Data sheet

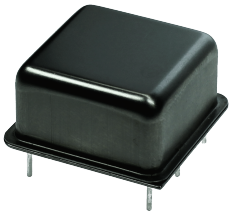
AXGX75

Gated 1030/1090 MHz Crystal Oscillator (high stability)

FEATURES

- Gated Crystal Oscillator
- Standard frequency 1030 & 1090 MHz
- High stability oscillator
- Applications: IFF Radar

25.8 x 25.8 x 12.7 mm max.



Parameter	min.	typ.	max.	Unit	Condition
Frequency Range	1000		1100		
Standard frequencies		1030 / 1090		MHz	
Frequency stability					
Initial tolerance at delivery			± 10	ppm	@+25°C
vs. operating temperature range			± 30	ppm	
operating temperature range	-40		+70	°C	
long term (aging)			± 5	ppm/year	
Gate Function (optional)					
Low level input voltage VGL		0	1.5	V	
High level input voltage VGH	3.5	5.0	5.5	V	
Input resistance		10		kW	
Input capacitance			10	pF	
Turn-on time		30	40	ns	
Turn-off time		10	30	ns	
RF output					
Signal waveform		Sine wave			R_L = 50 Ω
Output level Gate ON	+ 10	+12		dBm	@ VG >3.5 V
Output level Gate OFF			-50	dBm	@ VG < +1.5 V
Subharmonics		-40	-30	dBc	Multiples of fout/10
Harmonics		-40	-30	dBc	
Warm-up time			5	min	Df_{final}/f_0 < ±0.1 ppm
Supply voltage V_S	11.4	12	12.6	V	
Current consumption Gate ON		42	50	mA	@ VG >3.5 V
Gate OFF		7	15	mA	@ VG < +1.5 V
Operable temperature range	-55		+85	°C	
Storage temperature range	-55		+125	°C	
Enclosure (see drawing) (LxWxH)		25.8x25.8x12.7max.		mm	
Weight			10	gram	

Notes:

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

Ordering Code:

Model (Specification)	Option Gate Function	Frequency [MHz]
AXGX75	G = with Gate function Blank = no Gate function	1030.000

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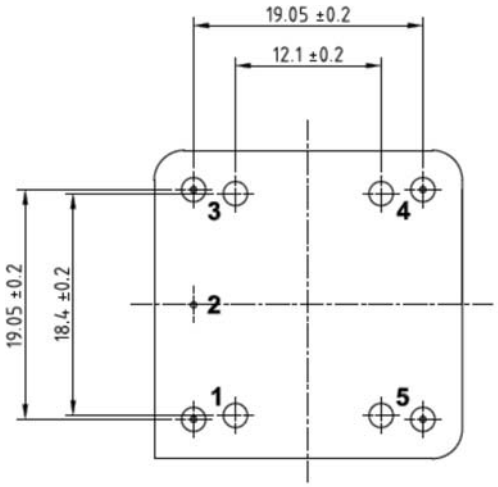
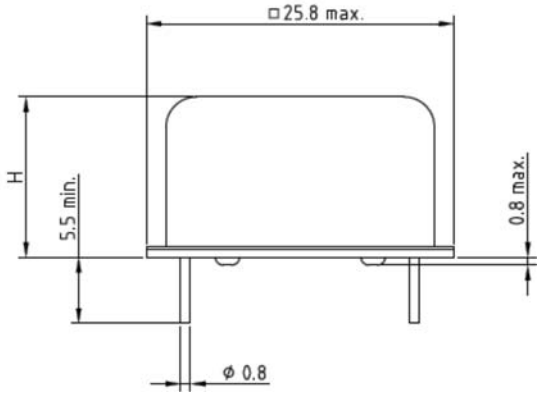
Enclosure



Pin connections

Pin #	Symbol	Function
1	RF OUT	RF Output
2	GND	Ground, case
3	VG	Gating Input or N.C.
4	N.C.	No connection
5	V_S	Supply Voltage



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_1 Method 2 Test Td_2 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

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