

<b>Specification</b>	<b>AXHV1012</b>	Issue: 01	Date: 2005-12-08
<b>Oscillator type : VCO – Voltage Controlled Oscillator</b>			

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency tuning range</b>	980		1420	MHz	@ 25°C
<b>Frequency adjustment range</b>					
EFC voltage $V_C$	0		6	V	
Tuning sensitivity ( $\Delta f / \Delta V_C$ )	28		100	MHz/V	
EFC slope	positive				
<b>Frequency stability</b>					
vs. supply voltage variation (pushing)		3.5		MHz/V	
vs. load change (pulling)		1		MHz	@ $a_r = 12$ dB
<b>RF output</b>					
Signal waveform	SINUS				
Amplitude	+4.5		+6	dBm	$R_L = 50 \Omega$
Harmonics			-17	dBc	
<b>Phase Noise</b>		-105		dBc/Hz	@ 100 kHz
<b>Supply voltage <math>V_S</math></b>	4.75	5	5.25	V	
<b>Current consumption (steady state)</b>			20	mA	
<b>Operating temperature range</b>	-10		+60	°C	
<b>Operable temperature range</b>	-20		+70	°C	
<b>Storage temperature range</b>	-40		+85	°C	
<b>Enclosure (see drawing) LxWxH</b>	25.4 x 12.7 x 6.1.			mm	
<b>Weight</b>			5	gram	
<b>Packing</b>	bulk				IEC 60286-3
<b>ESD Sensitivity</b>	1500			V	HBM, IEC 61000-4-2

**Notes:**

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated

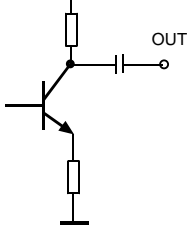
**Ordering Code:**

Model (Specification)	Frequency Range [MHz]
AXHV1012	980-1420

Enclosure drawing on request

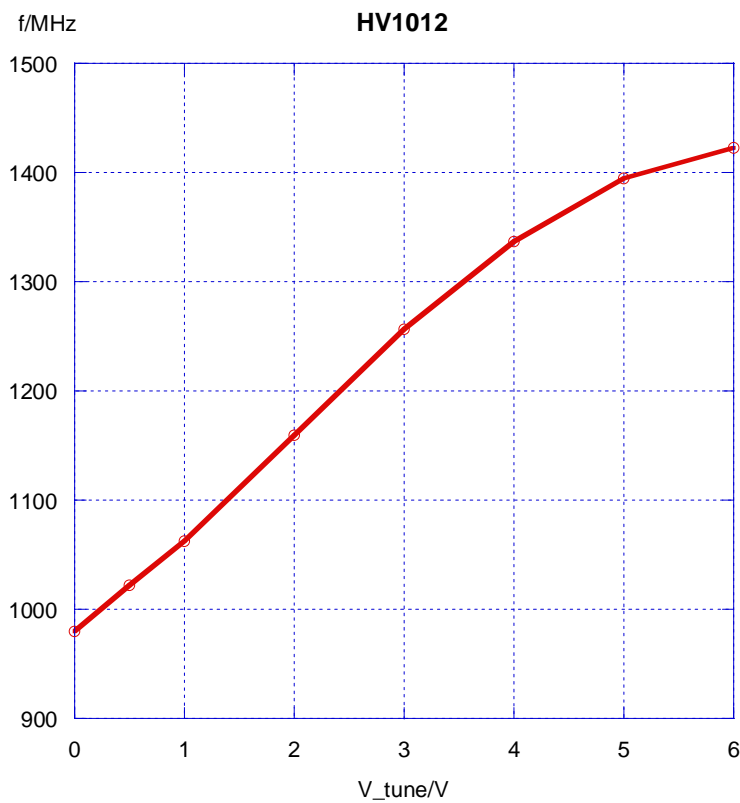
### Pin connections

### Output circuit:



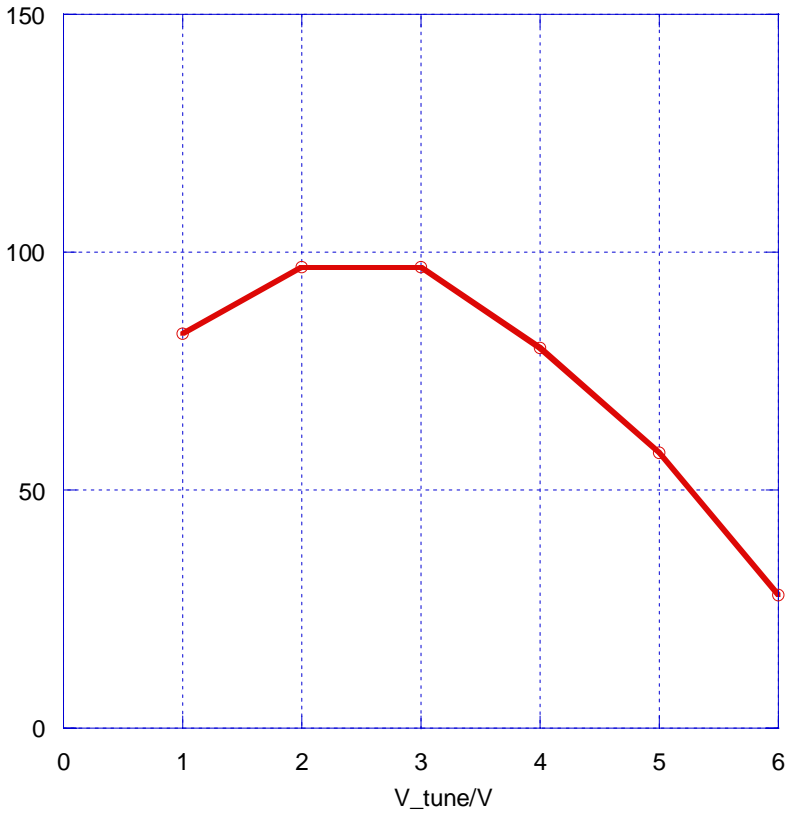
Pin #	Symbol	Function
P1	$V_C$	Control Voltage (EFC)
P2	RF OUT	RF Output
P3	$V_S$	Supply Voltage
P4	N.C.	Not Connected
All others	GND	Ground

### Typical performance



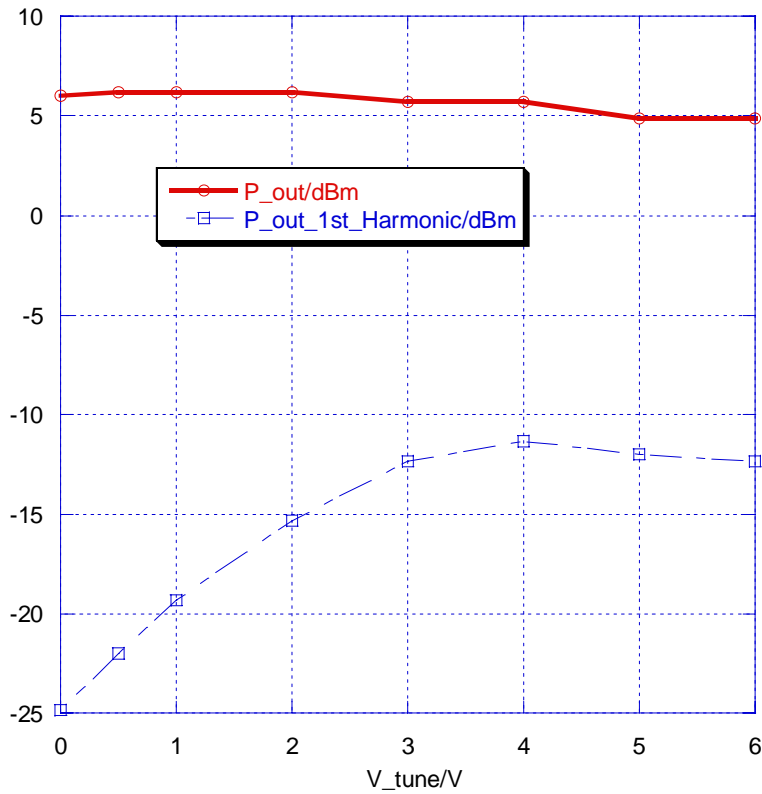
Sensitivity(MHz/V)

**HV1012**



P\_out/dBm

**HV1012**



## Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 clause ...	Test conditions
Visual inspection, dimensions		4.3	Enclosure styles as in IEC 60679-3 or 61837, if applicable
Sealing tests (if applicable)	2-17	4.6.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	4.6.3	Test Ta (235 ± 5)°C Method 1 Test Tb Method 1A, 5s
Shock*	2-27	4.6.8	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Bump*	2-29	4.6.6	Test Eb, 4000 bumps per Axes, 40g, 6 ms
Free fall*	2-32	4.6.9	Test Ed procedure 1, 2 drops from 1m height
Vibration, sinusoidal*	2-6	4.6.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Rapid change of temperature	2-14	4.6.5	Test Na, 10 cycles at extremes of operating temperature range
Dry heat	2-2	4.6.14	Test Ba, 16 h at upper temperature indicated by climatic category
Damp heat, cyclic*	2-30	4.6.15	Test Db variant 1 severity b), 55°C/95% r.H., 6 cycles
Cold	2-1	4.6.16	Test Aa, 2 h at lower temperature indicated by climatic category
Climatic sequence*	1-7	4.6.17	Sequence of 4.6.14, 4.6.15 (1 <sup>st</sup> cycle), 4.6.16, 4.6.15 (5 cycles)
Damp heat, steady state*	2-3	4.6.18	Test Ca, 56 days
Endurance tests - ageing - extended aging		4.7.1 4.7.2	30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C