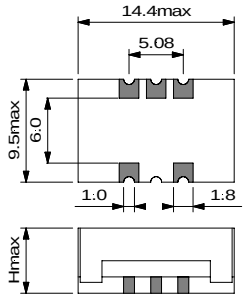
fordahl
FREQUENCY CONTROL PRODUCTS

STRATUM III MINIATURE OCXO

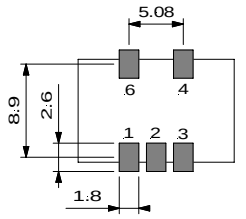
TYPES DFO S1-KH (5 V) & DFO S1-LH (3.3 V)

FEATURES
10 to 20 MHz
Stratum III compliant over -20 to 70°C
APPLICATIONS
Stratum III



H = 8.50 mm

Function	DFO S1
NC	1
E / D	2
GND	3
Output	4
NC	5
Vcc	6



PC board footprint

TYPE	DFO S1-KH	DFO S1-LH
Frequency Range	10 to 20 MHz	
Standard frequencies	12.8, 16.384, 19.44 & 20 MHz	

ELECTRICAL SPECIFICATIONS			
supply voltage		5 V ± 5 %	3.3 V ± 5 %
supply current (no load) @ 25°C		≤ 150 mA	≤ 200 mA
supply current during warm up		≤ 350 mA	≤ 500 mA
output load		HCMOS 15 pF or 2 TTL	HCMOS 15 pF or 2 TTL
duty cycle @ 2.5 V		40/60...60/40 %	40/60...60/40 %
rise & fall times (10 to 90%)		≤ 10 ns	≤ 10 ns
high/low levels		≥ 4.5 V/≤ 0.5 V	≥ 2.7 V/≤ 0.5 V
SSB phase noise (1 Hz BW)	@ 10 Hz	-95 dBc/Hz	-95 dBc/Hz
(typical @ 12.8MHz)	@ 100 Hz	-120 dBc/Hz	-120 dBc/Hz
	@ 1 kHz	-140 dBc/Hz	-140 dBc/Hz
	@ 10 kHz	-145 dBc/Hz	-145 dBc/Hz
	@100kHz	-150 dBc/Hz	-150 dBc/Hz
warm up time to reach ≤ 1 x 10E-7		≤ 2 min @ 25°C ref @ 1 hr frequency	≤ 2 min @ 25°C ref @ 1 hr frequency

FREQUENCY STABILITY			detailed tolerances after 30 days of operation						
type	temperature range	model code	stability versus: temperature	Vcc ± 5 %	ageing	overall stability	Holdover stability	24 hrs drift	calibration @ 25°C
			Telcordia GR-1244 CORE Stratum III/IIIE or ITU-T G.813 option 1						
all types	0 to 70°C	BS3	≤ ± 0.28 ppm	≤ ± 1 x 10E-8	≤ ± 3.5 ppm/ 15 years	≤ ± 4.6 ppm/ 15 years	≤ ± 0.37 ppm	≤ ± 4 x 10E-8	≤ ± 5 x 10E-7
	-20 to 70°C	CS3							
DEFINITIONS									
24 hours drift			GR-1244-CORE						
24 hours holdover mode			Over full temperature range and Vcc ± 1 %						

ORDERING CODE	type + option code + frequency + model code + voltage value
Example	DFO S1-LH 16.384 MHz CS3