

STRATUM III MINIATURE SURFACE MOUNT TCXO

DFA S1-KHZ (5 V) & DFA S1-LHZ (3.3 V)

KEY FEATURES

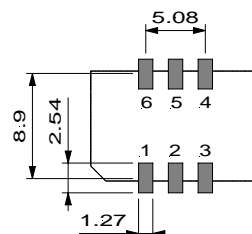
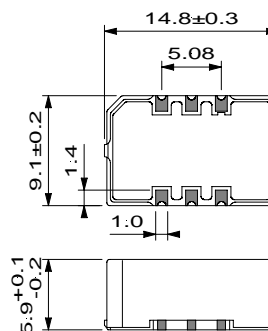
5 to 52 MHz

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 & SMC



PC board footprint

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

TYPE	DFA S1-KHZ	DFA S1-LHZ
Frequency Range	5 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 S1-KHZ	DFA S1-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 2	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 over 15 years	≤ ± 4.6 over 15 years	≤ ± 0.37	≤ ± 0.04	≤ ± 0.8
	0 to 70°C	AS1001							
	-20 to 70°C	CS3							
	-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 over 20 years	≤ ± 20 over 20 years	≤ ± 4.6	≤ ± 0.5	≤ ± 1
	-40 to 85°C	ESM							
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 S1-LHZ 19.44 MHz AS3