

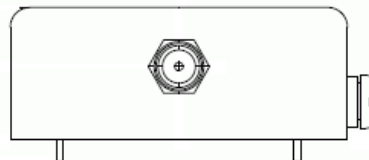
AXIOM55

VHF OXO - ULTRA LOW NOISE WITH SMA CONNECTOR

FEATURES

- Connectorized package, size 51 x 51 x 20.5 mm
- Ultra Low Phase Noise
- +7 dBm @ 50Ω Sine wave Output
- Standard frequencies: 10.0 / 100.0 / 106.5 / 120.0 / 125.0 MHz

51 x 51 x 20.5 mm max.



Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		150	MHz	
Standard frequencies	10.000 / 100.000 / 106.500 / 120.000 / 125.000			MHz	Note 2
Frequency stability					
Initial tolerance			± 500	ppb	@+25°C (@VC = 2.5 V)
vs. operating temperature range (steady state)			± 200	ppb	Option 2 = "200"
			± 100	ppb	Option 2 = "100"
			± 50	ppb	Option 2 = "50"
			± 25	ppb	Option 2 = "25"
			± 10	ppb	Option 2 = "10"
Operating temperature range	-10		+60	°C	
vs. supply voltage variation			± 20	ppb	V _s ± 5%, within 10 min.
vs. load change			± 20	ppb	± 5%
Long term stability per day after 30 days of continuous operation		± 5	± 10	ppb/day	Option 2="200", "100"
		± 2	± 5	ppb/day	Option 2="50", "25", "10"
Long term stability (aging per year) after 30 days of continuous operation		± 200	± 300	ppb/y	Option 2="200", "100"
			± 100	ppb/y	Option 2="50", "25", "10"
Frequency adjustment range					
Mechanical Frequency Control	± 1			ppm	Option 3 = "T"
Electronic Frequency Control (EFC)	± 1			ppm	Option 3 = "U"
EFC voltage V _C	0		VREF	V	Option 3 = "U"
EFC slope (Df / DV _C)		positive			Option 3 = "U"
EFC input impedance	100			kΩ	Option 3 = "U"
RF output					
Signal waveform		Sine wave			R _L = 50 Ω ± 10 %
Output level	+7			dBm	
Harmonics			-20	dBc	
Spurious			-80	dBc	
Phase Noise L(f) @ 100 MHz (Note 2)		-90		dBc/Hz	@ 10 Hz
		-120		dBc/Hz	@ 100 Hz
		-150		dBc/Hz	@ 1000 Hz
		-165		dBc/Hz	@ 10 kHz ~ 1 MHz
Warm-up time @ +25°C			5	min	Df(1h)/f ₀ < ± 0.1 ppm
Reference voltage VREF output		5.0		V	Load 10 kΩ min.
Supply voltage V _s	11.4	12.0	12.6	V	Note 2
Current consumption (steady state)			120	mA	@ +25°C
Current consumption (warm-up)			350	mA	
Operating temperature range	-10		+60	°C	
Operable temperature range	-20		+70	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) (LxWxH)	51x51x20.5max.			mm	
Weight			70	gram	

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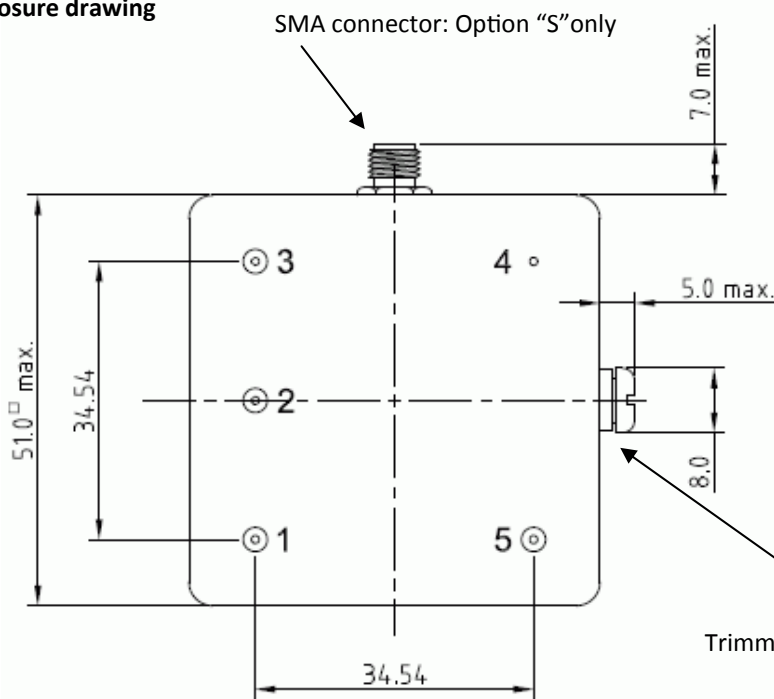
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1 and MIL-PRF55310, unless otherwise stated
2. Other frequencies, supply voltages, or phase noise values on request
3. Not all combinations of frequencies and options may be available

Ordering Code (Part number composition):

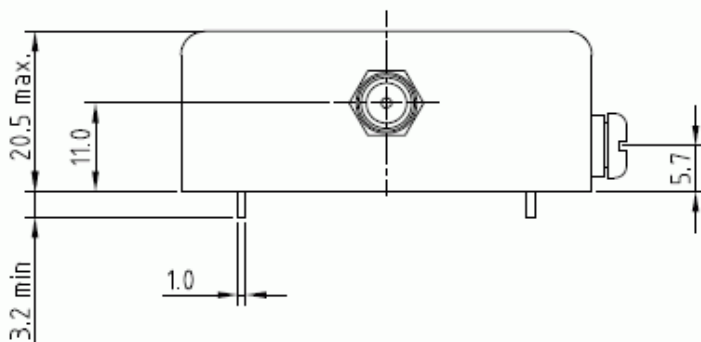
Model (Specification)	RF Output style	Option 2	Option 3	Frequency [MHz]
AXIOM55	_ (blank) = pin 3 S = SMA connector	100	T	100.000

Enclosure drawing



Pin connections:

Pin #	Symbol	Function
1	VC*	Control Voltage (EFC)*
2	VREF	Reference Voltage
3	RF OUT or N.C.	RF Output or No Connection (Option „S“)
4	GND	Ground
5	Vs	Supply Voltage



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VHF OCXO - ULTRA LOW NOISE WITH SMA CONNECTOR

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, Fine leak: Test Qk
Solderability	2-20	4.6.3	Test Ta (235 ± 5)°C Method 1
Resistance to soldering heat	2-58		Test Tb Method 1A, 5s
Shock*	2-27	4.6.8	Test Ea, 3 x per axes 100g, 6 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		4.7.1	30 days @ 85°C, OCXO @25°C
- extended aging		4.7.2	1000h, 2000h, 8000h @85°C

other environmental conditions on request