

Typical Applications

SONET/SDH
 Synthesizers
 Optimized for Semtech SONET / SDH Synchronization Sets

Features

Stratum 3 Compliant
 Tight Stability
 Low Aging

Previous Vectron Model Numbers

MC1200; TC-210

Frequency Range

10 MHz – 200 MHz

Standard Frequencies

12.8, 16.384, 20, 30.15, 37.5, 76.8 MHz

Frequency stabilities¹ [Stratum 3 TCXO]

Parameter	Min	Typ	Max.	Units	Operating temp range	Ordering Code
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 (w/ fixed frequency)	- 1.5		+1.5	ppm	at time of shipment, No EFC $V_S \pm 5\%$ Load $\pm 10\%$ *Stratum 3 per GR-1244-CORE: $\leq \pm 4.6$ ppm for all causes and 15 years aging, Holdover: $\leq \pm 0.37$ ppm over 24 hours (Codes: D287 & B287)	
vs. supply voltage change	- 0.1		+0.1	ppm		
vs. load change	- 0.1		+0.1	ppm		
vs. aging /15 Years	- 2.5		+2.5	ppm		
overall tolerance	-4.6		-4.6	ppm		

Supply voltage (Vs)

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code
Supply voltage [Standard]	3.135	3.3	3.465	VDC		SV033
Supply voltage [Option]	4.75	5	5.25	VDC		SV050
Current consumption			15	mA	steady state @ +25°C & 3.3VDC	
			15	mA	steady state @ +25°C & 5.0VDC	

RF output

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code
Signal [Standard]	HCMOS					RFH
Load	13.5	15	16.5	pF	10% - 90% @ (Voh-Vol)/2	
Rise and Fall time			5	ns		
Duty cycle	40		50	%		
Signal [Standard]	sinewave					RFS
Load		50		Ohm		
Output power	0	3	6	dBm		
Harmonics			-30	dBc		
Sub harmonics			-30	dBc		If applicable

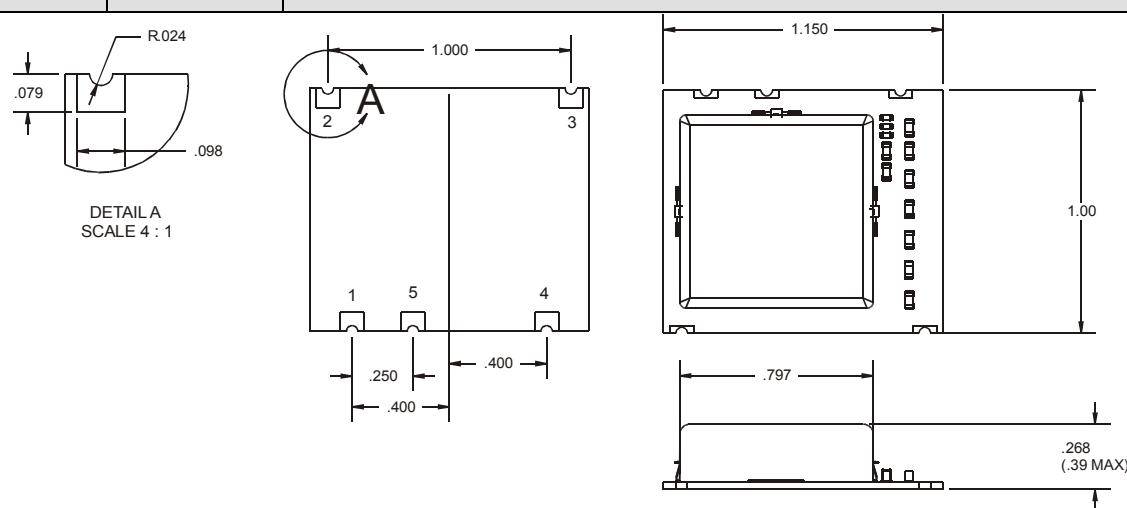
Frequency Tuning (EFC)

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code
Tuning Range	Fixed (No EFC)					0
Tuning Range	± 8.0	± 12.0	± 20.0	ppm	Standard Version	1
Linearity			20	%		
Tuning Slope	Positive					
Control Voltage Range (nominal frequency to occur at Typ $\pm 0.5V$)	0.3	1.65	3.0	VDC	with Vs=3.3VDC	
	0.5	2.5	4.5	VDC	with Vs=5.0VDC	
Freq. control input impedance	10			k Ω		

Additional parameters

Parameter	Min	Typ	Max.	Units	Condition
Phase Noise ³		-115		dBc/Hz	100 Hz
		-130		dBc/Hz	1 kHz
		-140		dBc/Hz	10 kHz
Allan Variance		1x 10 ⁻⁹			Tau= 1 sec
Weight			9	g	
Processing & Packing	Handling & processing note				

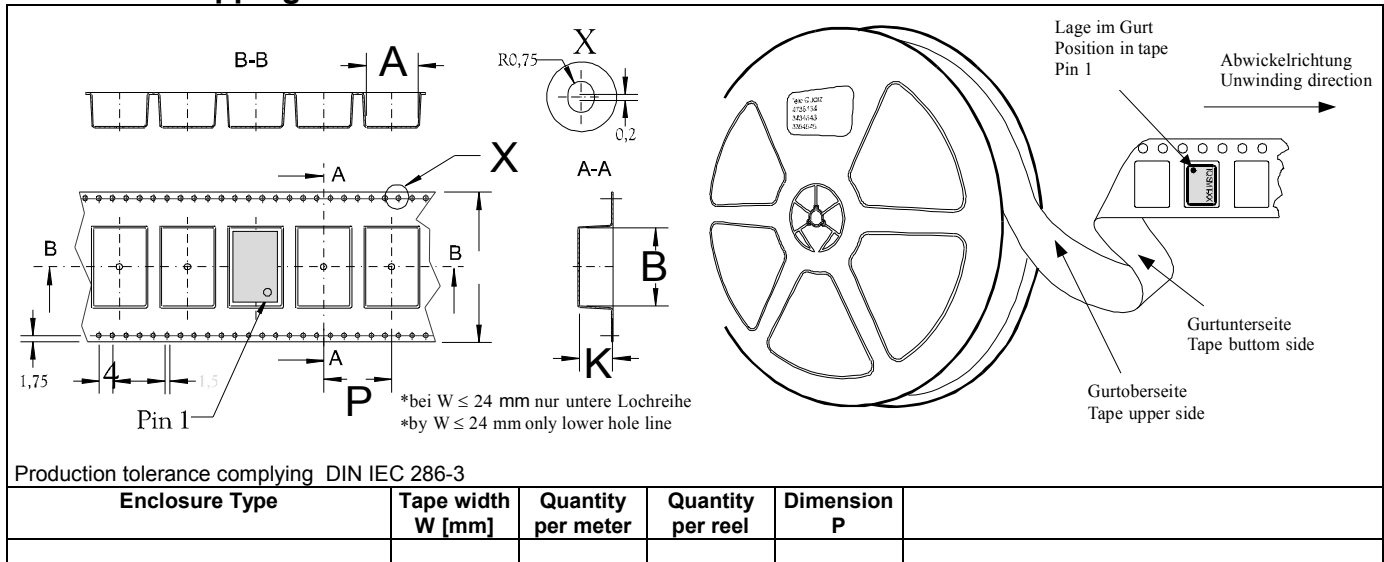
Enclosures

Type A		
Package Codes:		
Code A1	Height "H" 6.8	Pin Length "L" NA
		
Dimensions: inches		
Pin Connections		
1 RF-Output 2 Vs (supply voltage) 3 GND 4 N.C./EFC 5 GND Outline Drawing:		
Marking		
C2560Ax-xxxx Frequency * C AYYWW		

Absolute Maximum Ratings

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

Standard Shipping Method



Recommended Reflow Profile

