

Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

Features and Benefits

Extended Operating Temperature Range -55°C to +125°C 1.8V, 2.5V or 3.3V supply Frequency Range 1.25 MHz to 100 MHz 2.5 x 2.0 mm package \pm 50 ppm total stability Tight symmetry (45 to 55%) available Low phase jitter: (25 pS Pk-Pk Period jitter, typical) Tri-state enable / disable

Typical Applications

Extreme environment applications Commercial space, car / aircraft engine and aerospace Oil drilling, geothermal Industrial instrumentation

Description

A new series generation of extended temperature clock oscillators with the latest low jitter integrated circuit topologies.

Mechanical Drawing & Pin Connections

Drawing No: MD160028-1

Unit: mm 1mm = 0.0394 in





Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside; such as data tables and araphs without notification to potential customers who may have earlier revisions in their possession.



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XO2520S-ET Extended Temperature Clock Oscillator

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Specifications

General Specifications						
Parameter	1.8V		2.5V		3.3V	
	Min.	Max.	Min.	Max.	Min.	Max.
Frequency Range	1.25 MHz	100 MHz	1.25 MHz	100 MHz	1.25 MHz	100 MHz
Power Supply Voltage	1.62\/	1.09\/	2.25\/	2.75\/	2.07\/	2 62\/
(V _{DD}) ±10%	1.02 V	1.90 V	2.250	2.750	2.97 V	3.03 V
Supply Current						
Fo ≤ 80 MHz	-	5mA	-	8mA	-	10mA
Fo≥80 MHz	-	8mA	-	10mA	-	15mA
Duty Cycle	45%	55%	45%	55%	45%	55%
Output Level (CMOS)						
Output High (Logic "1")	1.62V	-	2.25V	-	2.97V	-
Output Low (Logic "0")	-	0.18V	-	0.25V	-	0.33V
Tri-State (Input to Pin 1)						
Enable (High voltage or floating)	1.26V	-	1.75V	-	2.31V	-
Disable (Low voltage or GND)	-	0.54V	-	0.75V	-	0.99V
Rise Time (Tr)/Fall Time (Tf)		EnSoa		1		2 2 2 2 2 2 2
(10% V _{DD} – 90% V _{DD})	-	SUSEC	-	4 15ec	-	3 1360
Output Load	15 pF					
Start-up Time	-	2mSec	-	2mSec	-	2mSec
Period Jitter (pk-pk)	-	40 pSec	-	40 pSec	-	40 pSec
RMS Phase Jitter		1 n Soc		1 0 500		1 0 5 0 0
(Integrated 12 kHz – 20 MHz)	-	i poec	-	i hoer	-	i hoer
Aging (first year at 25°C)	-	±3 ppm	-	±3 ppm	-	±3 ppm
Storage Temp. Range	-55°C	+125°C	-55°C	+125°C	-55°C	+125°C

Stability vs. Temperature Range Availability			
	Temperature Range		
Stability in ppm	-55°C to +125°C		
±50	Available		

Please contact Dynamic Engineers, Inc. for further details.

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