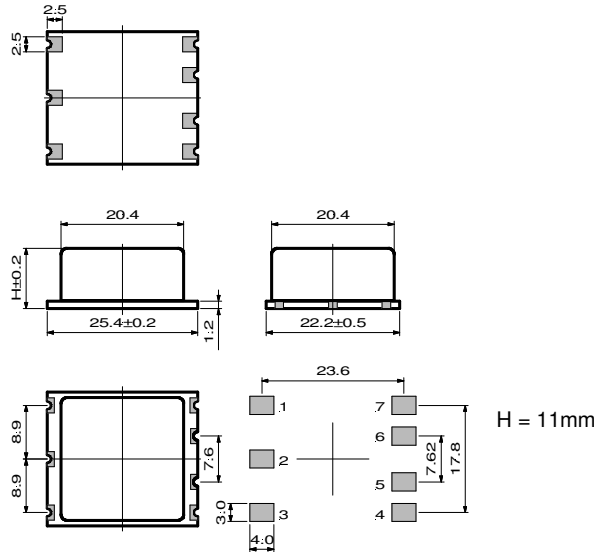


## SURFACE MOUNT STRATUM III & IIIE OCXO TYPES DFO S4-KH (5 V) & DFO S4-LH (3.3 V)

FEATURES
10 to 20 MHz
Stratum IIIE compliant over 0 to 70 °C
Stratum III compliant over -40 to 85 °C
APPLICATIONS
Stratum III & Stratum IIIE



Function	DFO S4
Vcc	1
Output	2
GND	3
N.C.	4
N.C.	5

TYPE	DFO S4-KH	DFO S4-LH
Frequency Range	10 to 20 MHz	
Standard frequencies	12.8, 16.384, 19.44 & 20 MHz	

ELECTRICAL SPECIFICATIONS	DFO S4-KH	DFO S4-LH
supply voltage	5 V ± 5 %	3.3 V ± 5 %
supply current (no load) @ 25 °C	≤ 250 mA	≤ 300 mA
supply current during warm up	≤ 500 mA	≤ 800 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) @ 1 Hz	-95 dBc/Hz	-95 dBc/Hz
(typical @ 12.8MHz) @ 10 Hz	-120 dBc/Hz	-120 dBc/Hz
@ 100 Hz	-140 dBc/Hz	-140 dBc/Hz
@ 1 kHz	-145 dBc/Hz	-145 dBc/Hz
warm up time to reach ≤ 1 x 10E-7	≤ 5 min @ 25 °C ref @ 1 hr frequency	≤ 5 min @ 25 °C ref @ 1 hr frequency

FREQUENCY STABILITY			detailed tolerances after 30 days of operation						
type	temperature range	model code	stability versus:			overall stability	Holdover stability	24 hrs drift	calibration @ 25 °C
			temperature	Vcc ± 5 %	ageing				
<b>Telcordia GR-1244 CORE Stratum III/IIIE or ITU-T G.813 option 1</b>									
all types	-20 to 70 °C	CS3	≤ ± 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
	-40 to 85 °C	ES3		≤ ± 2.5 x 10E-9	≤ ± 3.5 ppm/15 years	≤ ± 4.6 ppm/15 years			
	0 to 70 °C	BS3E	≤ ± 1 x 10E-8	≤ ± 2.5 x 10E-9	≤ ± 3.5 ppm/15 years	≤ ± 4.6 ppm/15 years	≤ ± 12 x 10E-9	≤ ± 1 x 10E-9	≤ ± 5 x 10E-7

DEFINITIONS	
24 hours drift	GR-1244-CORE
24 hours holdover mode	Over full temperature range and Vcc ± 1 % (CS3 & ES3), and Vcc ± 0.25 % (BS3E)

ORDERING CODE	type + option code + frequency + model code
Example	DFO S4-LH 20 MHz BS3E