

## Typical Applications

Base Station

## Features

Surface Mount Package  
Reflow Process Compatible  
Low Phase Noise  
Build in PLL-Circuit  
stability depends on Reference Oscillator



## Reference Input

| Parameter                 | Code I    | Input Frequency          |                |
|---------------------------|-----------|--------------------------|----------------|
| Reference Frequency       | <b>10</b> | 10MHz $\pm$ 2 ppm        | Note 1         |
|                           | <b>13</b> | 13MHz $\pm$ 2 ppm        |                |
|                           | <b>26</b> | 26MHz $\pm$ 2 ppm        |                |
|                           | <b>32</b> | 32.768MHz $\pm$ 2 ppm    |                |
| Reference Level           |           | 0.5 to 1 V <sub>pp</sub> | @ 2 k $\Omega$ |
| Reference Input Impedance |           | $\geq$ 2 k $\Omega$      |                |
| Harmonics                 |           | < -30 dBc                |                |

## Output frequency:

| Parameter           | Code II   | Output Frequency | Operating temp range |
|---------------------|-----------|------------------|----------------------|
| Reference Frequency | <b>52</b> | 52.00 MHz        | -20....+75°          |
|                     | <b>61</b> | 61.44 MHz        | Note 2               |

## RF output

| Parameter          | Value           | Condition                    |
|--------------------|-----------------|------------------------------|
| Signal             | HCMOS           | @ 15pF & 10 to 90%<br>@ Vs/2 |
| Load               | 15 pF $\pm$ 5 % |                              |
| Rise and Fall time | < 5 ns          |                              |
| Duty cycle         | 40/60 %         |                              |

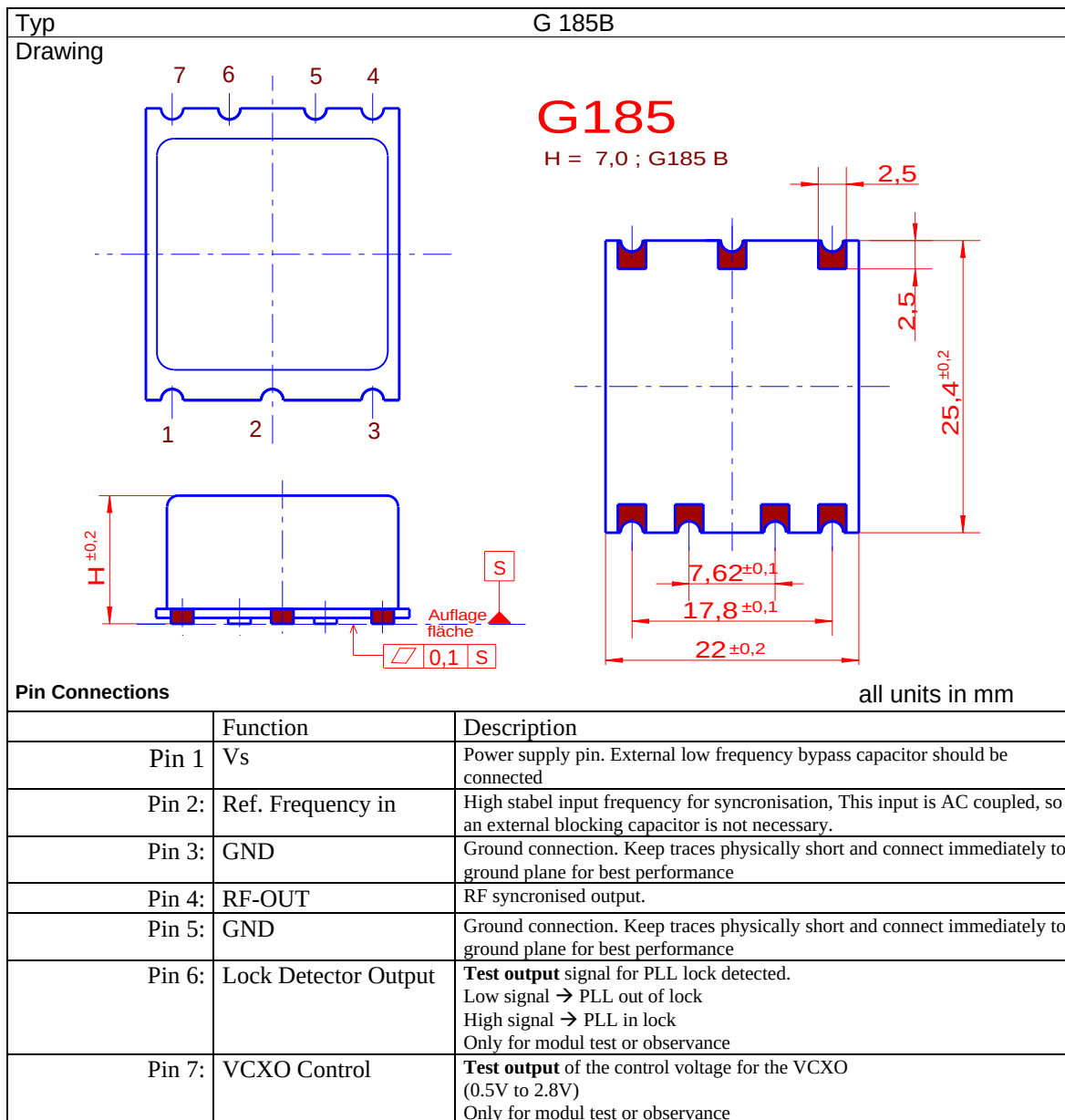
## Supply voltage

| Parameter                        | Value           | Condition |
|----------------------------------|-----------------|-----------|
| Supply voltage (V <sub>S</sub> ) | 3.3 V $\pm$ 5 % | @ 25°C    |
| Current consumption steady state | < 50 mA         |           |

## Additional parameters

| Parameter                  | Value          | Condition                      |
|----------------------------|----------------|--------------------------------|
| Phase Noise                | < -75 dBc/Hz   | 10 Hz                          |
|                            | < -100 dBc/Hz  | 100 Hz                         |
|                            | < -125 dBc/Hz  | 1 kHz                          |
|                            | < -140 dBc/Hz  | 10 kHz                         |
|                            | < -145 dBc/Hz  | 100 kHz                        |
| Note 3                     |                |                                |
| Parameter                  | Value          | Condition                      |
| Weight                     | < 9 g          |                                |
| Operable temperature range | -30 ... +85°C  | handling&processing note       |
| Storage temperature range  | -55 ... +105°C |                                |
| Processing & Packing       |                |                                |
| Lock Detector Output       | Pin 6          | High<br>Low                    |
| VCXO Control               | PIN 7          | 0.5V to 2.8V                   |
|                            |                | PLL in lock<br>PLL out of lock |

## Enclosure

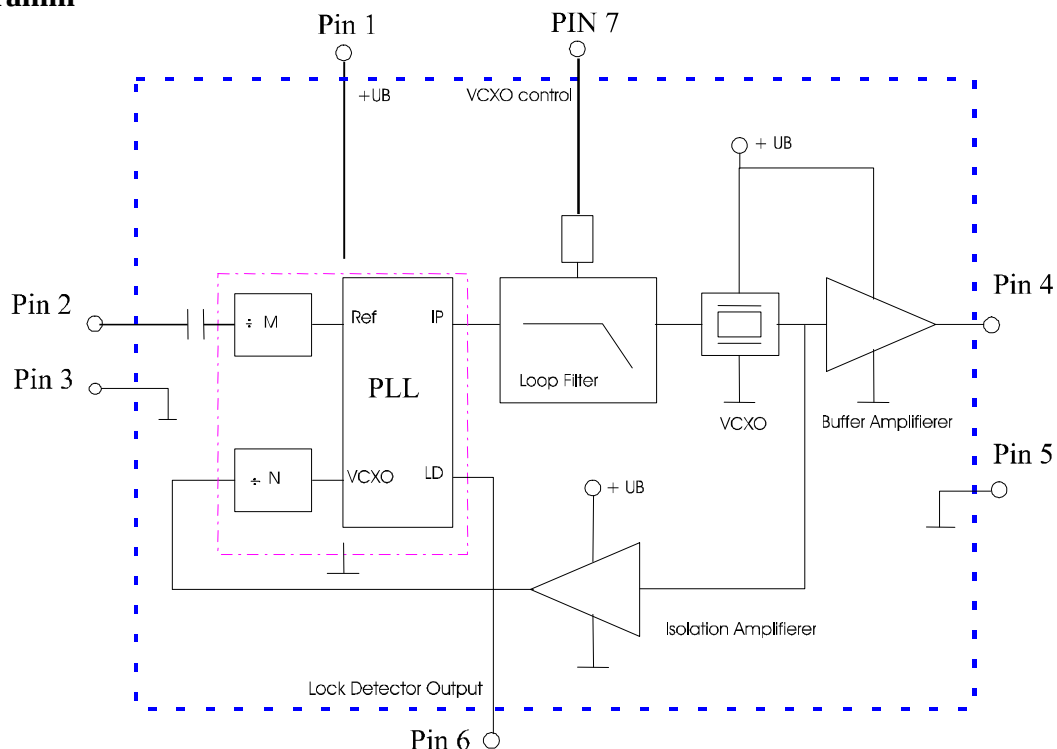


| Example:<br>Order: | Ordering Code |  | Code I<br>Input<br>Frequency | Code II<br>Output<br>Frequency |  |  |  |
|--------------------|---------------|--|------------------------------|--------------------------------|--|--|--|
|                    | Model         |  |                              |                                |  |  |  |
|                    | FCXO100       |  | .10                          | .61                            |  |  |  |
|                    | FCXO100       |  |                              |                                |  |  |  |

### Notes

- possible input frequency range 4 to 33MHz
- possible output frequency range 4 to 90 MHz
- @ 61.44MHz output frequency; Phase Noise depends on the Reference oscillator  
Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C)

## Block Diagramm



## Modul test Circuit

