OX740 Series

Ultra low phase noise OCXO, Sine wave, 50.0 x 50.0 x 21.0mm

- Ultra - low noise OCXO
- SMA feed through
- Unit weight: 60gm max
- RoHS compliant

Output characteristics		
Parameter	**Specification**	**Remarks/Test condition**
Frequency range	80.0MHz ~ 160.0MHz	Standard: 100MHz, 120MHz
Supply voltage (Vs)	12.0V (typical)	Min: 11.4V, Max: 12.6V
Warm-up current consumption	475mA max	Higher for wide temp. Range
Steady state current consumption	275mA max	Higher for wide temp. Range
Operating temperature range	-10 ~ +60°C	
RF output		
Output waveform	Sine wave	
Output load	50.0Ω	±5%
Output level	Min: +14dBm, Typical: +16dBm	@ Vc = 5.0V
Harmonics	-40.0dBc max	
Spurious	-110.0dBc max	
Warm-up time at +25°C	Max: 5.0min	Δf final/ fnominal < ±200.0ppb
Phase noise	See table 1	
G-sensitivity	Max: 1.0ppb/g	Per axis
Frequency stability (Typical, @ 10.00MHz)		
Initial tolerance	±300.0ppb max	At +25°C, Vc = 5.0V
vs Operating temperature range	±200.0ppb max	Steady state
vs supply voltage variation	±20.0ppb max	Vs ± 5%
Long term aging/day	±2.0ppb max	After 30 days operation
Long term aging 1st year	±200.0ppb max	After 30 days operation
Frequency adjustment range		
Electronic frequency control (EFC)	Min: ±1.0ppm, typical: ±2.0ppm	
EFC voltage Vc	5.0V ± 5.0V	
EFC slope	Positive	
EFC input impedance	100.0kΩ min	
Absolute maximum ratings		
Supply voltage Vs	Min: - 0.5V / Max: Vs + 10%	Vs to GND
Control voltage Vc	Min: -0.5V / 15V	Vc to GND
Storage temperature	-55°C ~ +125°C	

Table 1: Phase noise (Unit: dBc/Hz)										
	100.0MHz					120.0MHz				
Offset	**Option A**	**Option B**	**Option C**	**Option D**	**Option E**	**Option A**	**Option B**	**Option C**	**Option D**	**Option E**
10 Hz	-90	-95	-97	-100	-105	-85	-90	-95	-97	-100
100 Hz	-125	-130	-132	-135	-137	-118	-122	-125	-127	-130
1k Hz	-155	-158	-160	-162	-164	-148	-150	-153	-155	-157
10 kHz	-175	-176	-176	-176	-178	-160	-165	-168	-171	-175
≥100 kHz	-180	-180	-180	-180	-180	-180	-180	-180	-180	-180

ACT (A wholly owned Acal BFi Company)
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ISO9001 Registered

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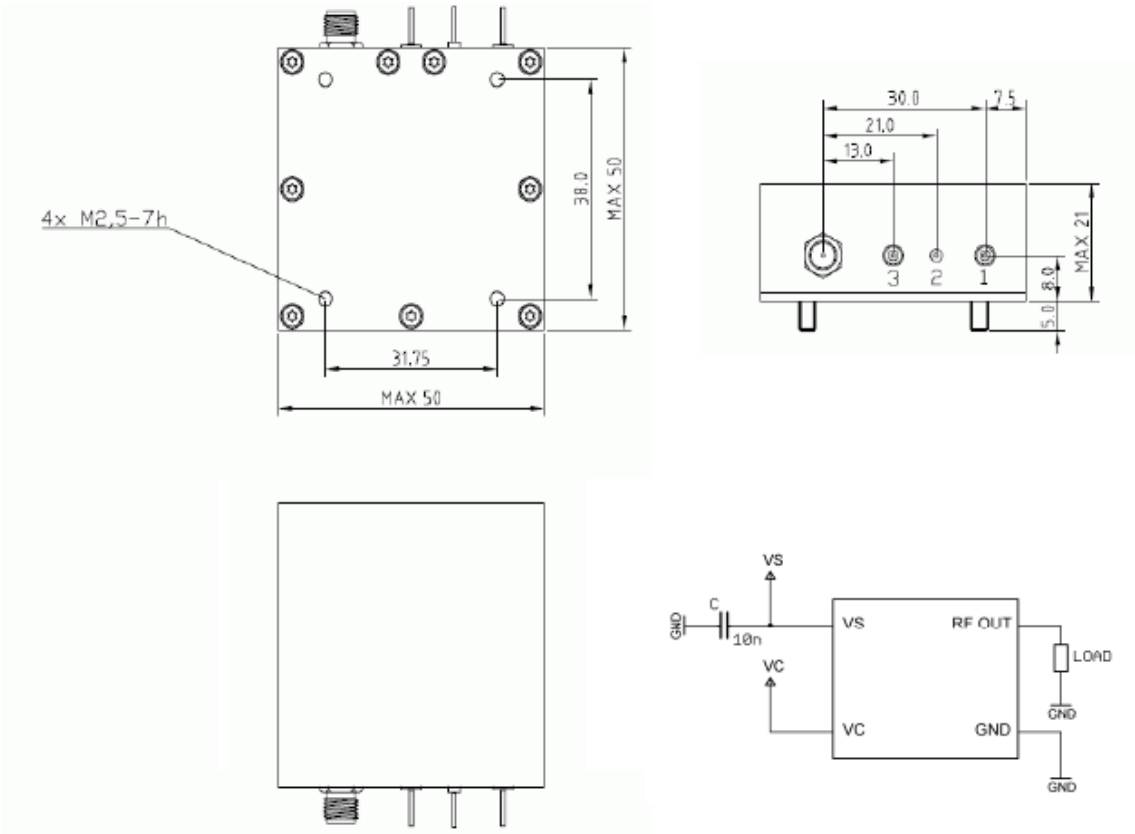

Pin connections:

Pin #	Symbol	Function
1	V_S	Supply Voltage
2	GND	Ground
3	V_C	Control Voltage (EFC)
SMA	RF OUT	RF Output

ACT part number

ACT will provide a unique part number with full specification based on your requirements, please provide the following details.

ACT series	Frequency (MHz)	Supply voltage (V)	Output type	Frequency stability (ppb)	Operating temperature range (°C)	Phase noise
OX740						Option A Option B Option C Option D Option E

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Table 3: Environmental conditions						
Test	IEC60068 part...	IEC 60679-1 Clause	MIL-STD-202G Method	MIL-PRF-810F Method	**MIL-PRF-55310D Clause**	**Test conditions (IEC)**
Sealing tests (if applicable)	2-17	5.6	112E		3.6	Gross leak: Test QC, Fine leak : Test QK
Solderability resistance to soldering heat	2-20 2-58	5.6	208H 210F		3.6.52 3.6.48	Test Ta Method 1 Test Td1 Method 2 Test Td2 Method 2
Shock	2-27	5.6.8	213B	516.4	3.6	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, 10Hz - 55Hz 0, 75mm; 55Hz-2kHz, 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 - extend aging		5.7.1 5.7.2	108A		4.8	30 days @ 85°C, OCXO @ 25°C 1000h, 2000h, 8000h @ 85°C

Drawing control: (Internal use only)
Issue number : 1
Date : 01/06/2017
Internal reference : O1