

<b>Specification</b>	<b>AXPS20</b>	Rev.: 1	Date: 2019-07-22
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**Oscillator type: SAW Oscillator in hermetic DIL14/4 Package**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency Range</b>	500		1600	MHz	
<b>Standard frequencies</b>	1030 / 1090 / 1532			MHz	
<b>Frequency stability</b>					
Overall tolerance (Note 2)			±350	ppm	
Long term (aging) per year			±5	ppm	
<b>RF output</b>					
Signal waveform	Sine wave				
Load $R_L$	50			$\Omega$	
Output level (Note 3)	+7	+10		dBm	
Harmonics		-40	-30	dBc	
Phase noise	Please consult factory				
<b>Supply voltage <math>V_s</math></b> (Note 4)	4.75	5.0	5.25	V	
<b>Current consumption</b>		35	50	mA	
<b>Operating temperature range</b>	-40		+85	°C	
<b>Enclosure (see drawing) (LxWxH)</b>	20.7x13.1x5.2 max.			mm	IEC 60679-3 CO 02
<b>Weight</b>			5	g	
<b>Packing</b>	Tape & Reel				IEC 60286-3

**Notes:**

1. Terminology and test conditions are according to IEC60679-1 and MIL-PRF-55310, unless otherwise stated
2. Overall tolerance includes initial tolerance, frequency stability vs. temperature range, pushing and pulling
3. Supply voltage of 3.3 V or 12 V on request
4. Other output level on request
5. Ensure sufficient grounding and blocking

**Absolute Maximum Ratings**

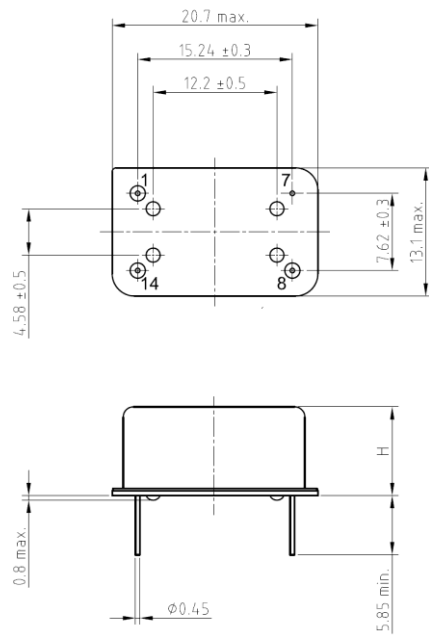
Parameter	min.	max.	Unit	Condition
Supply Voltage $V_s$	-0.5	$V_s + 10\%$	V	$V_s$ to GND
Storage Temperature	-55	+105	°C	

**Ordering Code**

Model	Revision	Frequency [MHz]
AXPS20	Rev.1	1090.000

**Example: AXPS20\_Rev.1 – 1090.000 MHz**

### Enclosure drawing



### Pin connections

Pin #	Symbol	Function
1	D.N.C.	Do Not Connect
7	GND	Ground, case
8	RF OUT	RF Output
14	V <sub>s</sub>	Supply Voltage

### Handling and Testing

Parameter	Procedure		Source
Handling and Testing	Application Note AXAN-011		www.axtal.com
Processing	Application Note AXAN-012		www.axtal.com
Parameter	Procedure		Condition
Electrostatic discharge (ESD)			
THD devices	IEC60749-26	HBM	2000 V
SMD devices	IEC60749-27	MM	200 V
Washable	☒ Yes ☐ No		
RoHS compliant	☒ Yes ☐ No		

### Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 Clause	MIL-STD- 202G Method	MIL-STD- 810F Method	MIL-PRF- 55310D Clause	Test conditions (IEC)
Sealing tests (if applicable)	2-17	5.6.2	112E		3.6.1.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	5.6.3	208H 210F		3.6.52 3.6.48	Test Ta Method 1 Test Td <sub>1</sub> Method 2 Test Td <sub>2</sub> Method 2
Shock*	2-27	5.6.8	213B	516.4	3.6.40	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	5.6.7.1	201A 204D	516.4-4	3.6.38.1 3.6.38.2	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Vibration, random*	2-64	5.6.7.3	214A	514.5	3.6.38.3 3.6.38.4	Test Fdb
Endurance tests - ageing - extended aging		5.7.1 5.7.2	108A		4.8.35	30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C

Other environmental conditions on request

Data sheet is for information purposes only and may be subject to modifications or may be discontinued without notice.

### Revision History

Rev.	Drawing	Date [dd.mm.yyyy]	Remarks	Author	Checked
1	D0	13.06.2019	First issue – Replaces AXGS20	HH	HH
1	D0	22.07.2019	Change of model name to AXPS20	HH	HH