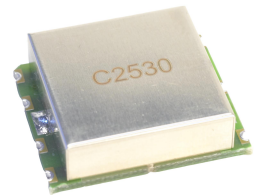


## Typical Applications

PCS Base Stations  
 Land Mobile Radio  
 Cellular Telephony  
 Radio in the Local Loop

## Features

Wide Frequency range  
 EFC Standard  
 Standard Surface Mount Package  
 Meets Stratum 3



## Previous Corning Model Numbers

STO200

## Frequency range

30 MHz – 900 MHz

## Standard frequencies

67.584; 69.12; 79.488; 155.52, 242.733, 278.08 MHz

## Frequency stabilities<sup>1</sup> [ Standard TCXO]

Parameter	Min	Typ	Max.	Units	Operating temp range	Ordering Code <sup>5</sup>
vs. operating temperature range (Referenced to +25°C)	-2.0		+2.0	ppm	-20 ... +70°C	D206
	-1.0		+1.0	ppm	-20 ... +70°C	D106
	-1.0		+1.0	ppm	0 ... +50°C	B106
	-0.5		+0.5	ppm	0 ... +50°C	B507
Parameter	Min	Typ	Max.	Units	Condition	
Initial tolerance	- 1.0		+1.0	ppm	at time of shipment, nominal EFC	
vs. supply voltage change	- 0.2		+0.2	ppm	V <sub>S</sub> ± 5%	
vs. load change	- 0.2		+0.2	ppm	Load ± 10%	
vs. aging /1. Year	- 1.0		+1.0	ppm		

## Frequency stabilities<sup>1</sup> [ Stratum 3 TCXO]

Parameter	Min	Typ	Max.	Units	Operating temp range	Ordering Code <sup>5</sup>
vs. operating temperature range (Referenced to +25°C)	-0.8		+0.8	ppm	-40 ... +85°C	F807
	-0.28		+0.28	ppm	-30 ... +85°C	G287
	-0.8		+0.8	ppm	-20 ... +70°C	D807
	-0.28		+0.28	ppm	-20 ... +70°C	D287
	-0.28		+0.28	ppm	0 ... +50°C	B287
Parameter	Min	Typ	Max.	Units	Condition	
Initial tolerance	- 1.0		+1.0	ppm	at time of shipment, nominal EFC	
vs. supply voltage change	- 0.2		+0.2	ppm	V <sub>S</sub> ± 5%	
vs. load change	- 0.1		+0.1	ppm	Load ± 10%	
vs. aging /15 Years	- 2.5		+2.5	ppm		
overall tolerance	-4.6		-4.6	ppm		
<small>(*Stratum 3 per GR-1244-CORE:          &lt;±4.6 ppm for all causes and 20 years aging, Holdover: &lt;±0.37 ppm over 24 hours (Code: D287 &amp; B287))</small>						

## Supply voltage (Vs)

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code <sup>5</sup>
Supply voltage [Standard]	3.135	3.3	3.465	VDC		SV033
Current consumption			50	mA	steady state @ +25°C & 3.3VDC & CMOS	
			90	mA	steady state @ +25°C & 3.3VDC & PECL	

## RF output

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code <sup>5</sup>
Signal [Standard]	HCMOS					RFH
Load	13.5	16.5	0.3	pF	with Vs=3.3V and 15pF load with Vs=3.3V and 15pF load  @ (Voh-Vol)/2	
Signal Level (Vol)				VDC		
Signal Level (Voh)	3.0			VDC		
Rise and Fall time			5	ns		
Duty cycle	40	50	60	%		
Subharmonics	-45			dBc		
Signal [Standard]	PECL					RFP
Load		50		Ω	to Vs-2V 20 to 80%	
Rise and Fall time			1	ns		
Duty cycle	45	50	55	%		
Subharmonics	-45			dBc		

## Frequency Tuning (EFC)

Parameter	Min	Typ	Max.	Units	Condition
Tuning Range	± 8.0	±14.0	± 20.0	ppm	Standard Version
Tuning Range	± 5.0	±12.0	± 20.0	ppm	Stratum 3 Version
Linearity			10	%	
Tuning Slope	Positive				
Control Voltage Range	0.3	1.65	3.0	VDC	with Vs=3.3VDC
Freq. control input impedance	10			kΩ	

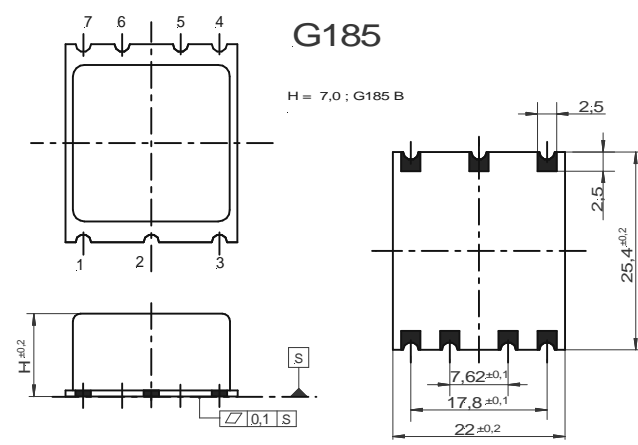
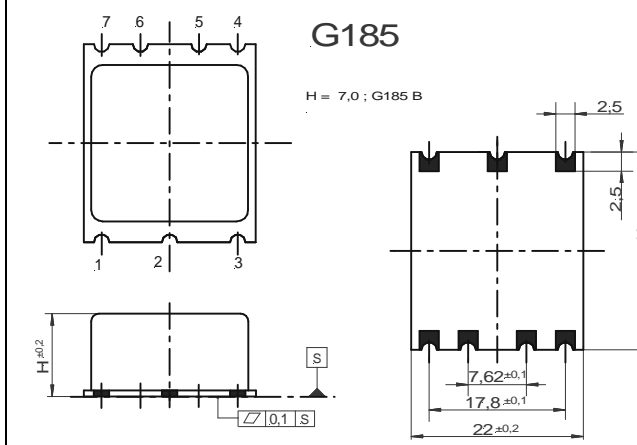
## Additional parameters

Parameter	Min	Typ	Max.	Units	Condition	
Phase Noise <sup>3</sup>		-70		dBc/Hz	10 Hz	Standard TCXO @ 79.483 MHz
		-100		dBc/Hz	100 Hz	
		-120		dBc/Hz	1 kHz	
		-128		dBc/Hz	10 kHz	
		-135		dBc/Hz	100 kHz	
Phase Noise <sup>3</sup>		-60		dBc/Hz	10 Hz	Stratum3 TCXO @ 155.52MHz
		-96		dBc/Hz	100 Hz	
		-115		dBc/Hz	1 kHz	
		-122		dBc/Hz	10 kHz	
		-129		dBc/Hz	100 kHz	
Weight			9	g		
Processing & Packing	Handling & processing note					

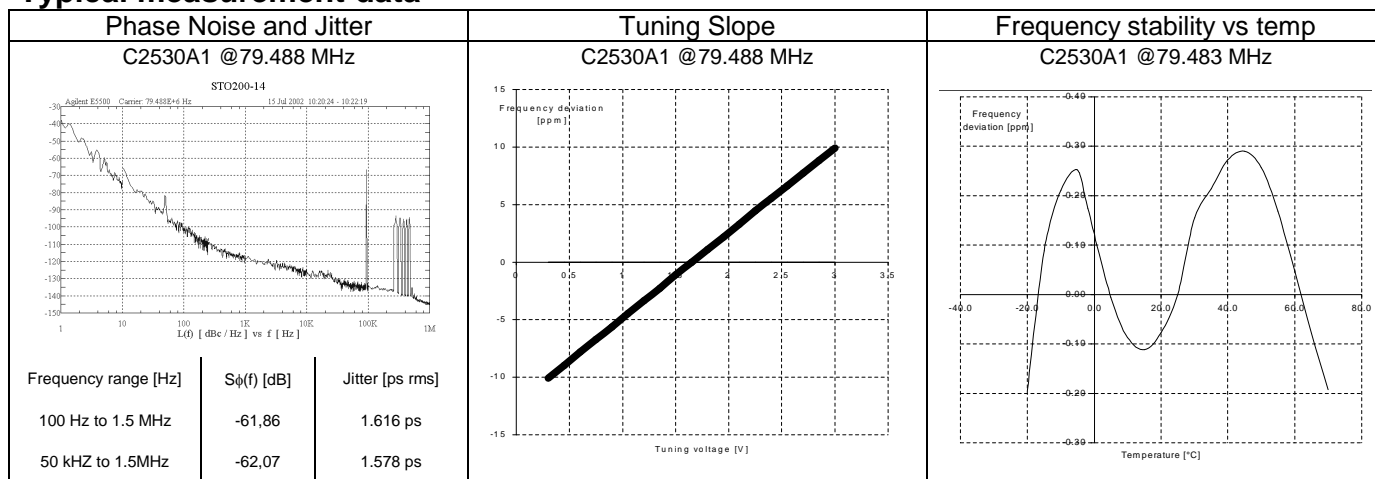
## Absolute Maximum Ratings

Parameter	Min	Typ	Max.	Units	Condition
Supply voltage (Vs)			6.0	V	
Control Voltage	0		Vs	V	
Maximum output load @ CMOS			40	pF	
Operable temperature range	-40		+85	°C	
Storage temperature range	-55		+125	°C	

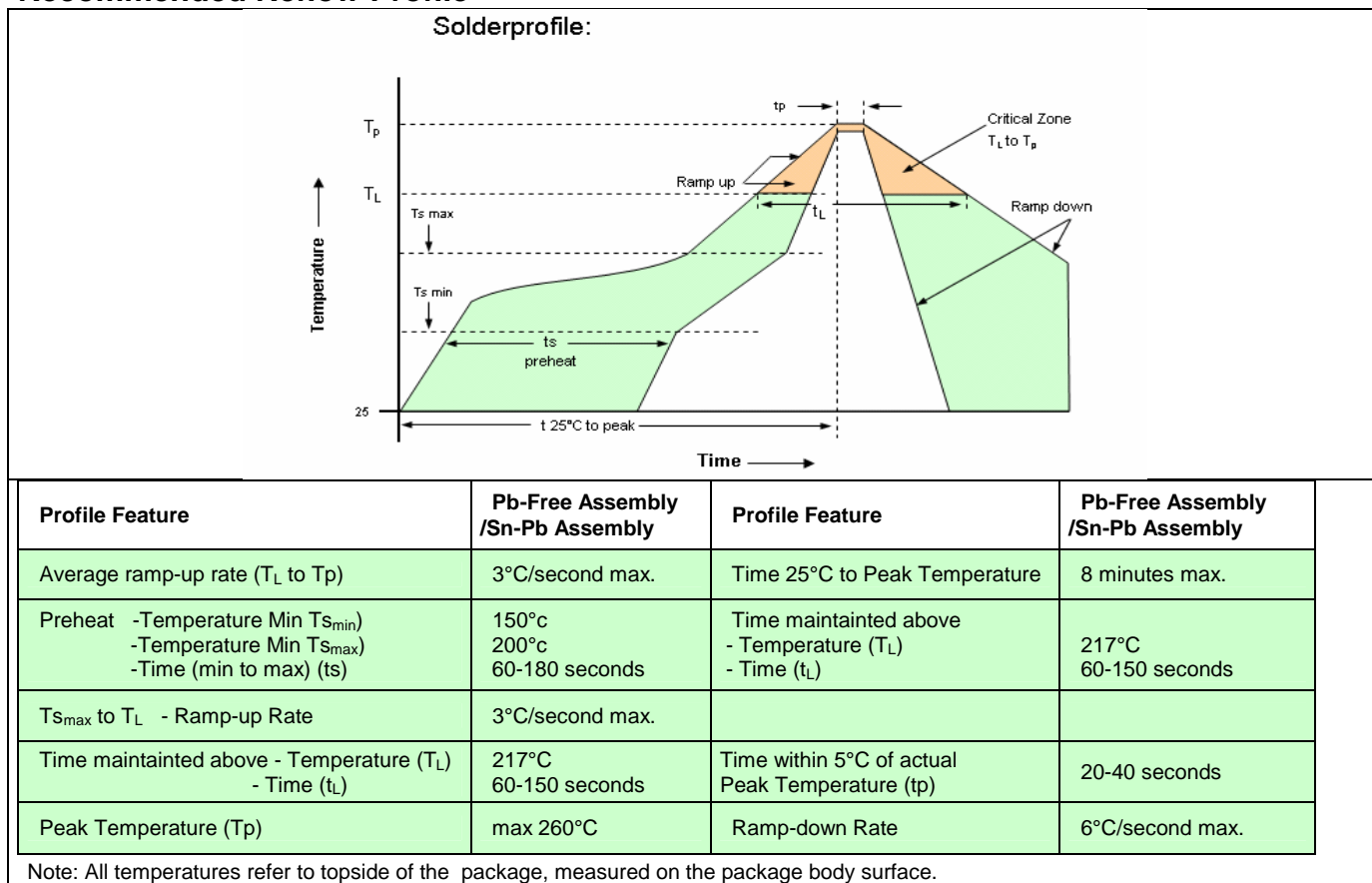
## Enclosures

Type G185B				Type G185B (PECL)			
Package Codes :				Package Codes :			
Code A1	Height "H" 7.0	Pin Length "L" NA		Code B1	Height "H" 7.0	Pin Length "L" NA	
 <p style="text-align: center;">G185 H = 7.0 ; G185 B</p> <p style="text-align: right;">Dimensions : mm</p>				 <p style="text-align: center;">G185 H = 7.0 ; G185 B</p>			
Pin Connections				Pin Connections			
1 Voltage Control	2 I.C	3 Vs (supply voltage)	4 RF-Output	5 I.C.	6 I.C.	7 GND	
				1 Vs (supply voltage)	2 I.C	3 GND	4 I.C.
				5 RF-Output	6 RF-Output compl.	7 GND	

## Typical measurement data



## Recommended Reflow Profile



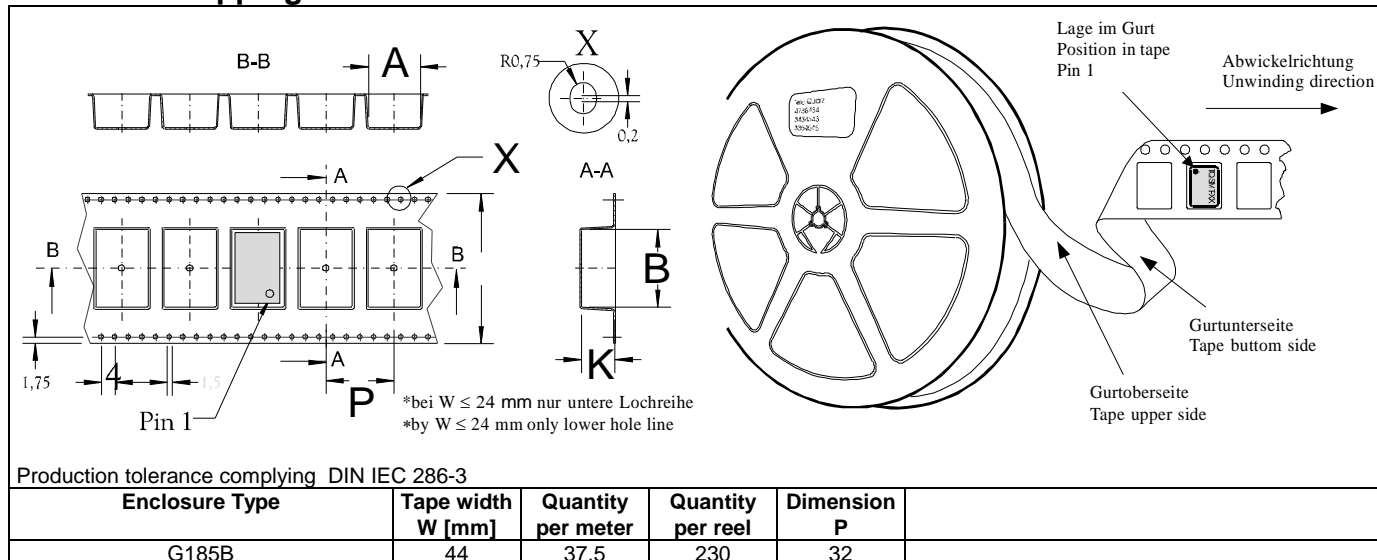
## How to Order this Product:

<b>Step 1</b>	Use this worksheet to forward the following information to your factory representative:				
<b>Model</b>	<b>Stability Code</b>	<b>Supply Voltage Code</b>	<b>RF Output Code</b>	<b>Package Code</b>	<b>Frequency</b>
C2530					
<i>Example: C2530                      D206                      SV033                      RFC                      A1                      12.800MHz</i>					

<b>Step 2</b>	The factory representative will then respond with a Corning Model Number in the following Configuration:		
<b>Model</b>	<b>Package Code</b>	<b>Dash</b>	<b>Dash Number</b>
C2530	[Customer Specified Package Code]	-	[Factory Generated 4 digit number]
<i>Typical P/N = C2530A1-0001</i>			

<b>Marking</b>
C2530A1-xxxx Frequency * C AYYWW

## Standard Shipping Method



### Notes:

- 1 Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
- 2 Unless otherwise 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.