AXTAL ADVANCED XTAL PRODUCTS

Designed and Manufactured in Germany

Specification	AXMW1030GYT-01	Rev.: 3	Date: 2014-07-08

Oscillator type: Gated 1030 MHz Microwave Oscillator

For Secondary Radar Applications

Parameter	min.	typ.	max.	Unit	Condition
Nominal frequency		1030.000		MHz	
Frequency stability					
Initial tolerance @ +25°C			±10	ppm	
vs. operating temperature range			±30	ppm	
operating temperature range	-40		+70	°C	
Long term (aging) per year			±5	ppm	
RF output					
Signal waveform		Sine wave			
Load R_L		50		Ω	
Output level @ +25°C	+10	+12		dBm	@ V_{Gate} > +3.5V
			-60	dBm	@ V_{Gate} < +1.5V
Sub-Harmonics			-30	dBc	Multiples of 103 MHz
Harmonics			-40	dBc	
Gate Function					
Low level input voltage V_{Gate}		0	1.5	V	
High level input voltage V_{Gate}	3.5	5.0	5.5	V	
Input resistance		10		k Ω	
Input capacitance			10	pF	
Turn on time			30	ns	
Turn off time			30	ns	
Supply voltage V_S	11.4	12.0	12.6	V	
Current consumption		42	50	mA	@V_{Gate} > +3.5V
		7	15	mA	@V_{Gate} < +1.5V
Operable temperature range	-55		+85	°C	
Storage temperature range	-55		+125	°C	
Enclosure (see drawing) (LxWxH)		54x40x19 max.		mm	h = 2.0 mm
Weight			60	g	
Packing		Palette			
Reliability (Note 2)	633 fit / MTBF= 180 years				Operating @ +70°C
	< 10 fit				Storage @ 25°C

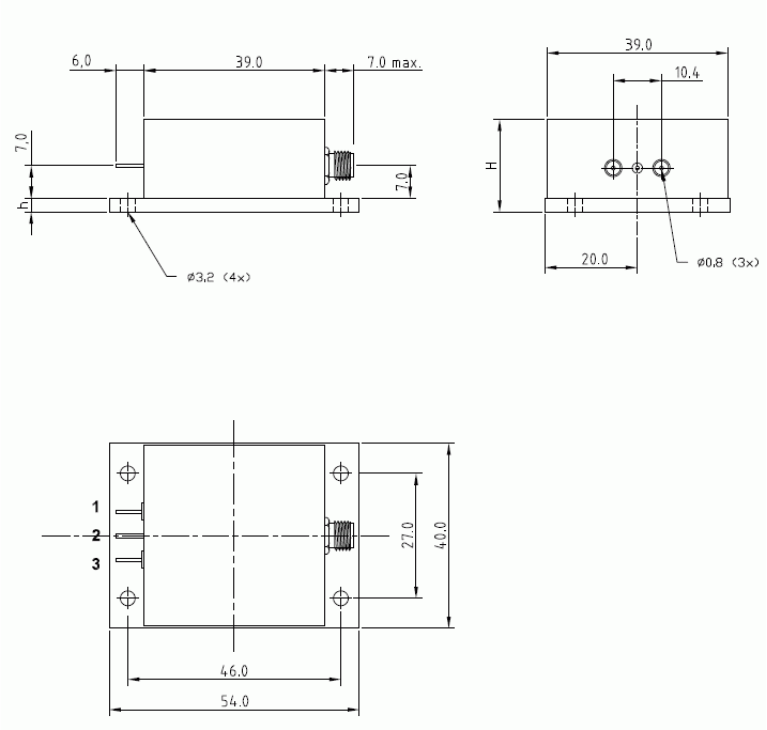
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Calculated in accordance with IEC 61709

Ordering Code:

Model (Specification)	Revision	Frequency [MHz]
AXMW1030GYT-01	Rev.3	1030.000

Enclosure drawing



Pin connections

Pin#	Symbol	Function
1	GATE	Gating Input
2	GND	Ground
3	V_S	Supply Voltage
SMA	RF OUT	RF Output

Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 clause ...	Test conditions
Sealing tests (if applicable)	2-17	4.6.2	Gross leak: Test Qc
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 6 axes 50G, 11 ms half-sine pulse
Vibration, sinusoidal*	2-6	4.6.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Endurance tests - ageing - extended aging		 4.7.1 4.7.2	 30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C

*Endurance test

Revision History

Rev.	Drawing	Date [dd.mm.yyyy]	Remarks	Author	Checked
1	D0	03.12.2007	First issue	BN	BN
2	D0	13.12.2010	Crystal frequency & min. supply voltage changed, editorial changes	BN	BN
3	D0	14.12.2010	Reliability figures added	BN	BN
3	D1	29.01.2011	Package height H and thickness of base plate (h) changed: PCN11012901	BN	BN
3	D2	01.10.2012	Minor editorial changes	BN	BN
3	D3	08.07.2014	Editorial changes	HH	HH