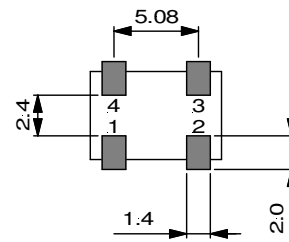
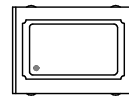
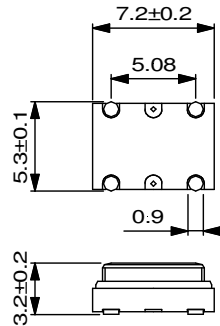


STRATUM III ULTRA MINIATURE SURFACE MOUNT TCXO

DFA S2-KHZ (5 V) & LHZ (3.3 V)

| FEATURES |
|---|
| 10 to 52 MHz |
| Stratum III compliant over -40 to 85°C up to 38.88 MHz |
| Sonet Minimum Clock compliant over -40 to 85°C up to 52 MHz |
| APPLICATIONS |
| Stratum III and SMC |



PC board footprint

| Function | DFA S2 |
|----------|--------|
| E / D | 1 |
| GND | 2 |
| Output | 3 |
| Vcc | 4 |

| TYPE | DFA S2-KHZ | DFA S2-LHZ |
|----------------------|---|------------|
| Frequency Range | 10 to 20 MHz, soon to 38.88 MHz* (BSM & ESM up to 52 MHz) | |
| Standard Frequencies | 12.8, 16.384, 19.44, 20, 34.368, 38.88 & 44.736 MHz | |

| ELECTRICAL SPECIFICATIONS | DFA S2-KHZ | DFA S2-LHZ |
|-------------------------------------|-------------------------------------|-------------------------------------|
| supply voltage | 5 V ± 5 % | 3.3 V ± 5 % |
| supply current (no load) | ≤ 20 mA | ≤ 10 mA |
| output load | HCMOS 15 pF or 2 TTL | HCMOS 15 pF or 2 TTL |
| duty cycle @ 50% level | 45/55...55/45 % | 45/55...55/45 % |
| rise/fall times (10 to 90 %) | ≤ 5 ns | ≤ 5 ns |
| high/low levels or output amplitude | ≥ 4.5 V / ≤ 0.5 V | ≥ 2.8 V / ≤ 0.3 V |
| start-up | ≤ 10 ms @ 4.75 V | ≤ 10 ms @ 3.15 V |
| tri-state control on pin 1 | high or open = enable, low = high Z | high or open = enable, low = high Z |

| FREQUENCY STABILITY | | | detailed tolerances [ppm] | | | | | | |
|---|-------------------|------------|-----------------------------|-----------|----------|-------------------|--------------------|--------------|--------------------|
| type | temperature range | model code | stability versus: | | | overall stability | Holdover stability | 24 hrs drift | calibration @ 25°C |
| | | | temperature | Vcc ± 5 % | ageing | | | | |
| Telcordia GR-1244 CORE Stratum III or ITU-T G.813 option 1 | | | | | | | | | |
| all types | 0 to 50 °C | AS3 | ≤ ± 0.28 | ≤ ± 0.1 | ≤ ± 3 | ≤ ± 4.6 | ≤ ± 0.37 | ≤ ± 0.04 | ≤ ± 0.8 |
| | 0 to 70 °C | BS3 | | | over | over | | | |
| | -20 to 70 °C | CS3 | | | 15 years | 15 years | | | |
| | -40 to 85 °C | ES3 | | | | | | | |
| Telcordia GR-253 CORE SMC or ITU-T G.813 option 2 | | | | | | | | | |
| all types | 0 to 70 °C | BSM | ≤ ± 3.5 | ≤ ± 0.3 | ≤ ± 10 | ≤ ± 20 | ≤ ± 4.6 | ≤ ± 0.5 | ≤ ± 1 |
| | -40 to 85 °C | ESM | | | over | over | | | |
| | | | | | 20 years | 20 years | | | |

| DEFINITIONS | |
|------------------------|---|
| 24 hours drift | GR-1244-CORE, GR-253-CORE or G.813 |
| 24 hours holdover mode | Over full temperature range and Vcc ± 0.5 % |

| ORDERING CODE | type + option code + frequency + model code |
|---------------|---|
| Example | DFA S2-LHZ 19.44 MHz BS3 |

*Please consult factory for availability