PFOC18 series Ultra High Stability，Low Phase Noise，OCXOs

FEATURES

Ultra High Stable, up to ±2E-10

Ultra Low Aging, up to ±1E-8 per year

Low Phase Noise

Stratum II Clock

FREQUENCY RANGE: 5MHz ~ 20MHz

STANDARD FREQUENCY: 5MHz, 8.192MHz, 10MHz, 16.384MHz

SUPPLY VOLTAGE

Parameters	Min.	Typ	Max.	Units	Conditions	Ordering code
Supply voltage	11.4	12	12.6	VDC	-	**P12**
Power consumption	-	-	8.4	Watts	During warm up	
	-	-	3.0	Watts	Steady state, static air, 25℃	
Warm-up time	-	-	5	min	With accuracy of ±1E-8, 25℃.	

ELECTRICAL PARAMETERS

Output

Parameters	Min.	Typ	Max.	Units	Conditions	Ordering code
Output wave	Sinewave, output power: 7.0 dBm			-	-	**S3**
Parameters	**Min.**	**Typ**	**Max.**	**Units**	**Conditions**	
Harmonics	-	-	-30	dBc	-	
Spurious	-	-	-70	dBc	-	
Load	-	50	-	Ohm	-	
Stability vs. Load	-	-	±0.2	ppb	Load ±5%	
Stability vs. Supply	-	-	±0.2	ppb	Supply voltage ±5%	

Aging

Parameters	Min.	Typ	Max.	Units	Conditions	Ordering Code
Aging per year	-	-	±0.01	ppm	After 30 days of continues operating	**A**
Aging per year	-	-	±0.02	ppm		**B**
Aging per year	-	-	±0.03	ppm		**C**
Aging per year	-	-	±0.05	ppm		**D**

Frequency Adjustment

Parameters	Min.	Typ	Max.	Units	Conditions	Ordering Code
EFC	±0.3	-	-	ppm	-	**E**
Linearity	-	-	±10	%	-	
Pull slope	positive				-	
Control voltage range	0	2.5	5	V	-	
Reference voltage output	5.0			V	-	

FREQUENCY STABILITY vs. TEMPERATURE

Frequency Stability vs. Temperature range	±1E-9	±5E-10	±3E-10	±2E-10	-	-	Remark
	Ordering Code						Other temperature range and stability are available upon request
0 to 50℃	FG109	FG510	FG310	FG210	-	-	
-10 to 60℃	EK109	EK510	EK310	EK210	-	-	
-20 to 70℃	DL109	DL510	DL310	DL210	-	-	
-	-	-	-	-	-	-	
-55 to 85℃	Contact us						

PHASE NOISE

Parameters		**Typ**	**Units**	**Ordering code**
Phase noise (10MHz)	10Hz offset	-120	dBc/Hz	L
	1KHz offset	-145	dBc/Hz	
	10KHz offset	-150	dBc/Hz	
	Special requirement, please consult factory.			

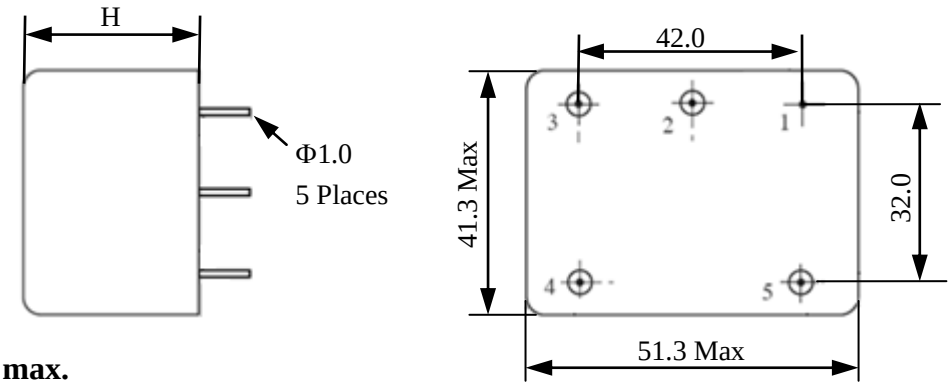
ADDITIONAL PARAMETERS

Parameters	**Min.**	**Typ**	**Max.**	**Units**	**Conditions**
Weight		TBD		g	-
Processing & package		Handling & processing note			-

ABSOLUTE MAXIMUM RATINGS

Parameters	**Min.**	**Typ**	**Max.**	**Units**	**Conditions**
Supply voltage	-	-	15	V	P12
Storage temperature	-55	-	+85	℃	-

OUTLINE DRAWING AND PIN OUT



H=19.0mm, max.

Pin Out

Pin	Symbol	Description
1	GND	Ground,Case
2	Vc	Electronic Frequency Control Input
3	Vref	Reference Voltage Output
4	V_{DD}	Supply Voltage
5	OUT	Frequncy OUT

ORDERING IFORMATION

Step 1: customer use this worksheet to forward the following information to factory:

Code	**PFOC18**	**—**	**P12**	**FG**	**310**	**L**	**E**	**C**	**S3**	**—**	**10**	**MHz**
Description	Model	-	Supply Voltage	Temp. range	Temp. Stability	Phase Noise	Frequency Adjustment	Aging per year	Output waveform	-	Nominal frequency	Unit
Example	OCXO 51*41	-	12V	0 to 50℃	±3E-10	-	EFC	±30ppb	Sinewave 7dBm	-	10	MHz

Temperature Code

Temperature	Code	Temperature	Code	Temperature	Code	Temperature	Code
-55	A	-40	B	-30	C	-20	D
-10	E	0	F	50	G	60	K
70	L	85	M	-	-	-	-

Step 2: Factory will then respond with a PFC model number in the following configuration:

Model	**Dash**	**Dash Number**
PFOC18	—	[Factory generated 4 digit number]

For example: PFOC18-0001

Notice:

1. Consult factory about your tighter stabilities or additional product option. Not all options and codes are available at all frequencies.
2. Aging rates are dependent on the frequency, overtone and cut of crystal. Please consult factory about your exact requirements.
3. 1ppm=1E-6.
4. 1ppb＝1E-9.
5. Specifications are subject to change without notice.