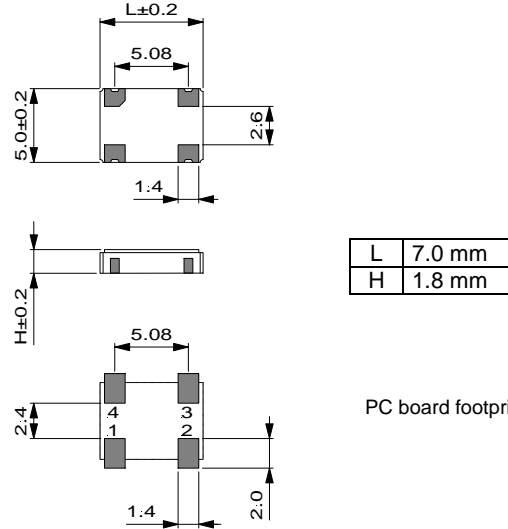


SURFACE MOUNT CLOCK OSCILLATOR DFN S11-B/ BL/BD

| KEY FEATURES |
|-----------------------------|
| 1.5 to 156 MHz |
| Standard ceramic package |
| HCMOS/TTL compatible output |
| APPLICATIONS |
| Clocking/Datacomms /PCMCIA |

| Function | DFN S11 |
|-----------|---------|
| NC/Enable | 1 |
| GND | 2 |
| Output | 3 |
| Vcc | 4 |



| TYPE | DFN S11-B | DFN S11-BL | DFN S11-BD |
|-----------------|----------------|----------------|----------------|
| Frequency Range | 1.5 to 156 MHz | 1.5 to 156 MHz | 1.5 to 156 MHz |

| ELECTRICAL SPECIFICATIONS | DFN S11-B | DFN S11-BL | DFN S11-BD |
|-------------------------------------|---|-------------------------------|------------------------------|
| supply voltage | 5 V ± 10 % | 3.3 V ± 10 % | 2.5 V ± 5 % |
| supply current (no load) | ≤ 32 MHz ≤ 15 mA ≤ 50 MHz ≤ 30 mA ≤ 156 MHz ≤ 70 mA | ≤ 10 mA ≤ 20 mA ≤ 35 mA | ≤ 8 mA ≤ 15 mA ≤ 30 mA |
| output load | ≤ 25 MHz HCMOS 50 pF or 10 TTL ≥ 25 MHz HCMOS 15 pF or 5 TTL | HCMOS 15 pF or 10 LSTTL | HCMOS 15 pF or 10 LSTTL |
| duty cycle @ 50 % level or 1.4 V | 40/60...60/40 % | 40/60...60/40 | 40/60...60/40 |
| rise/fall times | 10 to 90 % ≤ 5 ns | 10 to 90 % ≤ 5 ns | 10 to 90 % ≤ 5 ns |
| high/low levels | ≥ 0.9*Vdd/ ≤ 0.1*Vdd | ≥ 0.9*Vdd/ ≤ 0.1*Vdd | ≥ 0.9*Vdd/ ≤ 0.1*Vdd |
| Phase jitter (fj > 1 kHz) @ 100 MHz | ≤ 1 ps RMS | ≤ 1 ps RMS | ≤ 1 ps RMS |
| start up | ≤ 10 ms @ 4.75 V | ≤ 10 ms @ 3.00 V | ≤ 10 ms @ 2.1 V |

| FREQUENCY STABILITY | | stability [ppm] and temperature code | | | | | |
|---------------------|-------------------|---|------|-----------|------|-----------|-------|
| types | temperature range | stability | code | stability | code | stability | code |
| all types | 0 to 70°C | ≤ ± 25 | XB25 | ≤ ± 50 | XB50 | ≤ ± 100 | XB100 |
| | -10 to 70°C | ≤ ± 25 | XI25 | ≤ ± 50 | XI50 | ≤ ± 100 | XI100 |
| | -40 to 85°C | ≤ ± 25 | XE25 | ≤ ± 50 | XE50 | ≤ ± 100 | XE100 |
| remarks | | stability includes calibration at 25°C, temperature, ageing, Vcc and load changes 1 st yr. | | | | | |

| OPTIONS | CODE |
|---------------------------|------|
| tight symmetry | R |
| tri-state output on pin 1 | Z |

| ORDERING CODE | type + option code + frequency + stability/temperature code |
|---------------|---|
| Example | DFN S11-BLRZ 32.000 MHz XB100 |

| | |
|-----------------------|---|
| IMPORTANT NOTE | THIS PRODUCT IS DESIGNED FOR VOLUME APPLICATION ONLY |
|-----------------------|---|