

# Product Configuration Guide

## OSCILLATORS



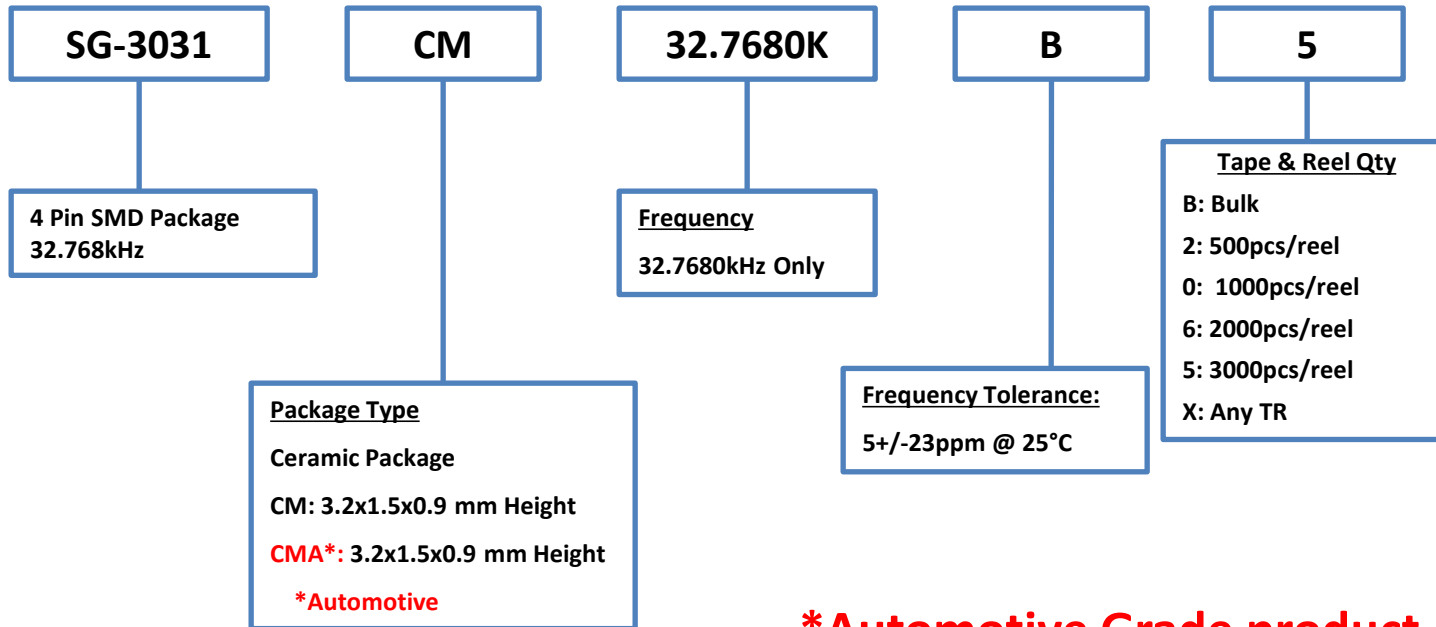
- SPXO
- Programmable
- Spread Spectrum
- High Stability



# Product Configuration System



## Crystal Oscillators - SPXO



**\*Automotive Grade product  
Approved Customer & Application only  
Contact your Epson rep. for support**

**EPSON**

August 2024

**NOTE:**

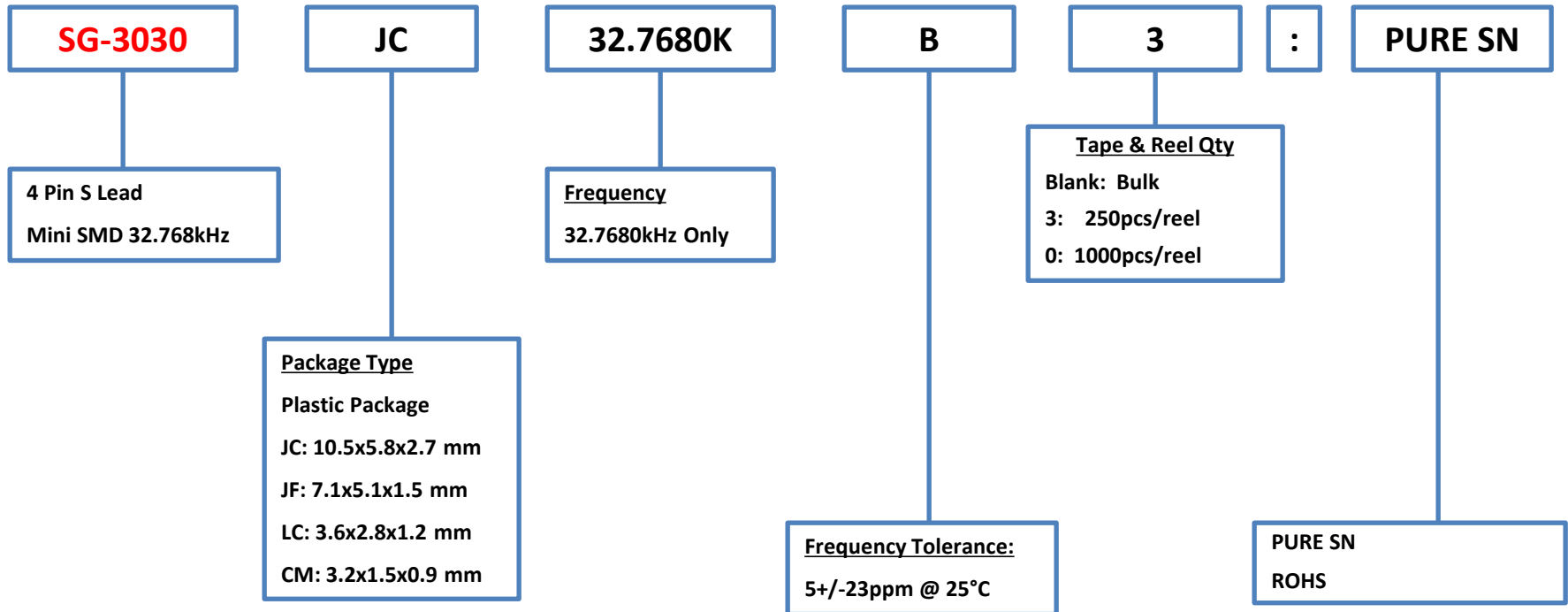
Please contact us for requirements not listed in this specification.

# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



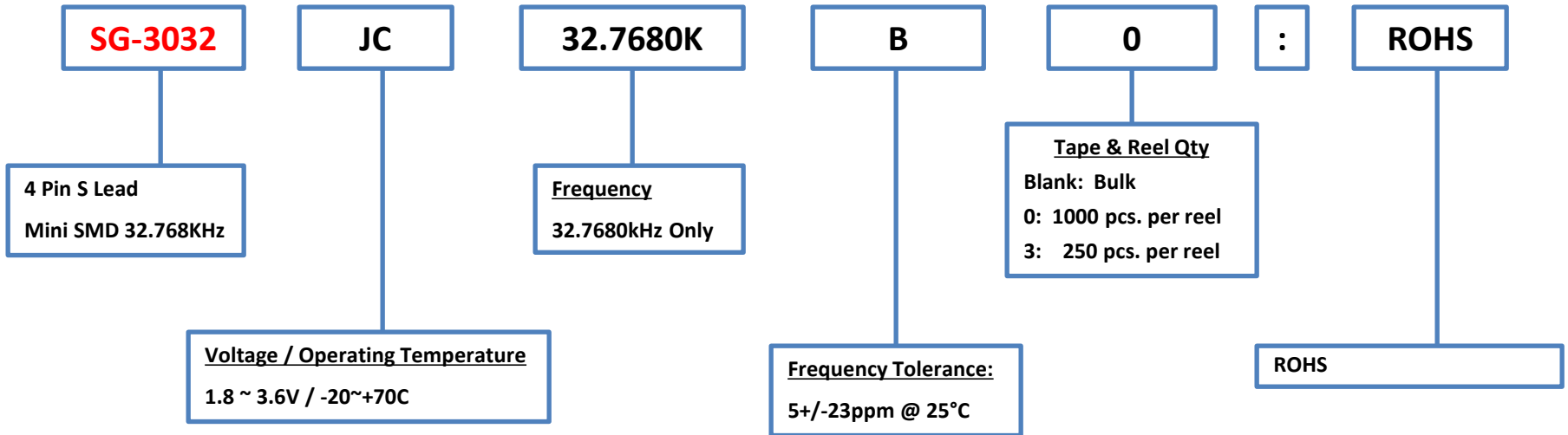
Note: All LC packages are RoHS Compliant, Pure SN

# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued

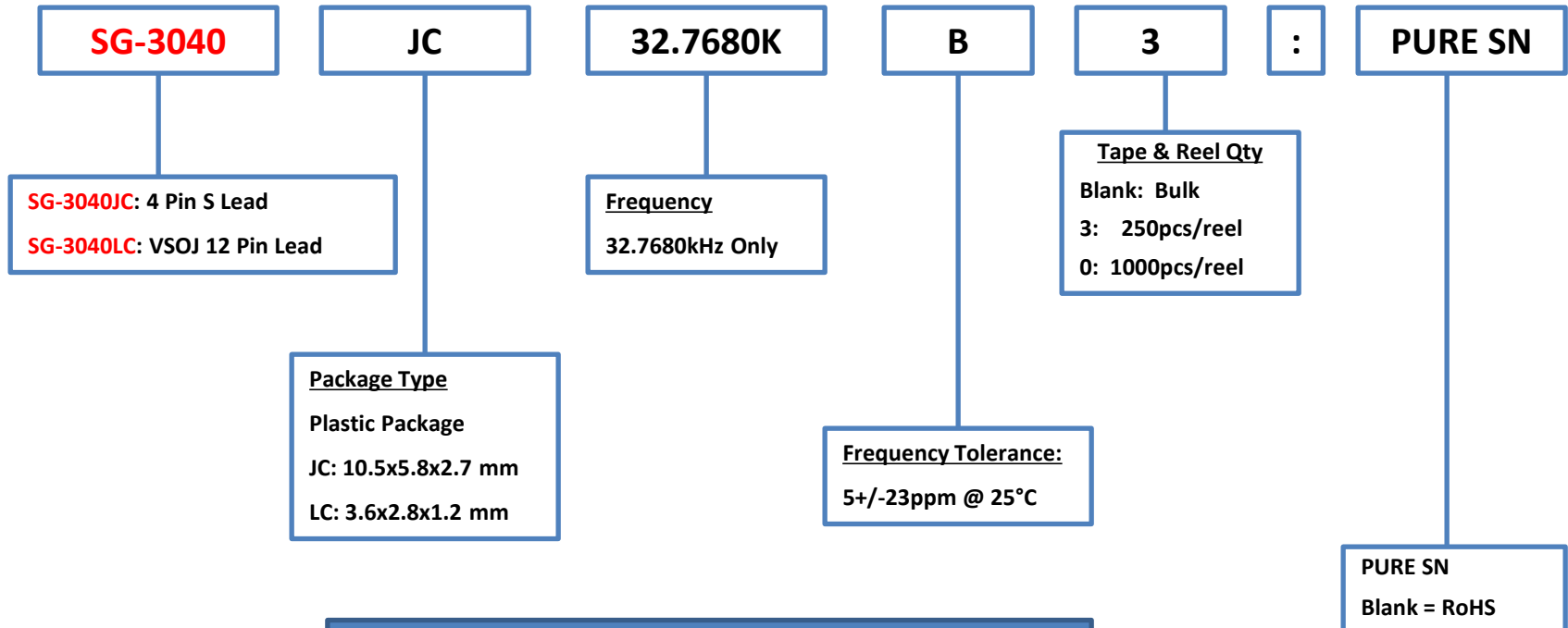


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



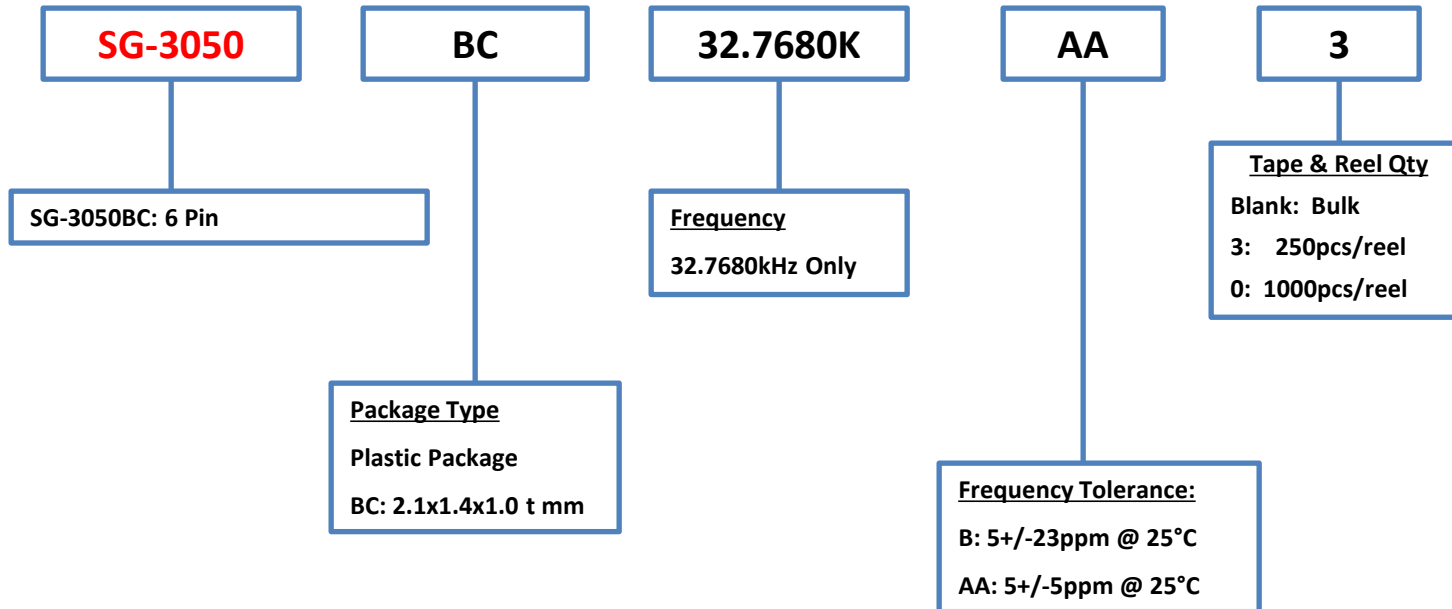
**Note:** All LC packages are RoHS Compliant, Pure SN

# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued

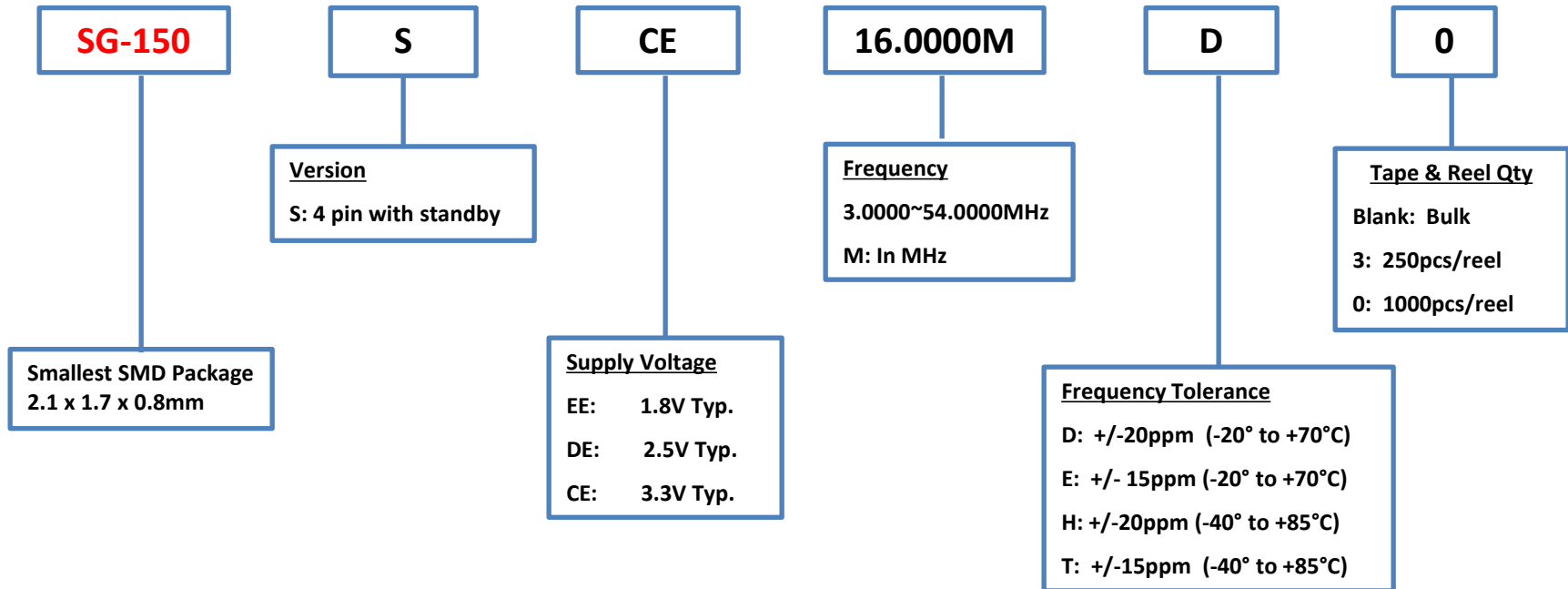


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued

**SG-210**

**SMD Package**  
2.5 x 2.0 x 0.9mm

**S**

Version  
S: 4 pin with standby

**GB**

Supply Voltage  
GB: 1.5V Typ.  
EB: 1.8V Typ.  
DB: 2.5V Typ.  
CB: 3.3V Typ.

**30.0000M**

Frequency  
2.0000~60.0000MHz  
2.0000~32.0000MHz (GB)  
M: In MHz

**C**

Frequency Tolerance  
B: +/-50ppm (-20° to +70°C)  
C: +/-100ppm (-20° to +70°C)  
F: +/- 20ppm (-10° to +60°C,  $f_0 \leq 32\text{MHz}$ )  
L: +/-50ppm (-40° to +85°C)  
M: +/-100ppm (-40° to +85°C)

**0**

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

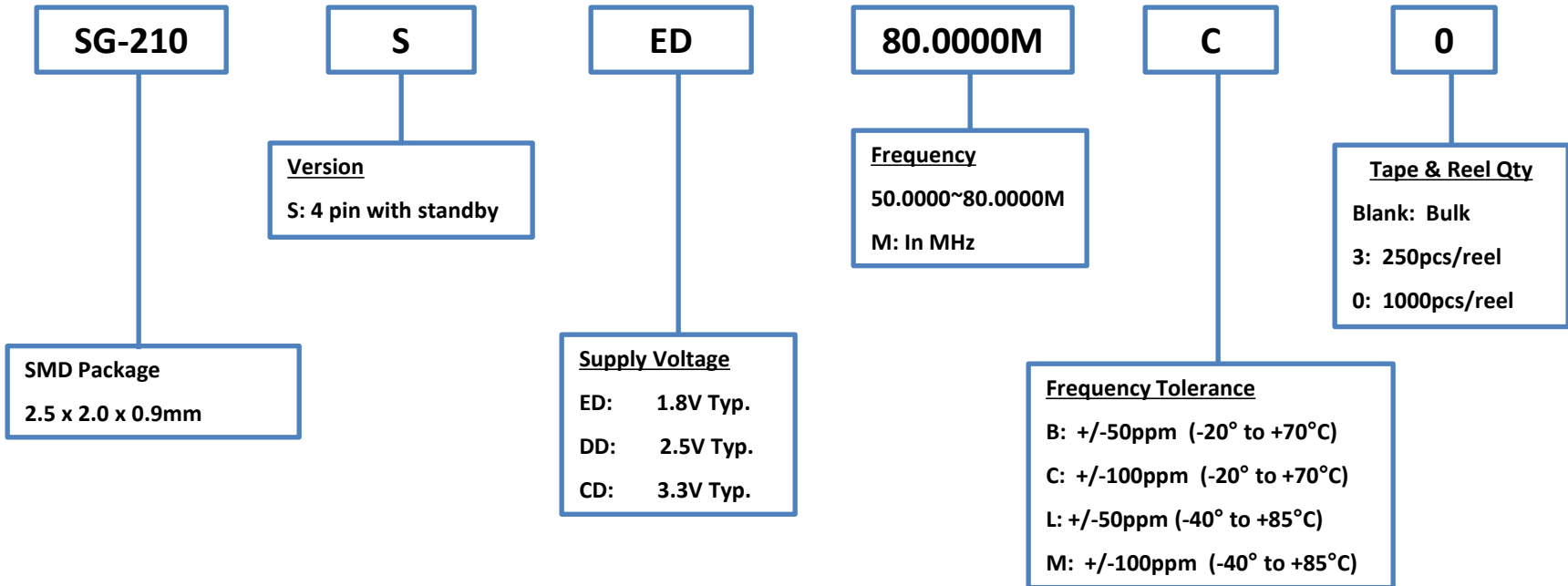


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued

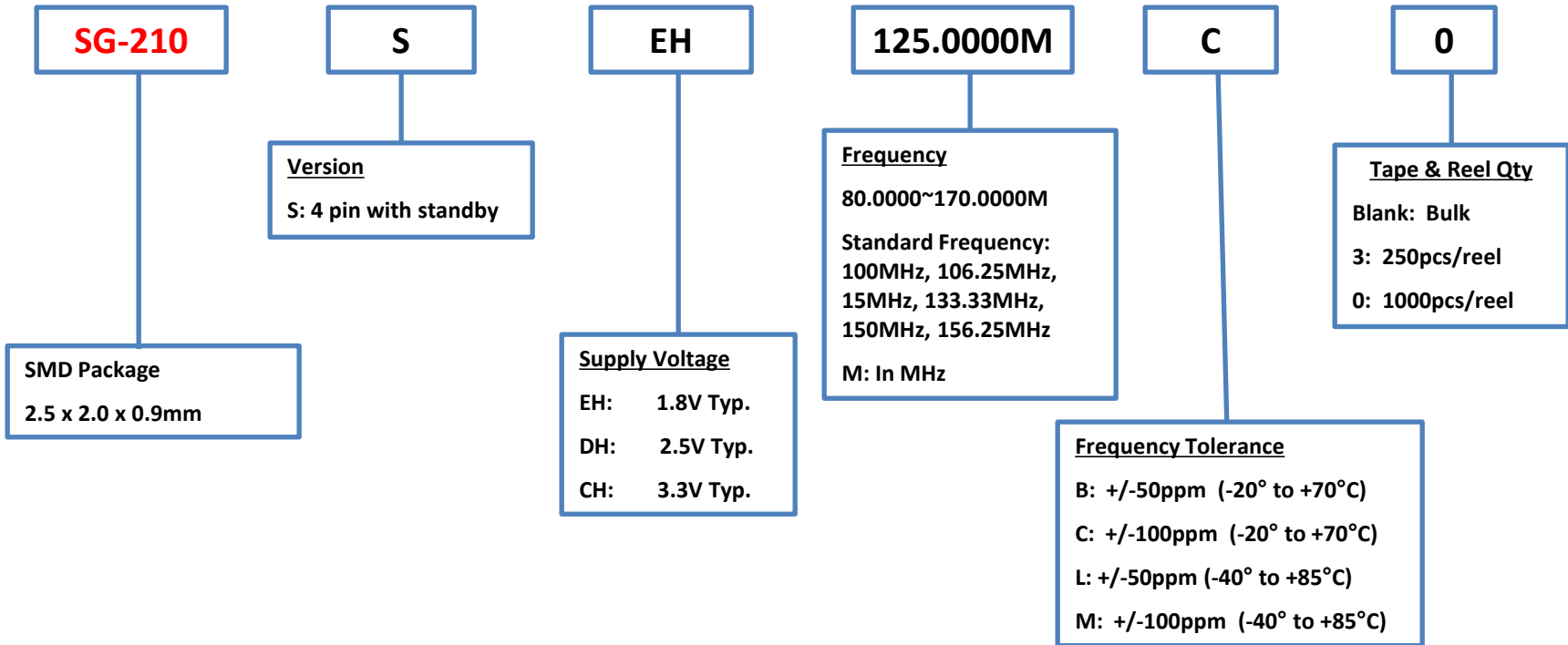


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



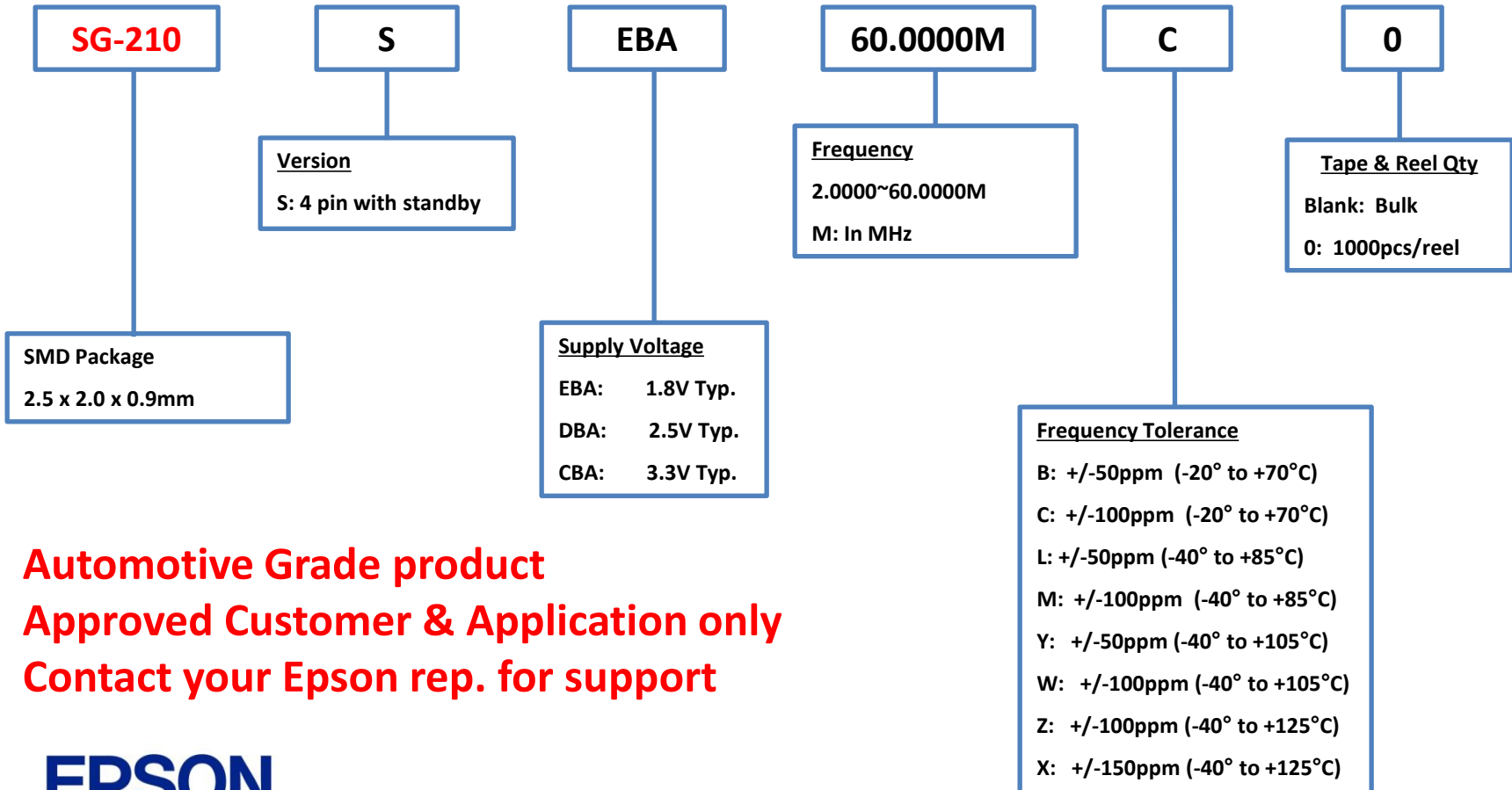
# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued

**Consider  
SG2520CAA (std freq)  
Or SG-8101CGA**



**Automotive Grade product  
Approved Customer & Application only  
Contact your Epson rep. for support**

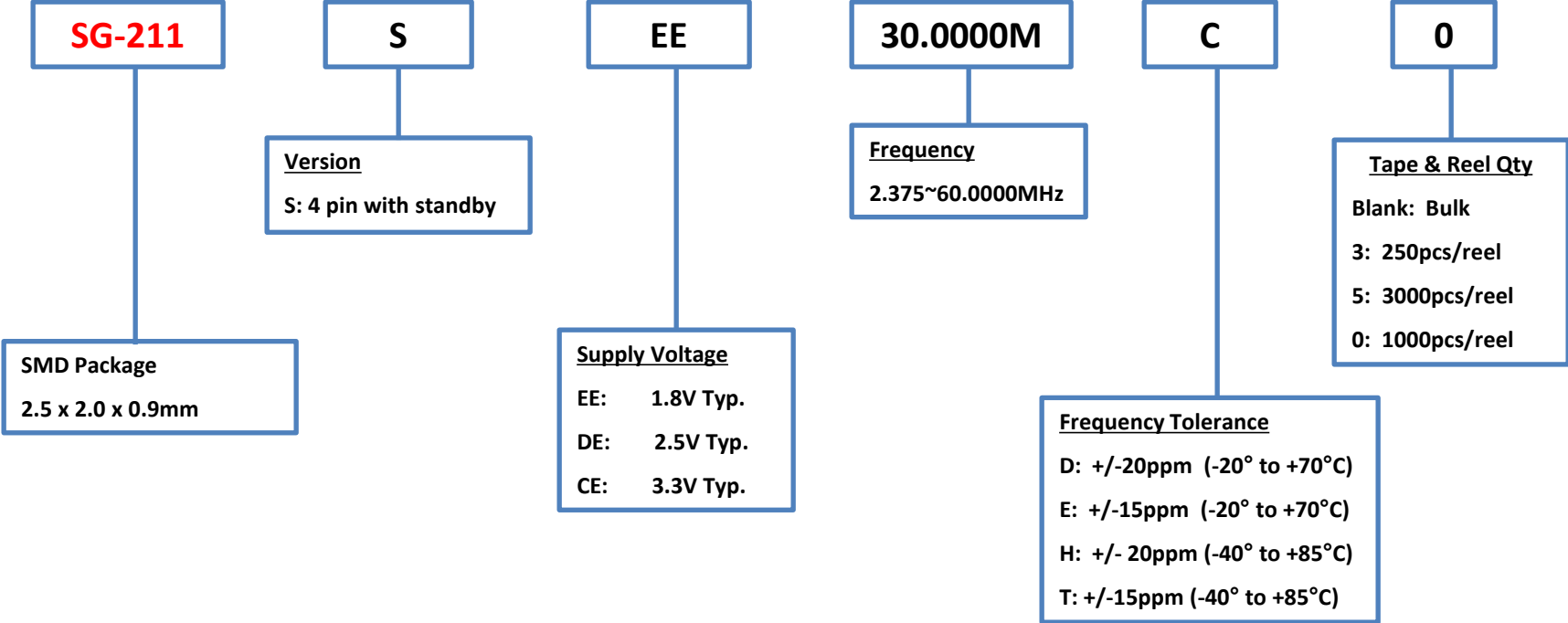




# Product Configuration System

## Crystal Oscillators - SPXO

# Discontinued

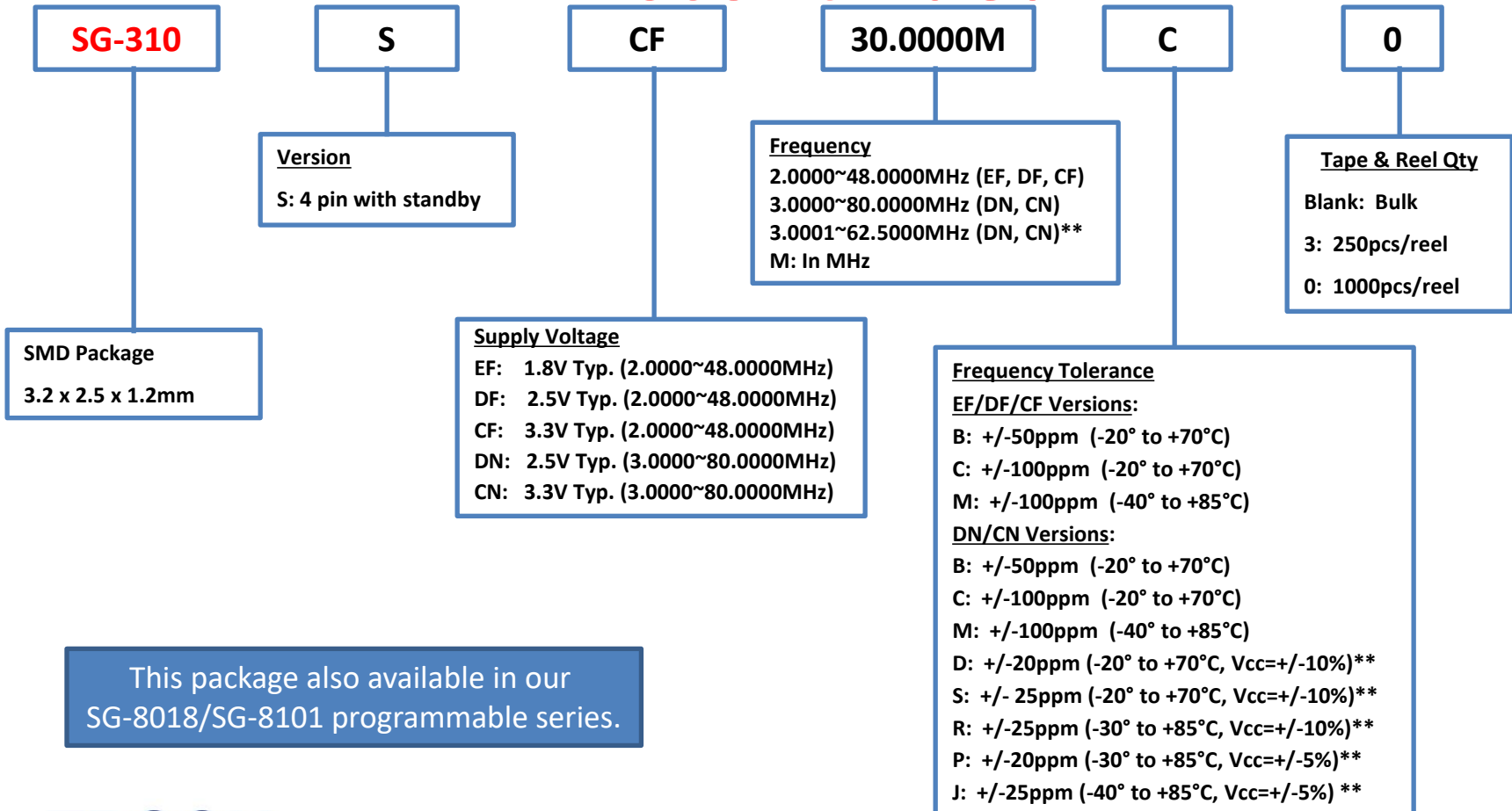


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued

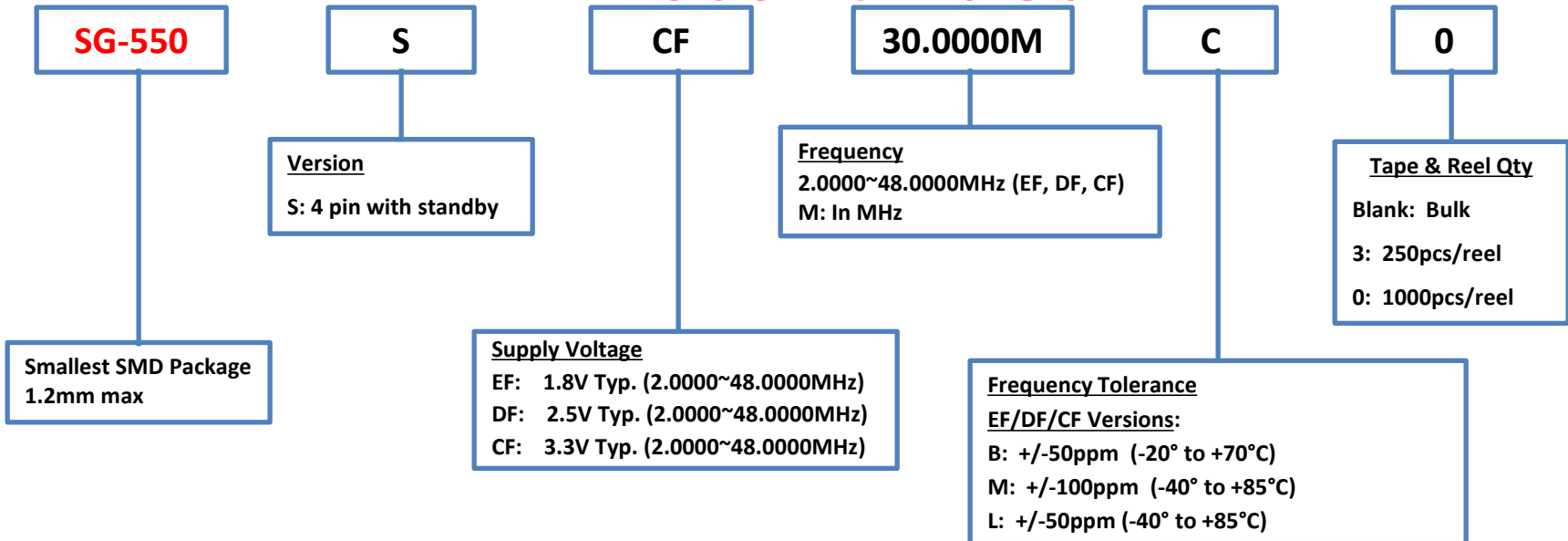


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



This package also available in our SG-8018/SG-8101 programmable series.

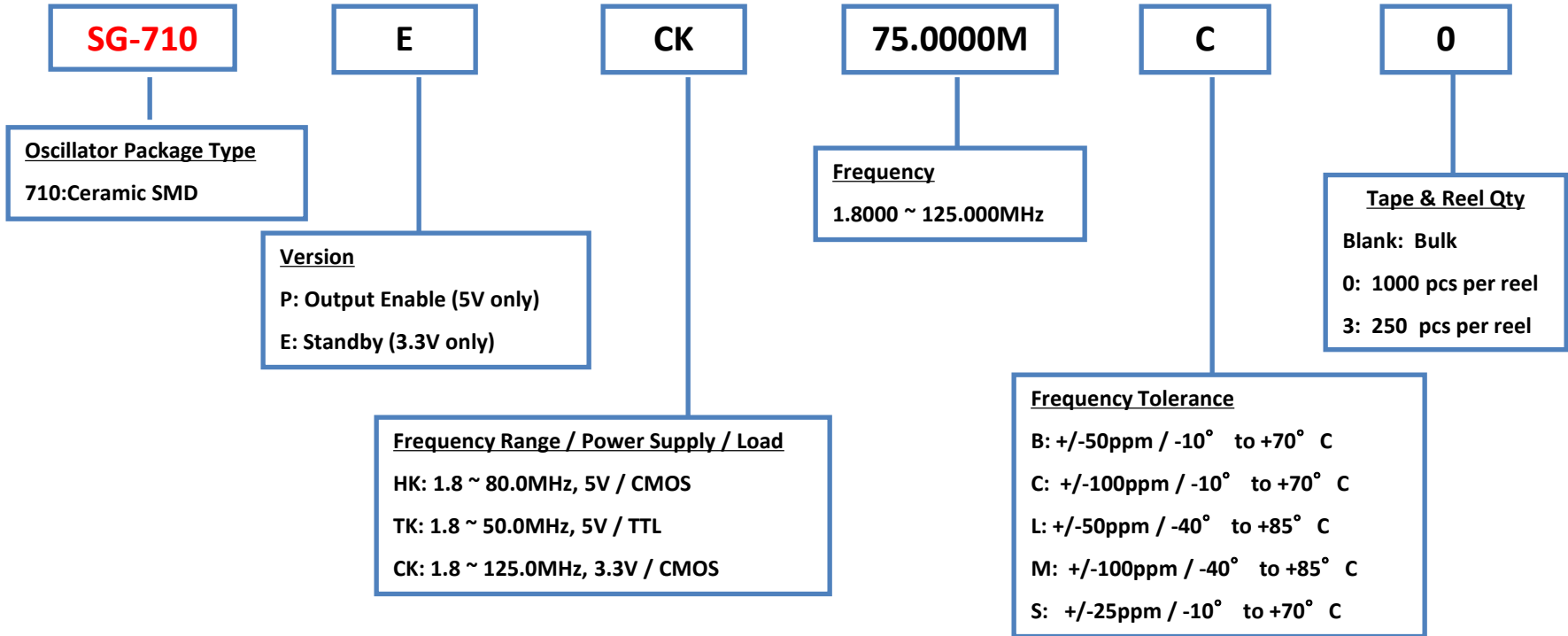


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



These packages also available in our SG-8018/SG-8101 programmable series.

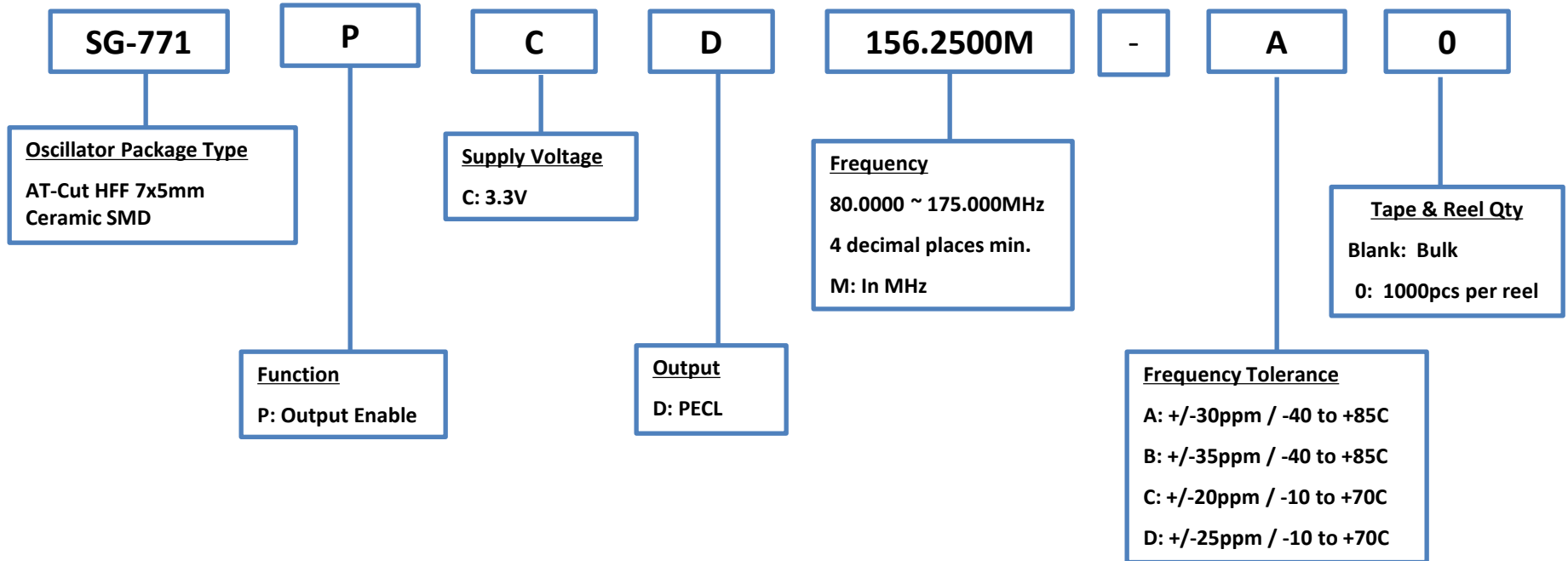


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



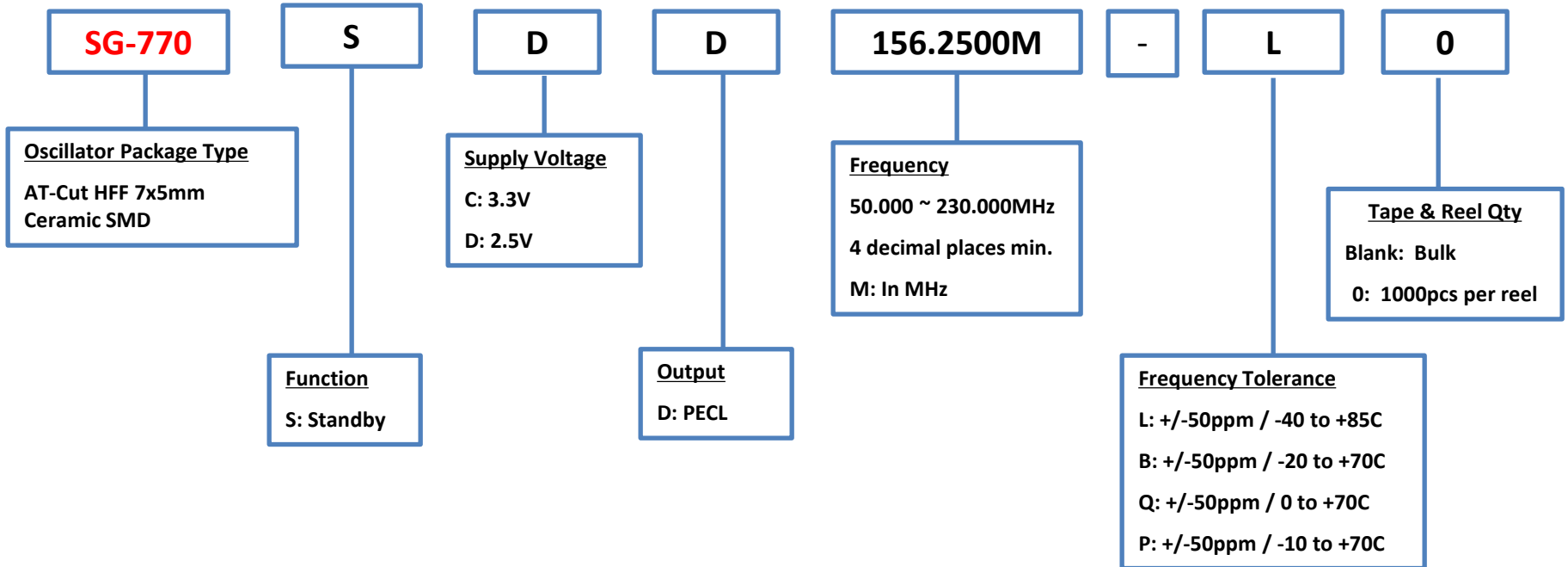


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



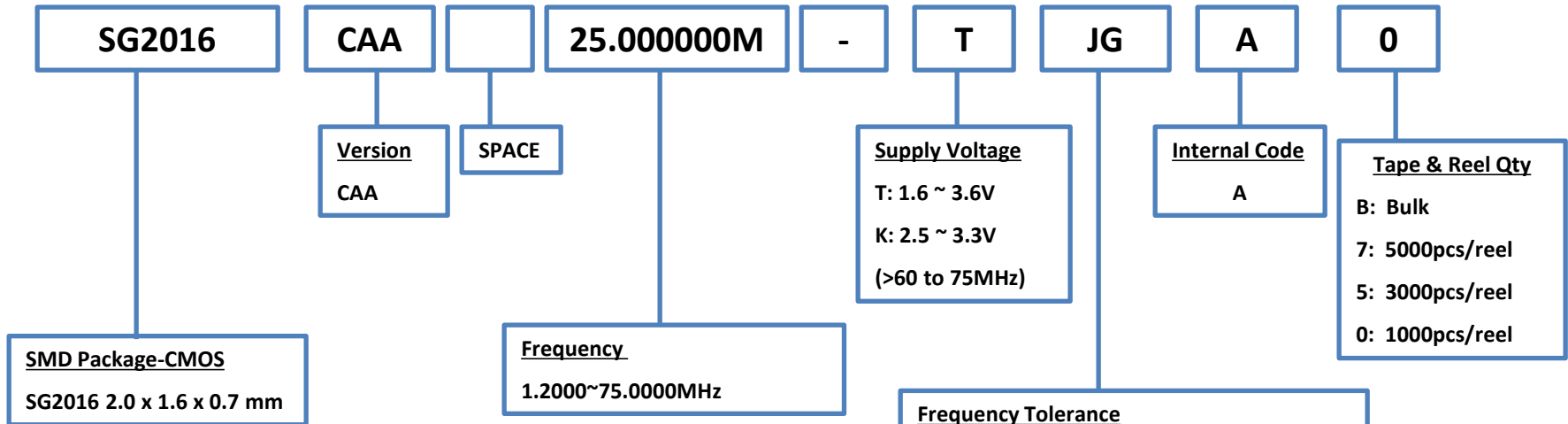
Replaces TCO-7116H1A



# Product Configuration System



## Crystal Oscillators – SPXO, Automotive (Conforms to AEC-Q200 Requirement)



**Automotive Grade product**  
**Approved Customer & Application only**  
**Contact your Epson rep. for support**

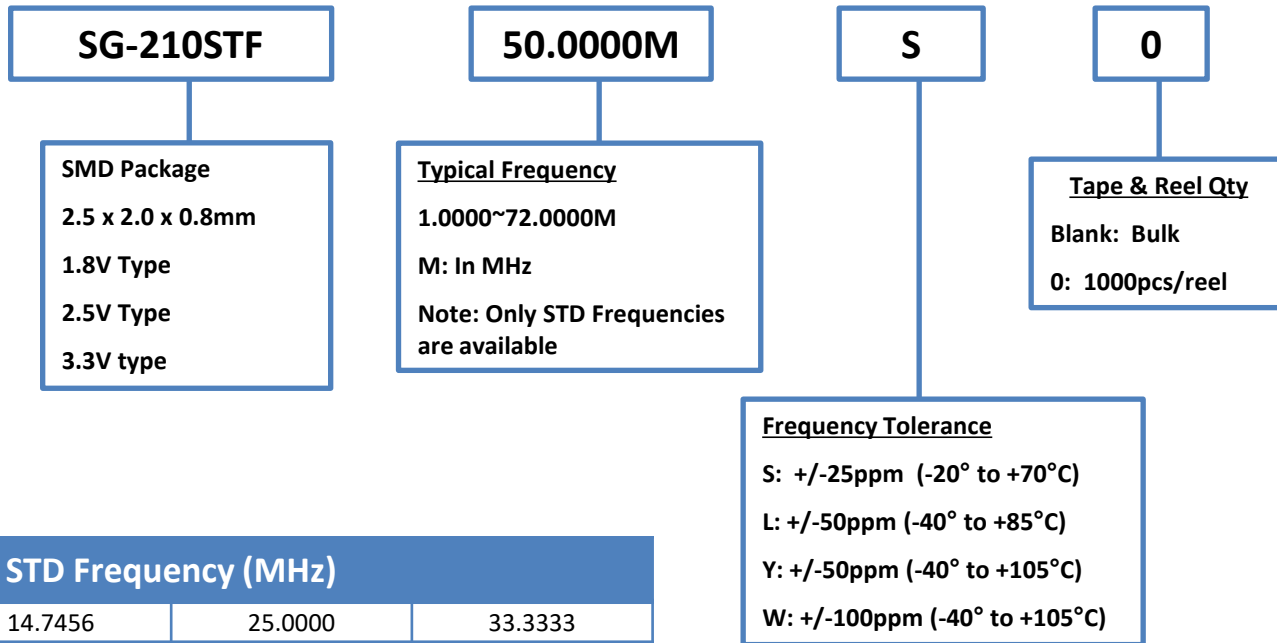
**EPSON**

Example: SG2016CAA 25.0000M-TJGA7  
Please contact us about available frequencies

# Product Configuration System



## Crystal Oscillators - SPXO



STD Frequency (MHz)			
4.0000	14.7456	25.0000	33.3333
8.0000	16.0000	26.0000	40.0000
10.0000	20.0000	27.0000	48.0000
12.0000	24.0000	32.0000	50.0000
12.2880	24.5760	33.3300	72.0000

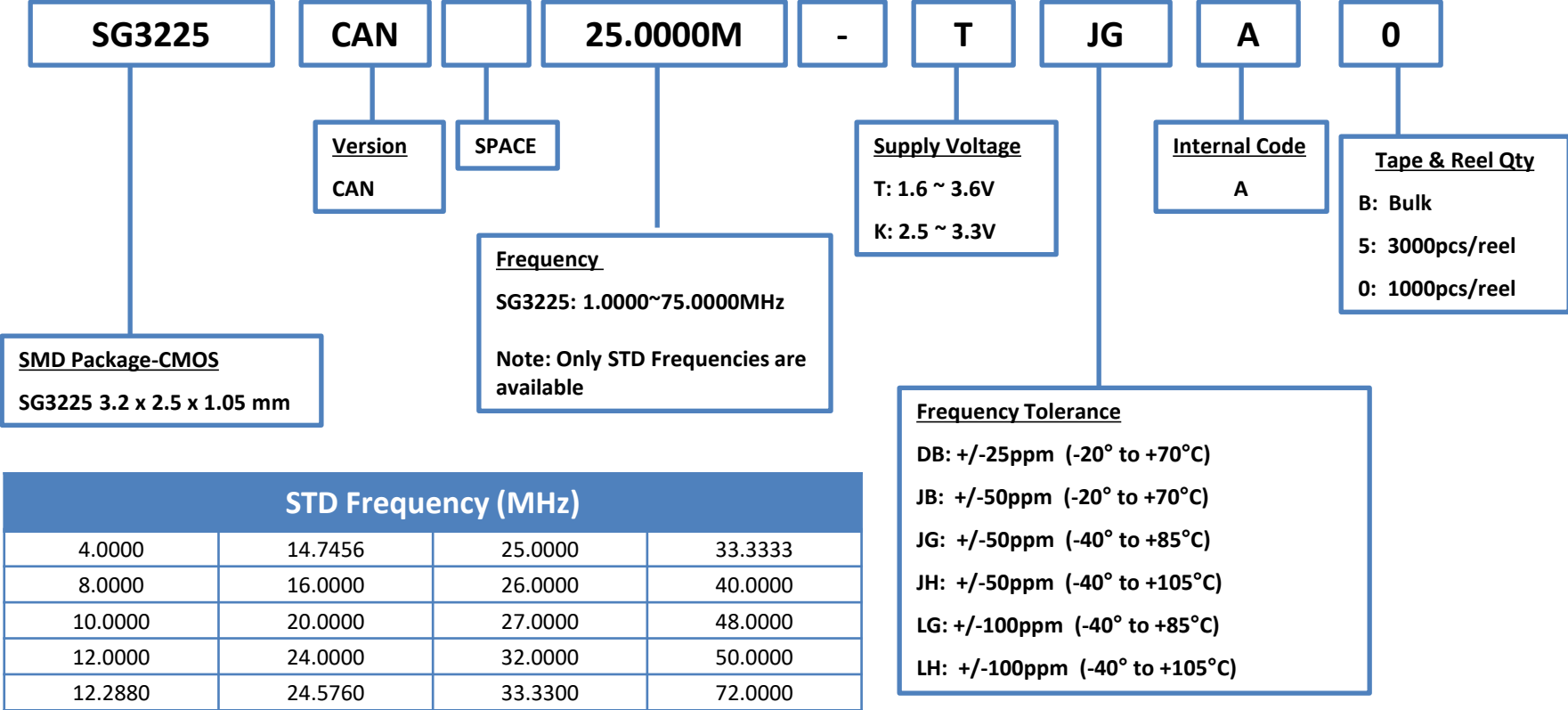


For non-standard frequencies, please see SG-8018CG



# Product Configuration System

## Crystal Oscillators - SPXO



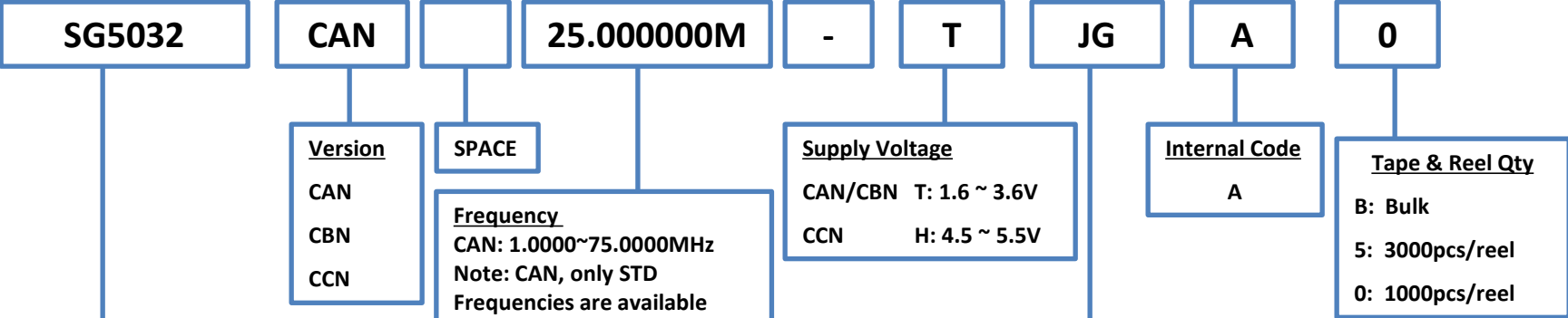
Example: SG3225CAN 25.0000M-TJGA

For non-standard frequencies, please see SG-8018CE



# Product Configuration System

## Crystal Oscillators - SPXO



**SMD Package-CMOS**  
 SG5032 5 x 3.2 x 1.1 mm  
 SG7050 7 x 5 x 1.3 mm

**Version**  
 CAN  
 CBN  
 CCN

**SPACE**  
**Frequency**  
 CAN: 1.0000~75.0000MHz  
 Note: CAN, only STD Frequencies are available  
 CBN: 80.0000~170.0000Mhz  
 Note: CBN is discontinued  
 CCN: 2.5000~50.0000Mhz

**Supply Voltage**  
 CAN/CBN T: 1.6 ~ 3.6V  
 CCN H: 4.5 ~ 5.5V

**Internal Code**  
 A

**Tape & Reel Qty**  
 B: Bulk  
 5: 3000pcs/reel  
 0: 1000pcs/reel

**Frequency Tolerance**  
 JG: +/-50ppm (-40° to +85°C)  
 LG: +/-100ppm (-40° to +85°C)  
 LH: +/-100ppm (-40° to +105°C) CAN ONLY

STD Frequency (MHz)			
4.0000	14.7456	25.0000	33.3333
8.0000	16.0000	26.0000	40.0000
10.0000	20.0000	27.0000	48.0000
12.0000	24.0000	32.0000	50.0000
12.2880	24.5760	33.3300	72.0000

Example: SG5032CAN 25.0000M-TJGA  
 JH is not available

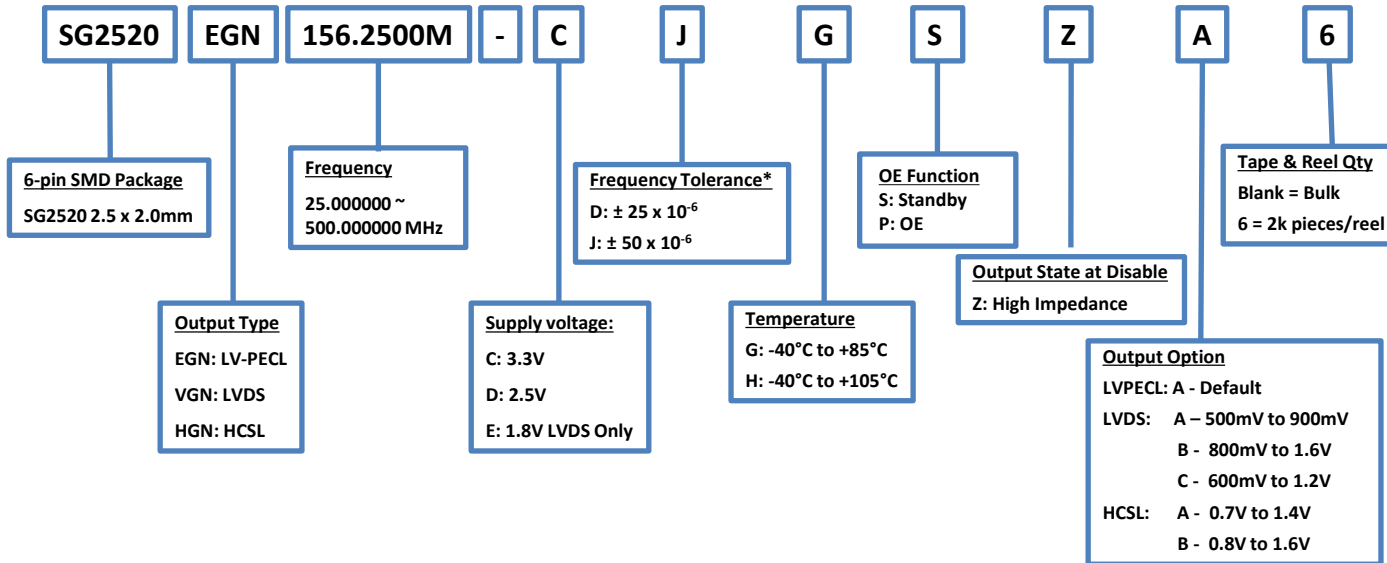


For non-standard frequencies, please see SG-8018

# Product Configuration System



## Crystal Oscillators - SPXO



\* Please contact SEC for availability for a given temperature range

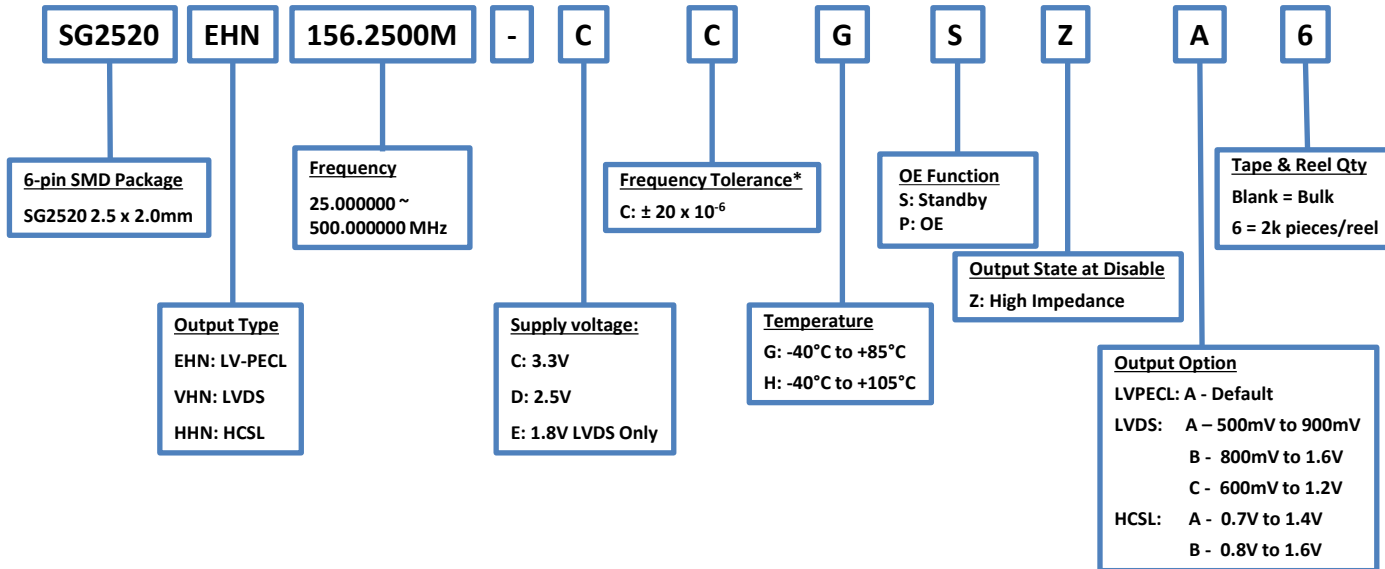


Note: All packages are RoHS Compliant

# Product Configuration System



## Crystal Oscillators - SPXO



\* Please contact SEC for availability for a given temperature range

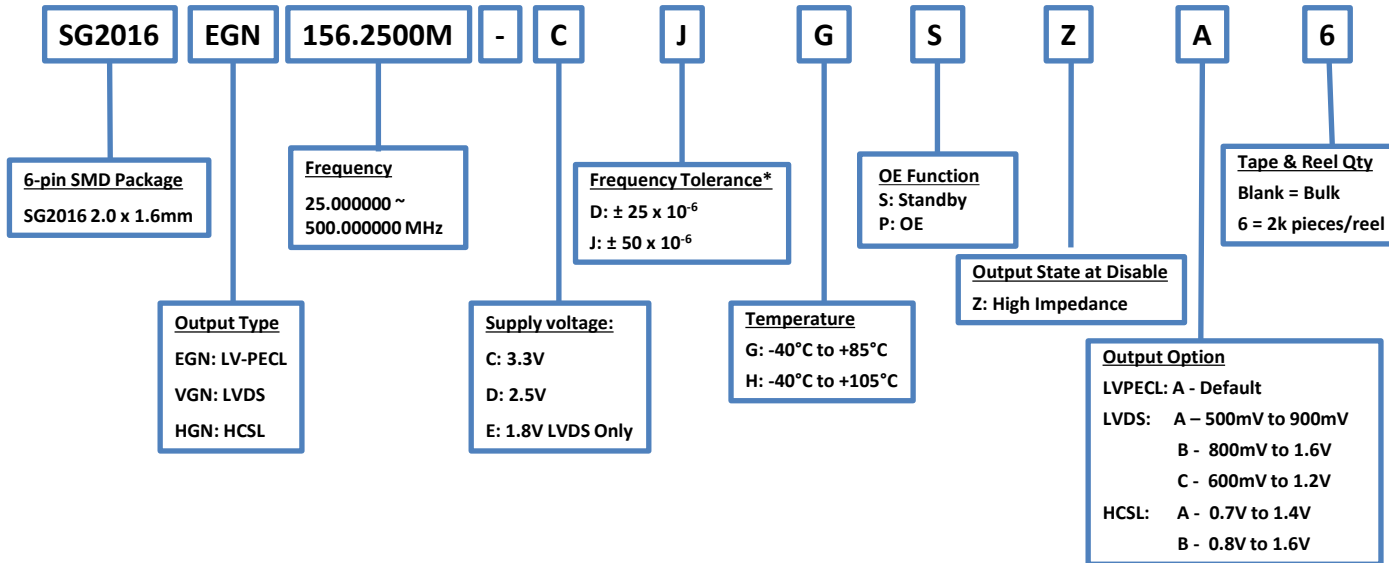
**EPSON**

Note: All packages are RoHS Compliant

# Product Configuration System



## Crystal Oscillators - SPXO



\* Please contact SEC for availability for a given temperature range

**EPSON**

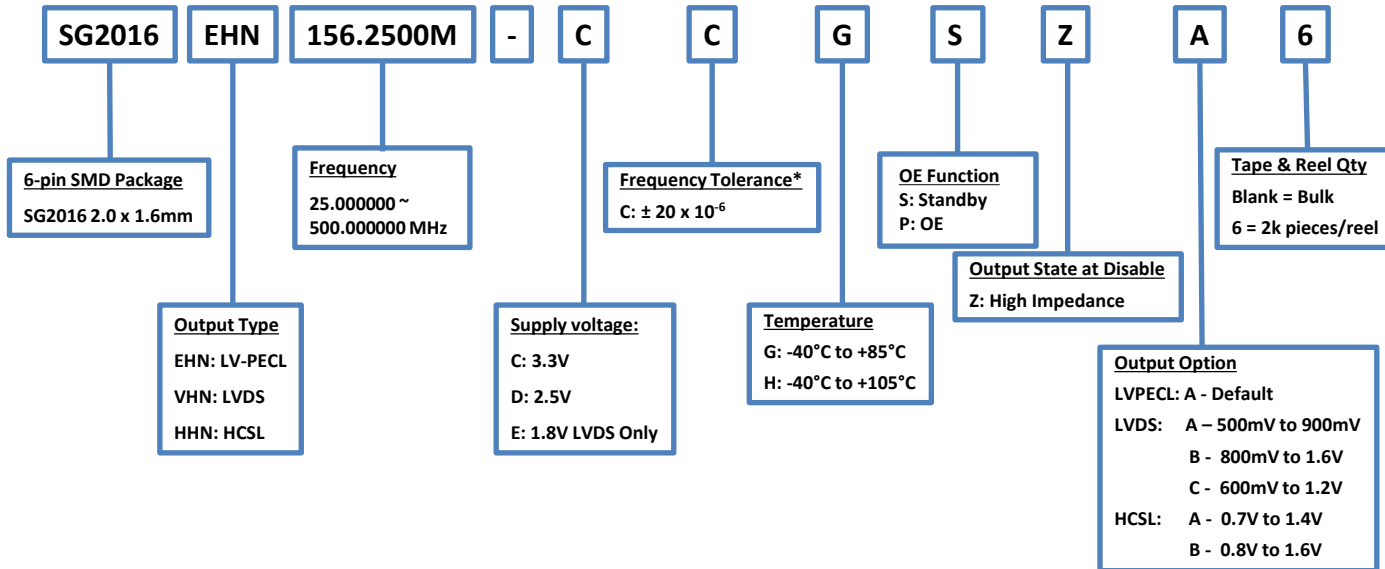
Note: All packages are RoHS Compliant



# Product Configuration System



## Crystal Oscillators - SPXO



\* Please contact SEC for availability for a given temperature range

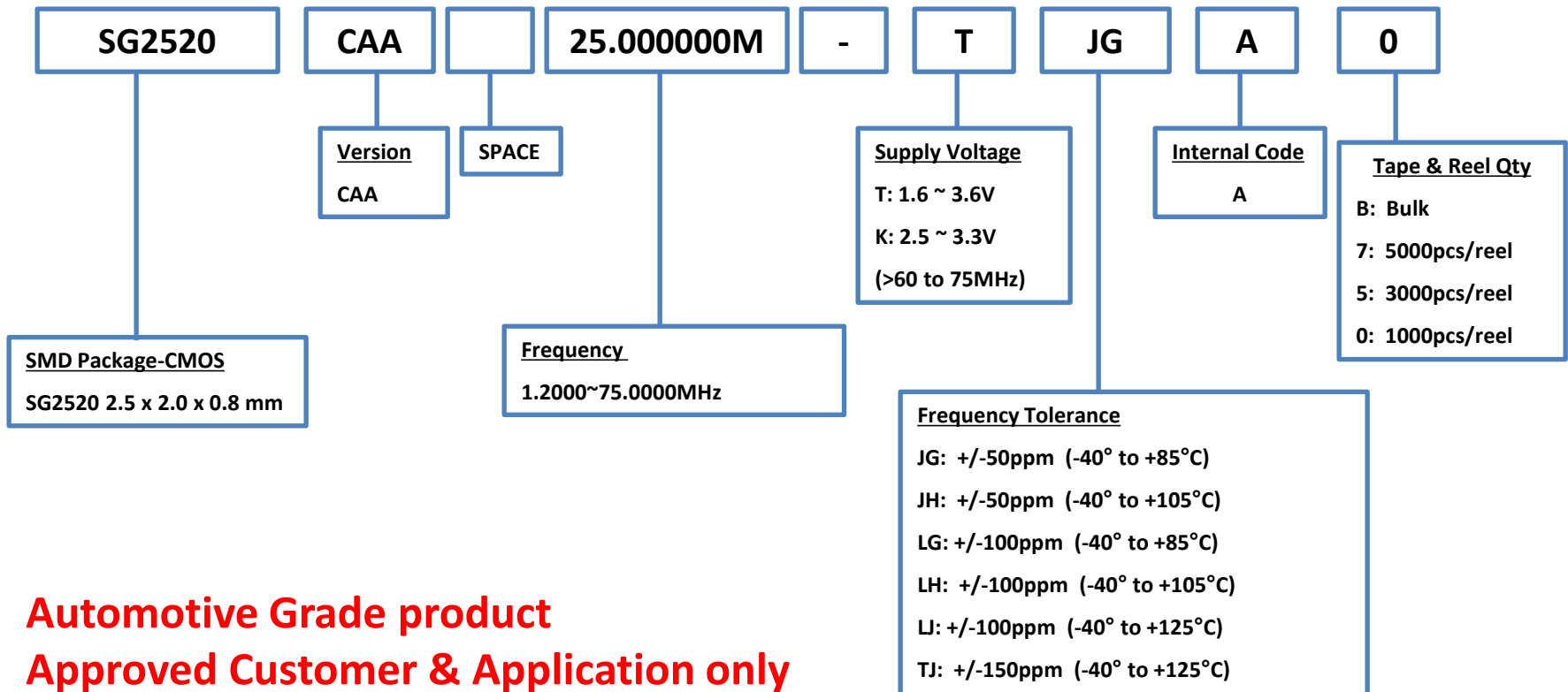


Note: All packages are RoHS Compliant

# Product Configuration System



## Crystal Oscillators – SPXO, Automotive (Conforms to AEC-Q200 Requirement)



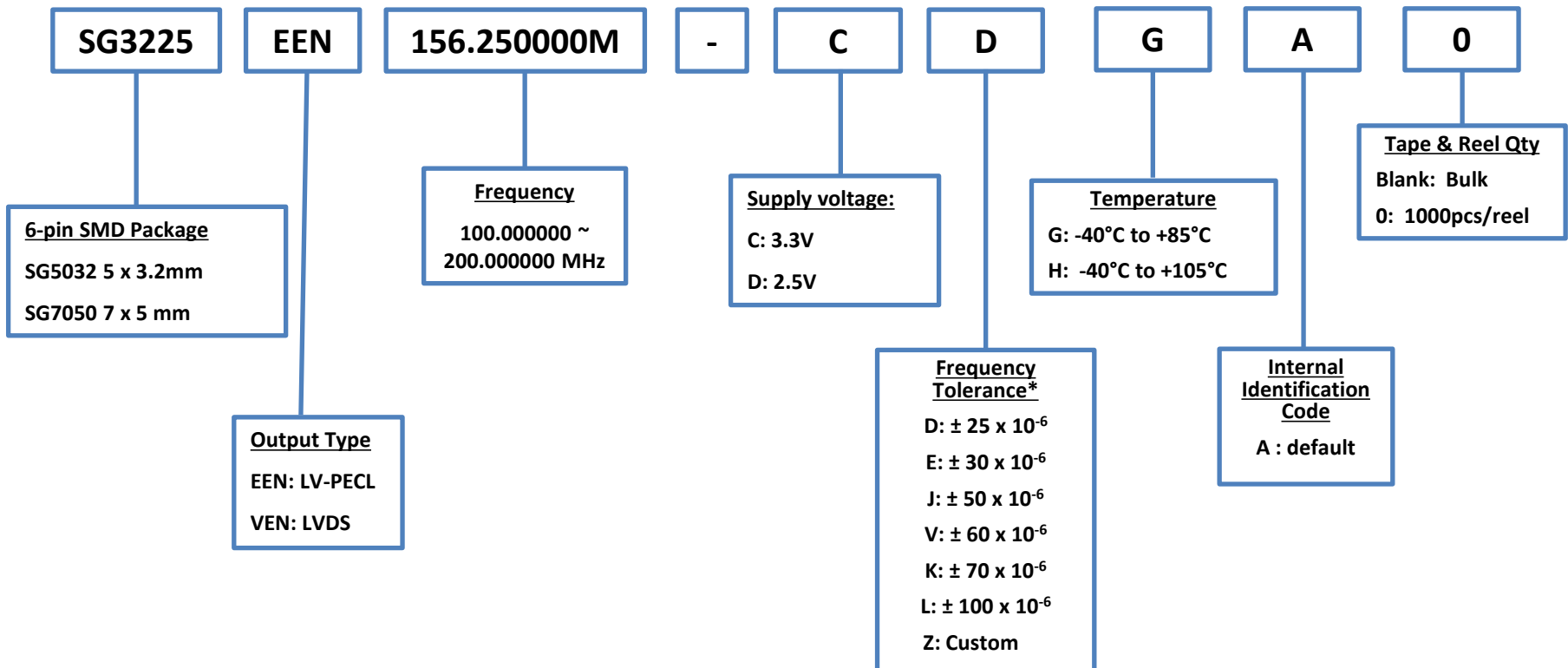
**Automotive Grade product**  
**Approved Customer & Application only**  
**Contact your Epson rep. for support**

# EPSON

# Product Configuration System



## Crystal Oscillators - SPXO



\* Please contact SEC for availability for a given temperature range

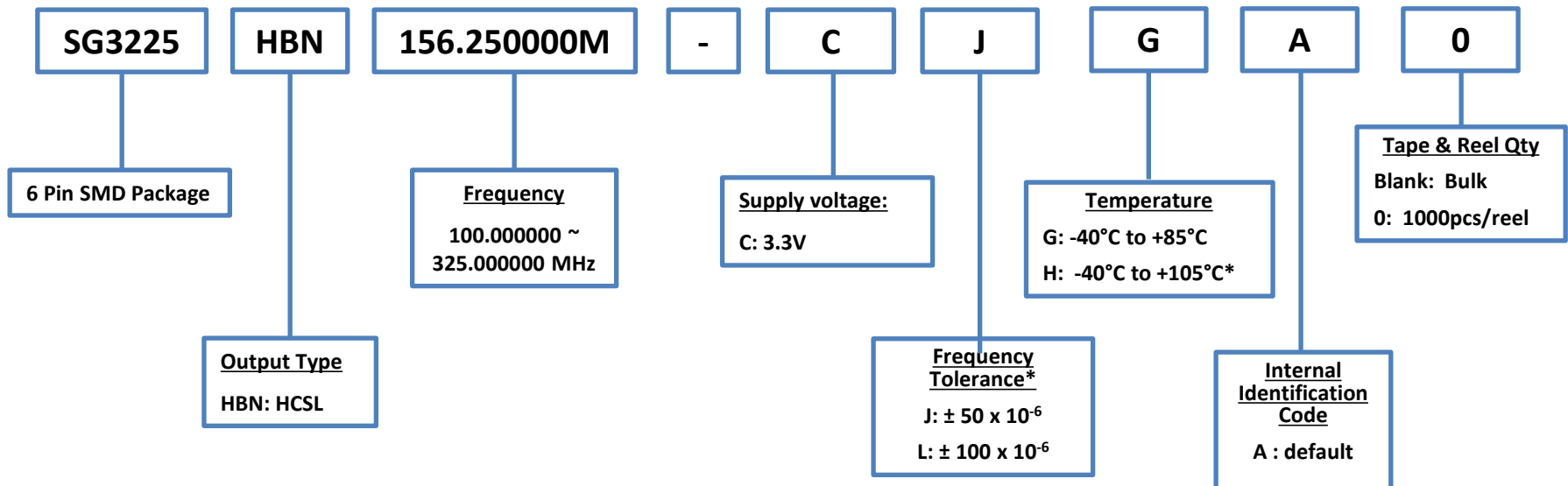


Note: All packages are RoHS Compliant

# Product Configuration System



## Crystal Oscillators - SPXO



\* Please contact SEC for availability for a given temperature range

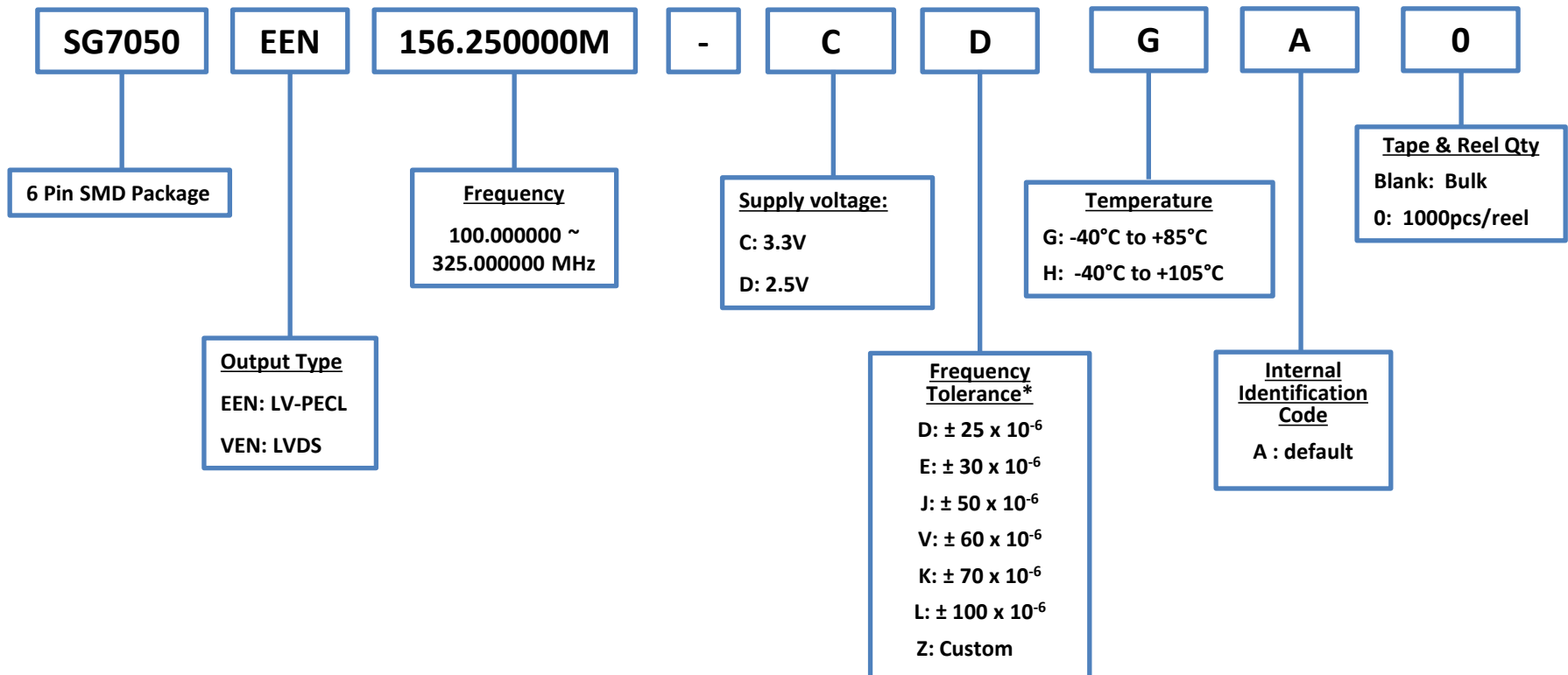
**EPSON**

Note: All packages are RoHS Compliant  
\*For 105C, contact Epson

# Product Configuration System



## Crystal Oscillators - SPXO



\* Please contact SEC for availability for a given temperature range



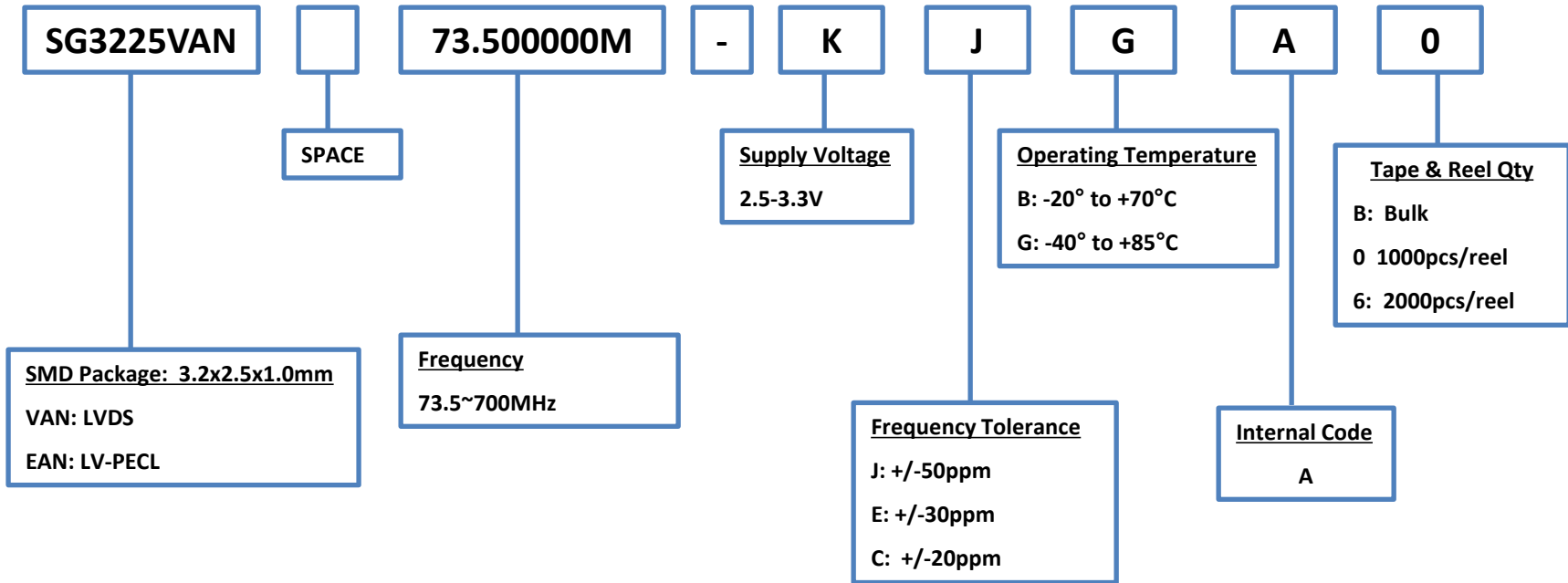
Note: All packages are RoHS Compliant



# Product Configuration System

## Crystal Oscillators – SPXO

Output : LV-PECL, LVDS



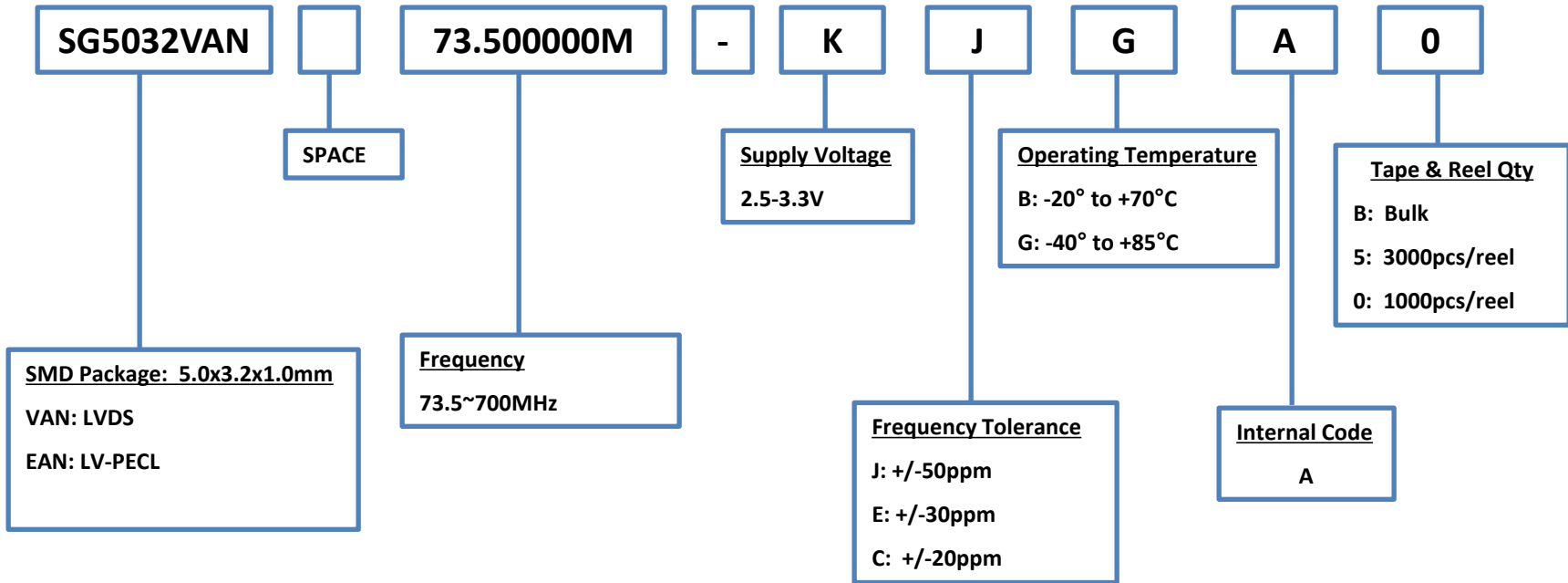
Example: SG3225EAN 73.500000M-KJGA  
CG is not available



# Product Configuration System

## Crystal Oscillators – SPXO

Output : LV-PECL, LVDS



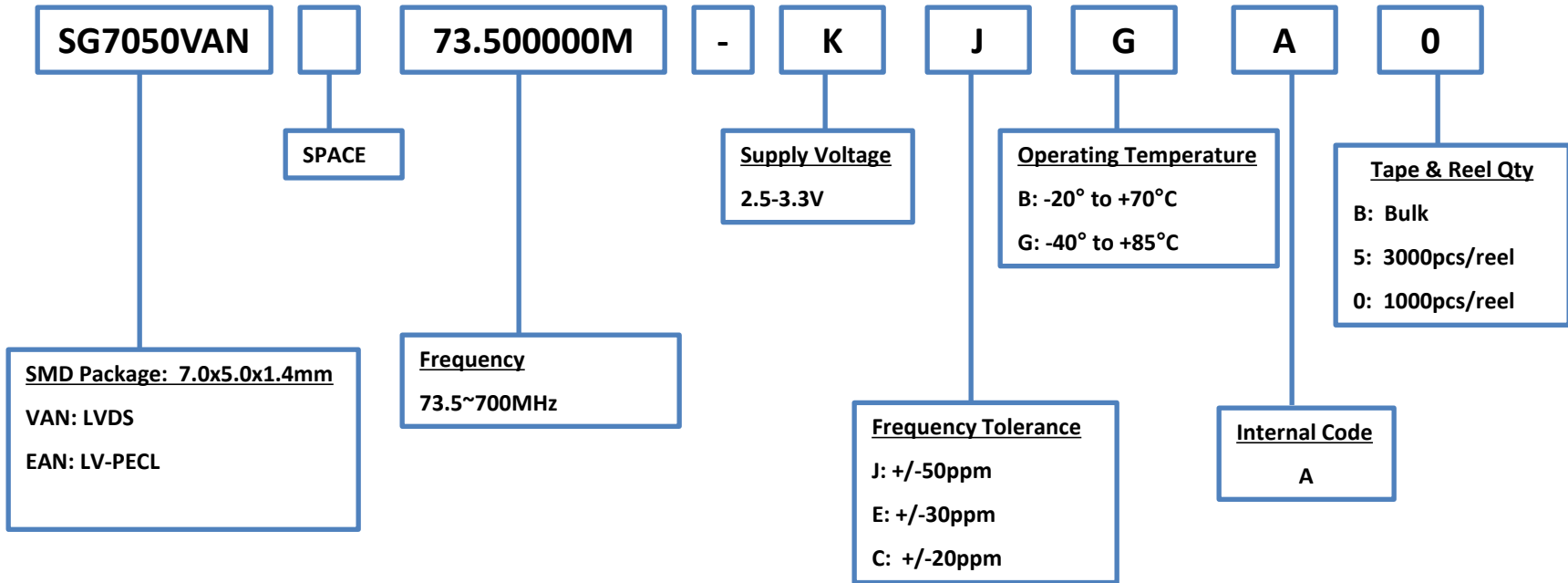
Example: SG5032EAN 73.500000M-KJGA  
CG is not available



# Product Configuration System

## Crystal Oscillators – SPXO

Output : LV-PECL, LVDS



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Example: SG7050EAN 73.500000M-KJGA  
CG is not available

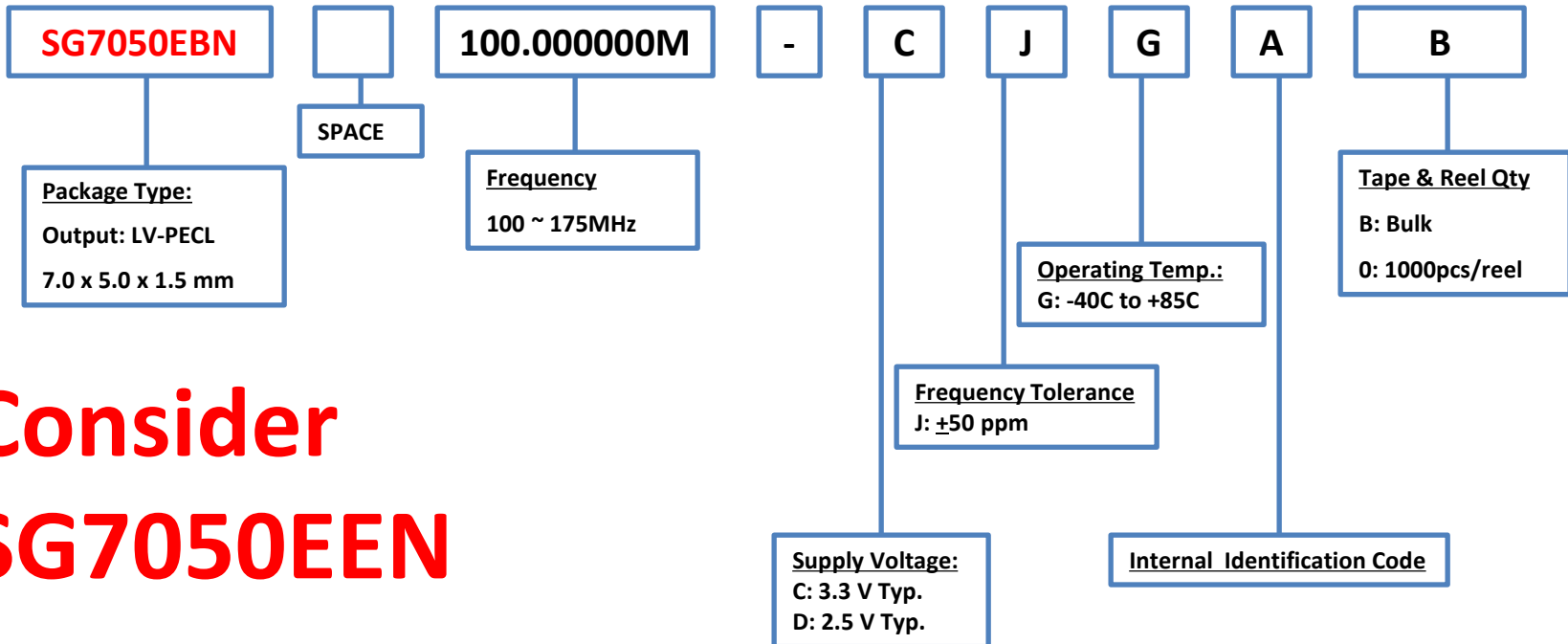


# Product Configuration System



Crystal Oscillator - SPXO

## Discontinued



## Consider SG7050EEN

### NOTE:

Please contact us for requirements not listed in this specification.

# EPSON

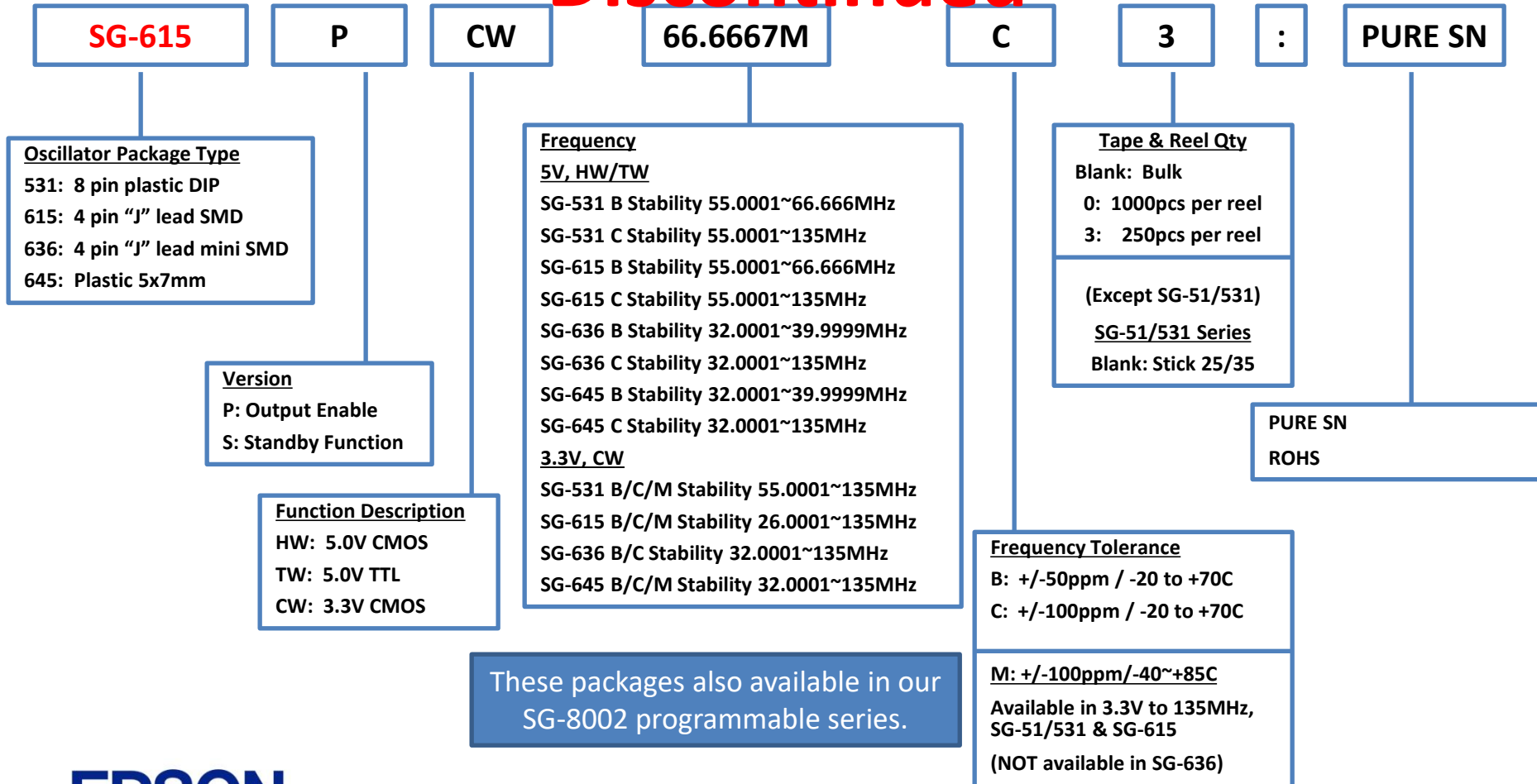
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# Product Configuration System



## Crystal Oscillators - SPXO

**Discontinued**

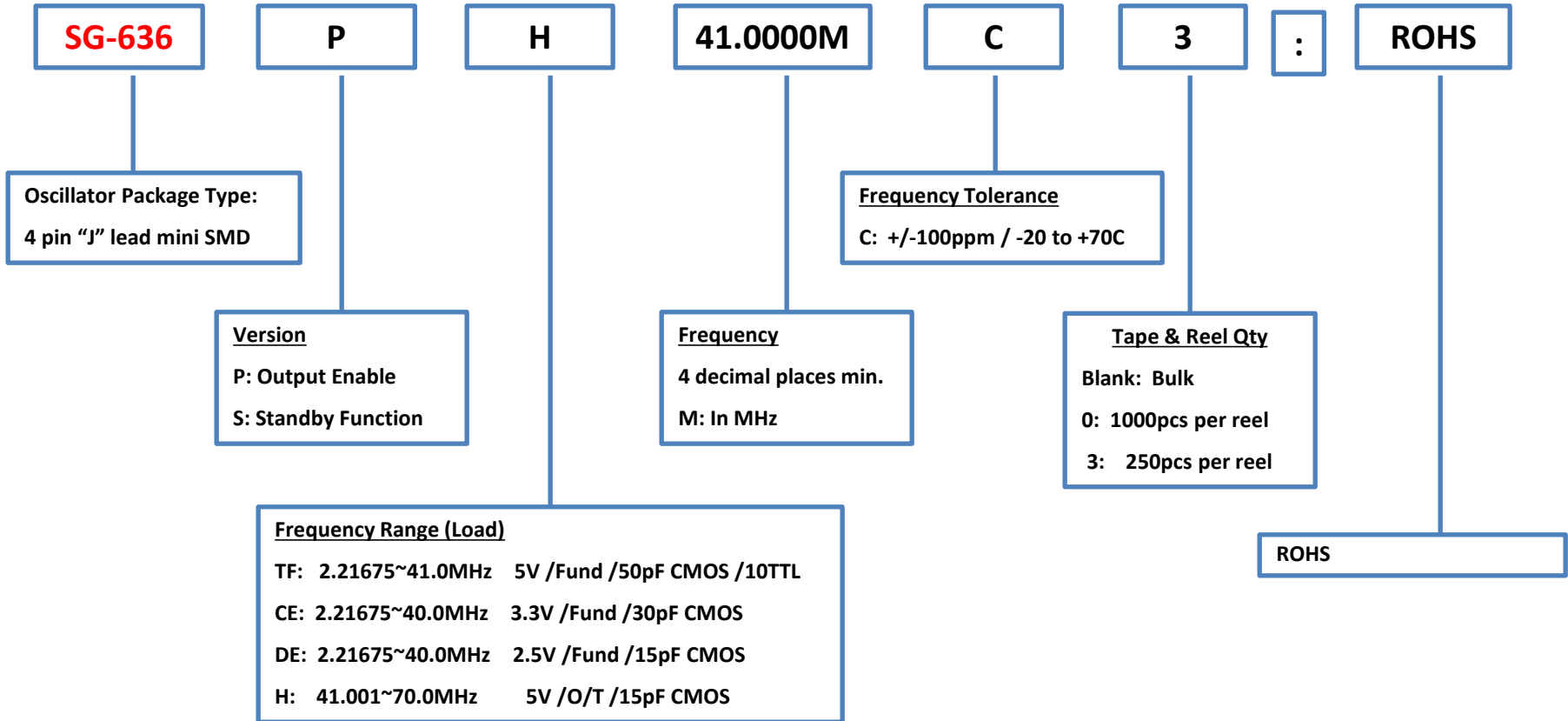


# Product Configuration System



Crystal Oscillators - SPXO

# Discontinued



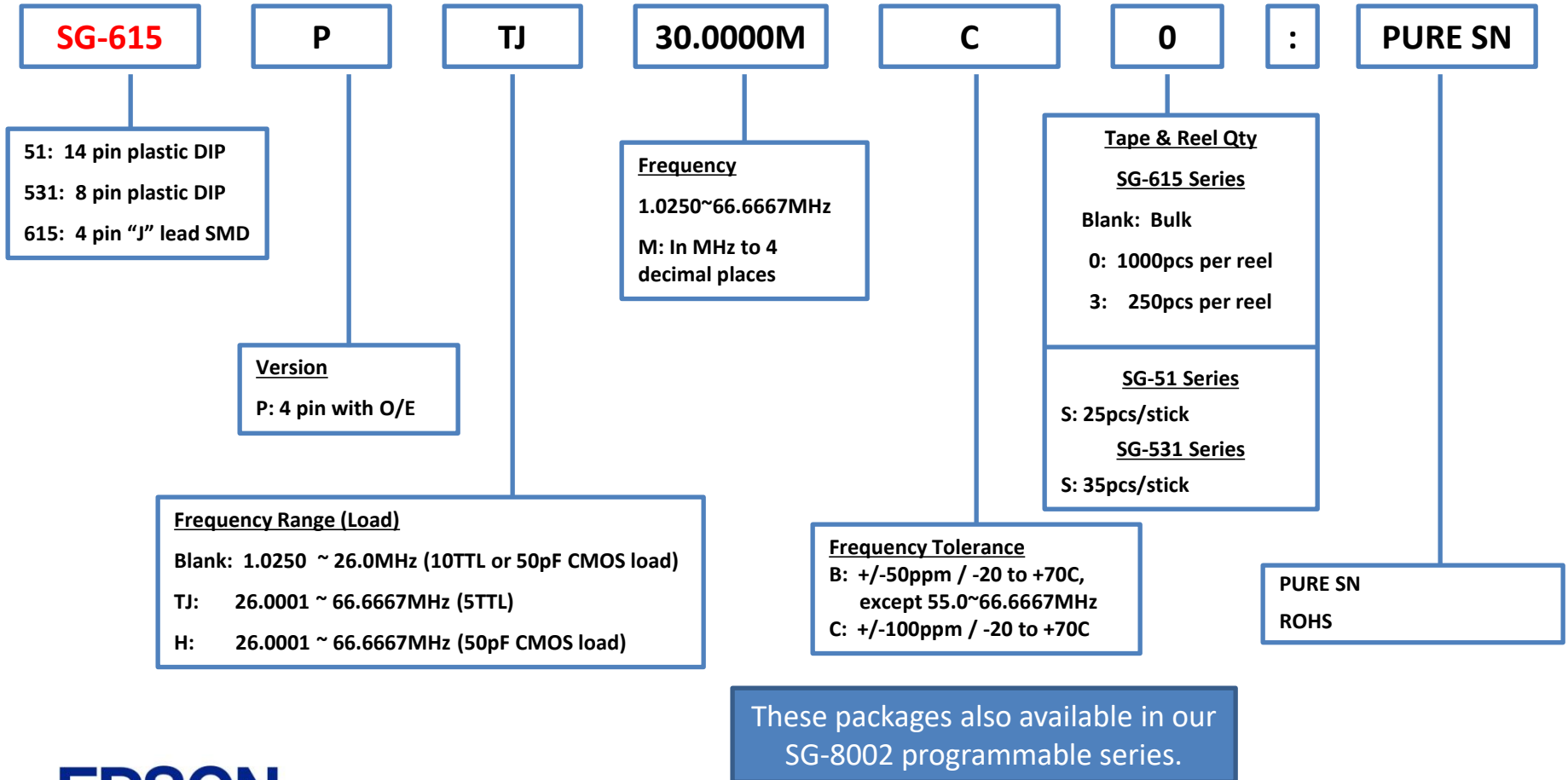
These packages also available in our SG-8002 programmable series.

# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued

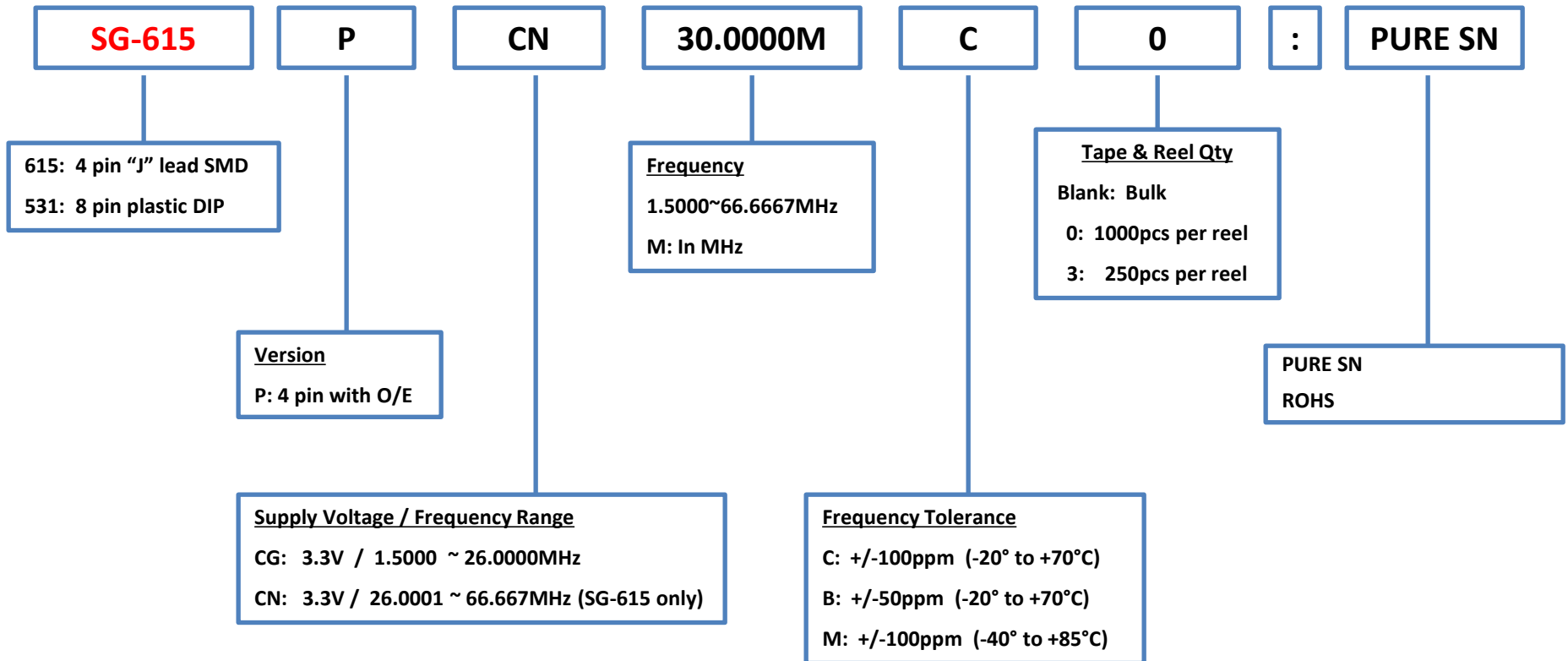


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



These packages also available in our SG-8002 programmable series.

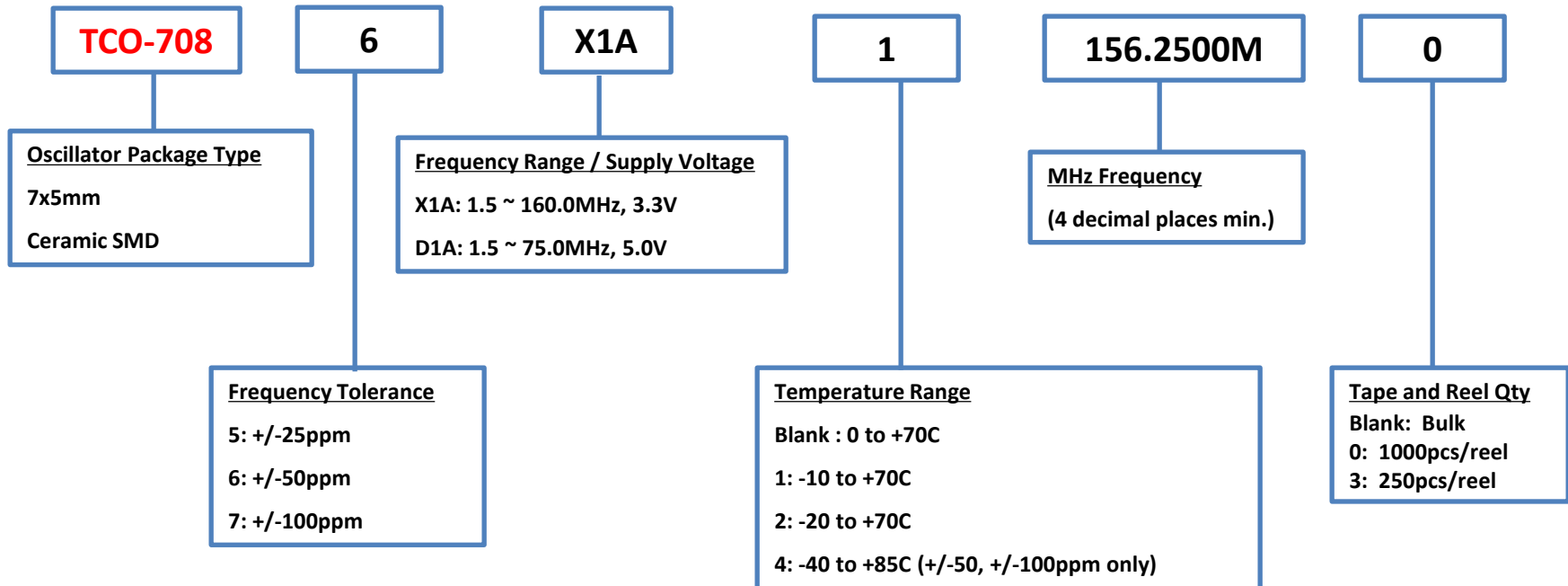


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued

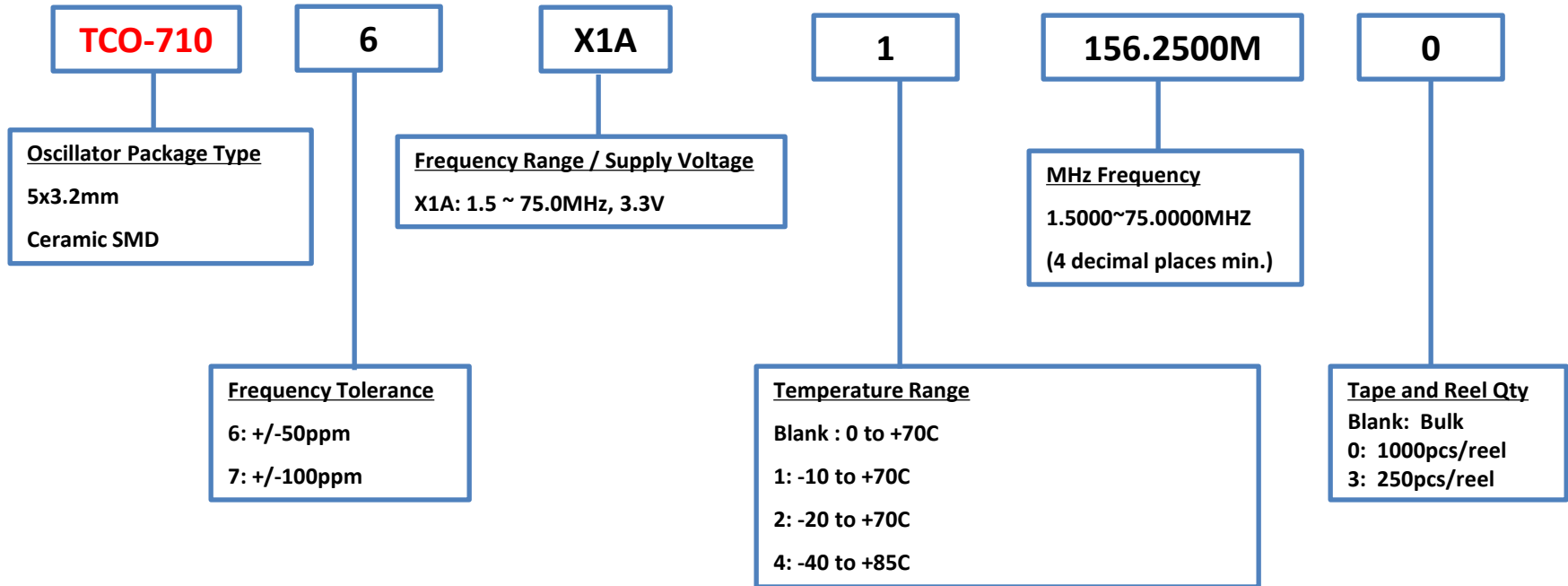


# Product Configuration System



## Crystal Oscillators - SPXO

# Discontinued



# Product Configuration System



Crystal Oscillators - High Stability

# Discontinued

