# DSC613RA2A-0106



## **Three-Output Low Power MEMS Clock Generator**

# **General Description**

The DSC613RA2A-0106 is a three-output low power MEMS clock generator.

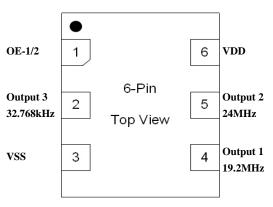
The MEMS based clock generator eliminates the need of external crystal or reference clock.

Refer to DSC613 master data sheet to read full descriptions.

### **Features**

- Three LVCMOS clock outputs: 19.2MHz, 24MHz, 32.768kHz
- Ultra-small package size: 2.5mm x 2.0mm 6L LGA
- High stability: ±25ppm
- Temperature range: -40°C to +125°C
- Low power consumption: ~5.2mA (all outputs active)
- Wide supply voltage range: 1.71V -3.63V VDD
- Excellent shock and vibration immunity
- High reliability
- Lead free and RoHS compliant
- AEC-Q100 automotive grade available

# **Pin Configuration and Description**



6-pin 2.5mm x 2.0mm 6L LGA

Pin Number	Pin Name	Pin Type	Pin Description
1	OE-1/2	I	Output Enable $H = \text{Output Active} \\ L = \text{Output Disabled (High Impedance)}$
2	Output 3	О	32.768kHz LVCMOS Clock Output
3	VSS	Power	Power Supply Ground
4	Output 1	О	19.2MHz LVCMOS Clock Output Controlled by Pin 1 (OE-1/2)
5	Output 2	О	24MHz LVCMOS Clock Output Controlled by Pin 1 (OE-1/2)
6	VDD	Power	Power Supply

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## **Ordering Information**

Ordering Part Number	Temperature Range	High Stability	Shipping	Package
DSC613RA2A-0106	-40°C to +125°C	±25ppm	Tube	2.5mm x 2.0mm 6L LGA
DSC613RA2A-0106T	-40°C to +125°C	±25ppm	Tape and Reel	2.5mm x 2.0mm 6L LGA

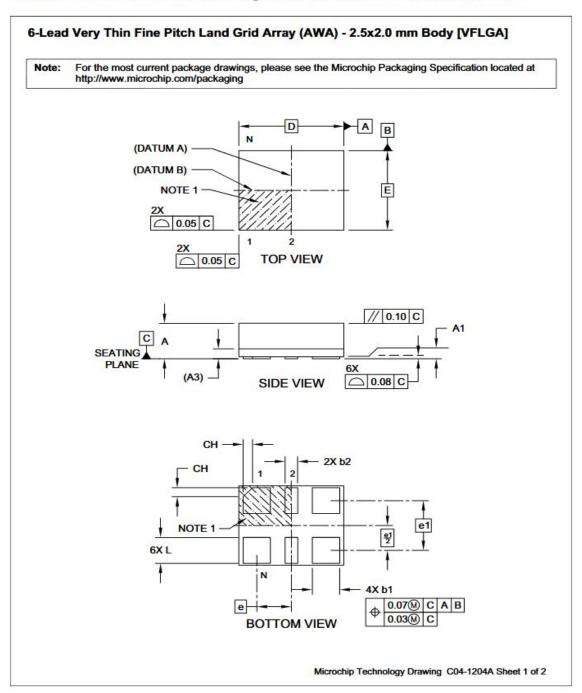
Devices are Green and RoHS compliant. Sample material may have only a partial top mark.

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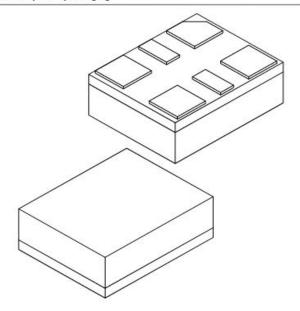
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### 6-Lead 2.5 mm x 2.0 mm VFLGA Package Outline and Recommended Land Pattern



### 6-Lead Very Thin Fine Pitch Land Grid Array (AWA) - 2.5x2.0 mm Body [VFLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at http://www.microchip.com/packaging



Units		MILLIMETERS			
Dimension	Limits	MIN	NOM	MAX	
Number of Terminals	N	6			
Terminal Pitch	е	0.825 BSC			
Terminal Pitch	e1	1.25 BSC			
Overall Height	Α	0.79	0.84	0.89	
Standoff	A1	0.00	0.02	0.05	
Substrate Thickness (with Terminals)	A3	0.20 REF			
Overall Length	D	2.50 BSC			
Overall Width	Е	2.00 BSC			
Terminal Width	b1	0.60	0.65	0.70	
Terminal Width	b2	0.25	0.30	0.35	
Terminal Length	L	0.60	0.65	0.70	
Terminal 1 Index Chamfer	СН	-	0.225	-	

#### Notes:

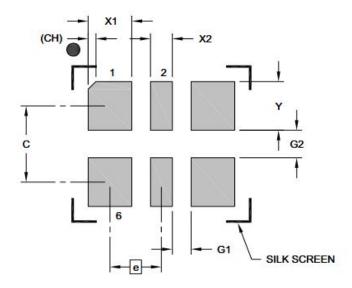
- 1. Pin 1 visual index feature may vary, but must be located within the hatched area.
- 2. Package is saw singulated
- 3. Dimensioning and tolerancing per ASME Y14.5M

BSC: Basic Dimension. Theoretically exact value shown without tolerances.

REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1204A Sheet 2 of 2

Note: For the most current package drawings, please see the Microchip Packaging Specification located at http://www.microchip.com/packaging



### RECOMMENDED LAND PATTERN

Units		MILLIMETERS			
Dimension	on Limits	MIN	NOM	MAX	
Contact Pitch	E	0.825 BSC			
Contact Spacing	С	1.25 BSC			
Contact Width (X4)	X1			0.70	
Contact Width (X2)	X2			0.35	
Contact Pad Length (X6)	Y			0.80	
Space Between Contacts (X4)	G1	0.30		3	
Space Between Contacts (X3)	G2	0.45			
Contact 1 Index Chamfer	CH	0.13 X 45° REF			

#### Notes:

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Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.

Microchip Technology Drawing C04-3204A