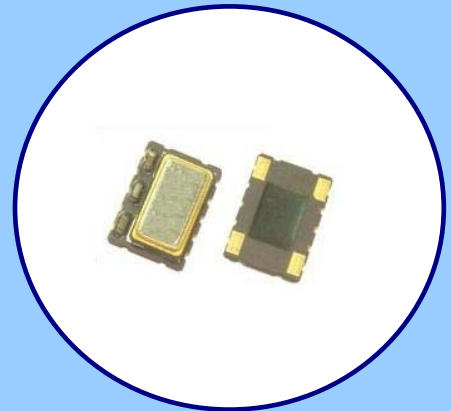


**FEATURES**

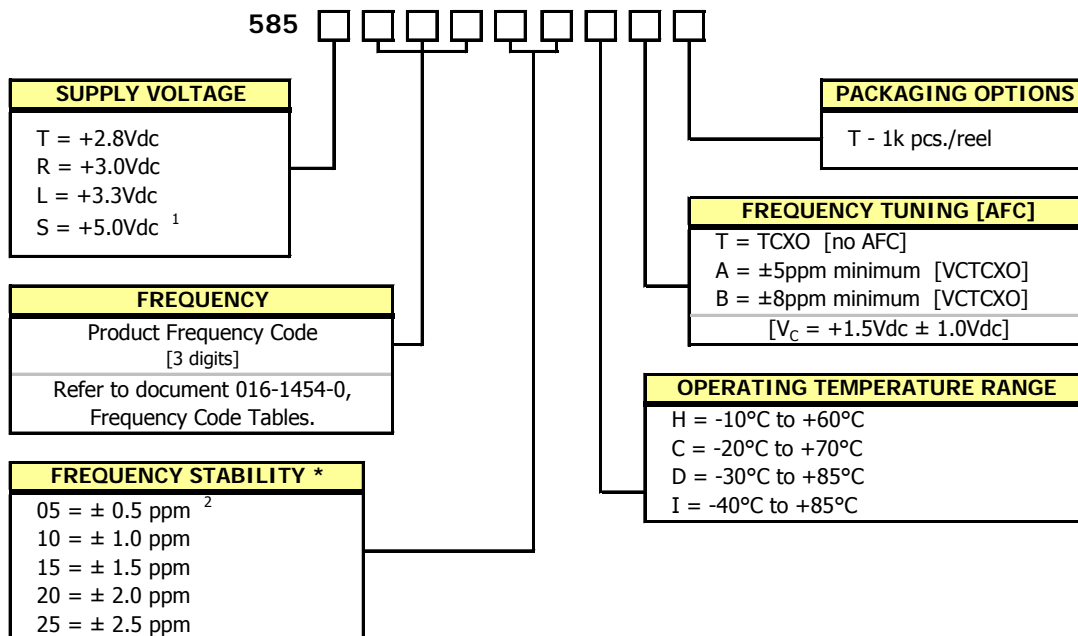
- **Clipped Sine Wave Output**
- **Optional Voltage Control for Frequency Tuning [VCTCXO]**
- 7.0mm x 5.0mm Surface Mount Package
- Frequency Range 5 – 52 MHz
- Fundamental Crystal Design
- Frequency Stability, Options from,  $\pm 0.5\text{ppm} \sim \pm 2.5\text{ppm}$
- Operating Voltage, +2.8Vdc  $\sim$  +5.0Vdc
- Operating Temperature to -40°C to +85°C
- Tape & Reel Packaging Standard, EIA-418
- **RoHS/Green Compliant [6/6]**



**APPLICATIONS**

The Model 585 is a quartz based analog TCXO with a Clipped Sine output and optional frequency tuning. M585 is suitable for applications such as wireless communications, base stations, small cells, broadband access and test equipment.

**ORDERING INFORMATION**



\* Frequency vs. Temperature Only

1] Limited availability. Consult factory.

2] Only available with temperature range codes "H" and "C".

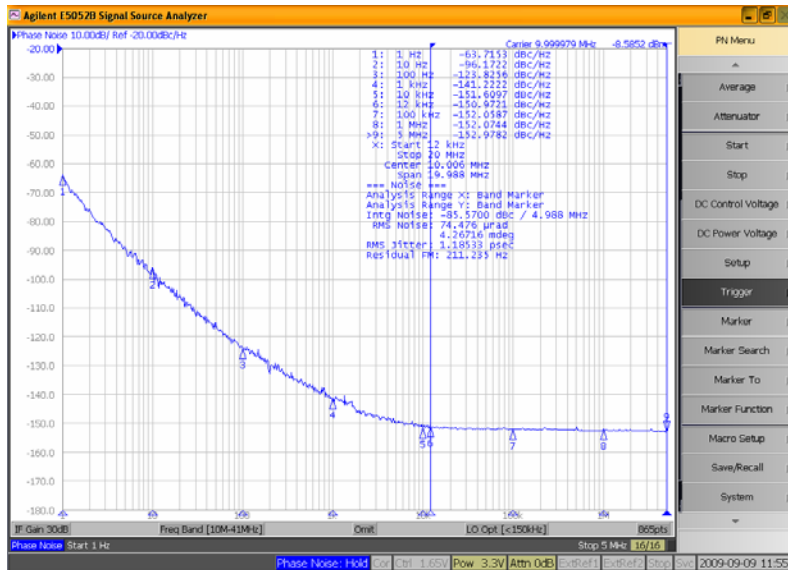
**Not all performance combinations and frequencies may be available.  
Contact your local CTS Representative or CTS Customer Service for availability.**

**ELECTRICAL CHARACTERISTICS**

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Maximum Supply Voltage	V <sub>CC</sub>	-	-0.5	-	6.0	V
Maximum Control Voltage	V <sub>C</sub>	-	-0.5	-	V <sub>CC</sub>	V
Storage Temperature	T <sub>STG</sub>	-	-55	-	+125	°C
Frequency Range	f <sub>0</sub>	Std frequencies listed in Ordering Information	5	-	52	MHz
Frequency Stability	Δf/f <sub>0</sub>	Frequency vs. Temperature Only	0.5,1.0, 1.5,2.0,2.5			± ppm
Frequency Stability vs. Initial Calibration	-	@ +25°C	-	-	1.0	± ppm
Frequency Stability vs. Reflow Shift	-	1 hour after reflow	-	-	2.0	
Frequency Stability vs. Supply Voltage	-	±5% change	-	-	0.1	
Frequency Stability vs. Load	-	±10% change	-	-	0.2	
Frequency Stability vs. Aging	-	1st year	-	-	1.0	
Frequency Stability vs. Aging	-	10 year [Except stability code 05]	-	-	8.0	
Operating Temperature	T <sub>A</sub>	-	-10	+25	+60	°C
Order Code 'H'	-	-	-20	-	+70	
Order Code 'C'	-	-	-30	-	+85	
Order Code 'I'	-	-	-40	-	+85	
Supply Voltage	V <sub>CC</sub>	±5%	2.66	2.8	2.94	V
Order Code 'T'	-	-	2.85	3.0	3.15	
Order Code 'R'	-	-	3.14	3.3	3.47	
Order Code 'L'	-	-	4.75	5.0	5.25	
Order Code 'S'	-	-	-	-	-	
Supply Current	I <sub>CC</sub>	-	-	-	3.5	mA
Control Voltage	V <sub>C</sub>	-	0.5	1.5	2.5	V
Frequency Tuning [VCTCXO Only]	-	V <sub>C</sub> = 1.5V ±1.0V	A = 5 minimum B = 8 minimum			± ppm
V <sub>C</sub> Input Impedance	Z <sub>V<sub>C</sub></sub>	-	100	-	-	kOhm
Output Waveform	-	AC coupled Clipped Sinewave	-	-	-	-
Output Voltage Levels	V <sub>O</sub>	-	0.8	-	-	V <sub>p-p</sub>
Output Load	R <sub>L</sub> // C <sub>L</sub>	-	10 kOhm // 10 pF			-
Start Up Time	T <sub>S</sub>	-	-	-	2	ms
Phase Noise <sup>1</sup>	-	-	-	-	-	dBc/Hz

Notes:

1. Phase Noise performance may vary based on output frequency. See example plot at 10 MHz below.



**TEST CIRCUIT – Clipped Sine Load**

\* DC-Cut Capacitor: Add 1000pF capacitor between the TCXO output and input of load.

