



REV O Dec 01 2016

Oscilent Controlled Document

| Series Number | Product Description |
|---------------|---|
| 1146-3 | MEMS Oscillator Low Power Programmable 2.5x2.0x0.75mm |

Contents

- o Part Number Builder
- o Pin Description
- o Package Size and Recommended Land Pattern
- o Electrical Specifications

Features

- o 1 ~ 110 MHz accurate to 6 decimals.
- o LVCMOS / HCMOS outputs
- o Low power consumption of 3.5mA typical at 1.8V
- o Long battery life
- o RoHS Compliant / Pb Free

Application

- o SONET
- o SATA
- o SAS
- o Fiber Channel
- o Telecom
- o Network
- o Servers
- o Storage





Series Number
1146-3

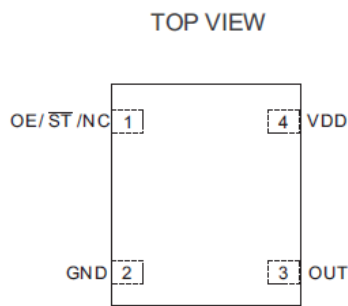
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MEMS Oscillator Low Power Programmable 2.5x2x0.75mm

Part Number Builder

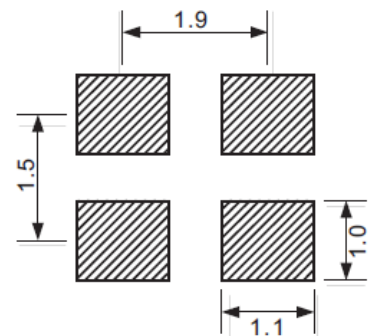
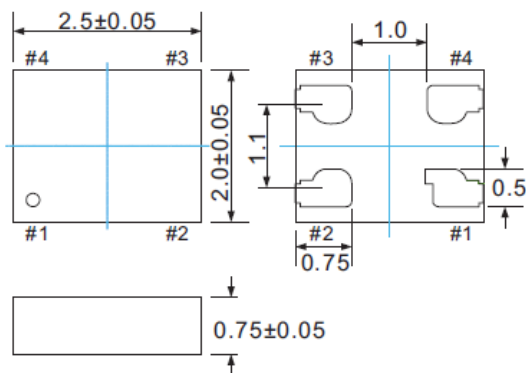
| Series Number | Select Frequency | Supply Voltage | Frequency Stability | Operating Temperature | Pin 1 Function | Packaging |
|-------------------|------------------|--|---|--------------------------------|---|---------------------------------|
| 1146 – 3 – | M | – | | | – | – |
| | Enter Frequency | 7 = 3.0V 6 = 2.5V 5 = 5.0V 3 = 3.3V 2 = 2.8V 1 = 1.8V | E = ±50 ppm F = ±25 ppm G = ±20 ppm | D = -20~+70°C N = -40~+85°C | OE = Output Enable ST = Standby NC = No Connect | TR = Tape +Reel Blank = Bulk |

Pin Description



| Pin | Sym | Function |
|-----|--------|--|
| 1 | OE | Output Enable H: specified frequency output L: output is high impedance. Only output device is disabled |
| | ST | Standby H: specified frequency output L: output is low (weak pull down). Device goes to sleep mode, Supply current reduces to I _{std} |
| | NC | No Connect Any voltage between 0 and Vdd or open: Specified frequency output. Pin 1 has no function |
| 2 | GND | Power Electrical Ground |
| 3 | Output | Output Oscillator Output |
| 4 | VDD | Power Power Supply Voltage |

Package Size and Recommended Land Pattern



**Electrical Specifications**

| Parameters Description | |
|-----------------------------|------------------------------------|
| Frequency Output | 1~110MHz |
| Frequency Stability | ±20ppm, ±25ppm, ±50ppm, or specify |
| Operating Temperature Range | -20~+70°C / -40~+85°C |
| Supply Voltage | 1.8V, 2.5V, 2.8V, 3.0V, 3.3V |
| Current Consumption | 3.5mA Typ. |
| OE Disable Current | 4.2mA Max. |
| Standby Current | 0.2mA Typ. |
| Duty Cycle | 45-55% |
| Rise/ Fall Time | 2ns Max. |
| Output High Voltage | 90% VDD |
| Output Low Voltage | 10% VDD |
| Input High Voltage | 70% VDD |
| Input Low Voltage | 30% VDD |
| Startup Time | 5ms Max. |
| Enable/ Disable Time | 130ns Max. |
| Resume Time | 5ms Max. |
| RMS Period Jitter | 1.8ps Typ. |
| Peak-to-Peak Period Jitter | 12ps Typ. |
| RMS Phase Noise (random) | 0.5ps Typ. |
| Storage Temperature Range | -65~+150°C |
| Output Type | LVC MOS / HCMOS |