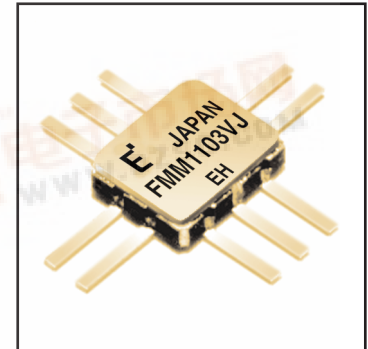


# FMM1103VJ

## GaAs Microwave Frequency Divider

### FEATURES

- Operation to 12.0 GHz
- Input Frequency divide by 8, OUT and  $\overline{\text{OUT}}$
- -5V (or+5V) DC Single Power Supply
- External 50 ohm Load Driving Capability
- Small 10 pin Hermetic SMT-10 Package (VJ)
- Tape and Reel available



### DESCRIPTION

The FMM1103VJ is a GaAs Microwave Static Frequency Divider designed for dividing an input signal by 8 over a frequency range from 2.0 to 12.0 GHz. This part 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 <sub>SS</sub>	-7.0 to 0	V
Input Voltage	V <sub>in</sub>	V <sub>SS</sub> to 0	V
Input Power	P <sub>in</sub>	+13.0	dBm
Storage Temperature	T <sub>stg</sub>	-55 to +125	°C
Power Dissipation	P <sub>D</sub>	1.0	W

### RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Limit			Unit
		Min.	Typ.	Max.	
Power Supply Voltage	V <sub>SS</sub>	-5.5	-5.0	-4.5	V
Case Temperature	T <sub>c</sub>	-40	-	+85	°C

### ELECTRICAL CHARACTERISTICS (Case Temperature Tc = -40°C ~ +85°C, Vss = -4.5 ~ -5.5V)

Parameter	Symbol	Condition	Limit			Unit
			Min.	Typ.	Max.	
Power Supply Current	I <sub>SS</sub>		-	90	-	mA
Operating Frequency	f <sub>in</sub>	P <sub>in</sub> = 0~10dBm	2.0	-	12.0	GHz
Output Power	P <sub>o</sub>		0	8	-	dBm



---

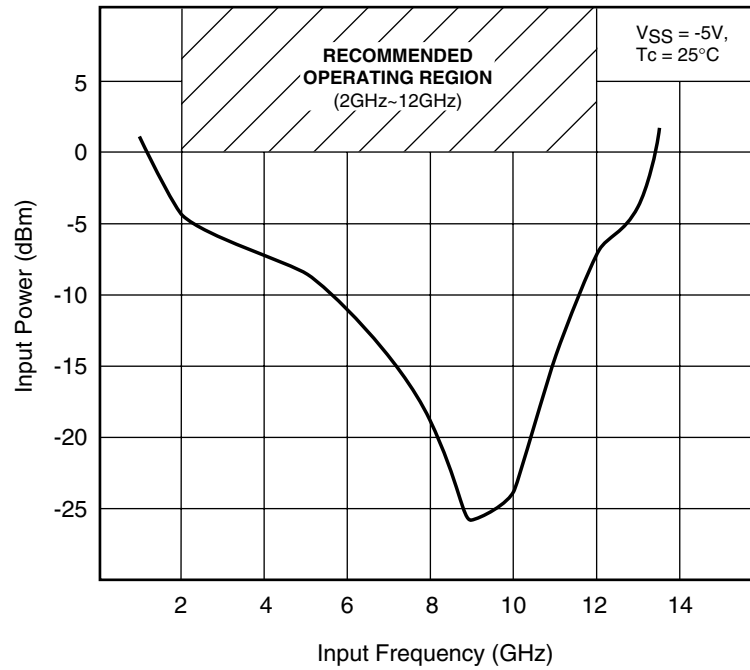
---

---

# FMM1103VJ

GaAs Microwave Frequency Divider

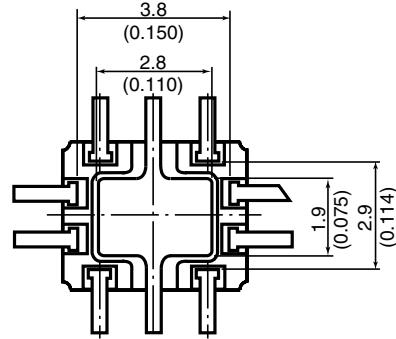
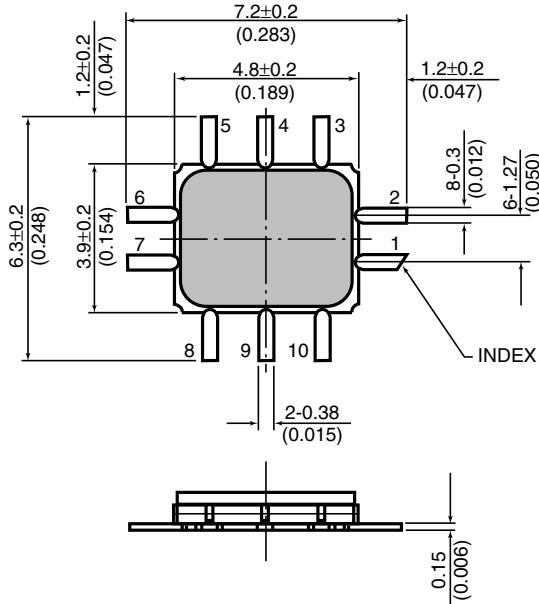
## INPUT SENSITIVITY CHARACTERISTICS



# FMM1103VJ

## GaAs Microwave Frequency Divider

### Case Style "VJ"



### LEAD ASSIGNMENT

Lead	Symbol	Lead	Symbol
1.	VDD	6.	Vss
2.	GND	7.	GND
3.	IN	8.	OUT
4.	GND	9.	GND
5.	REF	10.	OUT

Unit: mm(inches)

For further information please contact:

### Eudyna Devices USA Inc.

2355 Zanker Rd.  
San Jose, CA 95131-1138, U.S.A.  
TEL: (408) 232-9500  
FAX: (408) 428-9111  
[www.us.eudyna.com](http://www.us.eudyna.com)

### Eudyna Devices Europe Ltd.

Network House  
Norreys Drive  
Maidenhead, Berkshire SL6 4FJ  
United Kingdom  
TEL: +44 (0) 1628 504800  
FAX: +44 (0) 1628 504888

### Eudyna Devices Asia Pte Ltd.

Hong Kong Branch  
Rm. 1101, Ocean Centre, 5 Canton Rd.  
Tsim Sha Tsui, Kowloon, Hong Kong  
TEL: +852-2377-0227  
FAX: +852-2377-3921

### Eudyna Devices Inc.

Sales Division  
1, Kanai-cho, Sakae-ku  
Yokohama, 244-0845, Japan  
TEL: +81-45-853-8156  
FAX: +81-45-853-8170

### 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.

Eudyna Devices Inc. reserves the right to change products and specifications without notice. The information does not convey any license under rights of Eudyna Devices Inc. or others.

© 2004 Eudyna Devices USA Inc.  
Printed in U.S.A.