

Helping Customers Innovate, Improve & Grow



Features

- Frequency: 1MHz to 80 MHz
- 20 Lead Flatpack package
- Package equivalent of MIL-PRF-55310/21
- 4-Point resonator mount for high shock & vibration performance
- MIL-PRF-55310 "B" Level Screening Available
- Surface Mount, Low Profile
- Custom Lead Forming available
- Output option: AC MOS, TTL
- No Pure Tin is used in this product
- Gold Plated or Solder Lead Finish Coated options
- Previous Model: MC061
- Made in USA
- ECCN: EAR99

Applications

- Low Voltage Clock Applications
- Military Portable Radios
- Avionics and Instrumentation
- Test and Measurement Equipment
- Medical Equipment
- Navigation

Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
Frequency Stabilities¹					
vs. operating temperature range (referenced to +25°C)	-15		+15	ppm	0... +70°C
	-25		+25	ppm	
	-50		+50	ppm	
	-100		+100	ppm	
	-25		+25	ppm	-40... +85°C
-50		+50	ppm		
-100		+100	ppm		
	-50		+50	ppm	-55... +85°C
	-100		+100	ppm	
	-50		+50	ppm	-55... +105°C
	-100		+100	ppm	
	-50		+50	ppm	-55... +125°C
	-100		+100	ppm	
Initial tolerance	-15		+15	ppm	@+25°C
	-25		+25	ppm	
	-50		+50	ppm	
	-100		+100	ppm	

Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
Overall tolerance (Referenced to +25°C) (includes operating temperature and initial accuracy)	-20		+20	ppm	0... +70°C
	-25		+25	ppm	
	-50		+50	ppm	
	-100		+100	ppm	
	-25		+25	ppm	-40... +85°C
-50		+50	ppm		
-100		+100	ppm		
-50		+50	ppm	-55... +85°C	
-65		+65	ppm		
-100		+100	ppm		
-50		+50	ppm	-55... +105°C	
-65		+65	ppm		
-100		+100	ppm		
-65		+65	ppm	-55... +125°C	
-80		+80	ppm		
-100		+100	ppm		
vs. supply voltage change	-2		+2	ppm	VS ± 5% Load ± 5% after 30 days of operation
vs. load change	-1		+1	ppm	
vs. aging / 1st year	-3		+3	ppm	
vs. aging / year (following years)	-1		+1	ppm	
Supply Voltage (Vs)					
Supply voltage	4.75	5.0	5.25	VDC	
Supply voltage	3.135	3.3	3.465	VDC	
Current consumption (+5 VDC)			15 20 40	mA mA mA	ACMOS or TTL 1.0 to 23.9 MHz ACMOS or TTL 24 to 49.9 MHz ACMOS or TTL 50 to 80.00 MHz
Current consumption (+3.3 VDC)			6 8 12 16	mA mA mA mA	ACMOS 1.0 to 14.9 MHz ACMOS 15.0 to 39.9 MHz ACMOS 40.0 to 59.9 MHz ACMOS 60.0 to 80.0 MHz

Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
RF Output					
Signal	ACMOS				
Load		15		pF	
Signal Level (Vol)			0.5 0.3	VDC VDC	with Vs=5.0V and 15pF load with Vs=3.3V and 15pF load
Signal Level (Voh)	4.5 3.0			VDC VDC	with Vs=5.0V and 15pF load with Vs=3.3V and 15pF load
Rise and fall times for ACMOS (measured 10% to 90%)			10 6	ns ns	1.0 to 23.9 MHz and 15pF load 24.0 to 80.0 MHz and 15pF load
Duty cycle	45 40		55 60	% %	@ 50% < 15 MHz @ 50% => 15 MHz
Signal	TTL				
Load			10	TTL	
Signal Level (Vol)			0.4	VDC	
Signal Level (Voh)	+2.4			VDC	
Rise and fall times for TTL (measured 0.8V to 2.0V)			5 3	ns ns	1.0 to 23.9 MHz 24.0 to 125 MHz
Duty cycle	45 40		55 60	% %	@ 1.4V < 15 MHz @ 1.4V >= 15 MHz
Parameter	Min	Typ	Max	Units	Condition
Absolute Maximum Ratings					
Supply voltage (Vs)			7.0	V	with Vs = 5.0 VDC and 3.3 VDC
Operable temperature range	-55		+125	°C	
Storage temperature range	-62		+125	°C	

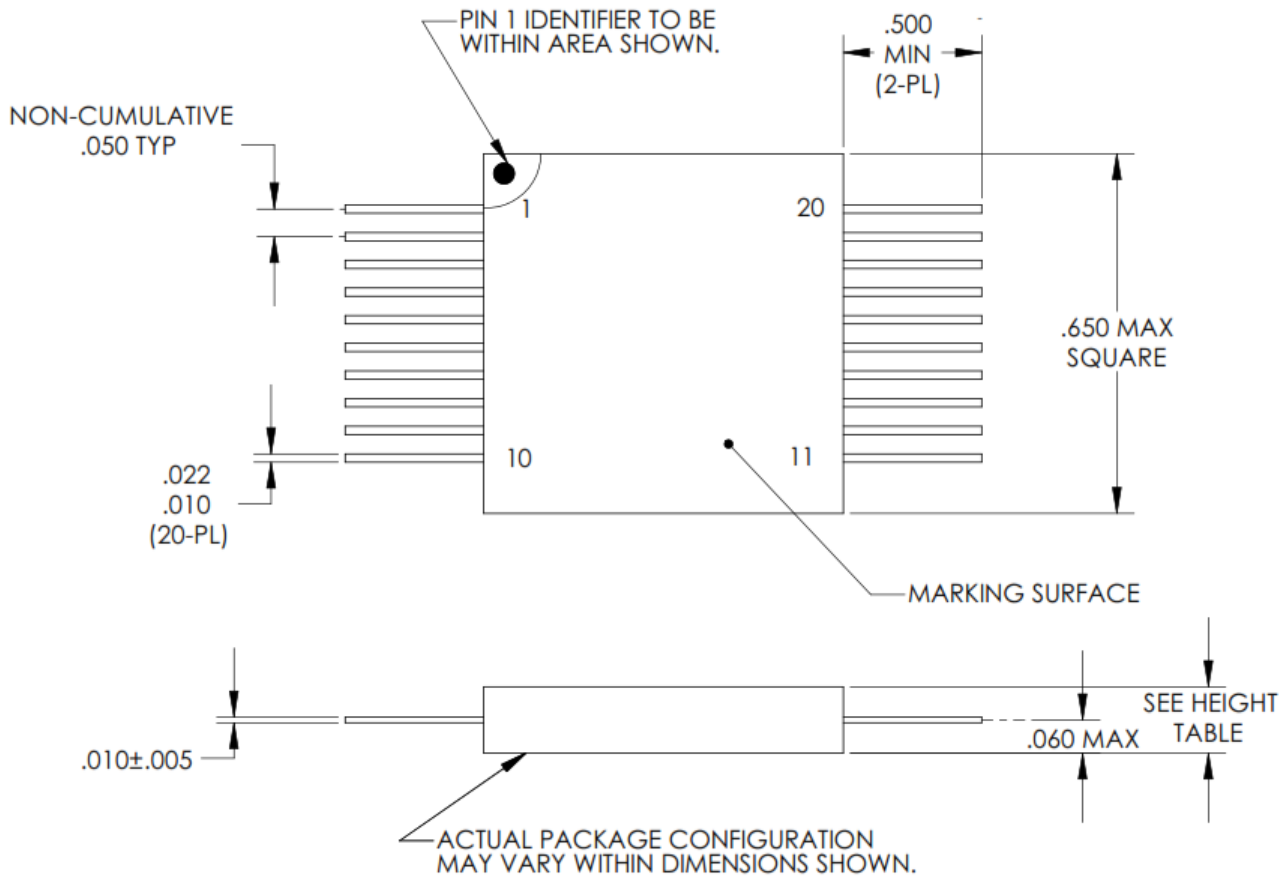
Additional Parameters

Screening	Vectron Verification
	Class B, MIL-PRF-55310

Standard Environmentals

Vibration	MIL-STD-202, Method 204, Condition G (30 G, 10Hz-2000Hz)
Shock	MIL-STD-202, Method 213, Condition I (100 G, 6ms, Sawtooth)
Acceleration	MIL-STD-883, Method 2001, Condition A (5000 G, Y1 Plane)
Temperature Cycling	MIL-STD-883, Method 1010, Condition B
Thermal Shock	MIL-STD-883, Method 107, Condition B
Solderability	MIL-STD-202, Method 208
Leak Test (Fine and Gross)	MIL-STD-883, Method 1014, Condition A1 and C1

Outline Drawing / Enclosure



Height		
Code	Height "H"	Pin Length
0	0.12"	0.50"
1	0.15"	0.50"

Pin Connections	
10	Ground (Case)
11	RF Output
13 or 20	Supply
others	all others have no internal connection

Ordering Information

PX - 360 0 - D A T - F K X B - 10M000000

Product Family
PX: PXO

Package
20-lead 0.65" SQ Flatpack

Enclosure
0: 0.120" height
1: 0.150" height
2: 0.120" height with solder coated leads
3: 0.150" height with solder coated leads

Supply Voltage
D: 5 Vdc
E: 3.3 Vdc

RF Output Code
A: AC MOS
B: TTL

Temperature Range
A: -55°C to +85°C
B: -55°C to +105°C
C: -55°C to +125°C
E: -40°C to +85°C
T: 0°C to +70°C

Frequency

Screening Option
B: MIL-PRF-55310 "B" Level Screening Available
X: No Screening

Enable Code
X: No Enable

Temperature Stability Code

(Reference to **Table: I**)

D: ±15ppm
F: ±25ppm
K: ±50ppm
P: ±80ppm
S: ±100ppm
Z: ±65PPM
X: Use with Overall Tolerance Code

Accuracy Code @ 25°C or **Overall Temp Stability Code**

(Reference to **Table: II**)
D: ±15ppm
F: ±25ppm
K: ±50ppm
P: ±80ppm
S: ±100PPM
Z: ±65PPM

Available Temperature Stability Code	
Temp Range	Temp Stability
A: -55°C to +85°C	K: ± 50ppm
B: -55°C to +105°C	Z ± 65ppm
	P ± 80ppm
C: -55°C to +125°C	S ± 100ppm
	F: ± 25ppm
E: -40°C to +85°C	K: ± 50ppm
	Z ± 65ppm
	P ± 80ppm
	S ± 100ppm
T: 0°C to +70°C	D: ± 15ppm
	F: ± 25ppm
	K: ± 50ppm
	Z ± 65ppm
	P ± 80ppm
	S ± 100ppm

Table: I

Available Overall Tolerance Code		
Temp Range	Overall Tolerance	Temp Stability
A: -55°C to +85°C	Z: ± 65ppm	X
B: -55°C to +105°C	P: ± 80ppm	X
	S: ± 100ppm	X
C: -55°C to +125°C	K: ± 50ppm	X
	Z: ± 65ppm	X
	P: ± 80ppm	X
	S: ± 100ppm	X
E: -40°C to +85°C	F: ± 25ppm	X
	K: ± 50ppm	X
	Z: ± 65ppm	X
	P: ± 80ppm	X
	S: ± 100ppm	X
T: 0°C to +70°C	F: ± 25ppm	X
	K: ± 50ppm	X
	Z: ± 65ppm	X
	P: ± 80ppm	X
	S: ± 100ppm	X

Table: II

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Notes:

1. Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
2. Subject to technical modification.
3. Contact factory for custom requirements.

For Additional Information, Please Contact

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