AXTAL ADVANCED XTAL PRODUCTS

Specification	AXHV3001H	Issue: 01	Date: 2005-12-08

Oscillator type : VCO – Voltage Controlled Oscillator

High output power version of AXHV3001

Parameter	min.	typ.	max.	Unit	Condition
Frequency tuning range	3600		4300	MHz	@ 25°C
Frequency adjustment range					
EFC voltage V_C	0.2		10	V	
EFC slope ($\Delta f / \Delta V_C$)	positive				
RF output					
Signal waveform	SINUS				
Amplitude	+20			dBm	R_L = 50 Ω
Phase Noise		-100		dBc/Hz	@ 100 kHz
Supply voltage V_S	7.6	8	8.4	V	
Current consumption (steady state)			150	mA	
Operating temperature range	-10		+60	°C	
Operable temperature range	-20		+70	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) LxWxH	25.4 x 12.7 x 6.1			mm	
Weight			5	gram	
Packing	bulk				IEC 60286-3
ESD Sensitivity	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]
AXHV3001H	3600-4300

Enclosure drawing

Package drawing on request

Pin connections

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

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 (1st 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