

|                      |                |           |                 |
|----------------------|----------------|-----------|-----------------|
| <b>Specification</b> | <b>AXIS207</b> | Issue: 02 | Date:2009-09-22 |
|----------------------|----------------|-----------|-----------------|

**Oscillator type : VCXO in DIL14 package**

| Parameter                                       | min.   | typ. | max. | Unit       | Condition  |
|---|--|------|------|------------|--|
| <b>Frequency range</b>                          | 6  |      | 190  | MHz        | Sine wave<br>HCMOS, PECL, LVDS                                       |
|   | 1  |      | 800  | MHz        |  |
| <b>Frequency stability</b>                      |  |      |      | ppm        |  |
| vs. temperature                                 | ± 10 ppm to ± 100 ppm                                  |      |      | ppm        | See tables 1 & 2   |
| vs. supply voltage variation                    |  |      |      | ppm        |  |
| vs. load change                                 |  |      |      | ppm        | ± 10 %   |
| long term (aging) per year                      |  |      | ± 3  | ppm        | @+40°C   |
| <b>Frequency adjustment range</b>               |  |      |      |            |  |
| Electronic Frequency Control (EFC)              | ± 50   |      |      | ppm        | Option 5 = "5"   |
|   | ± 100  |      |      | ppm        | Option 5 = "10"  |
|   | ± 150  |      |      | ppm        | Option 5 = "15"  |
| EFC voltage $V_C$                               | 0.15   | 1.65 | 3.15 | V          | Option 1 = "3"   |
|   | 0  | 2.5  | 5    | V          | Option 1 = "5"   |
| EFC slope ( $\Delta f / \Delta V_C$ )           | Positive<br>negative                                   |      |      |            | Option 6 = blank<br>Option 6 = "N" (Note 4)                          |
| EFC input impedance                             | 100  |      |      | k $\Omega$ |  |
| <b>RF output</b>                                |  |      |      |            |  |
| Signal waveform                                 | Sine wave<br>HCMOS<br>PECL<br>LVDS                     |      |      |            | Option 2 = "S"<br>Option 2 = "H"<br>Option 2 = "P"<br>Option 2 = "L" |
| Load  | 50 $\Omega$<br>15 pF<br>50 $\Omega$ + bias             |      |      |            | Option 2 = "S"<br>Option 2 = "H"<br>Option 2 = "P" or "L"            |
| Amplitude                                       | 0  |      |      | dBm        | Option 2 = "S" / 3.3 V   |
|   | +10  |      |      | dBm        | Option 2 = "S" / 5.0 V   |
|   | According to relevant Logic Standard                   |      |      |            | Option 2 = "H", "P", "L"   |
| <b>Supply voltage <math>V_S</math></b>          | 3.15   | 3.3  | 3.45 | V          | Option 1 = "3"   |
|   | 4.75   | 5.0  | 5.25 | V          | Option 1 = "5"   |
| <b>Current consumption</b> (Note 3)             | 15 ~ 70  |      |      | mA         | Option 2 = "S"   |
|   | 15 ~ 100   |      |      | mA         | Option 2 = "H"   |
|   | 25 ~ 100   |      |      | mA         | Option 2 = "P" or "L"  |
| <b>Storage temperature range</b>                | -45  |      | +90  | °C         |  |
| <b>Enclosure</b> (see drawing) <b>L x W x H</b> | 20.7 x 13,1 x 5.1 max.<br>or<br>20.7 x 13,1 x 7.5 max. |      |      | mm         | IEC60679-3 CO 02   |
| <b>Packing</b>                                  | Tape & reel  |      |      |            | IEC 60286-3  |
| <b>Construction</b>                             | RoHS/ Lead(Pb) -free                                   |      |      |            | EU directive2002/95/EC   |
| <b>Handling and Testing</b>                     | In accordance with AXAN-011                            |      |      |            | www.axtal.com  |
| <b>Processing</b>                               | In accordance with AXAN-012                            |      |      |            | www.axtal.com  |

**Notes:**

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. All combinations of options might not be available. Please consult factory
3. Depending on frequency and supply voltage
4. Negative slope only available for HCMOS Output version (Option 2 = "H")

## Frequency Stability over Temperature

Table 1

| Code4 | Stability |
|-------|-----------|
| 10    | ± 10      |
| 15    | ± 15      |
| 20    | ± 20      |
| 30    | ± 30      |
| 50    | ± 50      |
| 100   | ± 100     |

Table 2

| Lower Temperature |         | Upper Temperature |         |
|-------------------|---------|-------------------|---------|
| Code5             | Temp/°C | Code5             | Temp/°C |
| 0                 | 0       | A                 | +50     |
| 1                 | -10     | B                 | +60     |
| 2                 | -20     | C                 | +70     |
| 3                 | -30     | D                 | +75     |
| 4                 | -40     | E                 | +80     |
|                   |         | F                 | +85     |

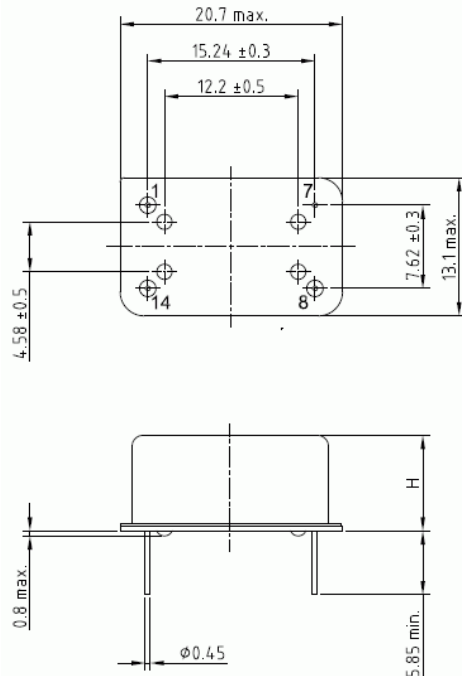
## Ordering Code:

| Part number | Option 1       | Option 2   | Option 3         | Option 4    | Option 5      | Option 6      |
|-------------|----------------|------------|------------------|-------------|---------------|---------------|
|             | Supply Voltage | Output     | Stability        | Temp. range | Pulling range | Pulling slope |
| AXIS207     | 5 or 3         | S, H, P, L | See tables 1 & 2 |             | 5, 10, 15     | _ or "N"      |

All combinations of options might not be available. Please consult factory

**Example: AXIS207-5-S-10-2C-5 – 10.000 MHz**

## Enclosure drawings



## Pin connections

### Sine wave and HCMOS

| Pin # | Symbol | Function              |
|-------|--------|-----------------------|
| 1     | VC     | Voltage Control (EFC) |
| 2     | GND    | Ground                |
| 3     | RF OUT | RF Output             |
| 4     | VS     | Supply Voltage        |

### PECL and LVDS

| Pin # | Symbol  | Function              |
|-------|---------|-----------------------|
| 1     | VC      | Voltage Control (EFC) |
| 2     | GND     | Ground                |
| 3     | RF OUT  | RF Output             |
| 4     | VS      | Supply Voltage        |
| 5     | CompOut | Complementary Output  |

