

**Features**

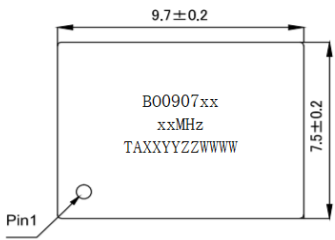
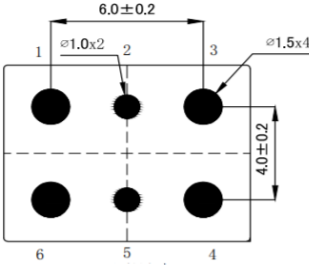
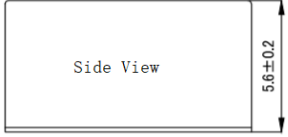
- Ultra Stable
- Wide Temperature Range
- SMD(9.0mm\*7.0mm)

**Applications**

- Base Stations
- Instrumentations
- Others

**BO0907L Specifications**

| Parameter                   | Value           |      |      | Unit   | Conditions                         |  |
|-----------------------------|-----------------|------|------|--------|------------------------------------|--|
|                             | Min.            | Typ. | Max. |        |                                    |  |
| Supply Voltage              | –               | 3.3  | –    | V      | V <sub>CC</sub> ±5%                |  |
| Power Consumption           | –               | –    | 2.5  | W      |                                    |  |
|                             | –               | –    | 1.0  | W      |                                    |  |
| Frequency Range             | 5~50            |      |      | MHz    |                                    |  |
| Nominal Frequency           | 10, 40          |      |      |        |                                    |  |
| Initial Frequency Tolerance | –               | –    | ±500 | ppb    | At shipment, nominal EFC, +25°C    |  |
| Freq. Stability Vs. Temp.   | ±5              | –    | –    | ppb    | -40°C ~ +70°C                      |  |
|                             | ±10             | –    | –    | ppb    | -40°C ~ +85°C                      |  |
| HCMOS                       | V <sub>OH</sub> | 2.7  | –    | –      | V                                  | HCMOS Output, Load=15pf                |
|                             | V <sub>OL</sub> | –    | –    | 0.3    | V                                  | HCMOS Output, Load=15pf                |
|                             | Duty Cycle      | 45   | –    | 55     | %                                  | (V <sub>OH</sub> - V <sub>OL</sub> )/2 |
|                             | Rise/Fall edge  | –    | –    | 5      | ns                                 | HCMOS Output, Load=15pf                |
|                             | Load            | –    | 15   | –      | pf                                 |  |
| Warm-up Time                | –               | –    | 3    | Min    | At +25°C, with accuracy of ±100ppb |  |
| Supply Sensitivity          | –               | –    | ±2.0 | ppb    | V <sub>CC</sub> ±5%                |  |
| Load Sensitivity            | –               | –    | ±2.0 |        | Load±5%                            |  |
| Aging per Day               | –               | –    | ±2.0 |        | After 30 days of operation         |  |
| Aging per Year              | –               | –    | ±500 |        | After 30 days of operation         |  |
| SSB Phase Noise @10MHz      | –               | –    | -110 | dBc/Hz | Offset 10Hz                        | At +25°C                               |
|                             | –               | –    | -135 |        | Offset 100Hz                       |  |
|                             | –               | –    | -150 |        | Offset 1kHz                        |  |
|                             | –               | –    | -155 |        | Offset 10kHz                       |  |
|                             | –               | –    | -155 |        | Offset 100kHz                      |  |
| Control Voltage Range       | 0.5             | 1.5  | 2.5  | V      | 3.3V                               |  |
| Frequency Turning Range     | ±0.5            | –    | ±2.0 | ppm    |                                    |  |
| Tuning Slope                | Positive        |      |      |        |                                    |  |

| Environmental Conditions   |   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
|--|---|---------------|--|---|----|---|----|---|-----|---|------|---|----|---|-----|
| Operating Temperature Range  | -40°C~+85°C   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| Storage Temperature Range  | -55°C~+125°C  |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| Reliability  |   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| Parameter  | Condition   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| Temperature Stress Test  | IEC60068, GJB360B   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| Mechanical Stress Test   | IEC60068, GJB360B   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| EMC Test (ESD)   | IEC61000, JESD22  |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| Solder Ability   | EIA/JESD22-B102-C   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| RoHS   | RoHS Directive 2011/65/EU Annex II Recasting 2002/95/EC   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| Outline Dimension & Pin Connections  |   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
|  <br><br><table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">PIN FUNCTIONS</th> </tr> </thead> <tbody> <tr><td>1</td><td>NC</td></tr> <tr><td>2</td><td>NC</td></tr> <tr><td>3</td><td>GND</td></tr> <tr><td>4</td><td>Fout</td></tr> <tr><td>5</td><td>NC</td></tr> <tr><td>6</td><td>VCC</td></tr> </tbody> </table>  |   | PIN FUNCTIONS |  | 1 | NC | 2 | NC | 3 | GND | 4 | Fout | 5 | NC | 6 | VCC |
| PIN FUNCTIONS  |   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| 1  | NC  |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| 2  | NC  |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| 3  | GND   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| 4  | Fout  |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| 5  | NC  |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| 6  | VCC   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| Ordering Guide   |   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| <b>BO 0907 L X X X XXX X X XX.XX</b>   |   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Product<br/>OCXO</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Outline<br/>9.0mm x 0.7mm</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Freq. Range:<br/>L: &lt;50MHz</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Output:<br/>H: CMOS<br/>S: Sine Wave</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Supply Voltage:<br/>5: 5.0 Vdc<br/>3: 3.3 Vdc</div> <div style="border: 1px solid black; padding: 5px;">Temp. Range:<br/>C: -20°C ~ +70°C<br/>G: -40°C ~ +70°C<br/>I: -40°C ~ +85°C</div> | <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Frequency:<br/>xx MHz</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Tuning:<br/>N: No Tuning<br/>E: ≥±500ppb<br/>D: ≥±1000ppb</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Phase Noise<br/>D: -135dBc/Hz@1kHz<br/>E: -140dBc/Hz@1kHz<br/>G: -145dBc/Hz@1kHz<br/>H: -150dBc/Hz@1kHz</div> <div style="border: 1px solid black; padding: 5px;">Stability<br/>107: ±100ppb<br/>508: ±50ppb<br/>208: ±20ppb</div> |               |  |   |    |   |    |   |     |   |      |   |    |   |     |
| <p><b>Example:</b> BO1220LH5C107DN10</p>   |   |               |  |   |    |   |    |   |     |   |      |   |    |   |     |