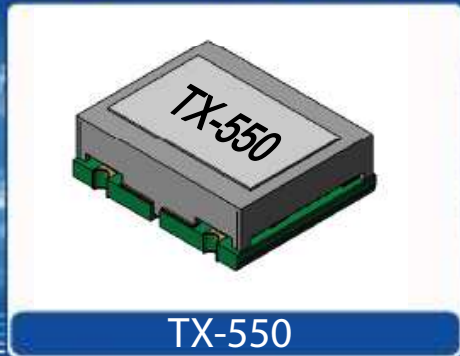



Helping Customers Innovate, Improve & Grow



Description

The TX-550 Series TCXO utilizes innovative manufacturing and the latest technology to provide extremely low phase noise and g-sensitivity.

Features

- Low Phase Noise, Low G-Sensitivity
- Stratum 3 Compliant
- Fully RoHS Compliant 
- Surface Mount, Low Profile
- High Shock Survival up to 20K g
- Frequency Range: 8 MHz to 50 MHz
- Previous Model: C2290

Applications

- Military Portable Radios
- GPS Telemetry
- Test and Measurement Equipment

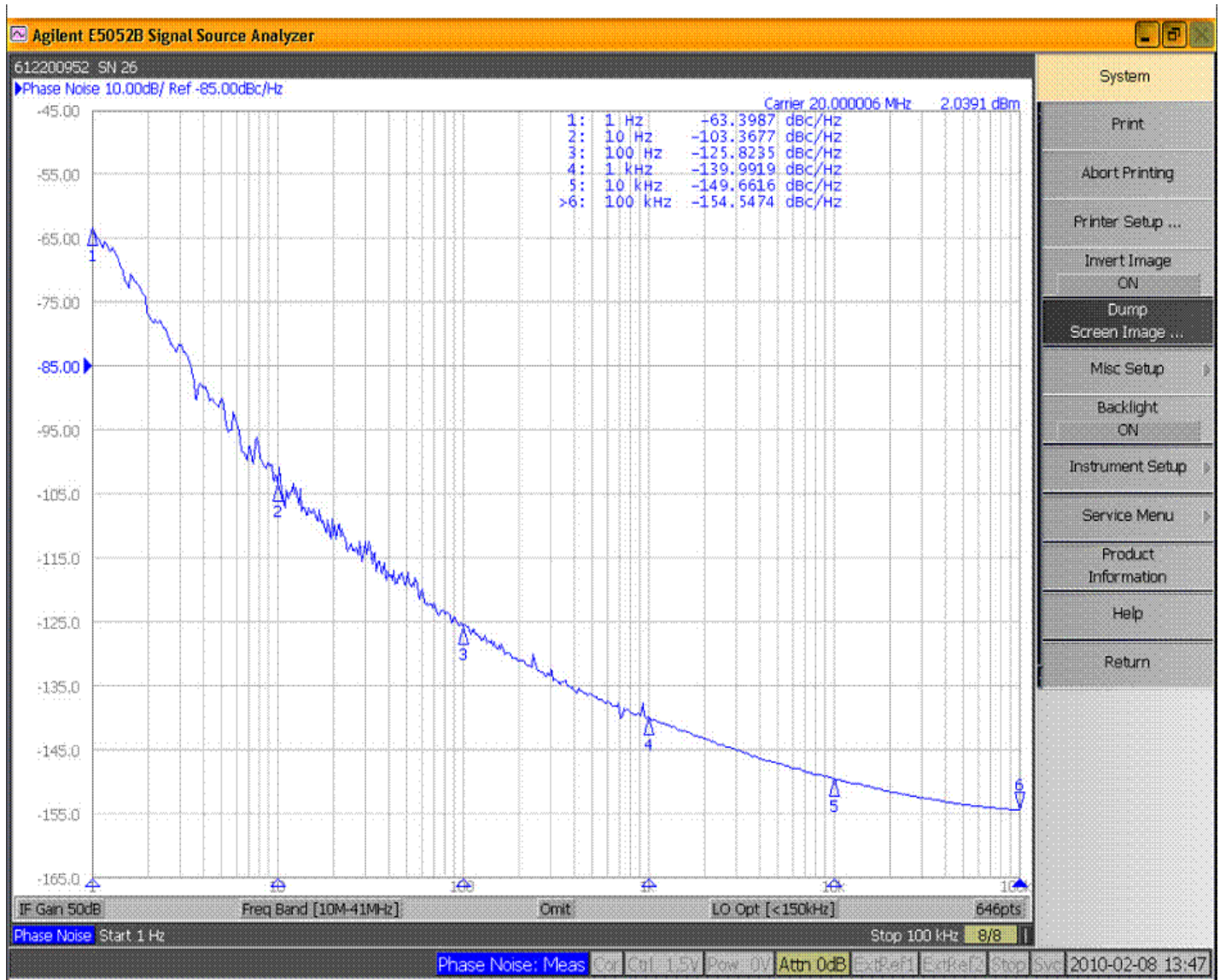
Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
Frequency Stabilities¹					
vs. operating temperature range (referenced to +25°C)	-2.0		+2.0	ppm	-40... +85°C
	-1.0		+1.0	ppm	-40... +85°C
	-0.5		+0.5	ppm	-20... +70°C
	-0.28		+0.28	ppm	0... +50°C
Total stability	-4.6		+4.6	ppm	Stratum 3, GR-1244-CORE, for all causes and 15 yrs aging
	-0.28		+0.28	ppm	0...+50°C
	-0.8		+0.8	ppm	-20...+70°C
Initial Tolerance vs. supply voltage change vs. load change vs. aging / 1 year vs. aging	-1.0		+1.0	ppm	at time of shipment, nominal EFC Vs ± 5% Load ± 10% @ +40°C for 15 years
	-0.1		+0.1	ppm	
	-0.2		+0.2	ppm	
		±1		ppm	
			4.0	ppm	
Supply Voltage (Vs)					
Supply voltage	4.75	5.0	5.25	VDC	
Supply voltage	3.135	3.3	3.465	VDC	

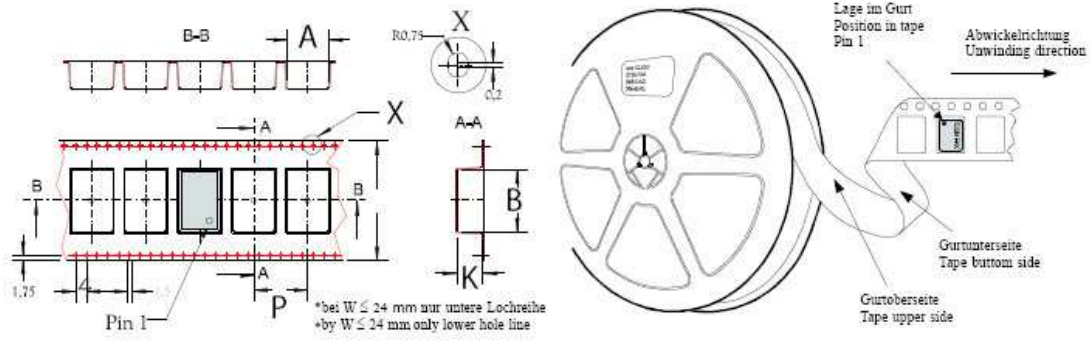
Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
Supply voltage	2.7	2.8	2.9	VDC	
Current consumption			35	mA	Depends on frequency
RF Output					
Signal	HCMOS				
Load		15		pF	
Signal Level (Vol)			0.1*Vs	V	
Signal Level (Voh)	0.9*Vs			V	
Rise/Fall Time			5	ns	@ nominal Load and 10% to 90% of waveform
Duty cycle	40	50	60	%	@ nominal Load and @ 50% level
Signal	Clipped Sinewave				
Level		1		Vpp	with Nominal Load
Load R		10		kohm	
Load C		10		pF	
Frequency Tuning (EFC)					
Tuning Range	Fixed; No adjust				
Tuning Range	±5.0			ppm	
Tuning Slope	Positive				
Control Voltage Range	0.0		Vs	VDC	
Freq. control input impedance	10			kohm	
Additional Parameters¹					
Phase Noise ³ (@ 20 MHz - no vibration)		-90 -120 -140 -145 -150		dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	10 Hz 100 Hz 1 kHz 10 kHz 100 kHz
G-Sensitivity		0.2		ppb/g	per axis
Shock					MIL-STD-202G; Method 213B; Test Condition G
Vibration Random					MIL-STD-202G; Method 214A; Test Condition I-F
Vibration Sine					MIL-STD-202G, METHOD 204D, Test Condition A
Thermal Cycling					MIL-STD-202, METHOD 107, Test Condition A
Absolute Maximum Ratings					
Supply voltage (Vs)			6.0	V	Damage will occur beyond this level
Control Voltage	0		Vs	V	
Operable temperature range	-45		+90	°C	
Storage temperature range	-55		+105	°C	

PhaseNoise Plot:

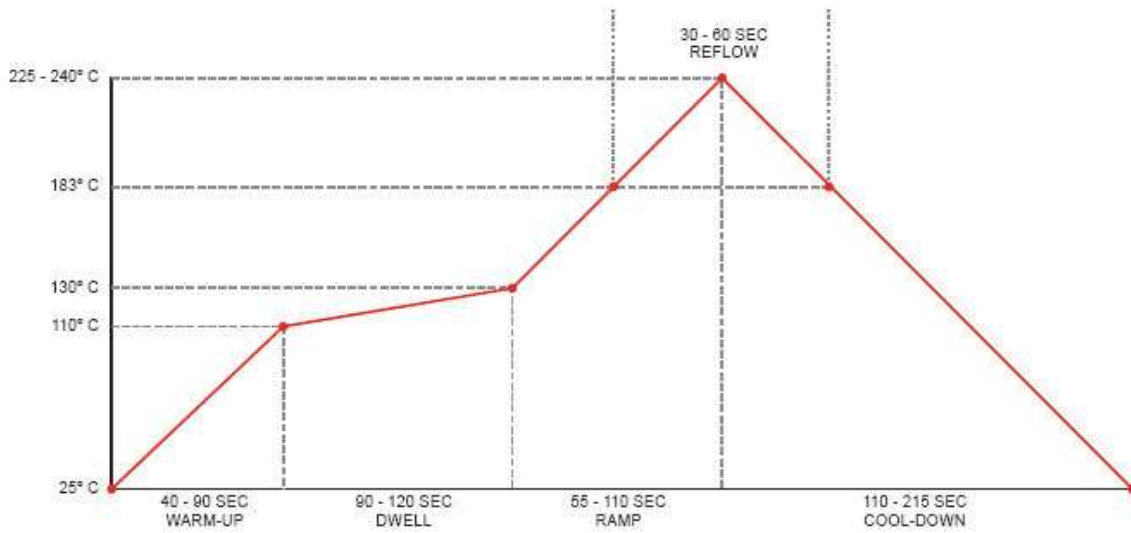


Standard Shipping Method

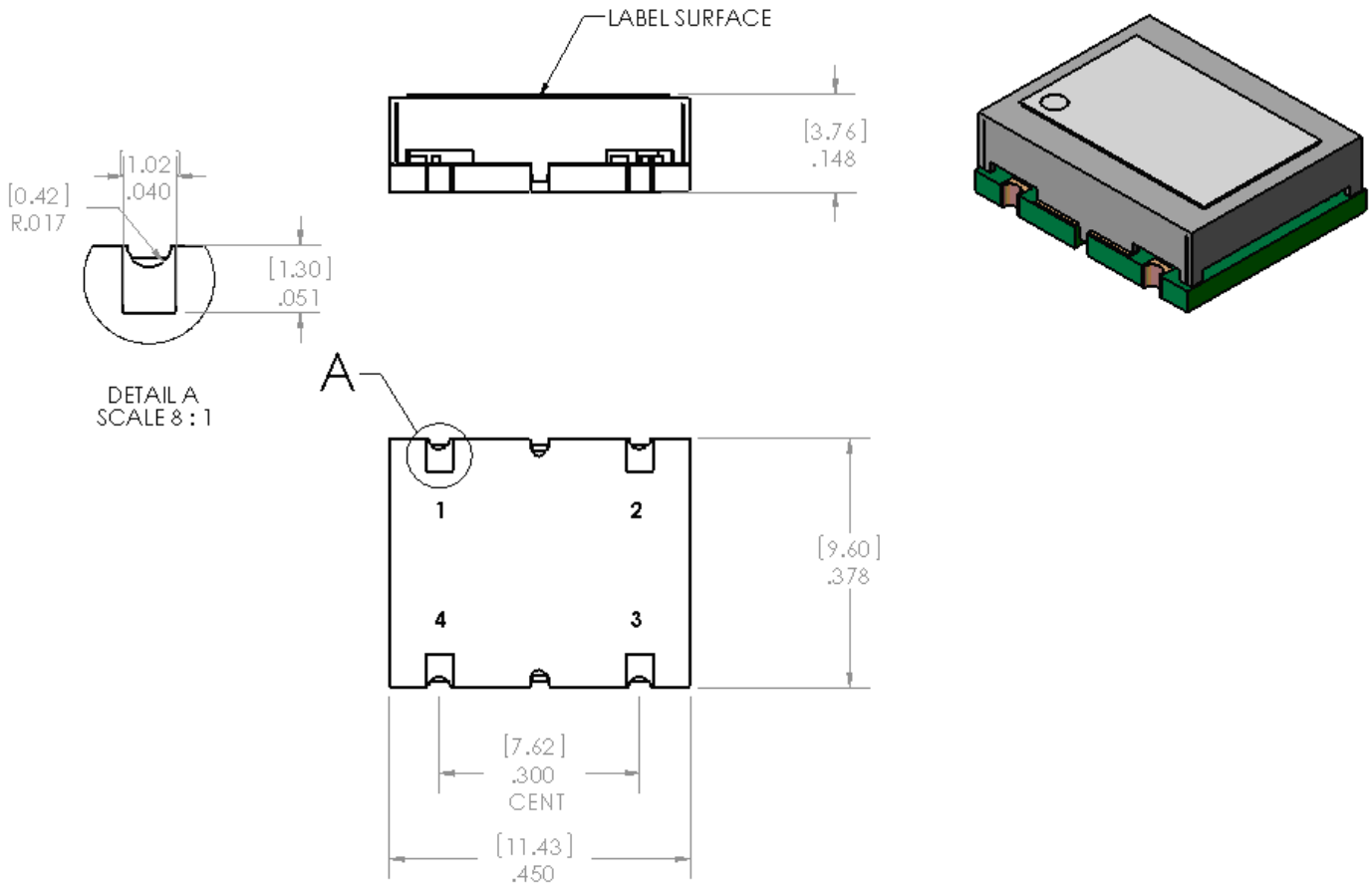


Enclosure Type	Tape width W [mm]	Quantity per meter	Quantity per reel	Dimension P
TX-550	24	62.5	500	16

Recommended Reflow Profile



Outline Drawing / Enclosure

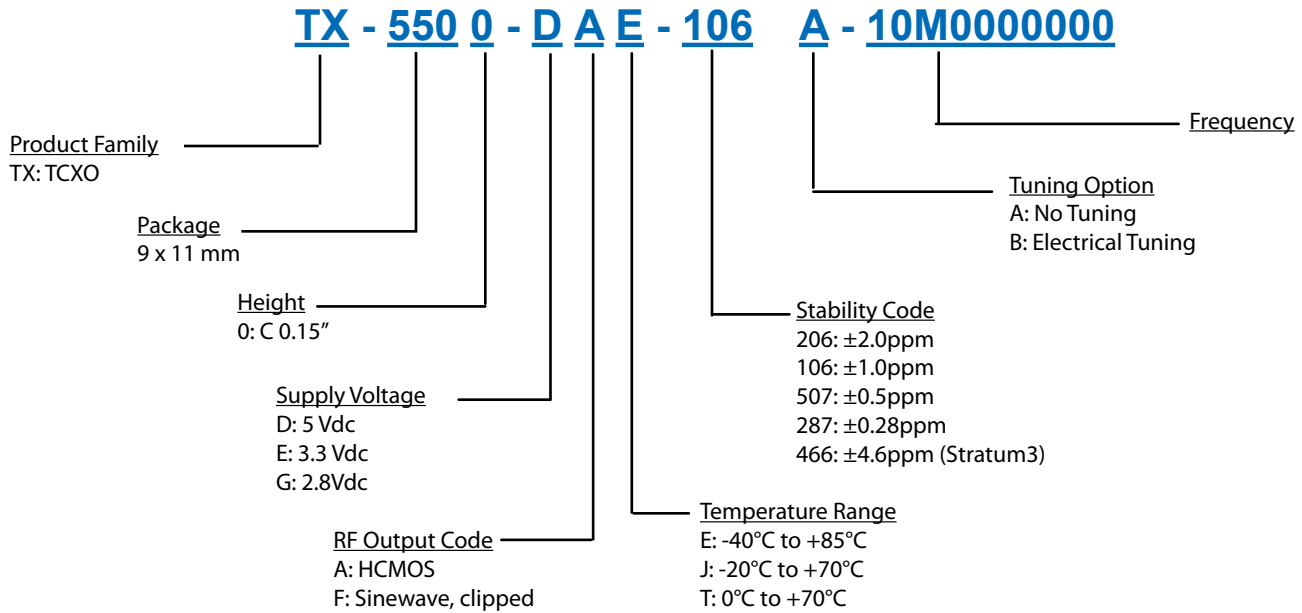


PIN NUMBERS SHOWN FOR REFERENCE ONLY

Dimensions in inches (mm)

TX-550 Pin Connections	
1	Electronic Frequency Control (EFC)
2	Ground
3	RF Output
4	Supply

Ordering Information



Notes:

1. Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
2. Unless other stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).
3. Phase noise degrades with increasing output frequency.
4. Subject to technical modification.
5. Contact factory for availability.

For Additional Information, Please Contact

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6-24-2011