






The Connor-Winfield Corporation – Precision OCXOs and TCXOs for Time and Frequency Sync Standards

IEEE-1588 TOP Precision Timing - Precision timing is more critical for the development of communication networks based on IEEE-1588 timing over packet (TOP) and 100/ 400 Gigabit Ethernet synchronization technologies. Connor Winfield developed its line of OCXOs and TCXOs to specifically support the emerging IEEE 1588 V2 standards as outlined by ITU-G.8262 Option 1 and Option 2 and ITU-G.8263, ITU-G.8272 and ITU-G.8273 as well as the traditional Sonet, SDN and OTN standards G.813 and GR-1244 Stratum 3 and Stratum 3E. Many frequency options are available from stock to support a variety of network synchronization designs. Follow the links below for stock availability.



Oscillator Class	A1	A2	C2	D	E
Superset Grouping			Stratum 3, SMC & Option 2 (PDH, SONET, Sync E)	Option 1 (SDH, Sync E)	Line Card
Telecordia Clock	N/A	Stratum 3E	Stratum 3 for SONET	N/A	Stratum 4
	Type 1	Type III	G.813 Option 2 G.8262 Option 2	G.813 Option 1 G.8262 Option 1	
PLL Implied Bandwidth	3mHz	1mHz	0.1Hz	1Hz	14Hz
Free-run Accuracy (ppm)	N/A	±4.6	±4.6	±4.6	±32
Frequency Stability (pk-pk) at Variable Temperature (ppb)	2	10	280	2000	N/A
Frequency Stability at Constant Temperature (ppb)	±0.2	±1	±40	±10	N/A
Frequencies Available	10 MHz	10.0; 12.8; 20.0; 24.576 MHz	10.0; 12.8; 19.2; 20.0; 24.576; 40.0 MHz	10.0; 12.8; 19.2; 20.0; 24.576; 40.0; 50.0 MHz	Various
Connor-Winfield Products Data Sheet Links	OX200SC-10M	OH100-600503CF OH300-600503CF	M602 T602	M622 T622 DOC102F	CWX Series
Product Photos					
DigiKey Buy NOW Links	 OX200SC Link Coming	OH100 Link OH300 Link	M602 Link Coming Soon T602 Link	M622 Link Coming Soon T622 Link	CWX Series Link

Oscillator Class	A2	B	C1
Superset Grouping	Unaware Networks	Partially Aware Networks T-BC-P, T-TSC-P, APTSC or Unaware Networks OC	Fully Aware Networks T-BC, T-TSC
ITU-T Clock	G.8263	G.8273.2, G8273.4	G.8273.2
Non-Standardized Network Profiles	G.8261 Appendix VI	G.8261 Appendix VI	
PLL Implied Bandwidth	1mHz	3mHz	0.05Hz
Free-run Accuracy (ppm)	±4.6	±4.6	±4.6
Frequency Stability (pk-pk) at Variable Temperature (ppb)	5 (reduced temp range) 10 (full temp range)	50	TBD (200)
Frequency Stability at Constant Temperature (ppb)	±1	±2	±10
Wander Generation (MTIE, TDEV)	Refer to Stratum 3E Standard	Use Stratum 3E Standard but at PLL Implied Bandwidth	Refer to Standard
Connor-Winfield Products Data Sheet Links	OH200 OH100 OH300	OH4610LF DOCSC-022F	DOC102F T100F M100F
Frequencies Available	10.0; 12.8; 20.0 MHz	10.0; 12.8; 20.0 24.576; 25.0; 40.0 MHz	10.0; 12.8; 19.2; 20.0; 24.576; 40.0 MHz
Product Photos			
DigiKey Buy NOW Links	 OH200 Link OH100 Link OH300 Link	OH4610LF Link Coming Soon DOCSC-022F Link Coming Soon	DOC102F Link T100F Link M100F Link