature Ta = 25°C, V_{SS} = -5.0V)

Parameter	Symbol	Condition	Limit			Unit
			Min.	Typ.	Max.	
Power Supply Current	I _{DD}		-	140	-	mA
Input Frequency	f _{in}	P _{in} = +5dBm	2.0	-	6.5	GHz
Output Power	P _o		2	4	-	dBm

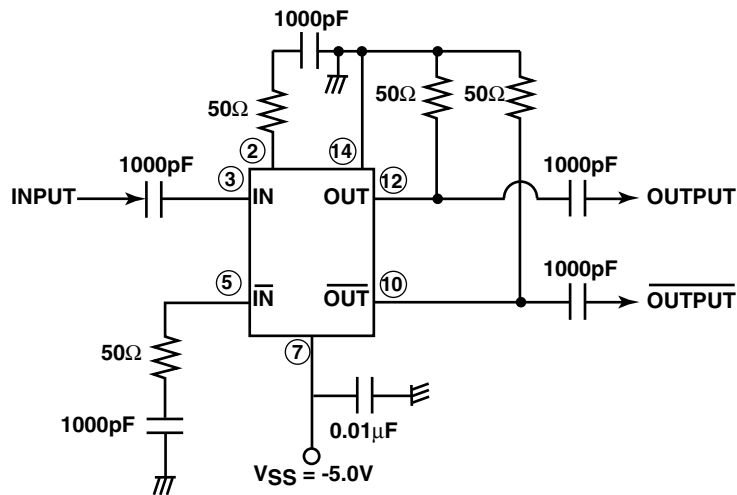
CASE STYLE: HG

Test Circuit

Positive Supply Voltage +5V Operation Circuit

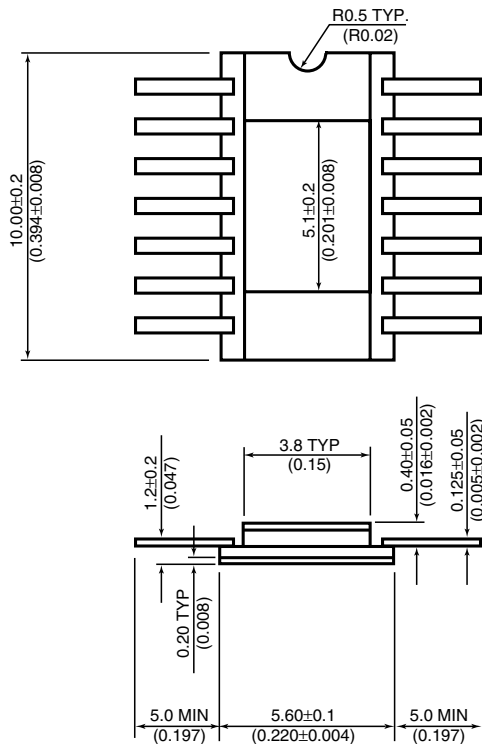


Negative Supply Voltage -5V Operation Circuit



The backside metal of the package must be grounded.

Case Style "HG"



LEAD ASSIGNMENT

Lead	Symbol	Function
1.	NC	No Connection
2.	IN	Input
3.	IN	Input
4.	NC	No Connection
5.	IN	Complementary Input
6.	IN	Complementary Input
7.	V _{SS}	Supply Voltage
8.	NC	No Connection
9.	NC	No Connection
10.	OUT	Complementary Output
11.	NC	No Connection
12.	OUT	Output
13.	NC	No Connection
14.	V _{DD}	Supply Voltage

Unit: mm(inches)

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CAUTION

Eudyna Devices Inc. products contain **gallium arsenide (GaAs)** which can be hazardous to the human body and the environment. For safety, observe the following procedures:

- Do not put this product into the mouth.
- Do not alter the form of this product into a gas, powder, or liquid through burning, crushing, or chemical processing as these by-products are dangerous to the human body if inhaled, ingested, or swallowed.
- Observe government laws and company regulations when discarding this product. This product must be discarded in accordance with methods specified by applicable hazardous waste procedures.

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