

Helping Customers Innovate, Improve & Grow



Features

True SONET Minimum performance
Ultra low Jitter
Complementary PECL output

Typical Applications

SONET Minimum Clock

Previous Vectron Model Numbers

TC-200

Frequency Range

311.04 MHz – 777.6 MHz

Standard Frequencies

311.04, 622.08, 625.00, 644.5313, 666.5143, 669.3266, 777.6 MHz

Frequency stabilities¹

Parameter	Min	Typ	Max	Units	Operating temp range	Options ²
vs. operating temperature range (Referenced to +25°C)	-4.1		+4.1	ppm	-40 ... +85°C	
	-4.1		+4.1	ppm	0 ... +70°C	
Parameter	Min	Typ	Max	Units	Condition	
Initial Tolerance	-5.0		+5.0	ppm	@ +25°C	
Total Stability			<20	ppm	All Causes	
vs. supply voltage change	-0.2		+0.2	ppm	$V_s \pm 5\%$	
Jitter Generation			<1	ps	12 kHz to 80 MHz	
Aging			<10	ppm	for 10 years	

Supply Voltage (Vs)

Parameter	Min	Typ	Max	Units	Condition	Options ⁵
Supply voltage	3.135	3.3	3.465	VDC		
Supply voltage	4.75	5.0	5.25	VDC		
Current			200	mA		

RF Output

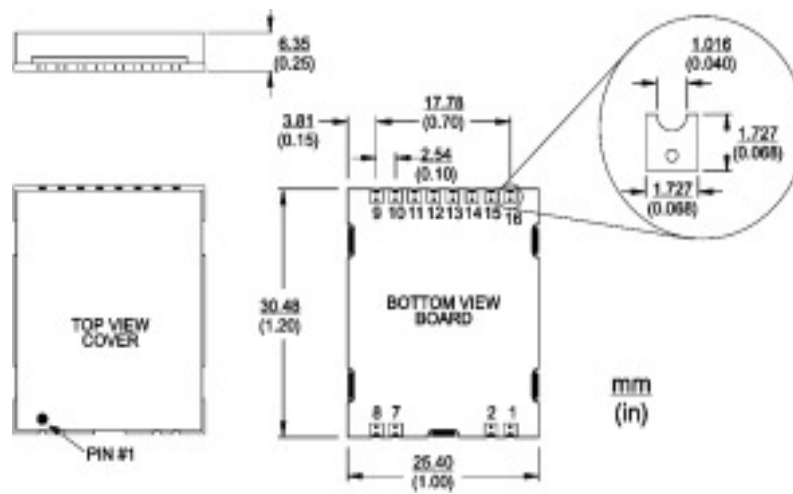
Parameter	Min	Typ	Max	Units	Condition
Signal [Standard]	Complementary PECL				
Load		15		pF	
Signal Level (Vol)			Vcc - 1.63 V	VDC	
Signal Level (Voh)	Vcc			VDC	
Rise/Fall Time			400	ps	(20% to 80%)
Duty cycle	45		55	%	@ Vcc - 1.3 V

Frequency Tuning (EFC)

Parameter	Min	Typ	Max	Units	Condition
Tuning Range	±40			ppm	0 to Vcc
Tuning Slope	Positive Slope				

Enclosure

Type C1		
Code:	Height "H"	Pin Length "L"
A1	6.35	N/A



Pin Configuration			
1	Electrical Frequency Adjust; 0 to Vcc. or No Connect	9	Vcc - Supply Voltage
2	GROUND	10	Lock Detect
3	Missing	11	Ground
4	Missing	12	Output Signal - Q
5	Missing	13	Ground
6	Missing	14	Comp Output Signal - Q
7	GROUND	15	Ground
8	Vcc - Supply Voltage	16	Enable / Disable Floating = Enabled Logic "0" = Disabled

How to order this product:

Use this worksheet to forward the following information to your factory representative :

Model	Height	-	Supply Voltage Code	RF Output Code	Temperature Range	-	Stability	Frequency Control	-	Frequency
TX-190	0	-	E	C	T	-	416	1	-	622M080000

Package:
190: (type C1)

Height:
0: 6.35 mm

Supply Voltage:
D: 5 V
E: 3.3 V

RF Output Code:
C: PECL

Temperature Range:
E: -40...+85°C
T: 0...+70°C

Stability Code:
416: ±4.1ppm

Freq. Adjust Option:
1: Electrical Freq. Adjust

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.