



THE PRECISION TIMING COMPANY

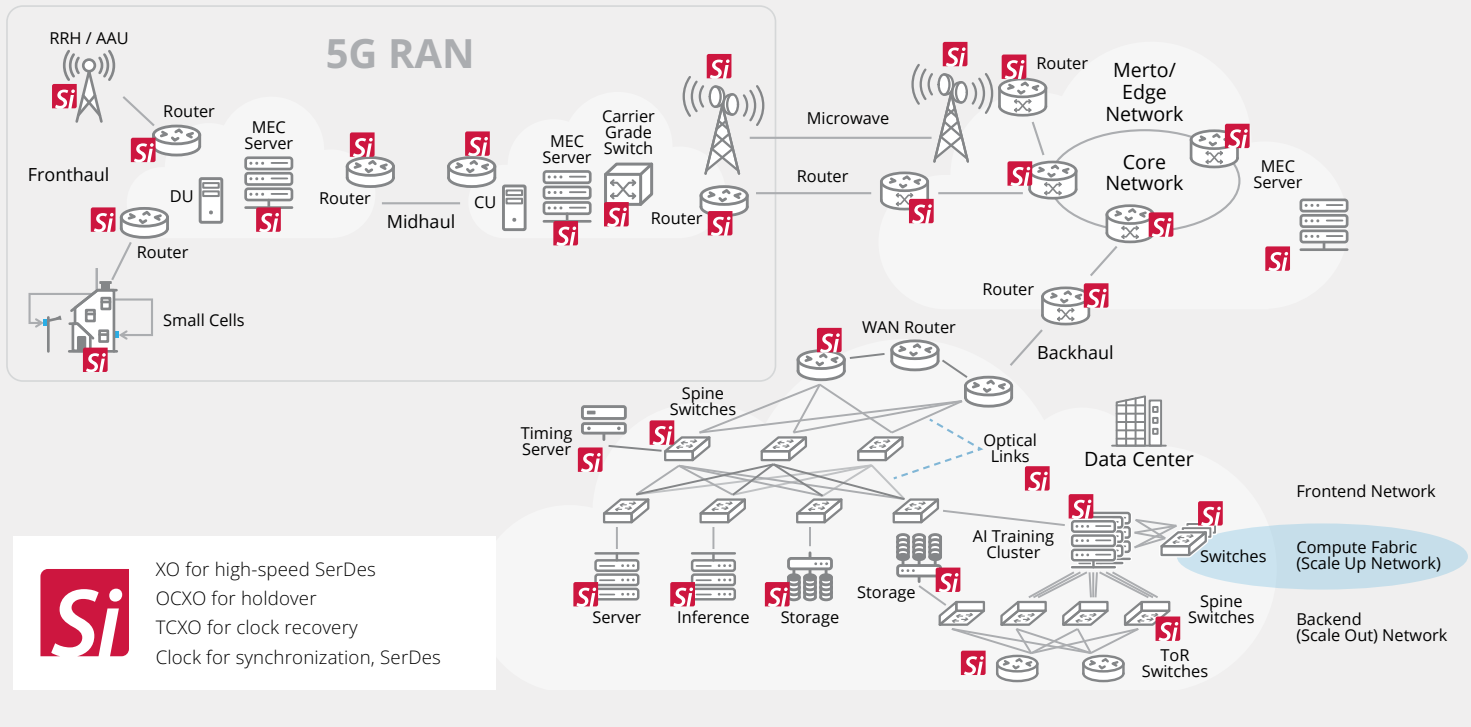


MEMS Timing Solutions for **AI, Datacenter, Communications**

- Complete timing solution for time synchronization, high speed SerDes
- Best environmental resilience for high power, thermally harsh AI applications
- Flexible, diversified supply chain for demand upsides
- Extensive timing expertise to support your design challenges

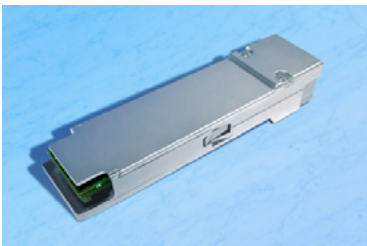
The heartbeat of
Datacenters

Full Product Portfolio for Every Network Node



Higher Performance, Environmentally Resilient, Smaller Size

- 4x more resistant to airflow and heat
- 30x better reliability
- 3x lower power consumption
- 20x better stability under vibration
- 2x more resistant to supply noise
- 4x smaller size



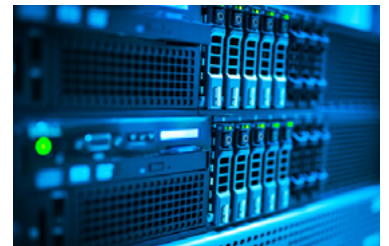
OPTICAL COMMUNICATIONS



HYPERSCALE SERVERS



DATACENTER SWITCH



EDGE SERVER, DU



CARRIER GRADE ETHERNET



5G RRU, SMALL CELL

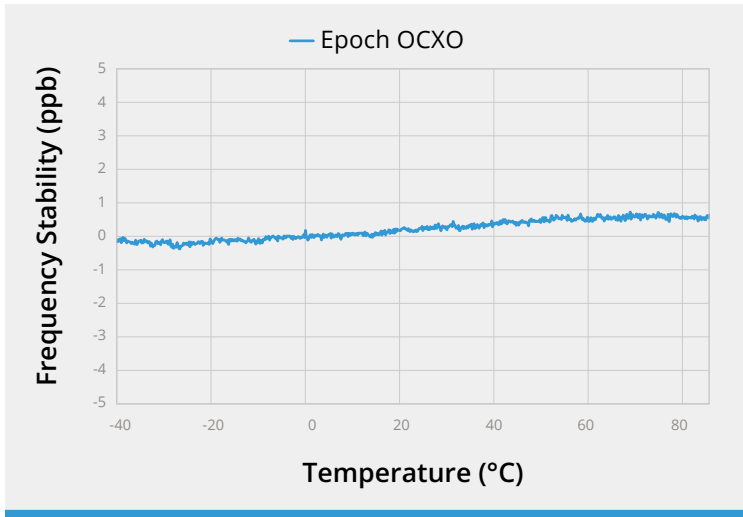


MICROWAVE BACKHAUL

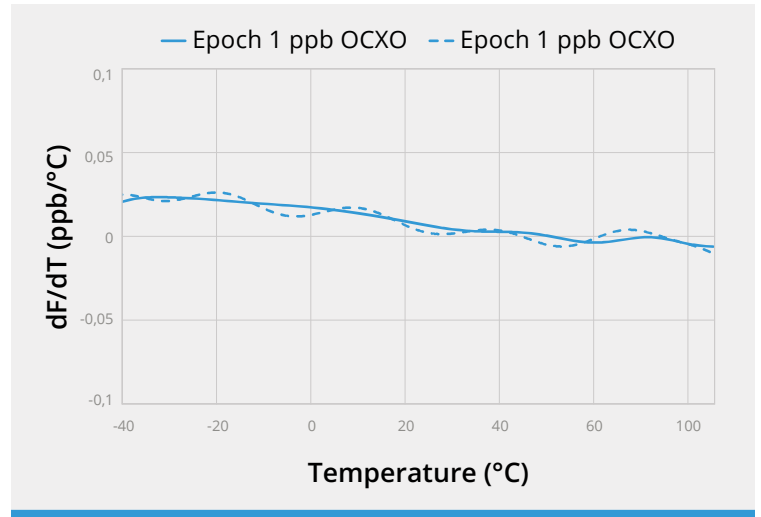


GNSS TIMING

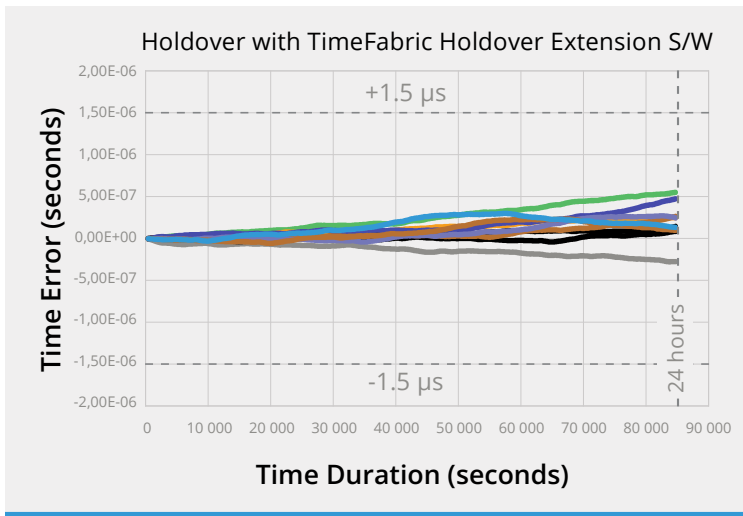
Better Stability



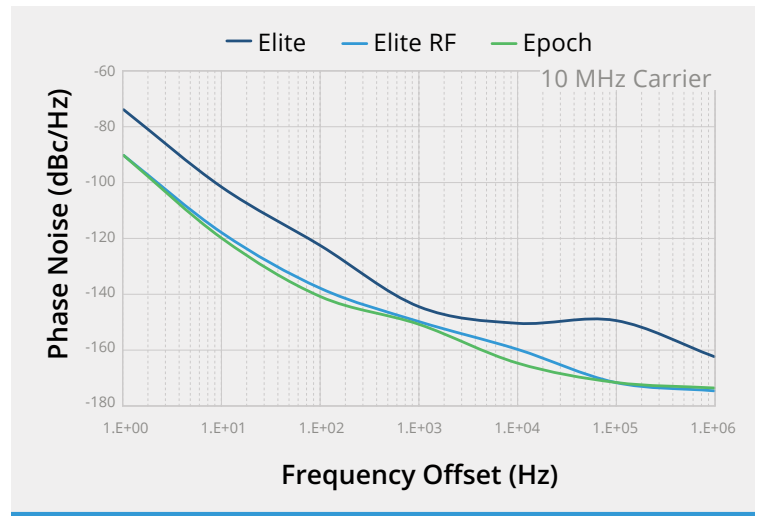
Better Frequency Slope



Longer Holdover



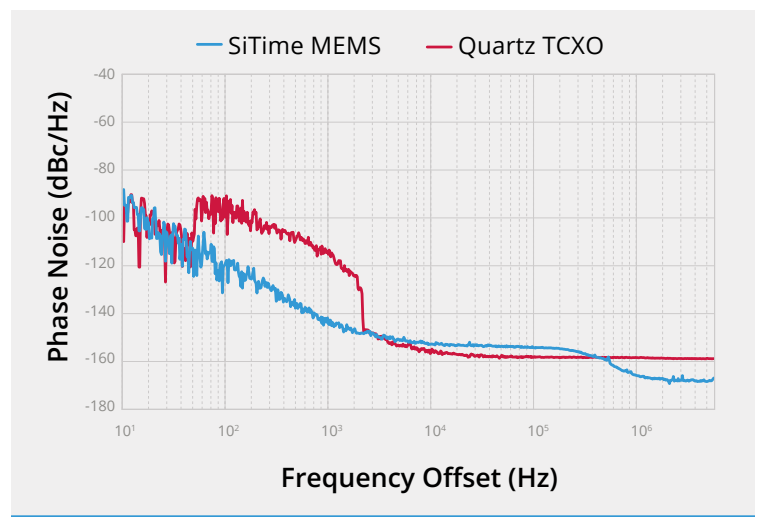
Ultra-low Phase Noise

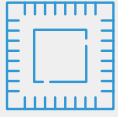


Better Allan Deviation



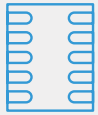
Better Vibration Resistance





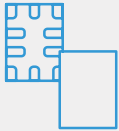
Jitter Cleaners, Network Synchronizers & Clock Generators

- Clock-SOC | Integrated MEMS, reduce BOM, simplify design
- Most resilient | Resistant to vibration, board bending, EMI, supply noise
- Best reliability | >1 billion hours MTBF, no quartz related failures
- Rich features | Up to 2.1 GHz, 4 clock domains, fast hitless switching



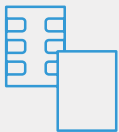
Holdover Oscillators (OCXOs)

- ± 1 ppb, up to 24 hour holdover w/ TimeFabric™ Software
- Resistant to airflow, thermal shock | ± 0.05 ppb/°C
- Resistant to board noise | On-chip LDO, I²C frequency tuning
- Smallest size | 9 x 7 mm²



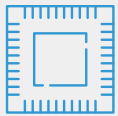
Ultra-stable Super-TCXOs

- LVCMOS / Differential outputs: 1 to 250 MHz, 80 fs jitter
- Resistant to airflow, thermal shock | ± 1 ppb/°C
- Most stable at high temp | ± 100 ppb up to 105°C
- No activity dips or micro-jumps



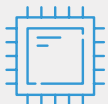
Ultra-low Jitter Oscillators

- Ultra-low phase noise | 26 fs jitter (4 MHz HPF)
- Best PSRN | 0.1 ps/mV, eliminates external LDOs
- Smallest size | Differential or LVCMOS in 2.0 x 1.6 mm²
- Most flexible | 1 to 725 MHz, up to 105°C, ± 10 to ± 50 ppm



Fan-out and PCIe Buffers

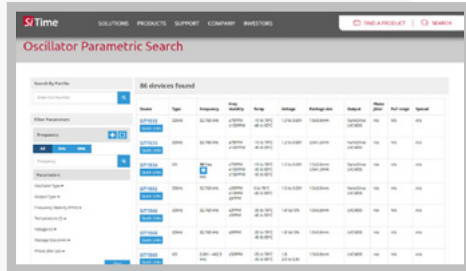
- Flexible | Support all signaling types – LVCMOS, LVPECL, LVDS, HCLS, LPHCSL
- Best skew control | 0.2 ns variable delay
- Future proof | PCIe gen 1 to 7
- Standard footprint | Drop-in replacement of standard buffers



TimeFabric™ Software

- IEEE1588 software | Proprietary servo for partial timing support (PTS)
- Holdover extension | Up to 24 hour holdover via additional software compensation
- Easy integration | Standard Linux driver for device control via I²C

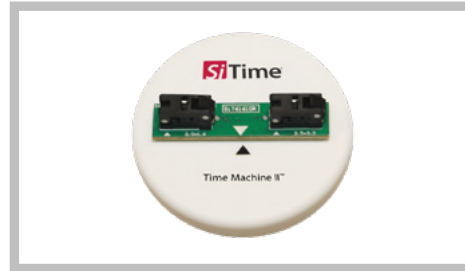
Find the Right Part



PARAMETRIC SEARCH

Find products fast based on your search criteria

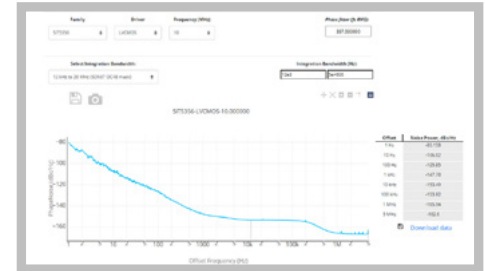
Program & Test the Part



TIME MACHINE II PROGRAMMER

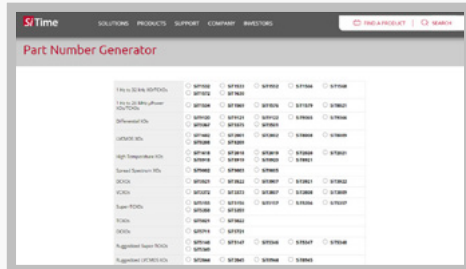
Instantly program oscillator frequency, voltage, stability & more

Get Performance Data



JITTER CALCULATOR & PLOTS

Convert phase noise to phase jitter (rms) and find phase noise plots



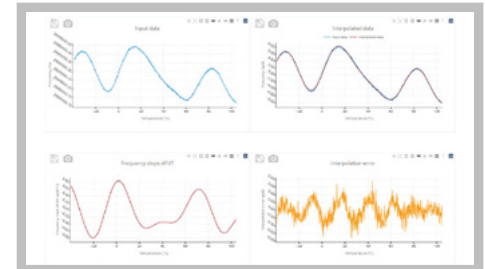
PART NUMBER GENERATOR

Configure your oscillator to your exact requirements



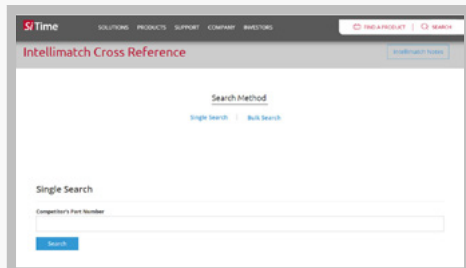
EVALUATION BOARDS

Find the right evaluation board to reduce your design time



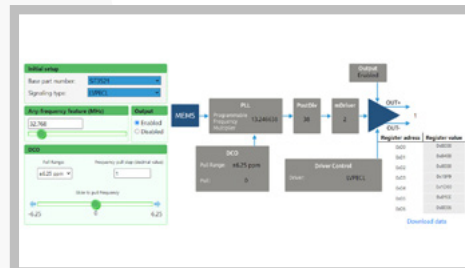
FREQUENCY SLOPE DF/DT CALCULATOR

Instantly calculate frequency slope by inputting your data



CROSS REFERENCE

Find SiTime alternatives with SiTime's Intellimatch™



TIME MASTER DEVICE CONFIGURATION SOFTWARE

Easily evaluate SiTime oscillators configured via I²C/SPI interfaces



TIME ERROR SIMULATOR SOFTWARE

Quickly simulate and analyze the impact of the local oscillator



Learn more about timing solutions from SiTime



Buy at www.SiTimeDirect.com



Contact us salesupport@sitime.com

Subscribe