TFS1 SERIES

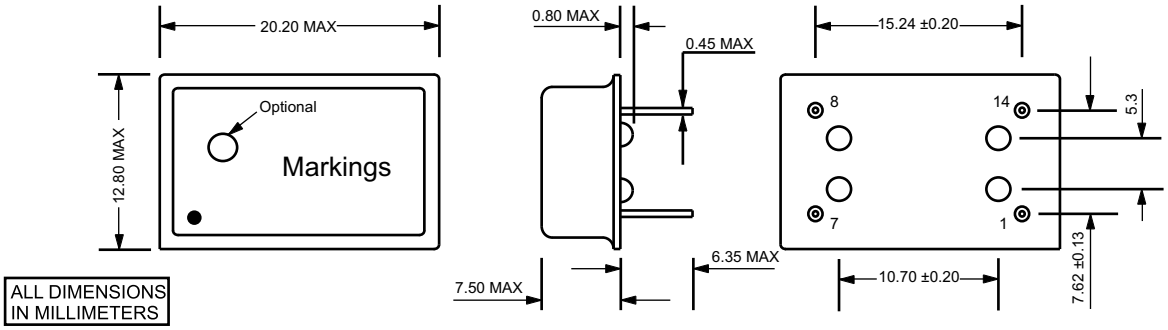
- 5.0 or 3.3 Volt TXCO
- HCMOS, Sinewave, Clipped Sine
- 1.000MHz to 160.000MHz
- Stability Down to ±1ppm

ASCEND FREQUENCY DEVICES

Electrical Specifications

Frequency Range:	H Option = HCMOS Output	1.000MHz to 160.000MHz
	C Option = Clipped Sine Output	8.000MHz to 160.000MHz
	Z Option = Sinewave Output	8.600MHz to 160.000MHz
Frequency Tolerance:	at 25°C ±2°C	±1.0ppm (without trimmer only)
Frequency Stability:	-	Select from part numbering guide below
	vs. Aging	±1ppm per year maximum
	vs. Voltage (with a 5% change)	±0.2ppm
	vs. Load (with a 10% change)	±0.2ppm
Output Load;	H Option or C Option	10K Ohms // 15pF
	Z Option	50 Ohms
Supply Current:	H Option	35mA Maximum
	C Option	3mA Maximum
	Z Option	5mA Maximum
Output:	H Option	Logic "1" Level = 0.9Vdd Minimum; Logic "0" Level = 0.1Vdd Maximum
	C Option	1.0V p-p Minimum
	Z Option	7dBm Minimum
Operating Temperature Range:	-	0°C to +50°C to -40°C to +85°C
Storage Temperature Range:	-	-40°C to +85°C
Supply Voltage (Vdd):	-	3.3Vdc ±5% or 5.0Vdc ±5%
Internal Trim (Top of Can)	-	±3ppm Minimum
Control Voltage:	Vdd = 3.3V	1.65Vdc ±1.5Vdc (Positive Slope)
	Vdd = 5.0V	2.5Vdc ±2.0Vdc (Positive Slope)
Symmetry:	at 50% of waveform with HCMOS Load	40% / 60%
Pad 1 Connection:	-	No Connect (Blank Option); ±10ppm Minimum (V Option)

Mechanical Dimensions



ALL DIMENSIONS IN MILLIMETERS

Pin	FUNCTION
1	N/C or Control Voltage
7	Case Ground
8	Output
14	Supply Voltage

MARKING
Line 1: Ascend
Line 2: XX.XXXR
("R" Denotes RoHS Compliance)
Line 3: XXXXXX (Date Code)

Part Numbering Guide

TFS1 G 3 H 15 F V - 160.000M-P

Series
14 Pin Dip TCXO

Package Option
G = G Series (with trimmer)
F = F Series (without trimmer)

Supply Voltage
3 = 3.3V
5 = 5.0V

Output Type
H = HCMOS, **C** = Clipped Sinewave, or **Z** = Sinewave

Frequency Stability*
05 = ±0.5ppm
10 = ±1.0ppm
15 = ±1.5ppm
20 = ±2.0ppm
25 = ±2.5ppm
30 = ±3.0ppm
35 = ±3.5ppm
50 = ±5.0ppm

RoHS Designator
Blank = RoHS Compliant
P = Not RoHS Compliant

Frequency

Pin 1 Connection
Blank = No Connect
V = Voltage Control

Operating Temperature Range
A = 0°C to +50°C
B = -10°C to +60°C
C = -20°C to +70°C
D = -30°C to +70°C
E = -30°C to +80°C
F = -40°C to +85°C
G = 0°C to +70°C

* Check with factory for additional Stability vs. Temperature options

Cut Leads and Gull-Wing are available for this package.
See VA1 and VA3 for specs.

(Rev. C / 09-13-07)

Specifications subject to change without notice

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