

# Product Configuration Guide

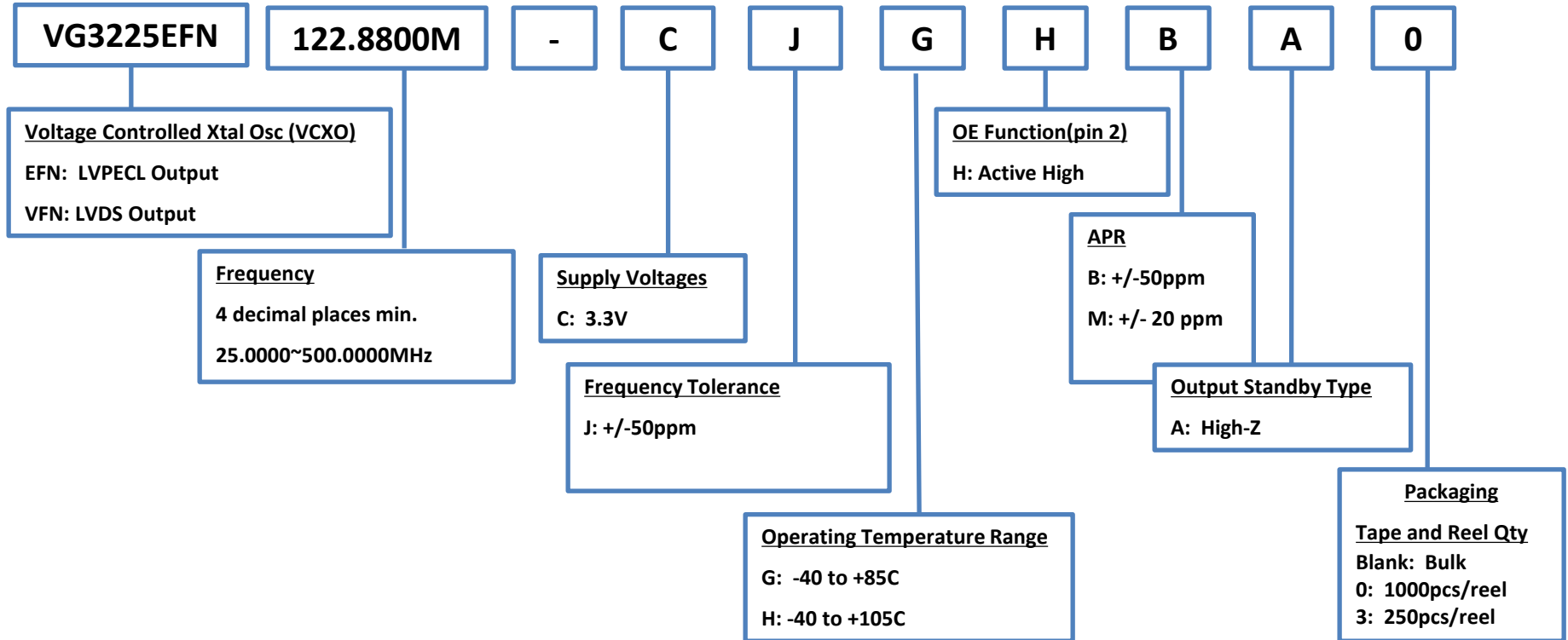
## VOLTAGE CONTROLLED OSCILLATORS





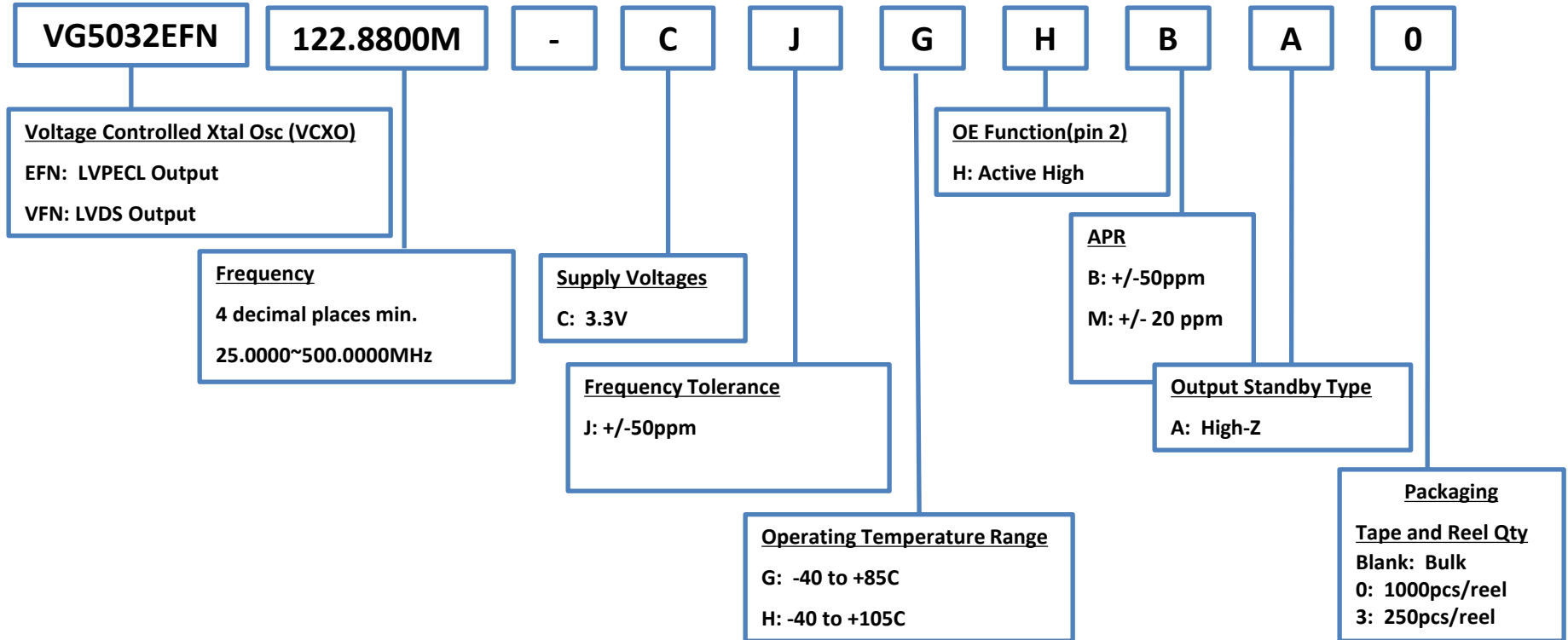
# Product Configuration System

## Oscillators - VCXO



# Product Configuration System

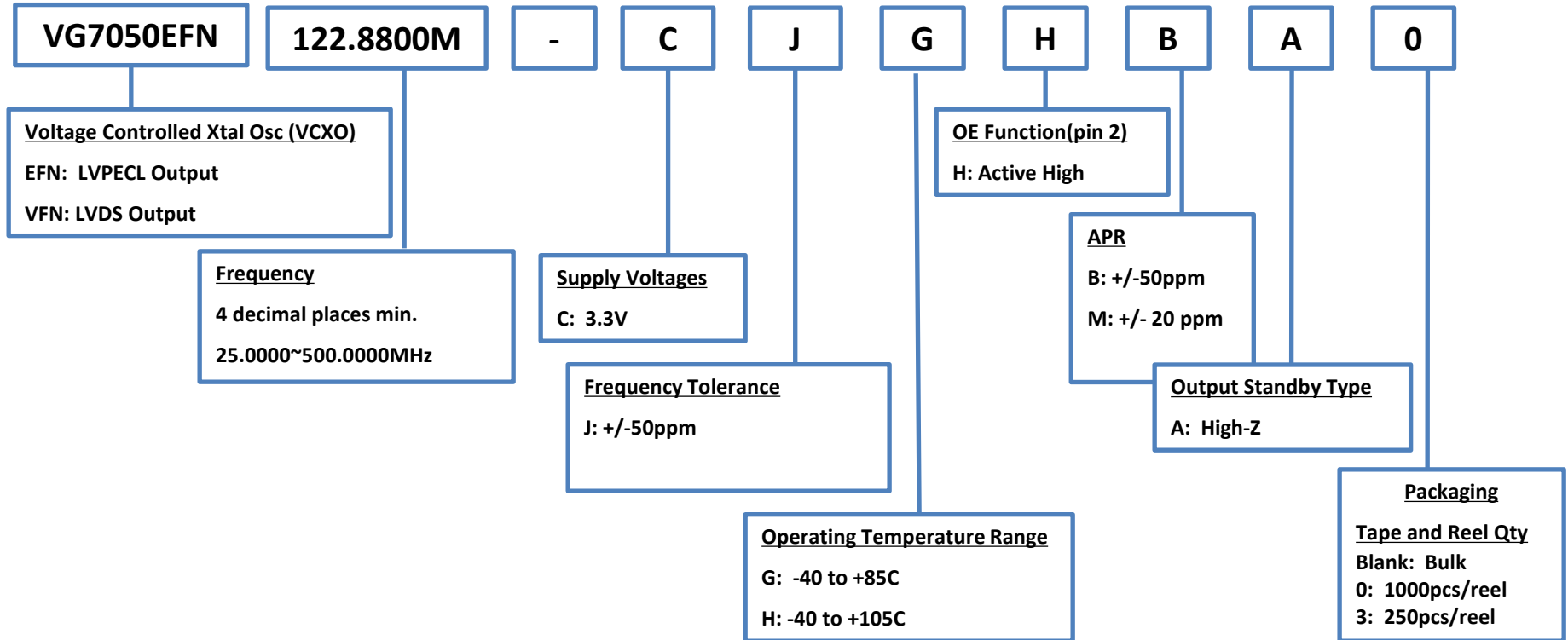
## Oscillators - VCXO





# Product Configuration System

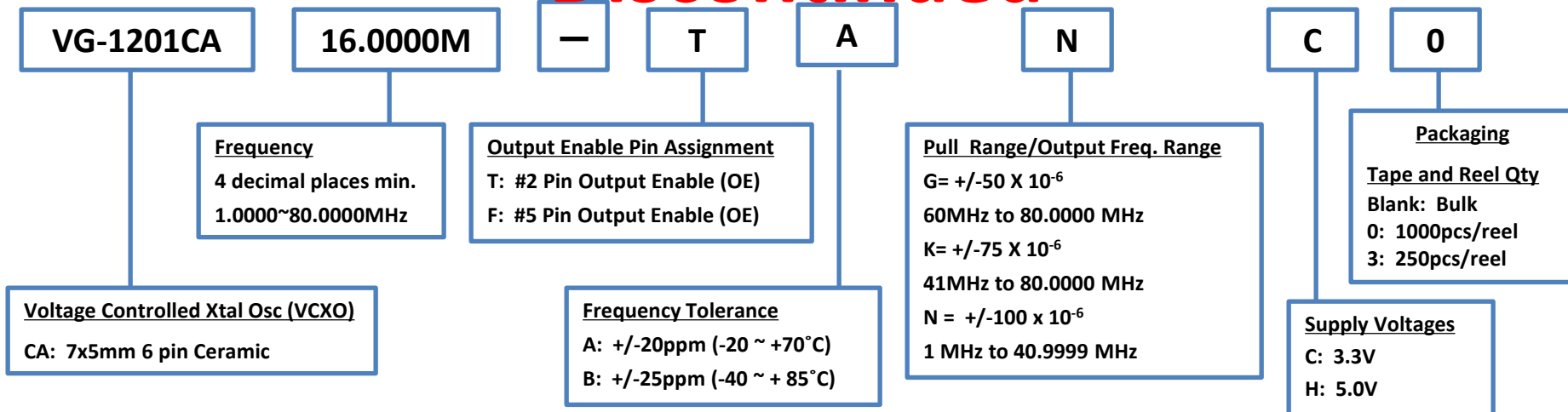
## Oscillators - VCXO



# Product Configuration System

## Oscillators - VCXO

# Discontinued



CODE	STABILITY	OPERATING TEMP.	PULL RANGE	OUTPUT FREQ.
ANC / ANH	+/-20PPM	-20C to +70°C	+/-100PPM	1MHz to 40.9999MHz
AKC / AKH	+/-20PPM	-20C to +70°C	+/-75PPM	41MHz to 80.0000MHz
BNC / BNH	+/-25PPM	-40C to +85°C	+/-100PPM	1MHz to 40.9999MHz
BKC / BKH	+/-25PPM	-40C to +85°C	+/-75PPM	41MHz to 80.0000MHz

# Product Configuration System



## Oscillators - VCXO

# Not Recommended

VG-4231CA

12.2880M

-

T

D

R

C

0

Voltage Controlled Xtal Osc (VCXO)

CA: 7x5mm 6 pin Ceramic

Output Enable Pin Assignment

T: #2 Pin Output Enable, 50Kohm min. input impedance

F: #5Pin Output Enable, 50Kohm min. input impedance

Z: #2pin Output Enable, 10Mohm min. input impedance

M: #5pin Output Enable, 10Mohm min. input impedance

Packaging

Tape and Reel Qty

Blank: Bulk

0: 1000pcs/reel

3: 250pcs/reel

Frequency

1.0000~60.0000MHz

4 decimal places min.

Frequency Tolerance

D: +/-35ppm (-20 ~ +70°C)

G: +/-50ppm (-40 ~ + 85°C)

Freq Control Range

R: +/-130 X 10<sup>-6</sup>

Supply Voltage

C: 3.3V

H: 5.0V

Available Combinations

TDRH / TDRH / FDRH / FDRH

TGRH / TGRH / FGRH / FGRH

NOTE:

Output Enable Pin Assignment Z and M are not available with Supply Voltage H (5.0V)

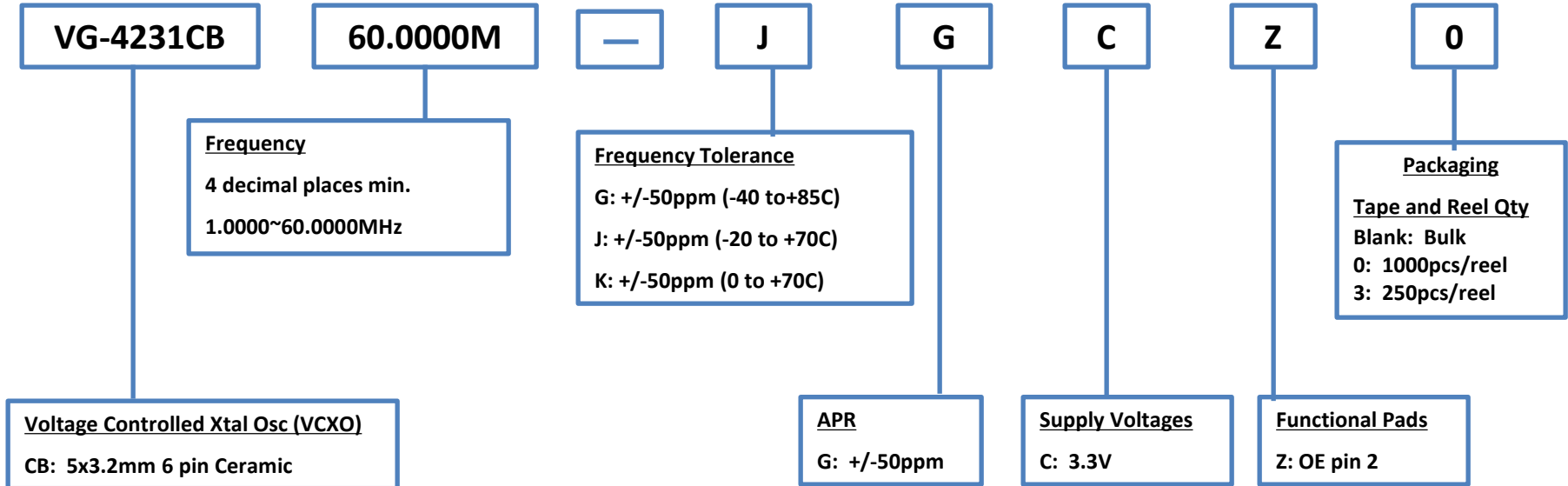
# EPSON

January, 2022



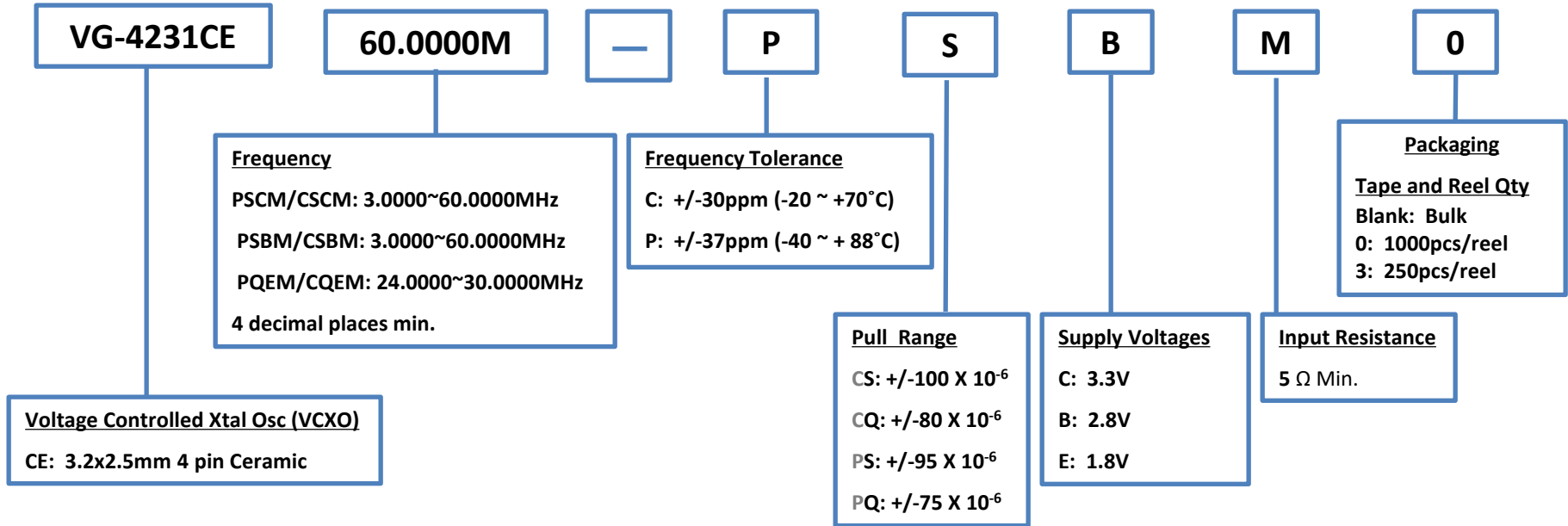
# Product Configuration System

## Oscillators - VCXO



# Product Configuration System

## Oscillators - VCXO



CODE		Frequency Tolerance	Temperature Range	Absolute Pull Range
CSCM / CSBM/CQEM	C	+/-30 x 10 <sup>-6</sup>	-20 °C to + 70°C	S : +/-100 x 10 <sup>-6</sup> / Q : +/-80 x 10 <sup>-6</sup>
PSCM/PSBM/PQEM	P	+/-37 X 10 <sup>-6</sup>	-40°C to + 85°C	S : +/-95 x 10 <sup>-6</sup> / Q : +/-75 x 10 <sup>-6</sup>



# Product Configuration System



## Oscillators - VCXO

# Discontinued

VG-4232CA

Voltage Controlled Xtal Osc (VCXO)  
CA: 7x5mm 6 pin Ceramic

61.4400M

Frequency  
60.0001~80.0000MHz  
4 decimal places min.

-

T

Output Enable Pin Assignment  
T: #2 Pin Output Enable, 50Kohm min. input impedance  
F: #5Pin Output Enable, 50Kohm min. input impedance  
Z: #2pin Output Enable, 10Mohm min. input impedance  
M: #5pin Output Enable, 10Mohm min. input impedance

G

Frequency Tolerance  
G: +/-50ppm (-40 ~ + 85°C)  
J: +/-50ppm (-20 ~ + 70°C)  
K: +/-50ppm (-0 ~ + 70°C)

G

Absolute Pull Range  
G: +/-50 X 10<sup>-6</sup>

C

Supply Voltage  
C: 3.3V  
H: 5.0V

0

Packaging  
Tape and Reel Qty  
Blank: Bulk  
0: 1000pcs/reel  
3: 250pcs/reel

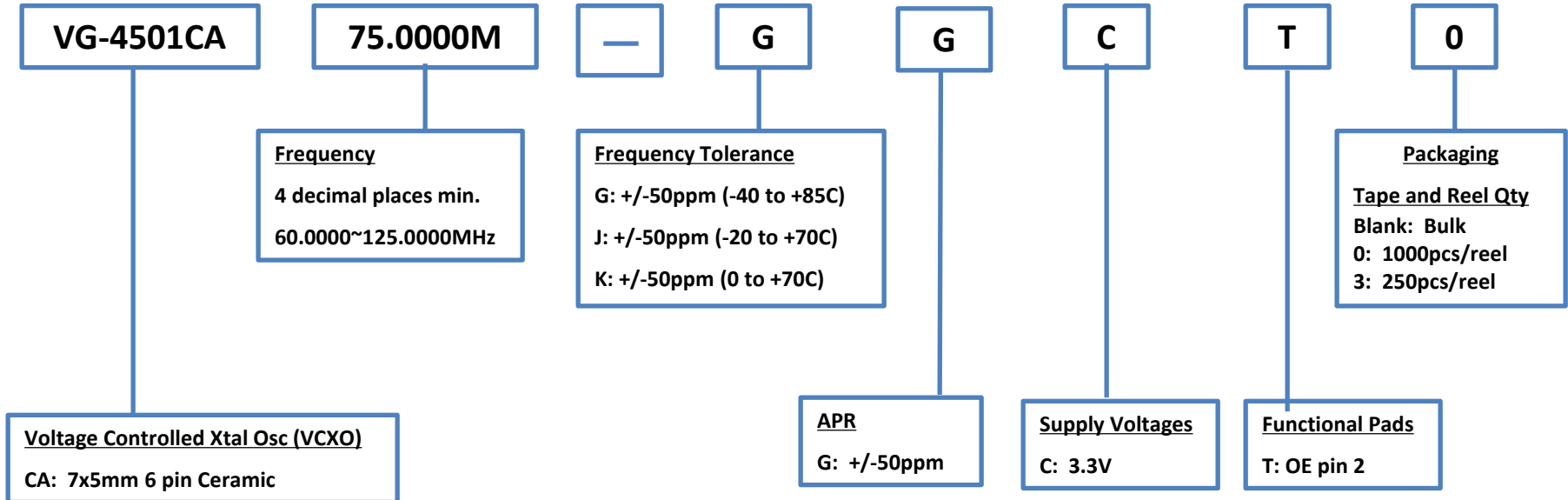




# Product Configuration System

## Oscillators - VCXO

# Not Recommended

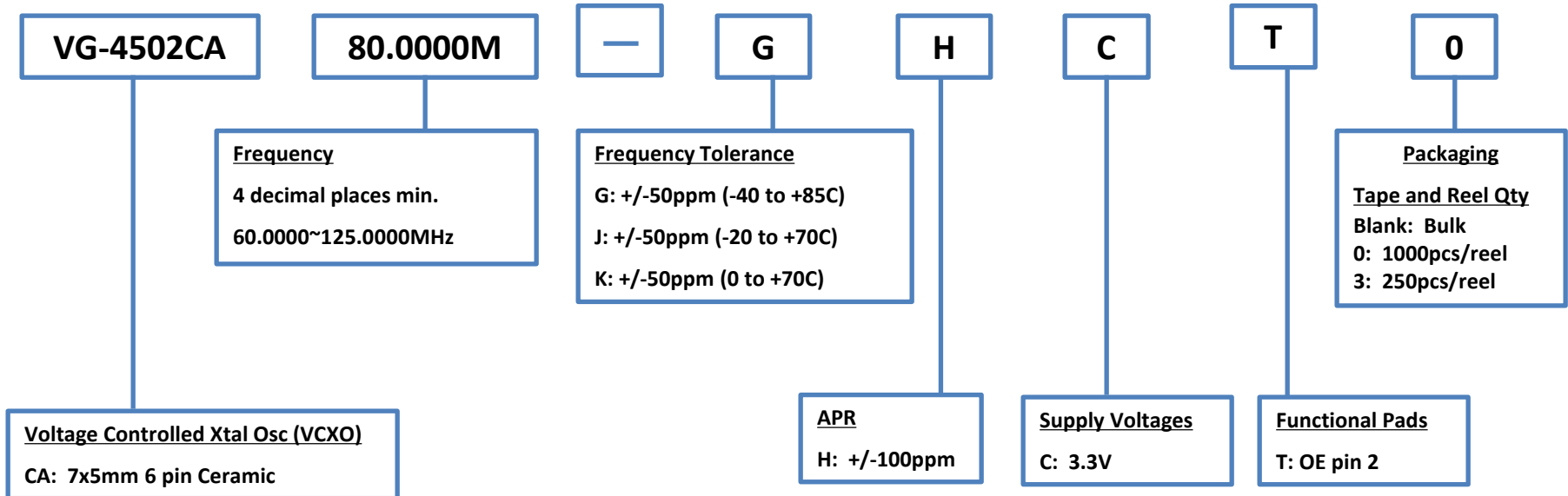




# Product Configuration System

## Oscillators - VCXO

# Not Recommended

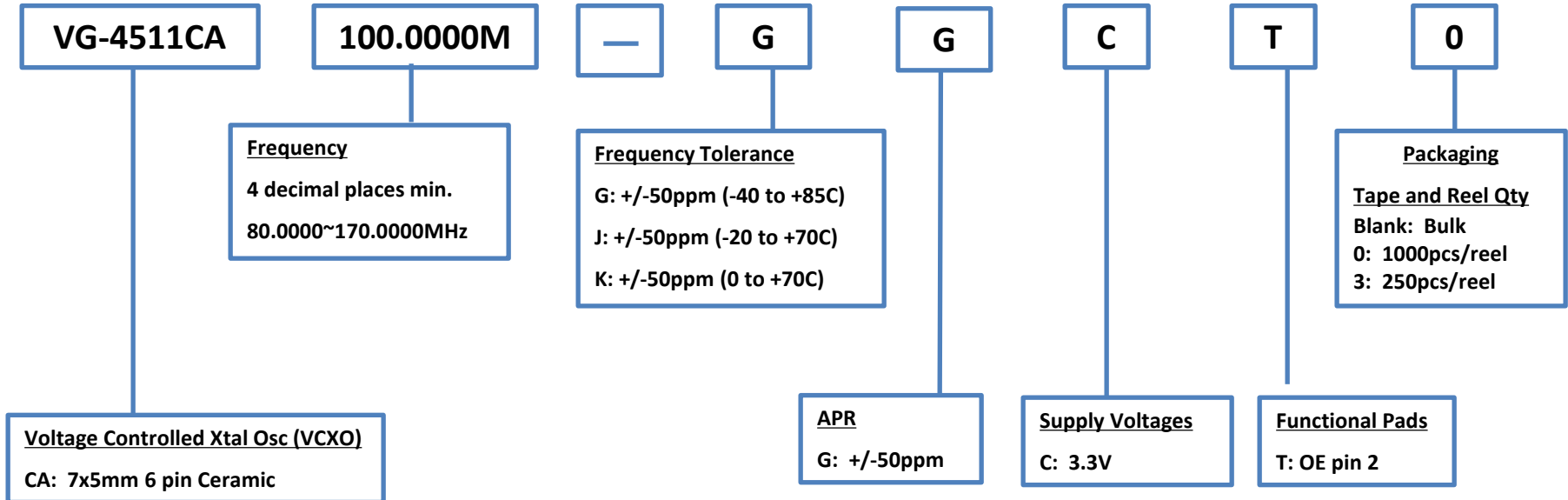




# Product Configuration System

## Oscillators - VCXO

# Discontinued

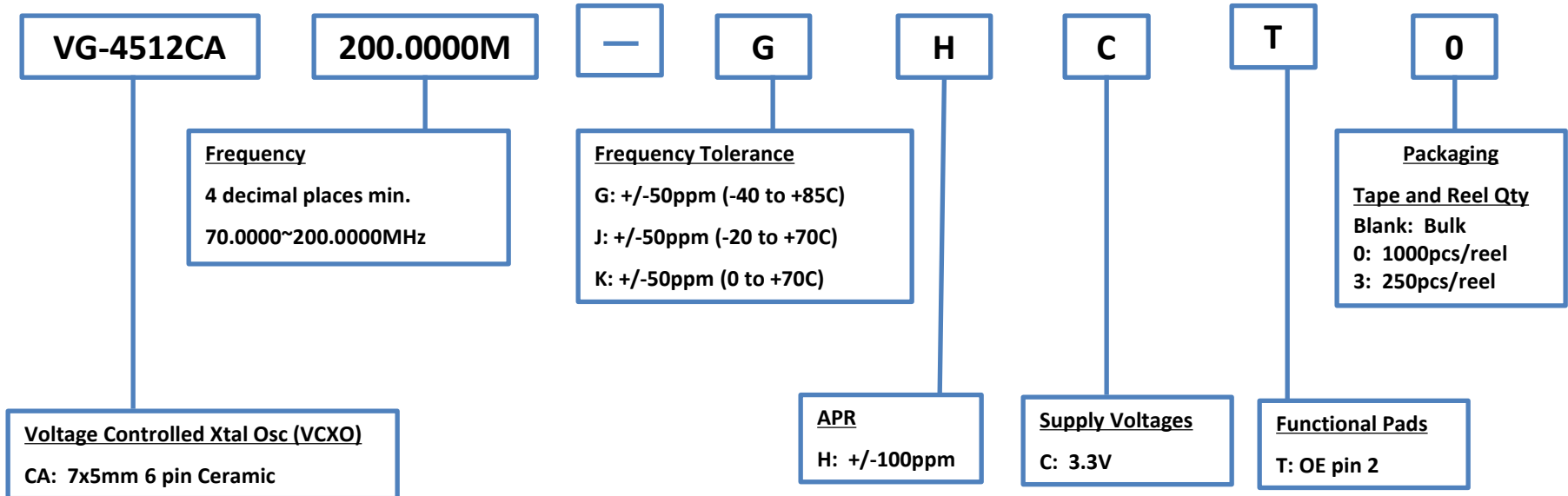




# Product Configuration System

## Oscillators - VCXO

# Discontinued

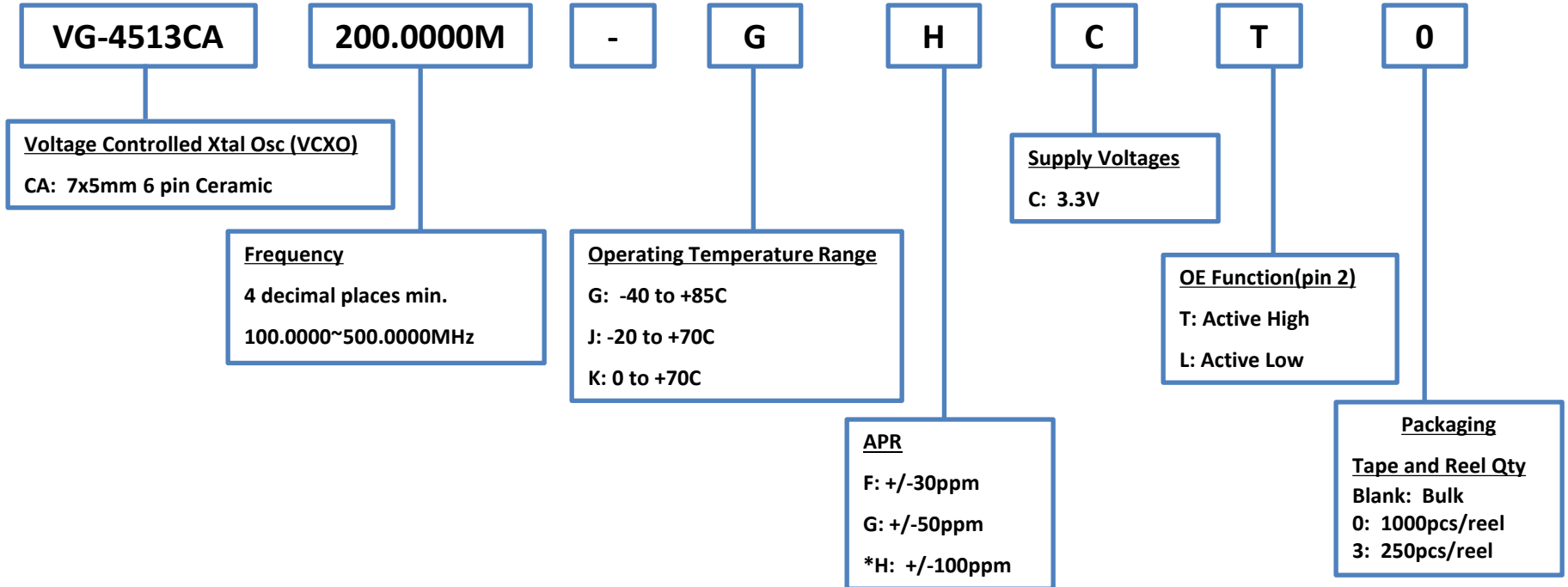




# Product Configuration System

## Oscillators - VCXO

# Discontinued



\*Only 120MHz ≤ f<sub>0</sub> ≤ 200MHz are available

### NOTE:

Standard Frequencies Offered: 100M, 122.88M, 125M, 148.351M, 148.5M, 153.6M, 155.52M, 156.25M, 200M

Please contact us for requirements not listed in this specification.

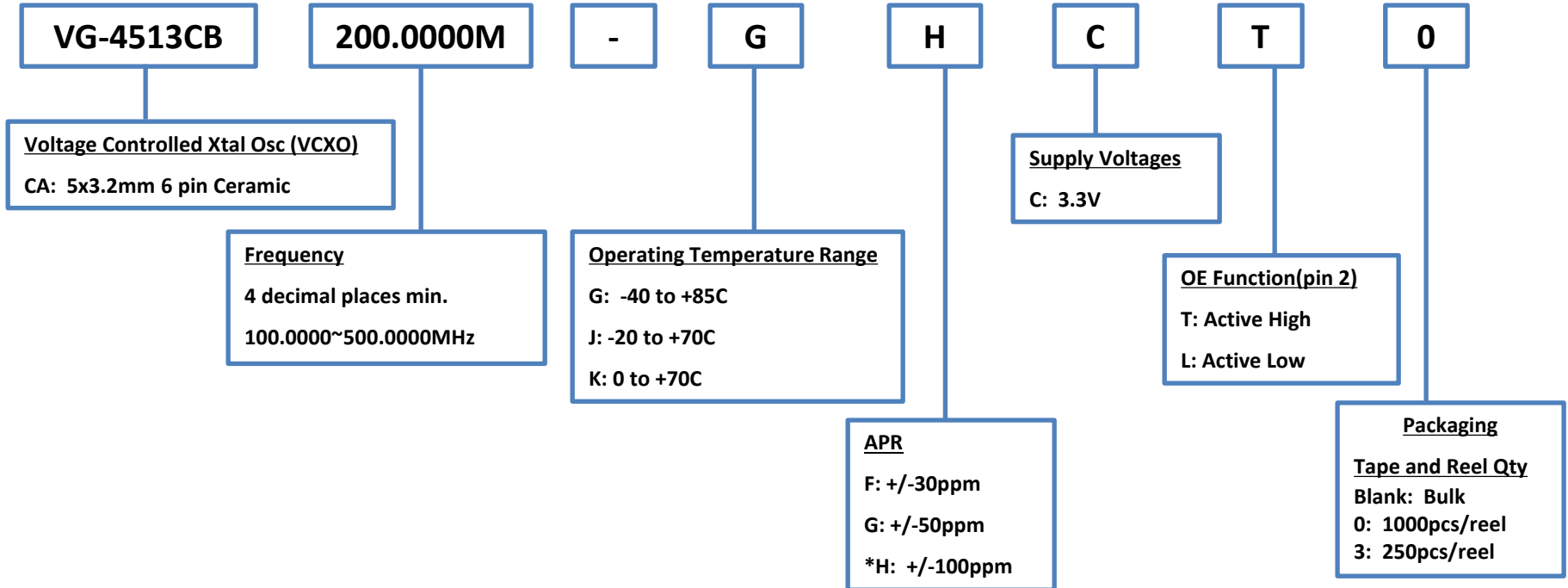


# Product Configuration System



## Oscillators - VCXO

# Discontinued



\*Only  $120\text{MHz} \leq f_0 \leq 200\text{MHz}$  are available

### NOTE:

Standard Frequencies Offered: 122.88M, 153.6M

Please contact us for requirements not listed in this specification.

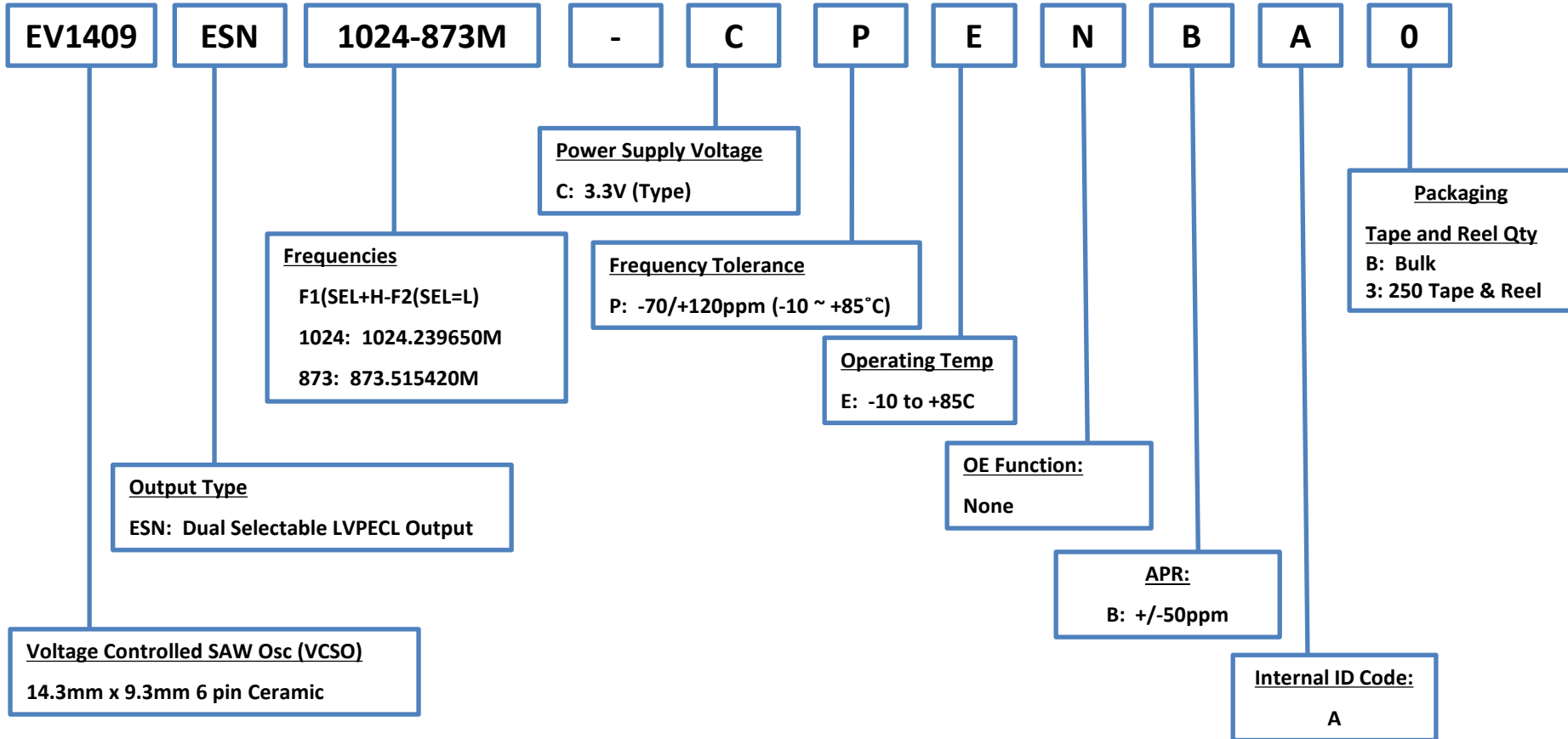
# EPSON

January, 2022

# Product Configuration System



## Oscillators - VCSO

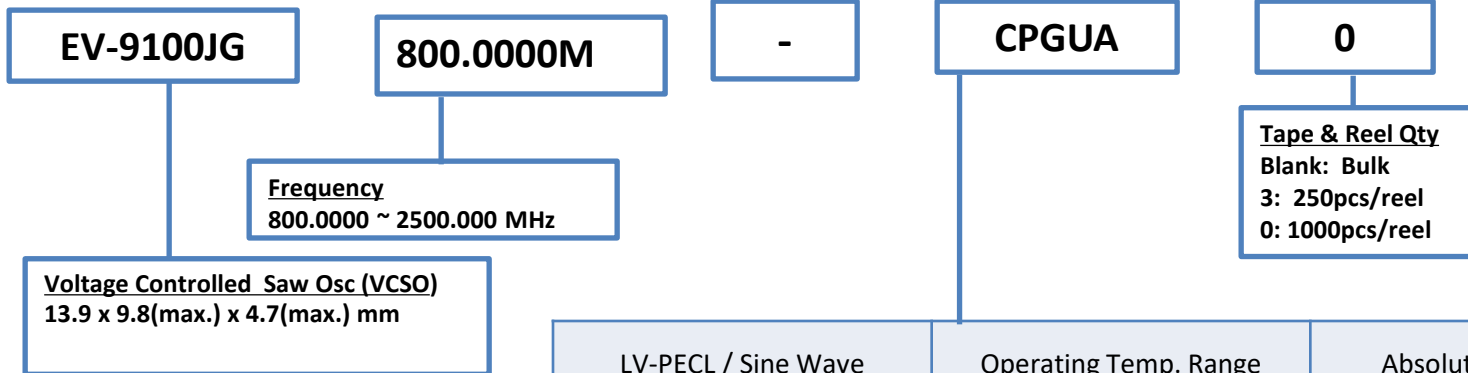




# Product Configuration System



## Oscillators - VCISO



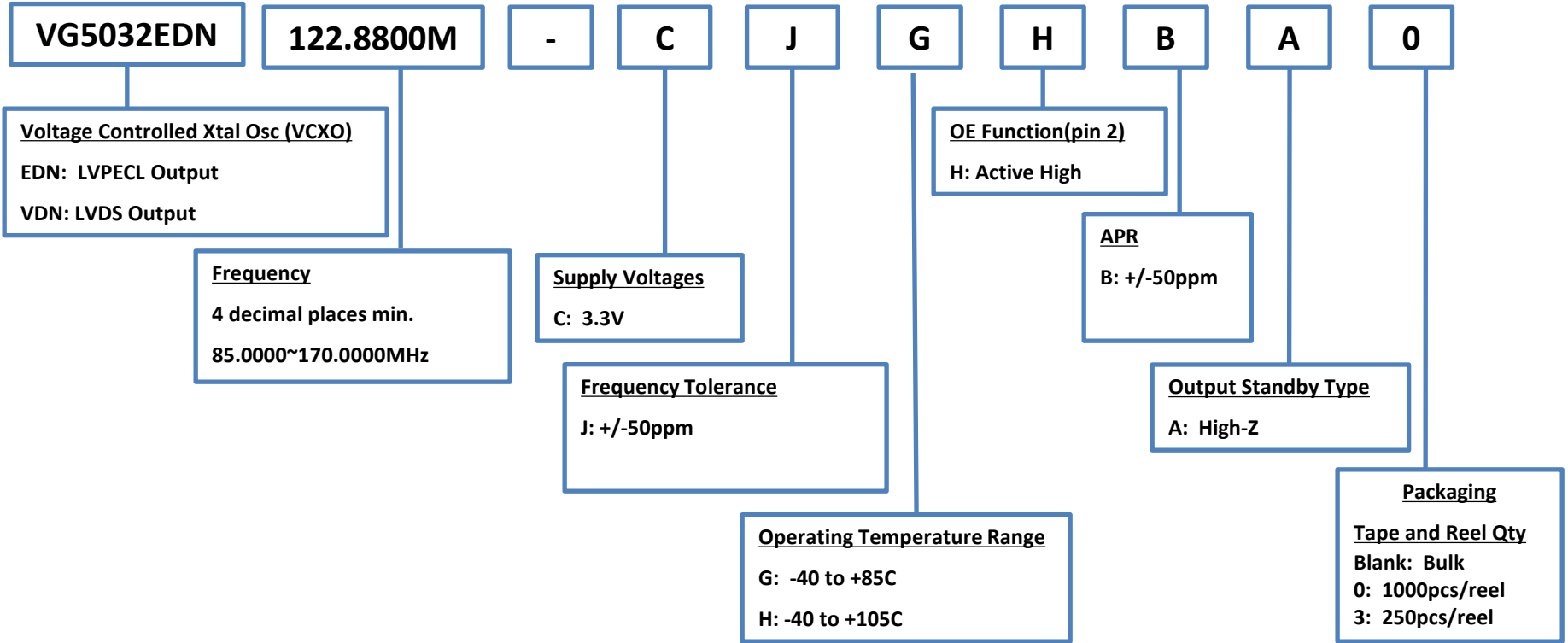
LV-PECL / Sine Wave	Operating Temp. Range	Absolute Pull Range
CPGUA / CSGUA	-10C to +85C	+/-50PPM Min. *1
CPGVA / CSGVA	-20C to +85C	
CPGMA / CSGMA	-40C to +85C	

**\*1 NOTE:** Absolute Pull Range = Frequency Control Range – Frequency Tolerance



# Product Configuration System

## Oscillators - VCXO



**NOTE:**

Standard Frequencies Offered: 122.88M

Please contact us for requirements not listed in this specification.

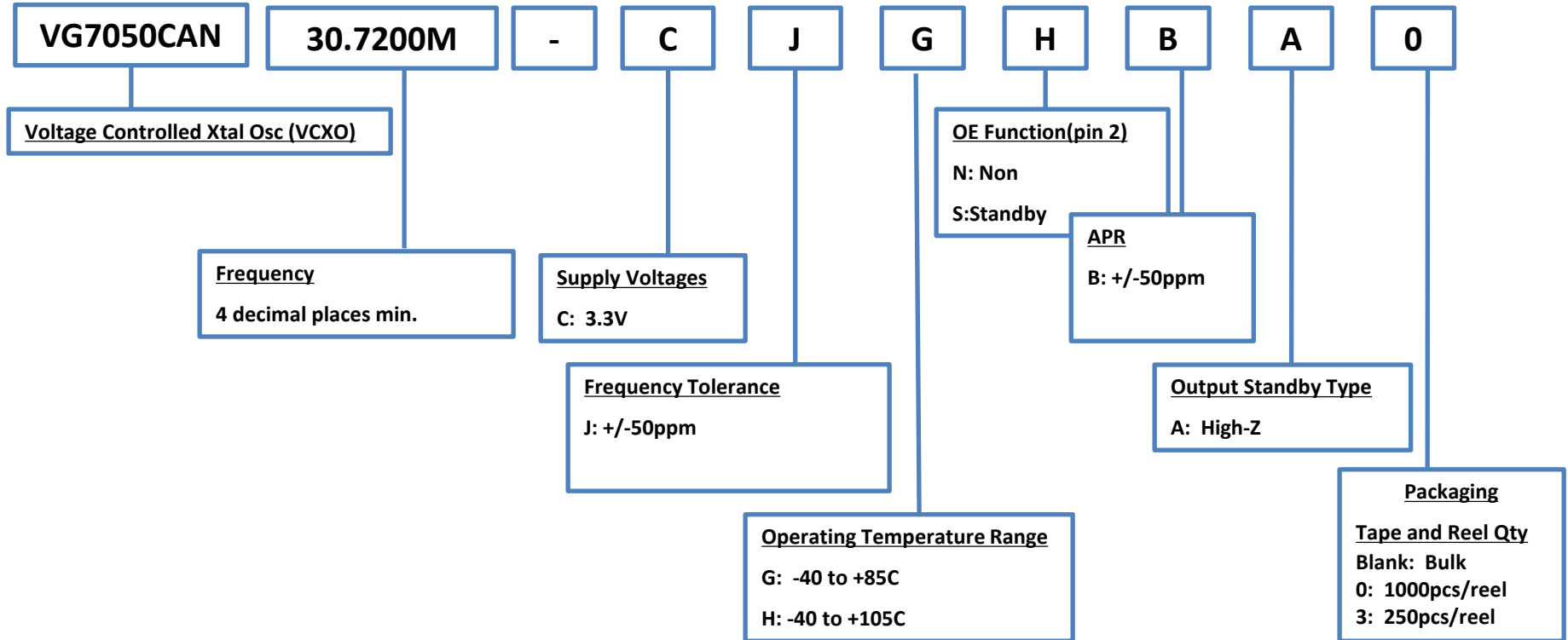




# Product Configuration System

## Oscillators - VCXO

# Discontinued

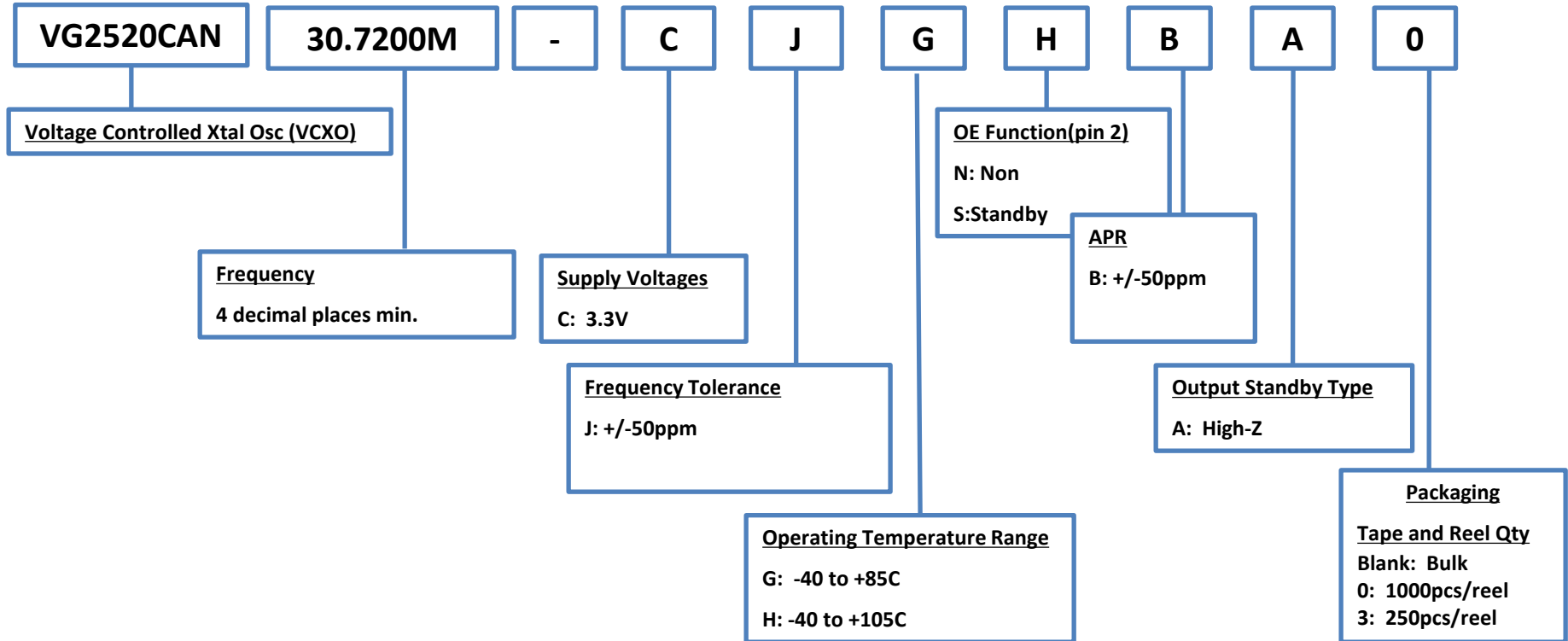




# Product Configuration System

## Oscillators - VCXO

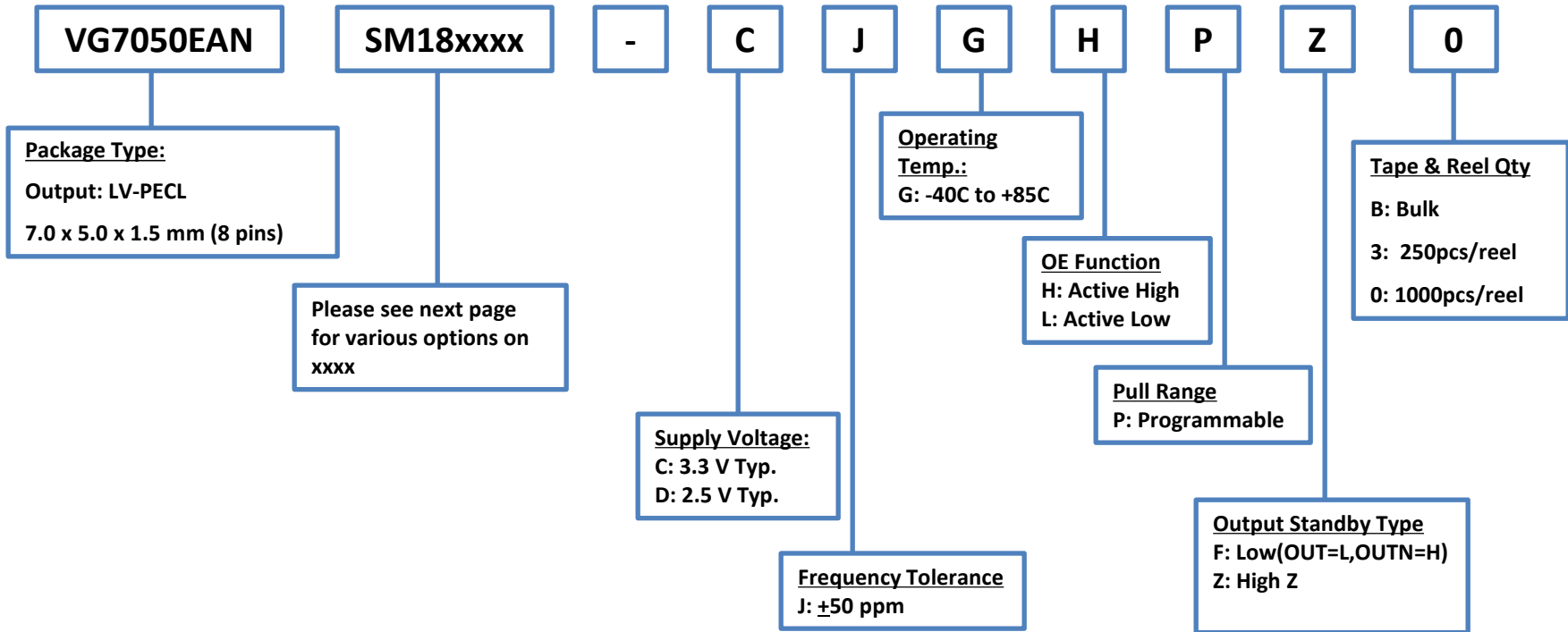
# Discontinued



# Product Configuration System



## Programmable Voltage Controlled Oscillator (VCXO)



### NOTE:

Frequency Range: 50~800MHz

Please contact us for requirements not listed in this specification.

# Product Configuration System



## Programmable Voltage Controlled Oscillator (VCXO)

### VG7050EAN

Part Number	Start-up frequency [MHz]	APR			Supply Voltage	OE function	Output Standby Type					
		Max	Initial	Vc range								
VG7050EAN-SM18T001-CJGHPZ	622.080000	180	100	1.65+/-1.25	3.3V	Active high	Hi-Z					
VG7050EAN-SM18T002-DJGHPZ				1.25+/-1.00	2.5V							
VG7050EAN-SM18T003-CJGLPZ				1.65+/-1.35	3.3V	Active low						
VG7050EAN-SM18T004-DJGLPZ				1.25+/-1.00	2.5V							
VG7050EAN-SM18T005-CJGHPF				1.65+/-1.35	3.3V	Active high		Low (OUT=L,OUTN=H)				
VG7050EAN-SM18T006-DJGHPF				1.25+/-1.00	2.5V							
VG7050EAN-SM18T007-CJGLPF				1.65+/-1.35	3.3V	Active low						
VG7050EAN-SM18T008-DJGLPF				1.25+/-1.00	2.5V							
VG7050EAN-SM18T009-CJGHPZ				156.250000	180	100			1.65+/-1.25	3.3V	Active high	Hi-Z
VG7050EAN-SM18T010-DJGHPZ									1.25+/-1.00	2.5V		

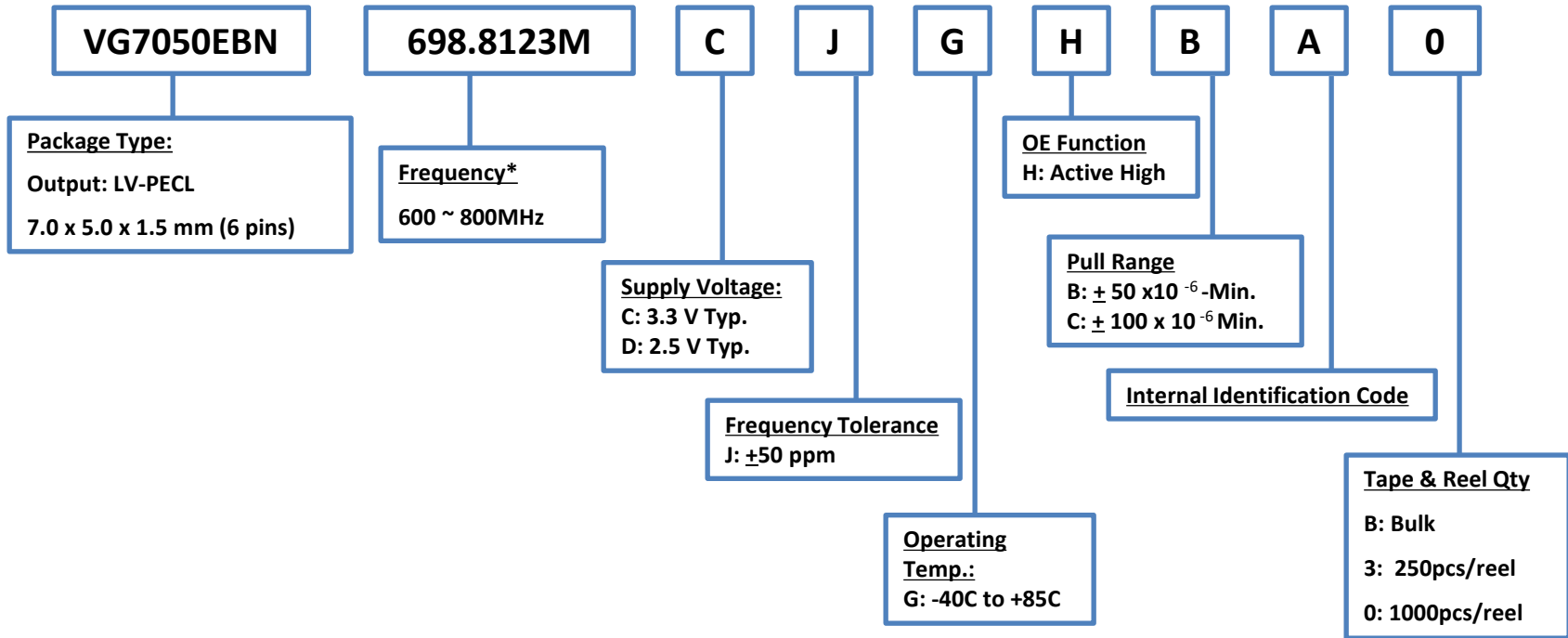
**-If customer wants startup frequency other than 622.08MHz or 156.25MHz, please contact us for a custom part.**

**-Customer can always change the output frequency with the I2C (from 50MHz to 800MHz)**

# Product Configuration System



## Programmable Voltage Controlled Oscillator (VCXO)



### NOTE:

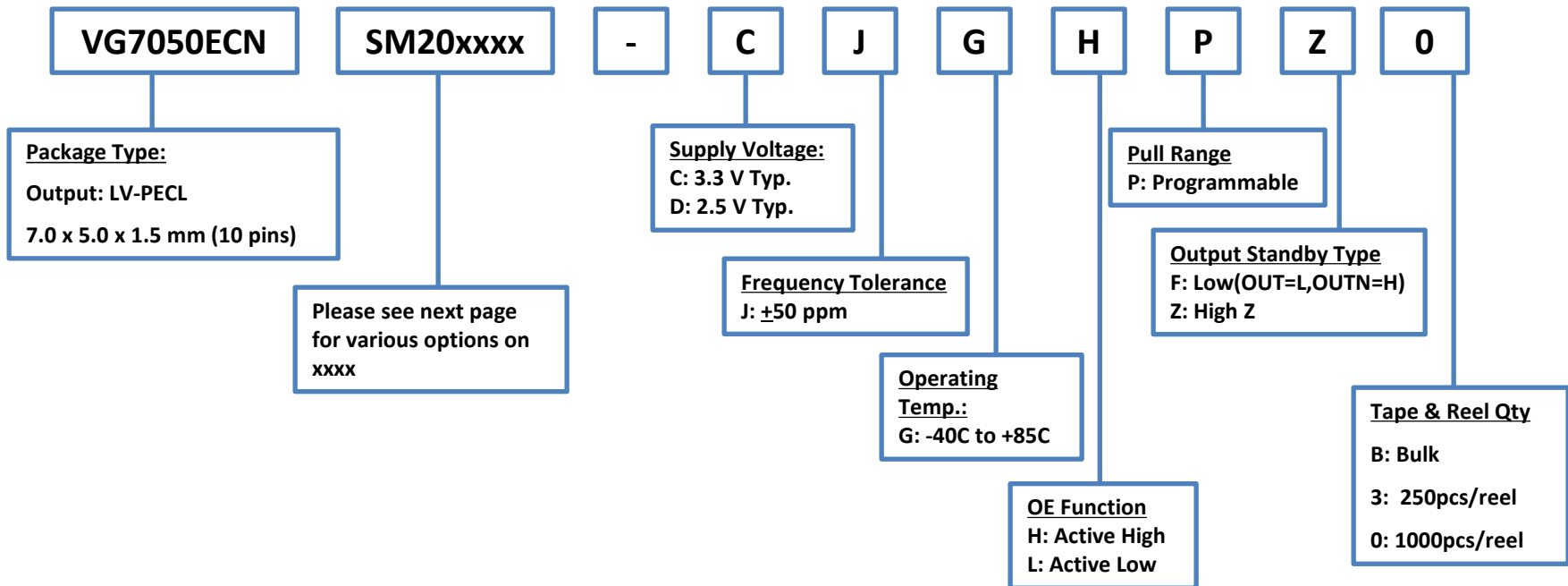
Standard Frequencies: 698.8123MHz, 753.6211MHz, 794.7278MHz

Please contact us for requirements not listed in this specification.

# Product Configuration System



## Programmable Voltage Controlled Oscillator (VCXO)



**NOTE:**  
 Frequency Range: 50~800MHz  
 Please contact us for requirements not listed in this specification.



# Product Configuration System



## Programmable Voltage Controlled Oscillator (VCXO)

### VG7050ECN

Part Number	Start-up frequency [MHz]				APR			Supply Voltage	OE function	Output	
	frequency 1	frequency 2	frequency 3	frequency 4	Max	Initial	Vc range			Standby	Type
VG7050ECN-SM20T001-CJGHPZ	622.080000	644.531250	669.326582	693.482991	180	100	1.65+/-1.25	3.3V	Active high	Hi-Z	
VG7050ECN-SM20T002-DJGHPZ							1.25+/-1.00	2.5V			
VG7050ECN-SM20T003-CJGLPZ							1.65+/-1.35	3.3V	Active low		
VG7050ECN-SM20T004-DJGLPZ							1.25+/-1.00	2.5V			
VG7050ECN-SM20T005-CJGHPP							1.65+/-1.35	3.3V	Active high		Low (OUT=L,OUTN=H)
VG7050ECN-SM20T006-DJGHPP							1.25+/-1.00	2.5V			
VG7050ECN-SM20T007-CJGLPF							1.65+/-1.35	3.3V	Active low		
VG7050ECN-SM20T008-DJGLPF							1.25+/-1.00	2.5V			

**-If customer wants different startup frequencies, please contact us for a custom part.**

**-Customer can always change the output frequencies with the I2C (from 50MHz to 800MHz)**