

Dynamic Engineers Inc.

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Features and Benefits

Frequency range: 1-150MHz Output: CMOS/TTL Supply voltage: 5.0/3.3V Current: 60mA Max. Frequency stability vs. temperature: ±25PPM Operating temperature: -40°C to +85°C Size: 5.0x3.2x1.4 mm

Typical Applications

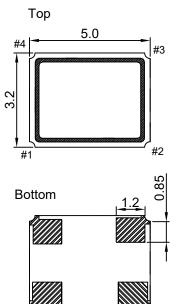
Cellular Base Stations Instrumentation Microwave Applications Radar reference

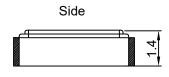
Description

The XO5300AX01 is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No: MD2(00(%1





Pin Connections

| Pin | Function | |
|-----|----------------|--|
| 1 | OE | |
| 2 | GND | |
| 3 | RF Output | |
| 4 | Supply Voltage | |

Unit in mm 1mm = 0.0394 inches

Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside; such as data tables and araphs without notification to potential customers who may have earlier revisions in their possession.



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Specifications

| Oscillator | Sym | Condition | Value | | | Unit | Nete | |
|---|-----------------|------------------------------|--------|------|--------|------|-----------------------------|--|
| Specification | | | Min. | Тур. | Max. | Unit | Note | |
| Frequency Range | Fnom | | 1 | | 150 | MHz | | |
| RF Output | | | | | | | | |
| Signal Waveform | | | | CMOS | /TTL | | | |
| Load | RL | CMOS | | 15 | | pF | | |
| | | TTL | | 10 | | pF | | |
| H-Level Voltage | V _H | | 90%Vcc | | | V | | |
| L- Level Voltage | VL | | | | 10%Vcc | V | | |
| Duty Cycle | | | 40 | 50 | 60 | % | | |
| Rise/Fall time | | 10%-90% | | 8 | 10 | ns | | |
| Output Control | | Enable – High Disable Low | | | | | | |
| Power Supply | | | | | | | | |
| Supply Voltage | Vcc | | | 3.3 | | V | See ordering information | |
| Start up Time | T _{up} | | | 10 | | ms | | |
| Current Consumption | | | | 45 | 60 | mA | | |
| Frequency Stability | | | | | | | | |
| Versus Operating Temperature Range | | Reference to +25°C | | ±25 | | ppm | See ordering information | |
| Environmental, Mechanical Conditions | | | | | | | | |
| Operating temperature range | -20°C to + | +70°C, -40°C to +85°C | | | | | | |

Ordering Information

| XO5300AX01 | - | 10MHz | - | Х | Х | Х | Х |
|------------|---|-------|---|----|----|----|----|
| Group | | | | 01 | 02 | 03 | 04 |

For example, XO5300AX01-10MHz-1-1-2-2 denotes the XO has the following specifications: Temperature Range: -20°C to +70°C

| Temperature Range: | -20°C to |
|-----------------------------|----------|
| Stability Over Temperature: | ±25ppm |
| Supply Voltage: | 3.3V |
| Output Type: | TTL |

| 01 | Temperature Range |
|------|-------------------|
| Code | Specification |
| 1 | -20°C to +70°C |
| 2 | -40°C to +85°C |

| 03 | Supply Voltage |
|------|----------------|
| Code | Specification |
| 1 | 2.5V |
| 2 | 3.3V |

| 04 | Output Type |
|------|---------------|
| Code | Specification |
| 1 | HCMOS |
| 2 | TTL |

| 02 | Frequency Stability |
|------|---------------------|
| Code | Specification |
| 1 | ±25ppm |
| 2 | ±50ppm |
| 3 | ±100ppm |