

Specification	AXLE135	Issue: 01	Date:2008-05-07
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Oscillator type : TCXO in Half-size DIL package

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10 1		50 800	MHz MHz	(Clipped) Sinewave HCMOS, PECL, LVDS
Frequency stability				ppm	
vs. temperature	± 0.5 ppm to ± 5 ppm			ppm	See tables 1 & 2
vs. supply voltage variation		± 0.1	± 0.3	ppm	
vs. load change			± 0.2	ppm	± 10 %
long term (aging) per year			± 1	ppm	@+40°C
Frequency adjustment range					
Mechanical (internal trimmer)	± 3			ppm	Option 1 = blank
Electronic Frequency Control (EFC)	± 5			ppm	Option 1 = "V"
EFC voltage V_C	0.15 0.5	1.65 2.5	3.15 4.5	V V	Option 2 = "3" Option 2 = "5"
EFC slope ($\Delta f / \Delta V_C$)	positive				
EFC input impedance	100			k Ω	
RF output					
Signal waveform	Sine wave Clipped Sine wave HCMOS PECL LVDS				Option 3 = "S" Option 3 = "C" Option 3 = "H" Option 3 = "P" Option 3 = "L"
Load	50 Ω 10 k Ω 10 pF 15 pF 50 Ω + bias				Option 3 = "S" Option 3 = "C" Option 3 = "H" Option 3 = "P" or "L"
Amplitude		0 +10		dBm dBm V p-p V p-p	Option 3 = "S" / 3.3 V Option 3 = "S" / 5.0 V Option 3 = "C" / 3.3 V Option 3 = "C" / 5.0 V
	0.8 1.0				
	According to relevant Logic Standard				Option 3 = "H", "P", "L"
Supply voltage V_S	3.15 4.75	3.3 5.0	3.45 5.25	V V	Option 2 = "3" Option 2 = "5"
	12 ~ 20 2 ~ 30 15 ~ 50 25 ~ 100			mA mA mA mA	Option 3 = "S" Option 3 = "C" Option 3 = "H" Option 3 = "P" or "L"
Storage temperature range	-45		+90	°C	
Enclosure (see drawing)	12.7 x 12.7 x 5.1 max.			mm	IEC60679-3 CO 21
Marking	AXLE135 Freq wwAXPy				Specification Frequency ww=week, yy=year
Packing	Tape & reel				IEC 60286-3
Construction	Lead(Pb) -free				

Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. All combinations of options might not be available. Please consult factory
3. Depending on frequency and supply voltage

Frequency Stability over Temperature

Table 1

Code4	Stability
05	± 0.5
10	± 1.0
15	± 1.5
20	± 2.0
25	± 2.5
30	± 3.0
35	± 3.5
50	± 5.0

Table 2

Lower Temperature		Upper Temperature	
Code5	Temp/°C	Code5	Temp/°C
0	0	A	+50
1	-10	B	+60
2	-20	C	+70
3	-30	D	+75
4	-40	E	+80
		F	+85

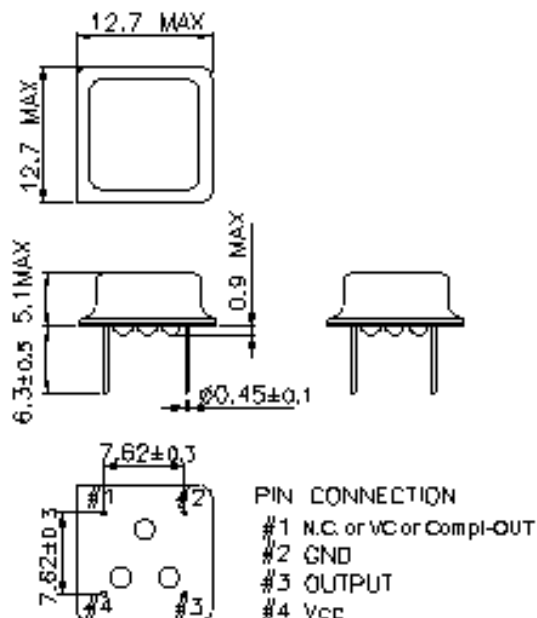
Ordering Code:

Part number	Option 1*	Option 2	Option 3*	Option 4	Option 5
	EFC*	Supply Voltage	Output*	Stability	Temp. range
AXLE135	_ or "V"	5 or 3	S, C, H, P, L	See tables 1 & 2	

*EFC Option not available for PECL and LVDS Output

Example: AXLE135V-5-S-10-3D

Enclosure drawing



Pin connections (No EFC)

Pin #	Symbol	Function
1	N.C. or ComplOUT	No Connection or Complementary Output (PECL and LVDS)
2	GND	Ground
3	RF OUT	RF Output
4	Vs	Supply Voltage

Pin connections (With EFC)

Pin #	Symbol	Function
1	VC	Voltage Control (EFC)
2	GND	Ground
3	RF OUT	RF Output
4	VS	Supply Voltage