

EPSON®
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EPSON ELECTRONICS AMERICA

TIMING DEVICES

Product Configuration

System



CONTENTS

• Crystals	Pages 3 – 27
• Oscillators	Pages 28 – 63
• SAW Oscillators	Pages 64 – 95
• Voltage Controlled Oscillators	Pages 96 – 112
• Sensing Devices.....	Pages 113 – 114
• RTC	Pages 115 – 122

Epson's standard product offering is compliant with EU RoHS directive.

Please refer to the 2014 Crystal Master (pp. 145 ~ 148) for a complete list of products that are RoHS compliant (with Pb exemption) and/or Pb Free and its associated terminal materials.

Product Configuration System

CRYSTALS



- 32.768kHz Crystals
- Standard kHz Crystals
- MHz Crystals



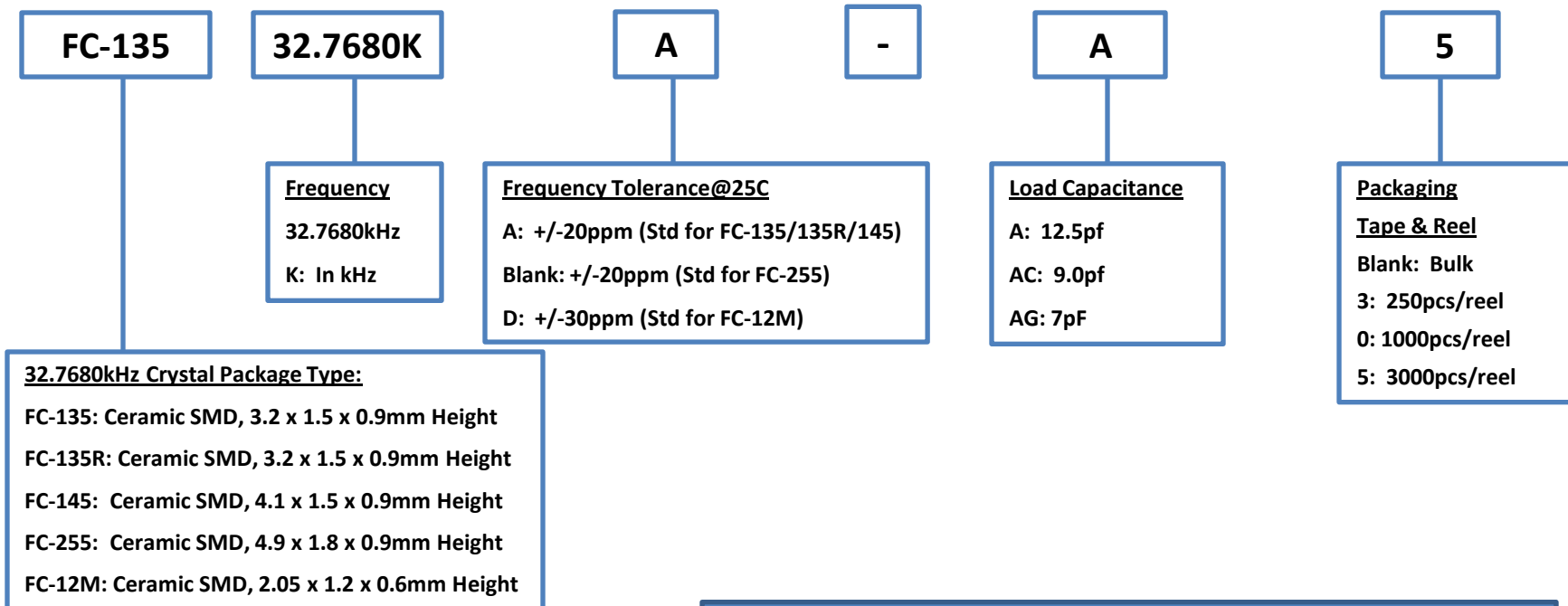
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Product Configuration System



kHz Range Crystal Units



NOTES:

- 1) This product configuration guide is applicable only to 32.7680kHz Crystals. For other frequencies, please reference the Standard kHz Crystal Product Configuration System.
- 2) If you require a load capacitance other than the above listed, please contact your EEA representative for assistance.

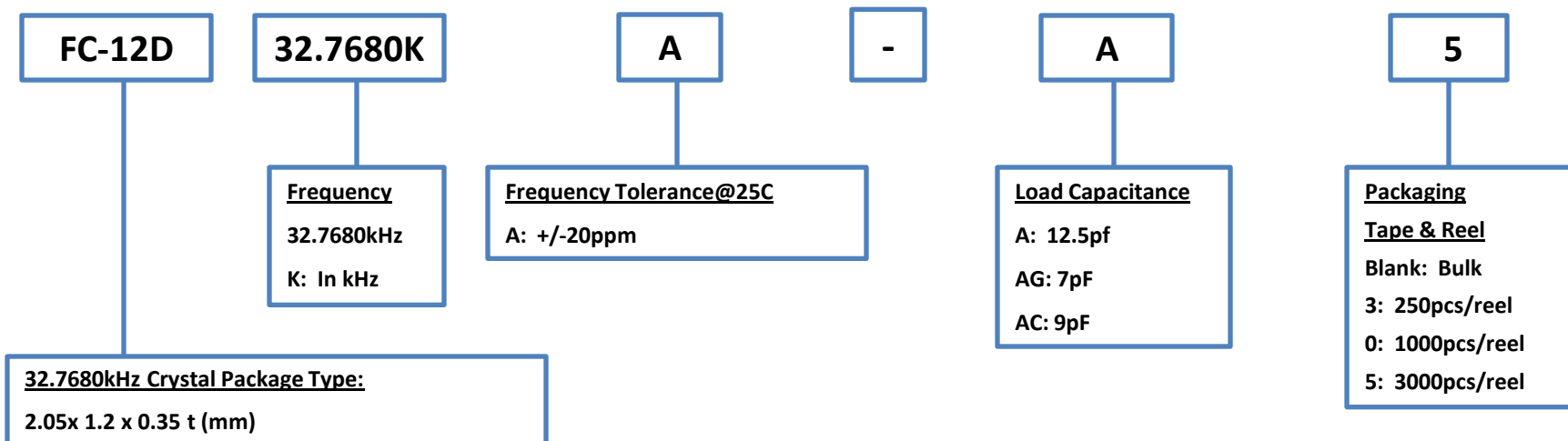
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Product Configuration System



32.768 kHz Crystal Unit with 0.35mm height for Smart Card



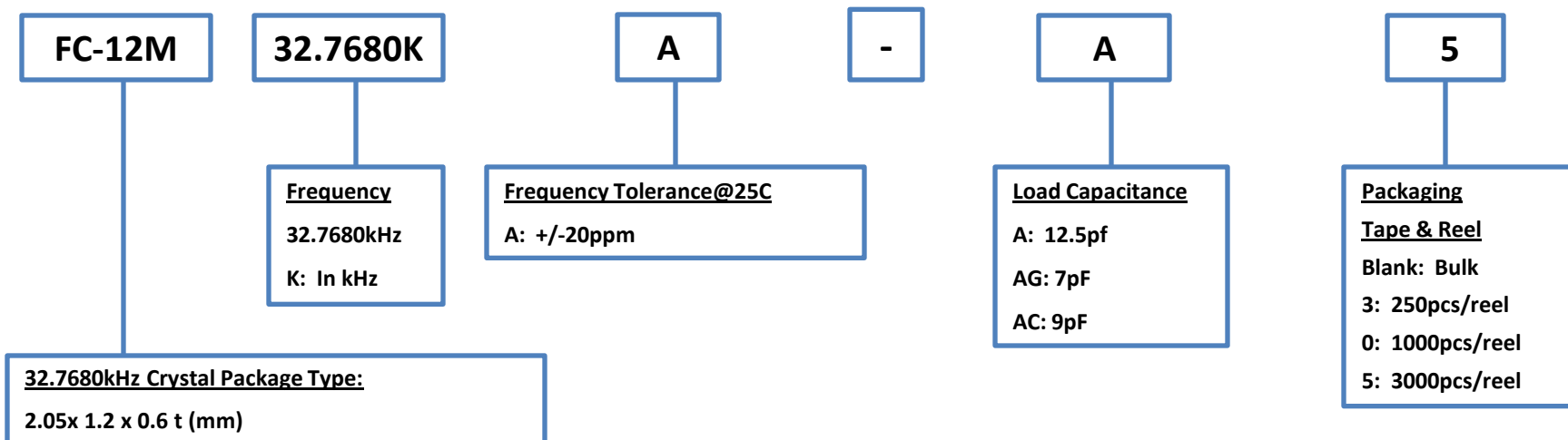
NOTES:

- 1) If your application for this part is not a Smart Card, please contact your EEA representative for assistance.
- 2) If you require a load capacitance other than the above listed, please contact your EEA representative for assistance.

Product Configuration System



kHz Range Crystal Units



NOTES:

- 1) If you require a frequency or tolerance other than the above listed, please contact your EEA representative for assistance.

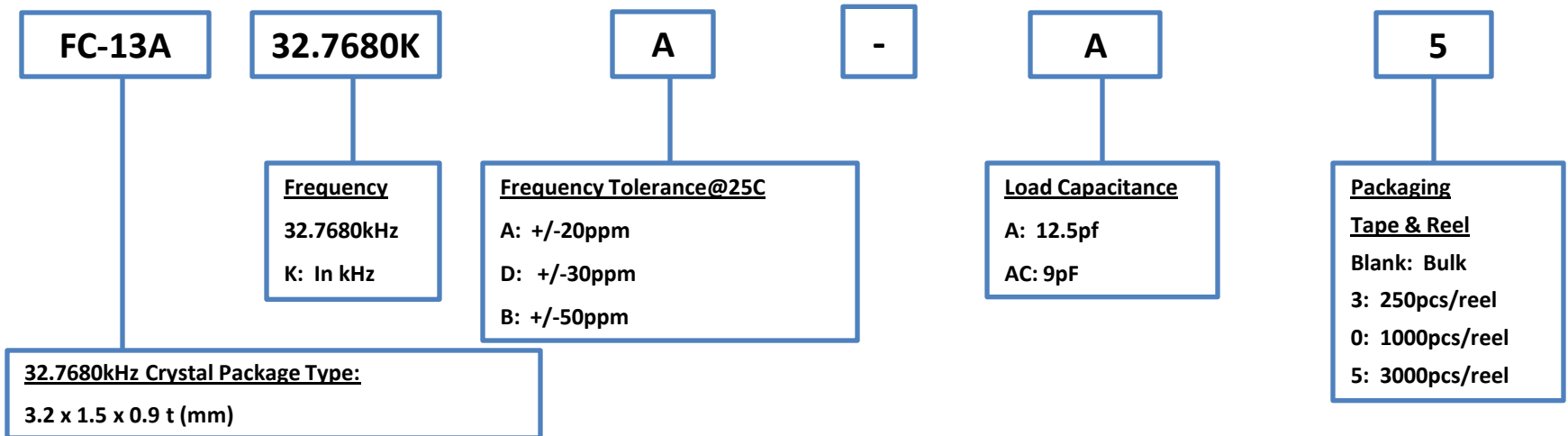
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Product Configuration System



kHz Range Crystal Units



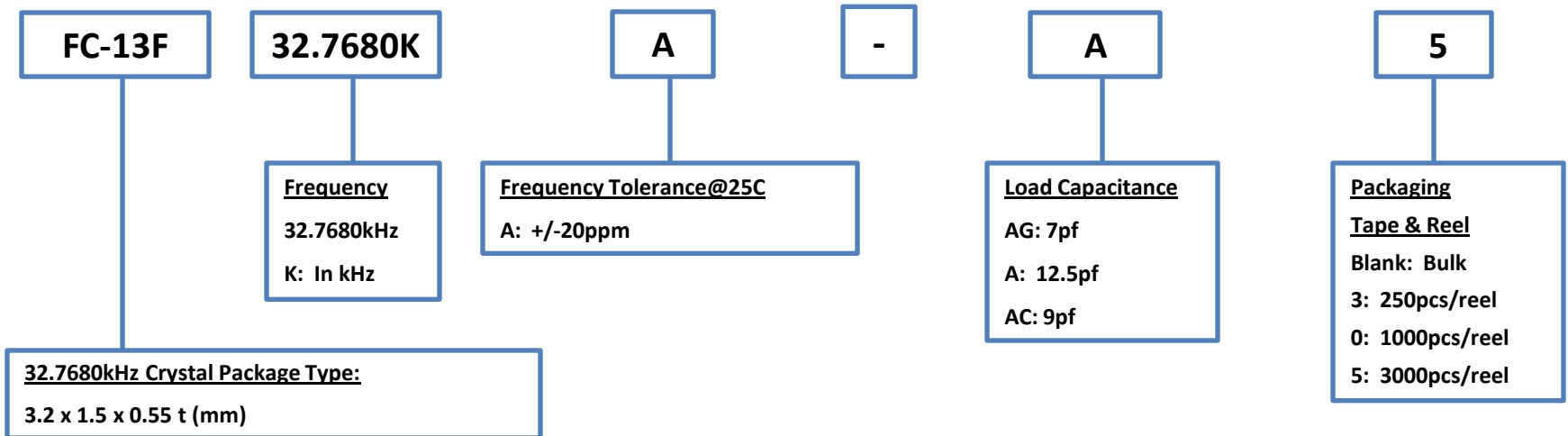
NOTES:

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- 2) If you require a load capacitance other than the above listed, please contact your EEA representative for assistance.

Product Configuration System



kHz Range Crystal Units



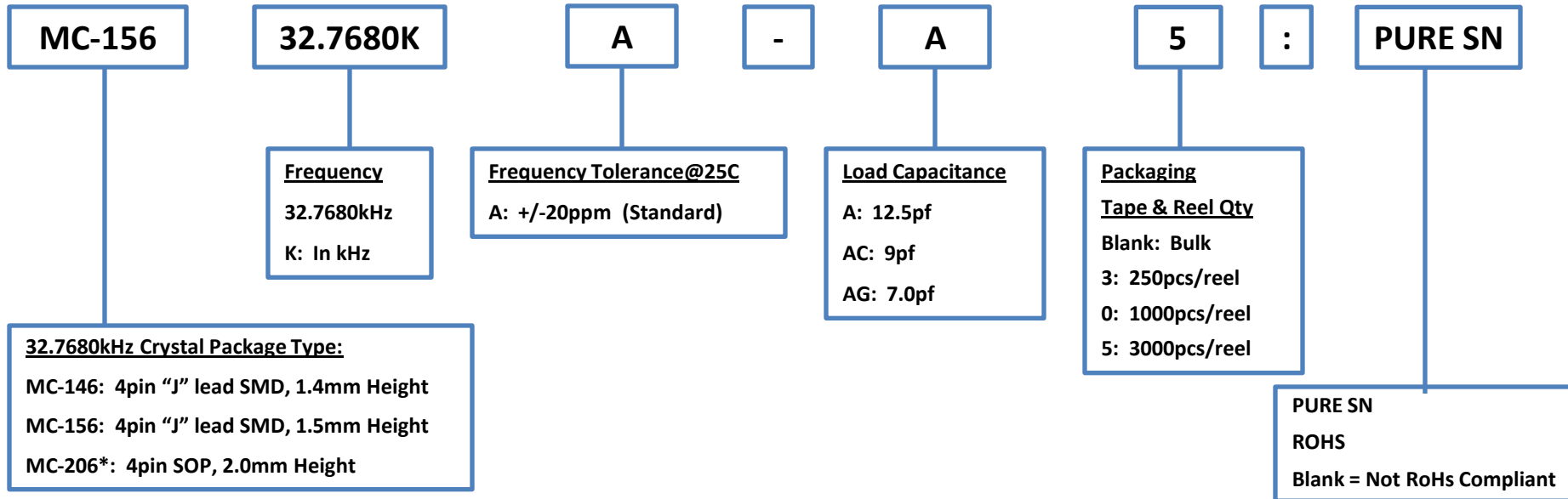
NOTES:

- 1) If you require a frequency or tolerance other than the above listed, please contact your EEA representative for assistance.

Product Configuration System



kHz Range Crystals Units



MC-206:
Not Recommended for New Designs

NOTES:

- 1) This product configuration guide is applicable only to 32.7680kHz Crystals. For other frequencies, please reference the Standard kHz Crystal Product Configuration System.
- 2) If you require a load capacitance other than the above listed, please contact your EEA representative for assistance.

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Product Configuration System

kHz Range Crystals Units

MC-306

76.8000K

Frequency Range:

K: In kHz to 4 Decimal Places

FC-135: 32 ~ 77.5kHz

FC-255: 32 ~ 100kHz

C-2: 20~120KHz

C-4: 32~120 / 192KHz

MC-206*: 32 ~ 100kHz

MC-306: 20 ~ 120kHz

MC-405/406: 20 ~ 120kHz

Crystal Package Type:

C-2 2.0 x 6.0mm

C-4 1.5 x 5.0mm

FC-135: 3.2 x 1.5 x 0.9mm

FC-255 4.9 x 1.8 x 0.9mm

MC-206*: 4pin SOP, 2.0mm Ht.

MC-306 4pin "J" Lead SMD, 2.54mm Ht.

MC-405/406 4pin "J" Lead SMD, 3.6mm Ht.

*MC-206: Not Recommended for New Designs

Frequency Tolerance@25C

A: +/-20ppm

B: +/-50ppm

Blank: +/-100ppm

Load Capacitance

A: 12.5pF

AC: 9.0pF

AG: 7.0pF

P: 11.0pF

P

3

:

PURE SN

Packaging

C-2 / C-4

Blank: Bulk

Tape & Reel

MC 405/406

Blank: Bulk

3: 250pcs/reel

0: 1000pcs/reel

MC-206/306 & FC-135/255

Blank: Bulk

3: 250pcs/reel

0: 1000pcs/reel

5: 3000pcs/reel

NOTES:

- 1) This product configuration guide is NOT applicable to 32.768kHz Crystals.
- 2) If you require a load capacitance other than the above listed, please contact your EEA representative for assistance.

Blank = Not RoHs Compliant

PB FREE (C-Type Series)

PURE SN & ROHS (MC Series)

FC-135/255 already RoHs Compliant, so above codes do not apply.

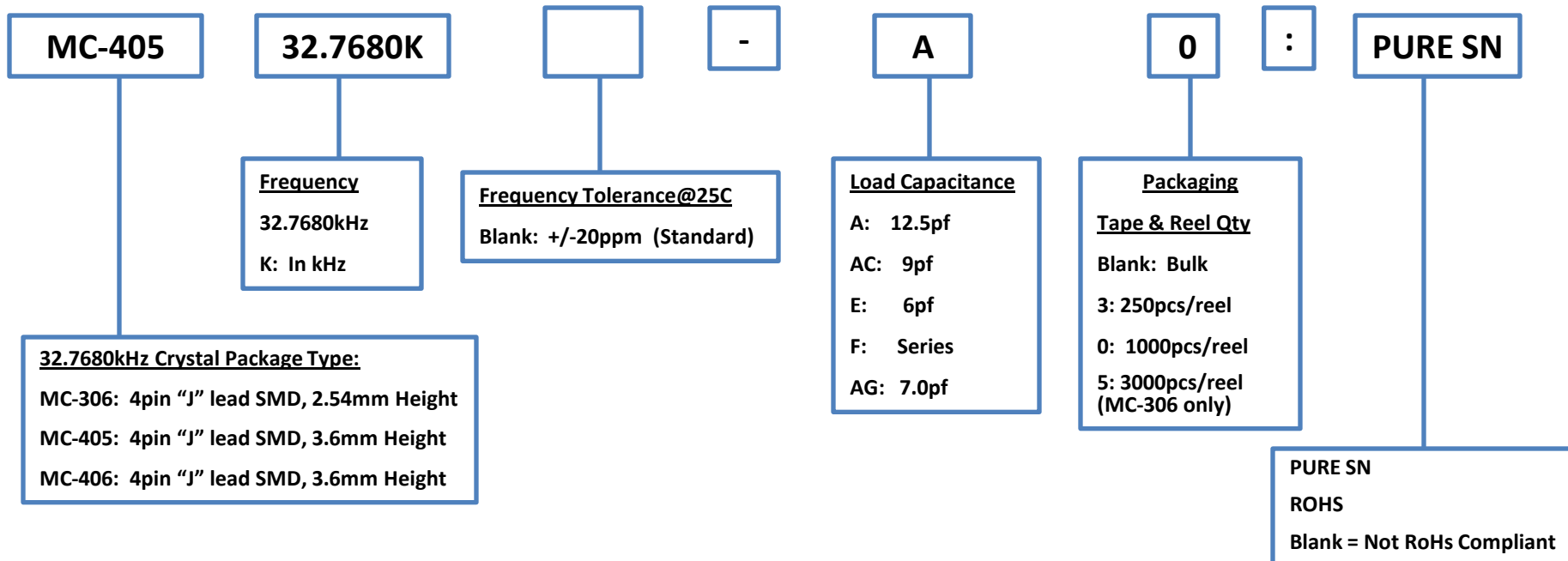
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Product Configuration System



kHz Range Crystals Units



NOTES:

- 1) This product configuration guide is applicable only to 32.7680kHz Crystals. For other frequencies, please reference the Standard kHz Crystal Product Configuration System.
- 2) If you require a load capacitance other than the above listed, please contact your EEA representative for assistance.

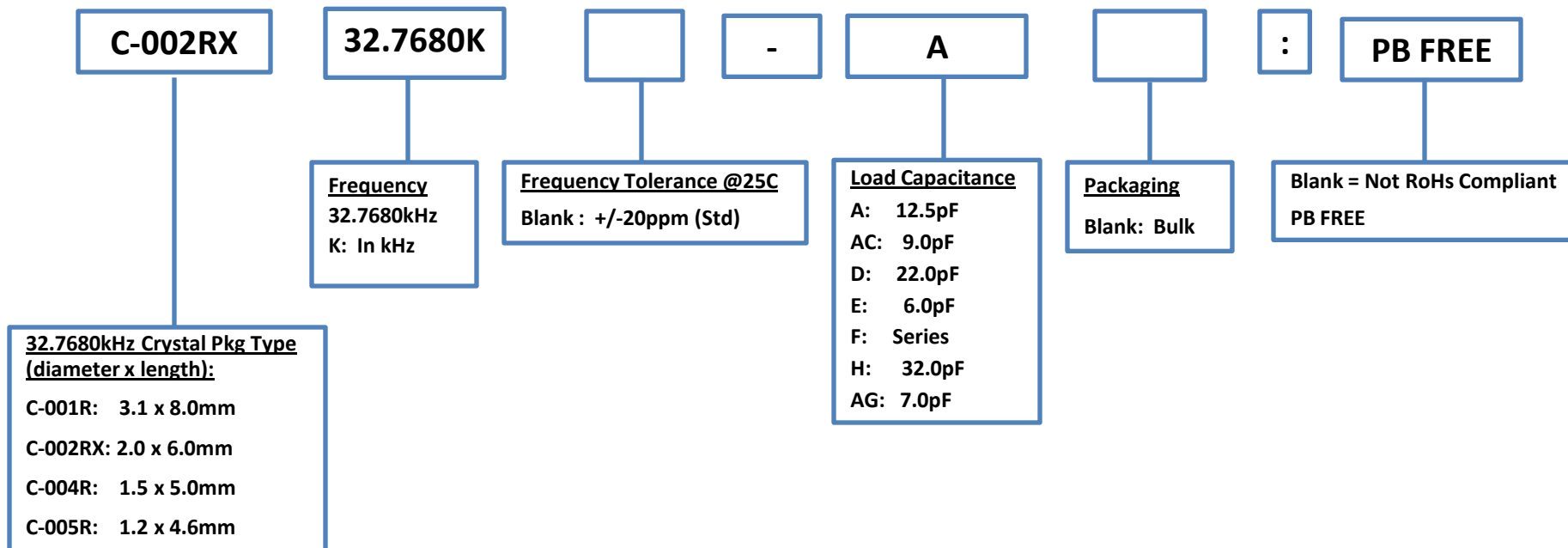
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Product Configuration System



kHz Range Crystals Units



NOTES:

- 1) This product configuration guide is applicable only to 32.7680kHz crystals. For other frequencies, please refer to the Standard kHz Crystal Product Configuration System.
- 2) If you require a load capacitance other than the above listed, please contact your EEA representative for assistance.

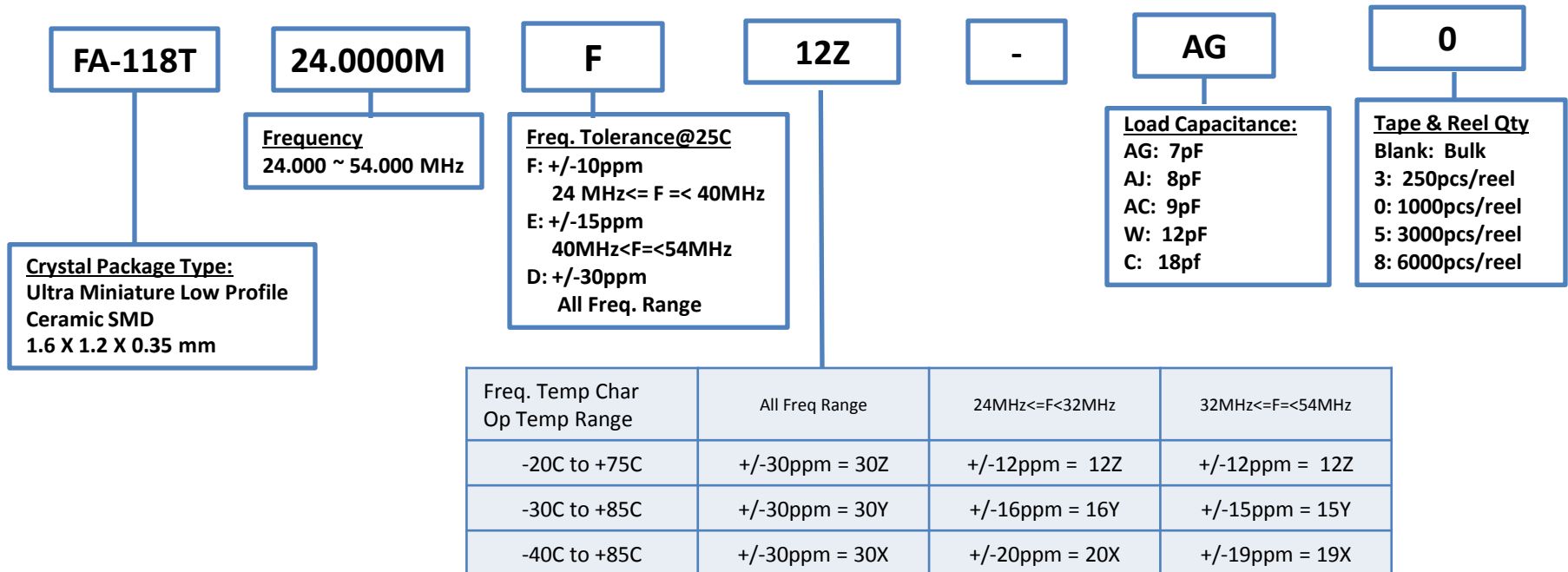
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Product Configuration System



MHz Range Crystals Units



NOTES:

- 1) If you require frequency , tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

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Standard Frequencies

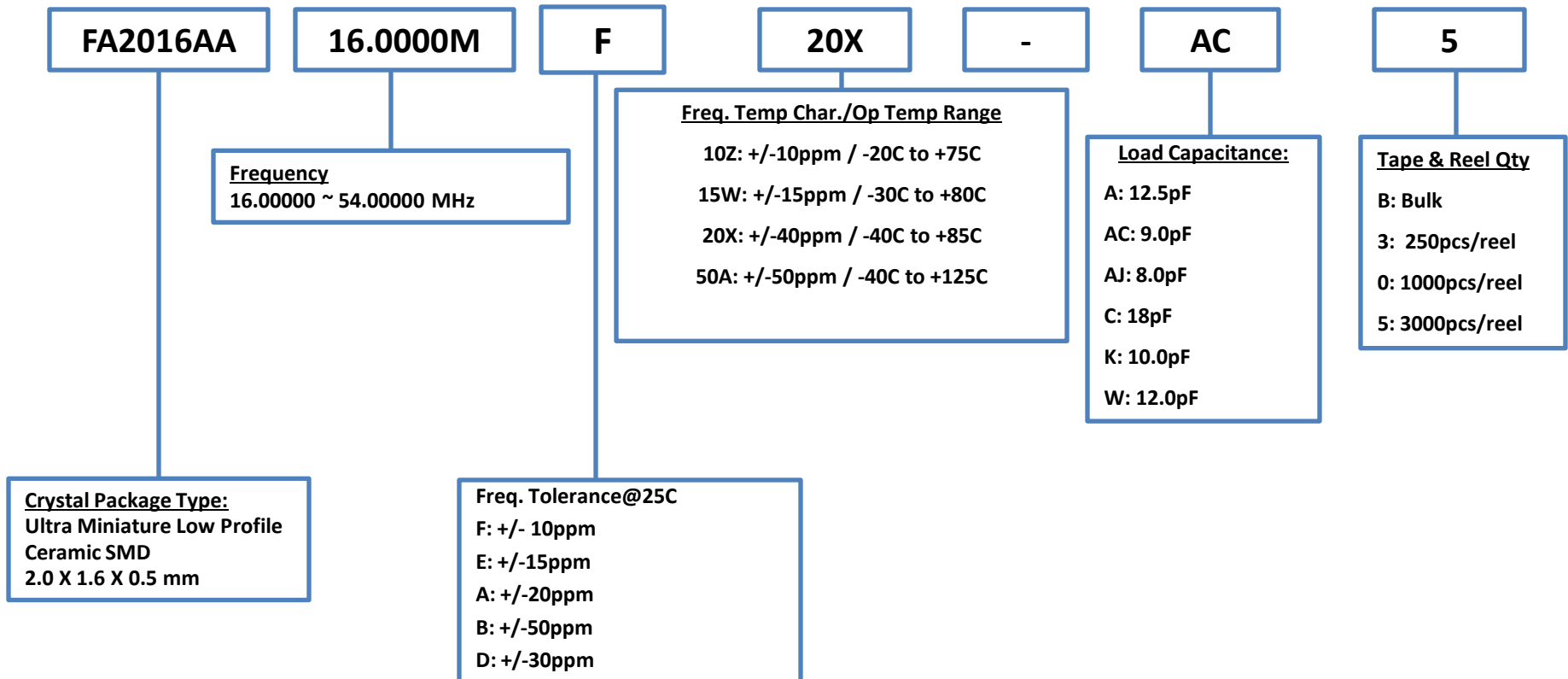
FA-118T Ultra Minature Low Profile

Frequency	Freq. Tolerance@25C		Freq. vs. Temp. Char.		Load Capacitance	
[Mhz]	Code		Code		Code	[pF]
24	D	+/- 30ppm	30Z	+/- 30ppm / -20C to +75C	AL	9.5
26	A	+/- 10ppm	12Z	+/- 12ppm / -20C to +75C	AC	9
37.4	F	+/- 10ppm	12Z	+/- 12ppm / -20C to +75C	K	10
38.4	F	+/- 10ppm	12Z	+/- 12ppm / -20C to +75C	K	10
48	D	+/- 30ppm	30Z	+/- 30ppm / -20C to +75C	B	16

Product Configuration System



MHz Range Crystal Units



NOTES:

- 1) If you require frequency , tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

Product Configuration System



MHz Range Crystals Units

FA-128

16.0000M

F

12V

-

AC

0

Frequency
16 ~ 54 MHz

Freq. Tolerance@25C

F: +/-10ppm
16 MHz<= F <= 40MHz
E: +/-15ppm
40MHz<F<=54MHz
D: +/-30ppm
All Freq. Range

Load Capacitance:

AC: 9pF
AS: 8.5pF
AJ: 8pF
B: 16pF
G: 20pF
W: 12pF

Tape & Reel Qty

B: Bulk
3: 250pcs/reel
0: 1000pcs/reel
5: 3000pcs/reel

Crystal Package Type:

Ultra Miniature Low Profile
Ceramic SMD

FA-128: 2.0 X 1.6 X 0.5 mm
FA-128S: 2.0 x 1.6 x 0.9 mm
FA-2016AS: 2.0 x 1.6 x 0.65 mm

Freq. Temp Char Op Temp Range	All Freq Range	16MHz<=F<=20MHz	20MHz<F=54MHz
-20C to +75C	+/-20ppm = 20Z	+/-12ppm = 12Z	+/-10ppm = 10Z
-20C to +80C	+/-20ppm = 20K	+/-12ppm = 12K	+/-10ppm = 10K
-20C to +85C	+/-20ppm = 20P	+/-12ppm = 12P	+/-12ppm = 12P
-30C to +70C	+/-28ppm = 28R	+/-17ppm = 17R	+/-14ppm = 14R
-30C to +75C	+/-28ppm = 28E	+/-17ppm = 17E	+/-14ppm = 14E
-30C to +80C	+/-30ppm = 30W	+/-17ppm = 17W	+/-14ppm = 14W
-30C to +85C	+/-30ppm = 30Y	+/-17ppm = 17Y	+/-14ppm = 14Y
-30C to +85C	+/-50ppm = 50Y	+/-17ppm = 17Y	+/-14ppm = 14Y
-40C to +85C	+/-40ppm = 40X	+/-22ppm = 22X	+/-20ppm = 20X

NOTE: 81Z = +8/-10ppm / -20C to +75C

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NOTES:

- 1) If you require frequency, tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

Standard Frequencies

FA-128 MHz Range Crystals

Frequency [Mhz]	Freq. Tolerance@25C Code	Freq. vs. Temp. Char. Code	Load Capacitance [pF]
24	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C K 10
24	D	+/- 30ppm	30Z +/- 30ppm / -20C to +75C K 10
24	D	+/- 30ppm	30X +/- 30ppm / -40C to +85C K 10
24.576	D	+/- 30ppm	30Z +/- 30ppm / -20C to +75C K 10
25	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C K 10
25	D	+/- 30ppm	30Z +/- 30ppm / -20C to +75C K 10
25	D	+/- 30ppm	30X +/- 30ppm / -40C to +85C K 10
26	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C AC 9
26	F	+/- 10ppm	12Y +/- 12ppm / -30C to +85C AJ 8
27	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C AC 9
27	D	+/- 30ppm	30Z +/- 30ppm / -20C to +75C AC 9
27	F	+/- 10ppm	18X +/- 18ppm / -40C to +85C AJ 8
27.12	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C K 10
27.12	D	+/- 30ppm	30Y +/- 30ppm / -30C to +85C K 10
27.12	D	+/- 30ppm	30Z +/- 30ppm / -20C to +75C K 10
30	F	+/- 10ppm	20Z +/- 20ppm / -20C to +75C AC 9
30	F	+/- 10ppm	20X +/- 20ppm / -40C to +85C AC 9
30	D	+/- 30ppm	30Z +/- 30ppm / -20C to +75C E 6
32	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C W 12
32	F	+/- 10ppm	20X +/- 20ppm / -40C to +85C K 10
33.6	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C AC 9
37.4	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C C 18
38.4	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C K 10
40	F	+/- 10ppm	10Z +/- 10ppm / -20C to +75C AJ 8
40	F	+/- 10ppm	20X +/- 20ppm / -40C to +85C K 10
48	D	+/- 30ppm	20X +/- 20ppm / -40C to +85C B 16

Product Configuration System



MHz Range Crystals Units

FA-20H	16.0000M	F	12V	-	AC	0
<u>Crystal Package Type:</u> Ultra Miniature Low Profile Ceramic SMD 2.5 X 2.0 X 0.55 mm	<u>Frequency</u> 12.000 ~ 54.0000MHz	<u>Freq. Tolerance@25C</u> F: +/-10ppm A: +/-20ppm D: +/-30ppm L: +11/-9ppm			<u>Load Capacitance:</u> AC: 9pF AS: 8.5pF B: 16pF G: 20pF W: 12pF	<u>Tape & Reel Qty</u> Blank: Bulk 3: 250pcs/reel 0: 1000pcs/reel 5: 3000pcs/reel

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NOTES:

- 1) If you require frequency, tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

Standard Frequencies

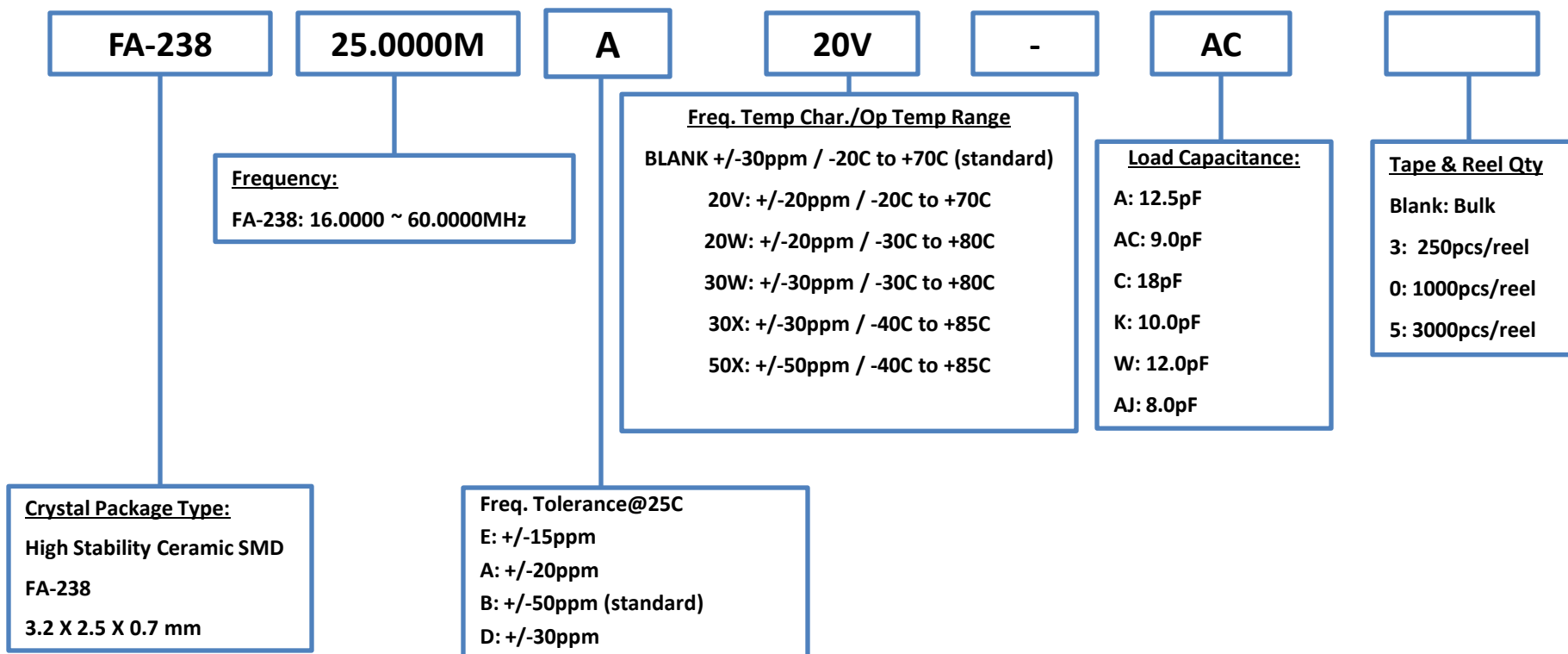
FA-20H MHz Range Crystals

Frequency [Mhz]	Freq. Tolerance@25C		Freq. vs. Temp. Char.		Load Capacitance	
	Code		Code		Code	[pF]
24	F	+/- 10ppm	10Z	+/- 10ppm / -20C to +75C	K	10
24	D	+/- 30ppm	30Z	+/- 30ppm / -20C to +75C	K	10
24	D	+/- 30ppm	30X	+/- 30ppm / -40C to +85C	K	10
24.576	D	+/- 30ppm	10V	+/- 10ppm / -20C to +70C	W	12
25	D	+/- 30ppm	30Z	+/- 30ppm / -20C to +75C	K	10
25	D	+/- 30ppm	30X	+/- 30ppm / -40C to +85C	R	15
26	F	+/- 10ppm	10Z	+/- 10ppm / -20C to +75C	AC	9
26	F	+/- 10ppm	15Y	+/- 15ppm / -30C to +85C	AC	9
27	F	+/- 10ppm	10Z	+/- 10ppm / -20C to +75C	AG	7
27	F	+/- 10ppm	20X	+/- 20ppm / -40C to +85C	AC	9
27	D	+/- 30ppm	30Z	+/- 30ppm / -20C to +75C	K	10
27.12	D	+/- 30ppm	30Z	+/- 30ppm / -20C to +75C	K	10
30	F	+/- 10ppm	20X	+/- 20ppm / -40C to +85C	W	12
30	D	+/- 30ppm	30Z	+/- 30ppm / -20C to +75C	AJ	8
32	F	+/- 10ppm	10Z	+/- 10ppm / -20C to +75C	W	12
32	F	+/- 10ppm	20X	+/- 20ppm / -40C to +85C	K	10
38.4	F	+/- 10ppm	10Z	+/- 10ppm / -20C to +75C	K	10
40	F	+/- 10ppm	15Z	+/- 15ppm / -20C to +75C	AC	9
40	F	+/- 10ppm	20X	+/- 20ppm / -40C to +85C	K	10
48	B	+/- 50ppm	30Z	+/- 30ppm / -20C to +75C	AG	7

Product Configuration System



MHz Range Crystal Units



NOTES:

- 1) If you require frequency , tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

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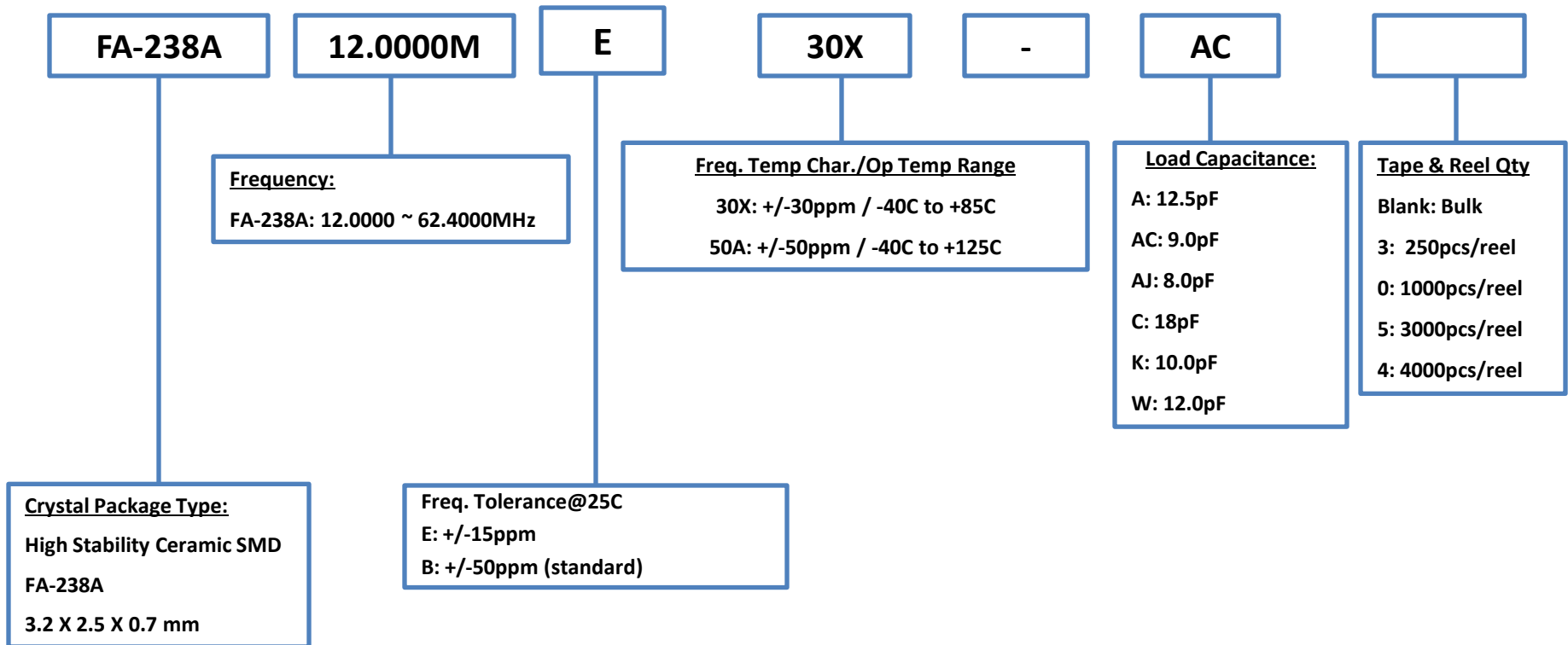
SEPTEMBER 2014

20

Product Configuration System



MHz Range Crystal Units



NOTES:

- 1) If you require frequency , tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

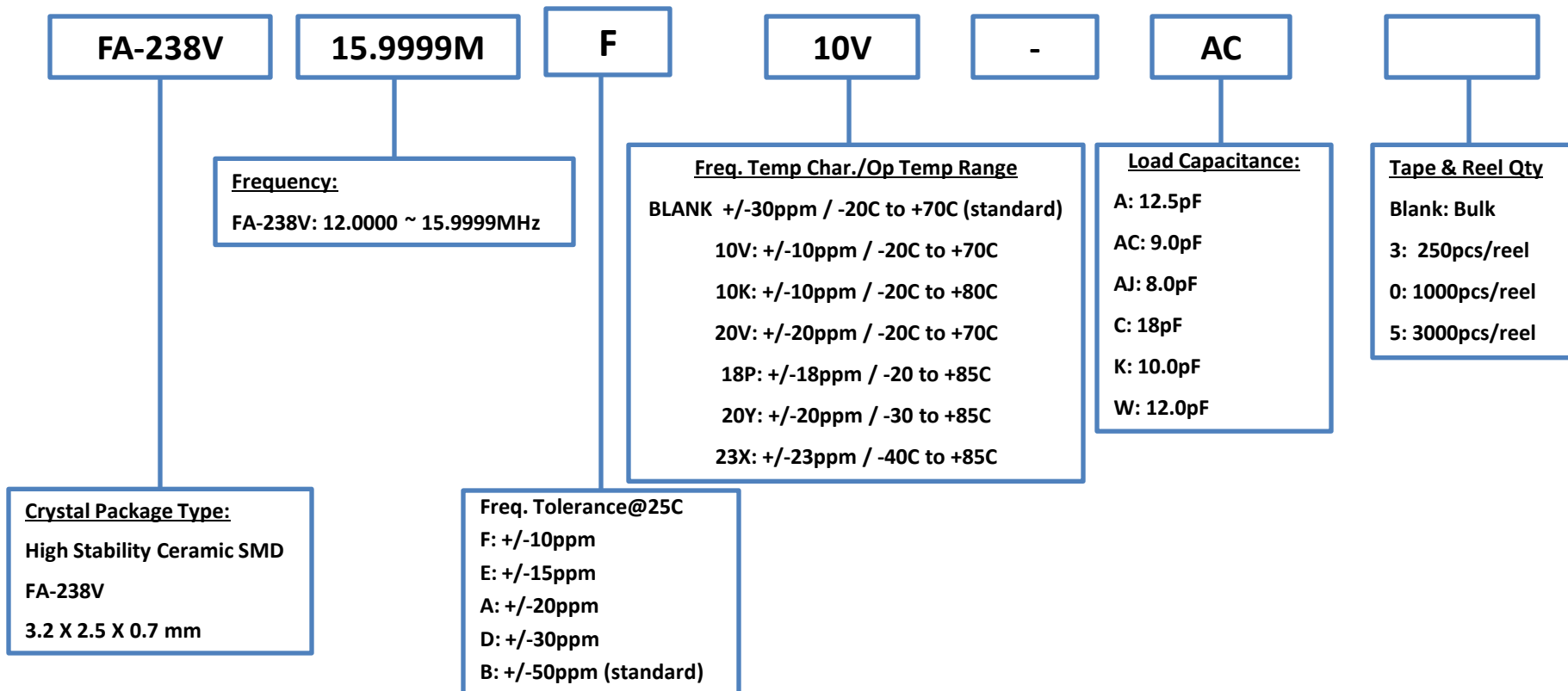
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Product Configuration System



MHz Range Crystal Units



NOTES:

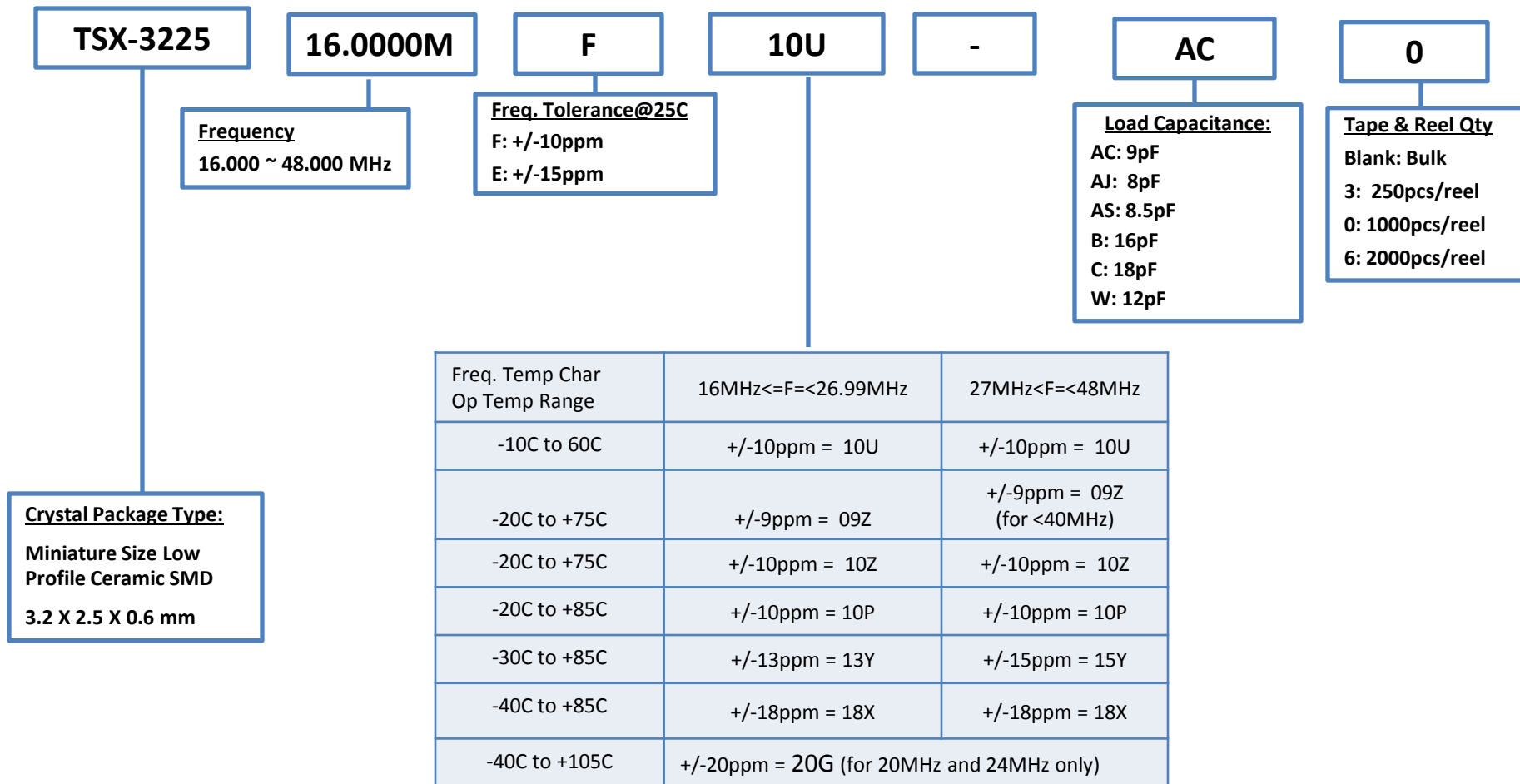
- 1) If you require frequency , tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

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Product Configuration System



MHz Range Crystal Units



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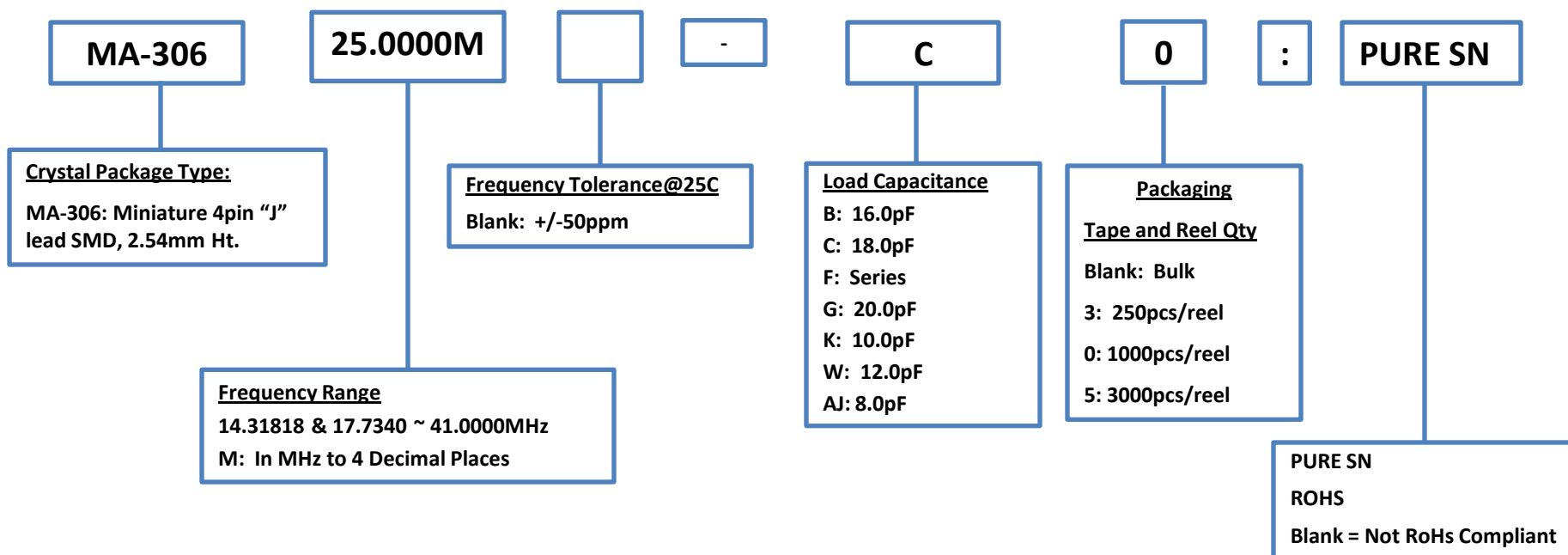
NOTES:

- 1) If you require frequency, tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

Product Configuration System



MHz Range Crystal Units



NOTES:

- 1) If you require frequency , tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.

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PURE SN

Product Configuration System



MHz Range Crystal Units

CA-301

Crystal Package Type:

CA-301: 3.1mm diameter metal can

30.0000M

Frequency Range

M: In MHz to 4 Decimal Places

4.0000, 4.0320, 4.0960, 4.1900, 4.194304,
4.433619, 4.5000, 4.8000, 4.9152MHz

5.5000 ~ 64.0000MHz

Except 8.0001 ~ 8.1999MHz

26.0000~29.9999MHz *

Frequency Tolerance@25C

4.0000~5.5000MHz

Blank : +/-50ppm (Standard)

5.5001~64.0000MHz

Blank: +/-30ppm (Standard)

-

A

Load Capacitance

B: 16.0pF

C: 18.0pF

D: 22.0pF

F: Series

G: 20.0pF

H: 32.0pF

K: 10.0pF

W: 12.0pF

AB: 30.0pF

AD: 50.0pF

AJ: 8.0pF

Packaging

Blank: Bulk

:

PB FREE

Blank : Not RoHs Compliant
PB FREE

NOTES:

- 1) If you require frequency , tolerance, frequency temperature characteristics over temperature and load capacitance values other than the above listed, please contact your EEA representative for assistance.
- 2) For frequencies between 26.0000MHz and 29.9999MHz, please specify "(FUND)" at end of part number if fundamental mode required. Otherwise, 3rd Overtone is default.

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Product Configuration System

Crystal Units Load Cap Codes and Values (as of March 2014)

Load Cap Code	Load Cap Value
AZ	3.5
VJ	4.0
EE	4.4
AT	4.8
X	5.0
JJ	5.4
E	6.0
FF	6.4
DD	6.5
VC	6.7
AG	7.0
AR	7.1
JK	7.4
VB	7.6
AN	7.8
AJ	8.0
AS	8.5
CC	8.7
GG	8.8
AC	9.0
AM	9.2

Load Cap Code	Load Cap Value
AL	9.5
S	9.6
VF	9.8
K	10.0
HH	10.4
AK	10.5
AP	10.7
P	11.0
AY	11.2
AW	11.5
W	12.0
A	12.5
T	13.0
N	13.5
Y	14.0
VH	14.5
R	15.0
B	16.0
AV	17.0
C	18.0
L	18.3

Load Cap Code	Load Cap Value
J	18.5
AQ	19.0
G	20.0
AF	21.5
D	22.0
AU	22.5
AE	22.9
AH	23.0
V	24.0
AI	25.0
Z	26.0
AA	27.0
Q	28.0
AB	30.0
H	32.0
I	33.0
U	47.0
AD	50.0
M	100.0
F	Series

Product Configuration System

OSCILLATORS



- SPXO
- Programmable
- Spread Spectrum
- High Stability



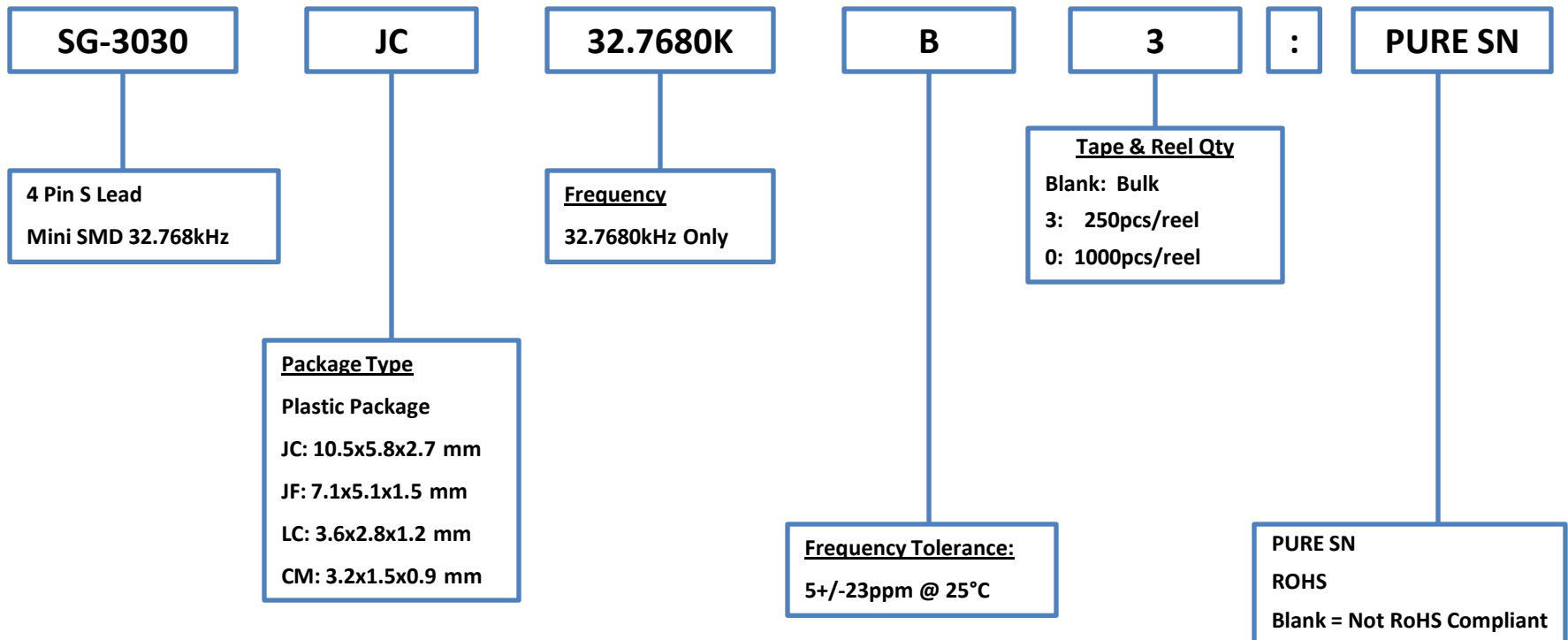
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Product Configuration System



Crystal Oscillators - SPXO

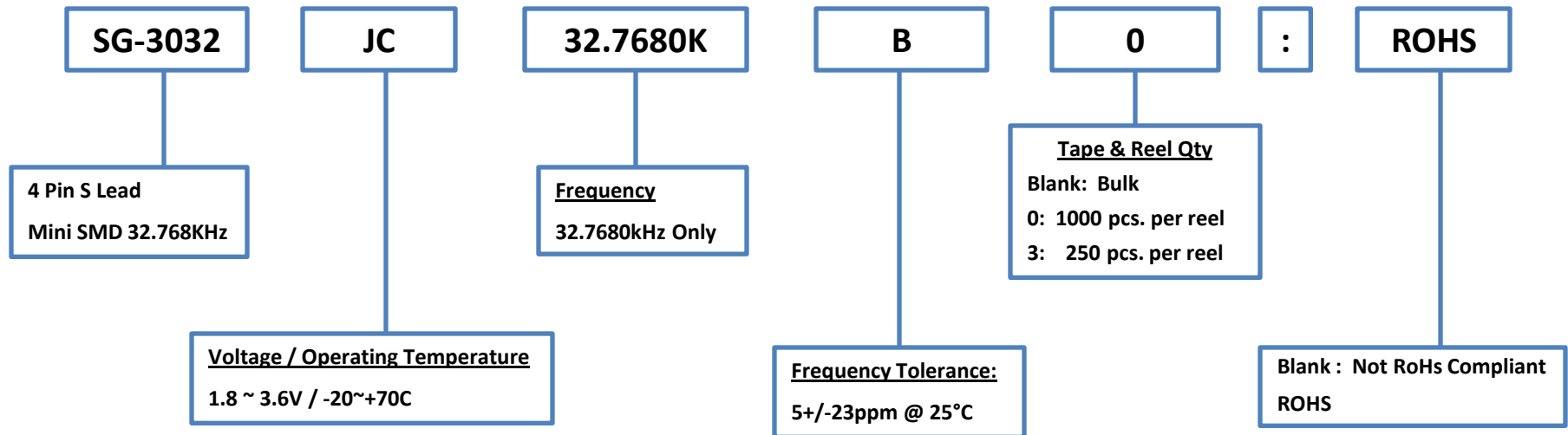


Note: All LC packages are RoHS Compliant, Pure SN

Product Configuration System



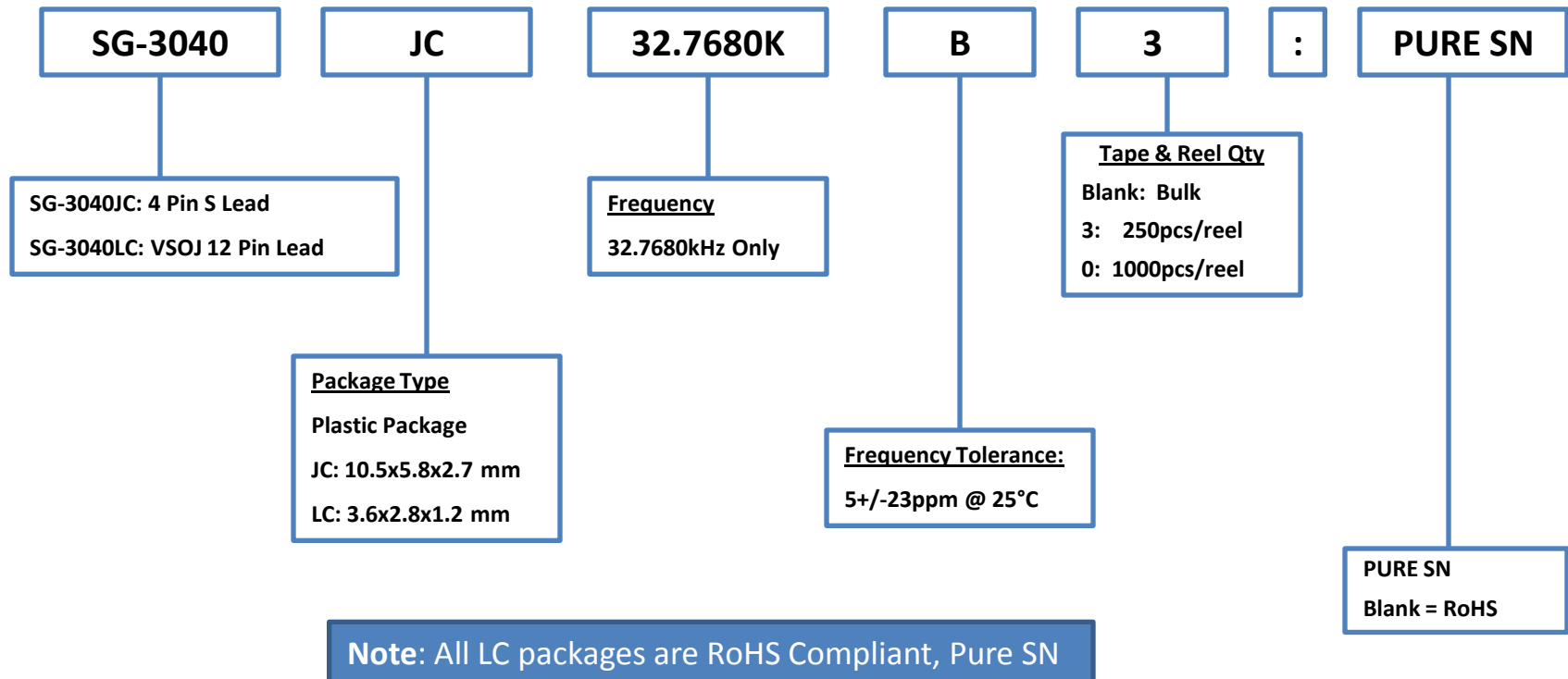
Crystal Oscillators - SPXO



Product Configuration System



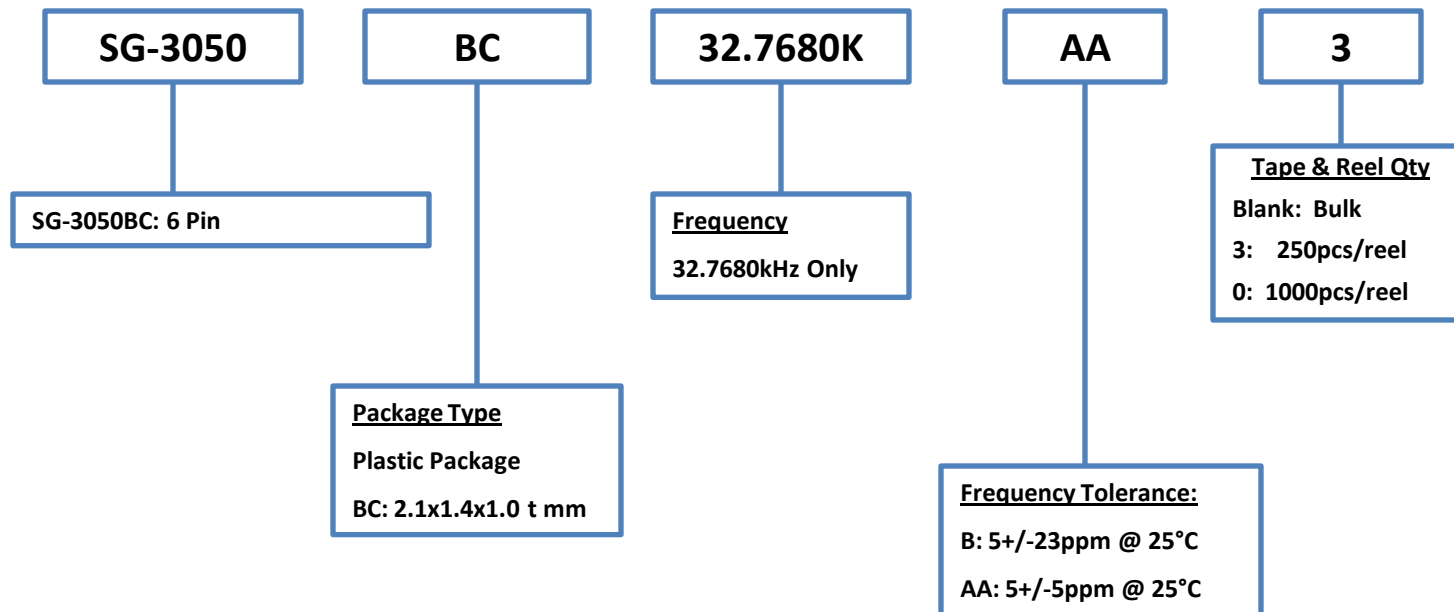
Crystal Oscillators - SPXO



Product Configuration System



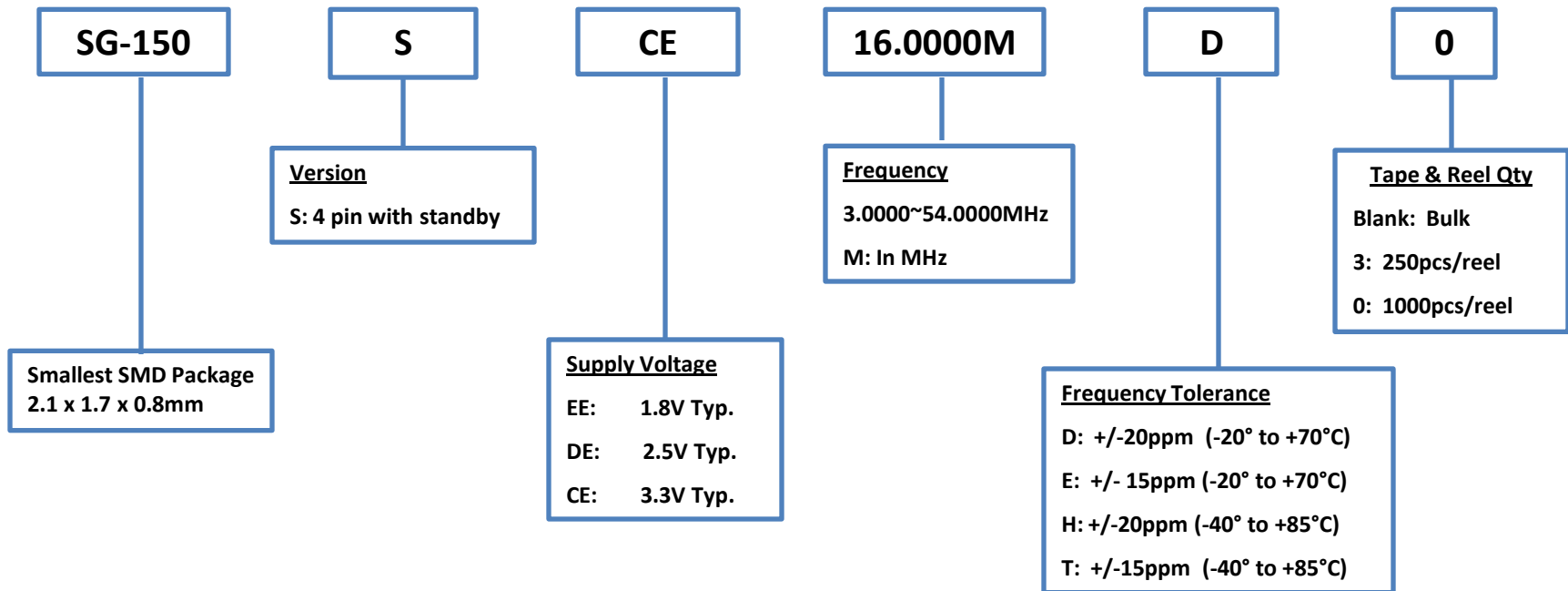
Crystal Oscillators - SPXO



Product Configuration System



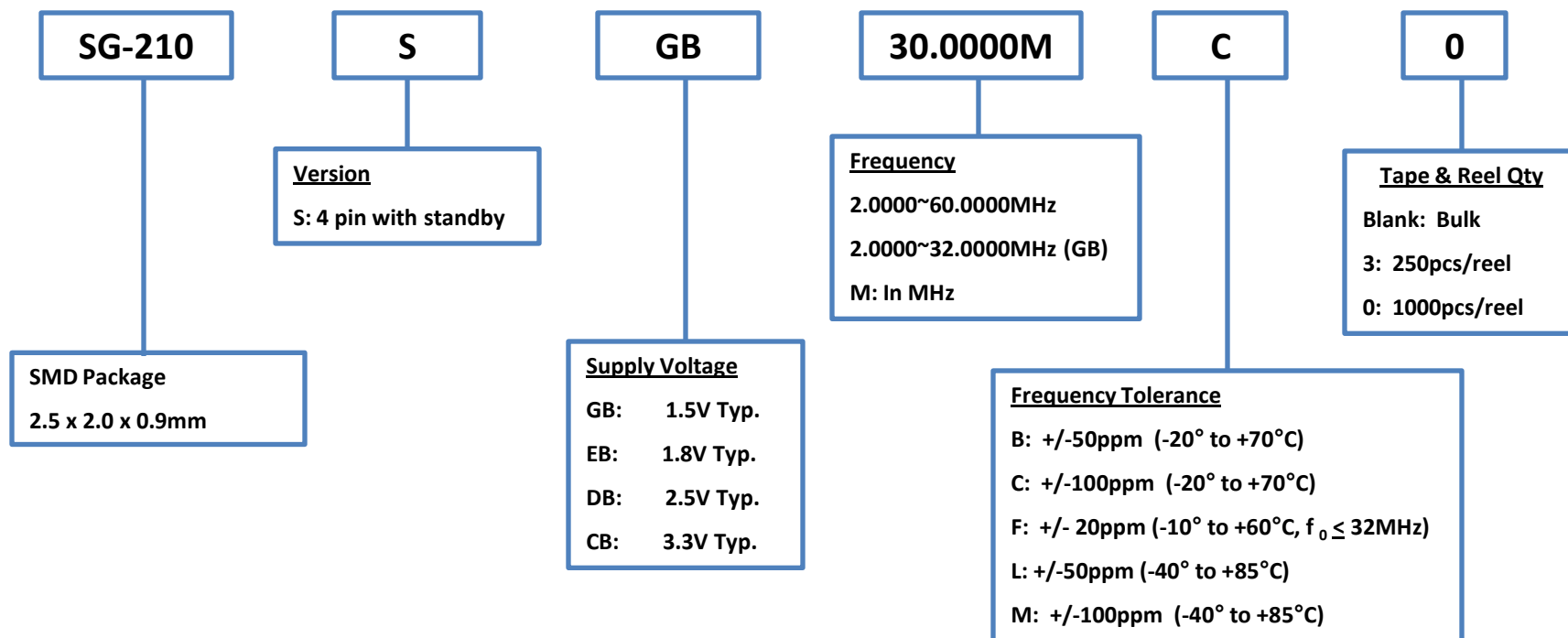
Crystal Oscillators - SPXO



Product Configuration System



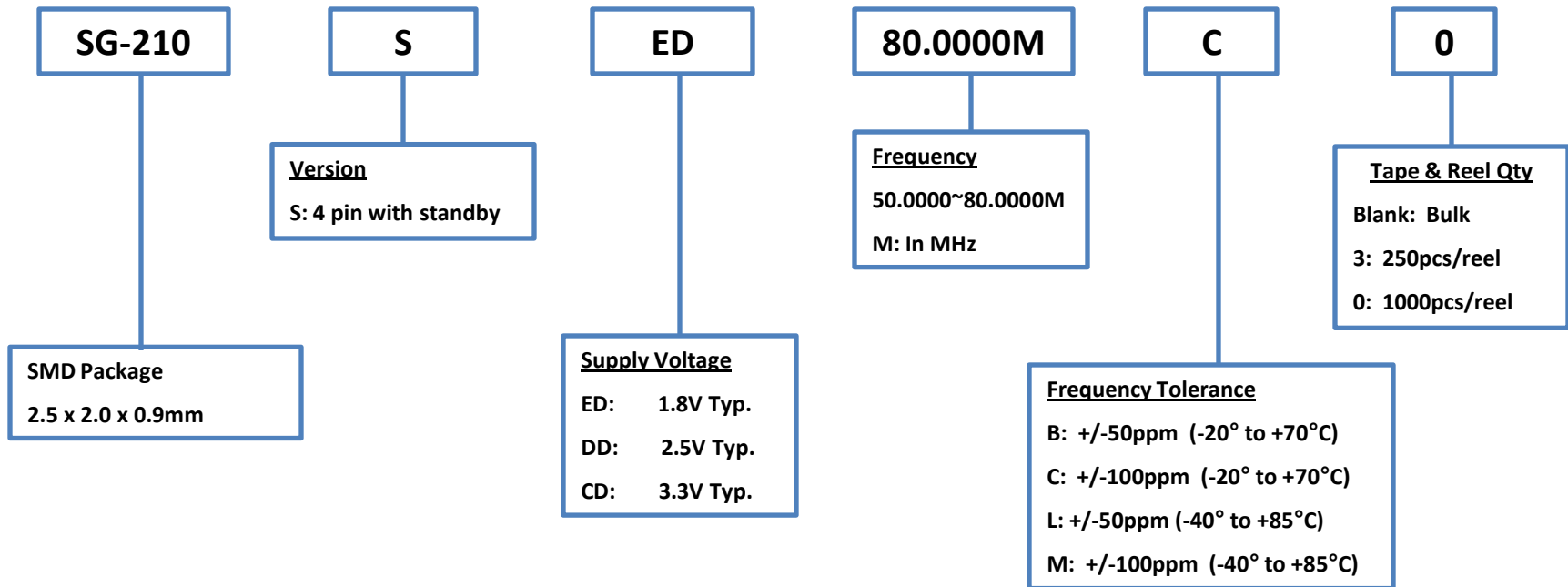
Crystal Oscillators - SPXO



Product Configuration System



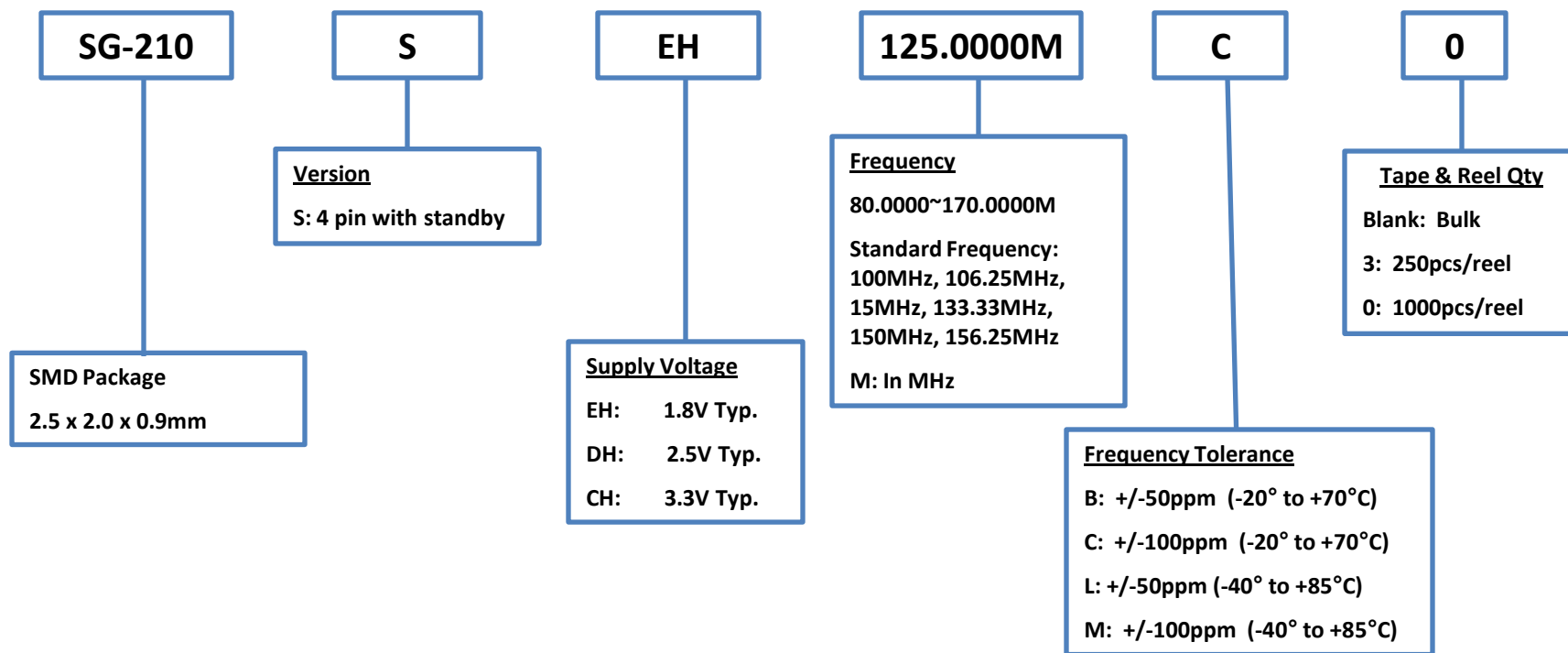
Crystal Oscillators - SPXO



Product Configuration System



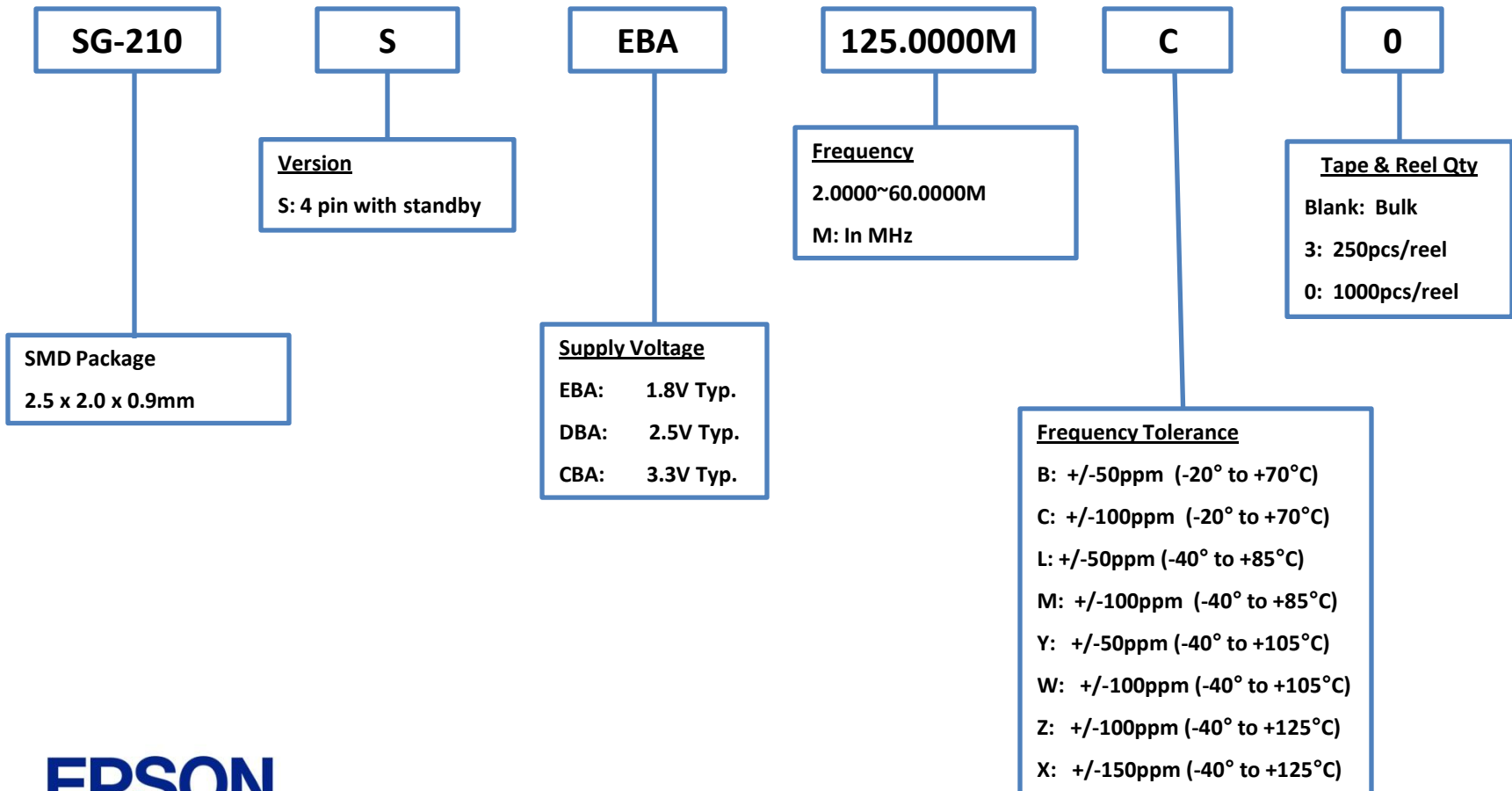
Crystal Oscillators - SPXO



Product Configuration System



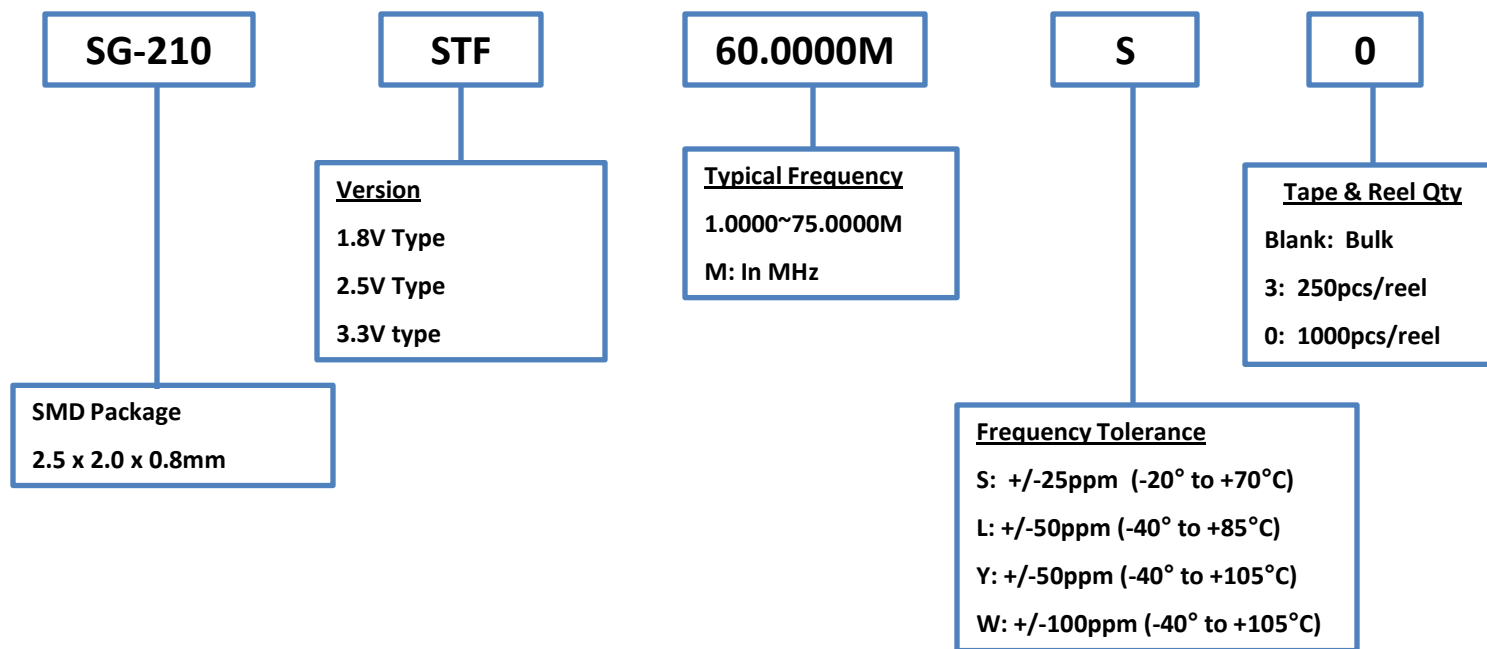
Crystal Oscillators - SPXO



Product Configuration System



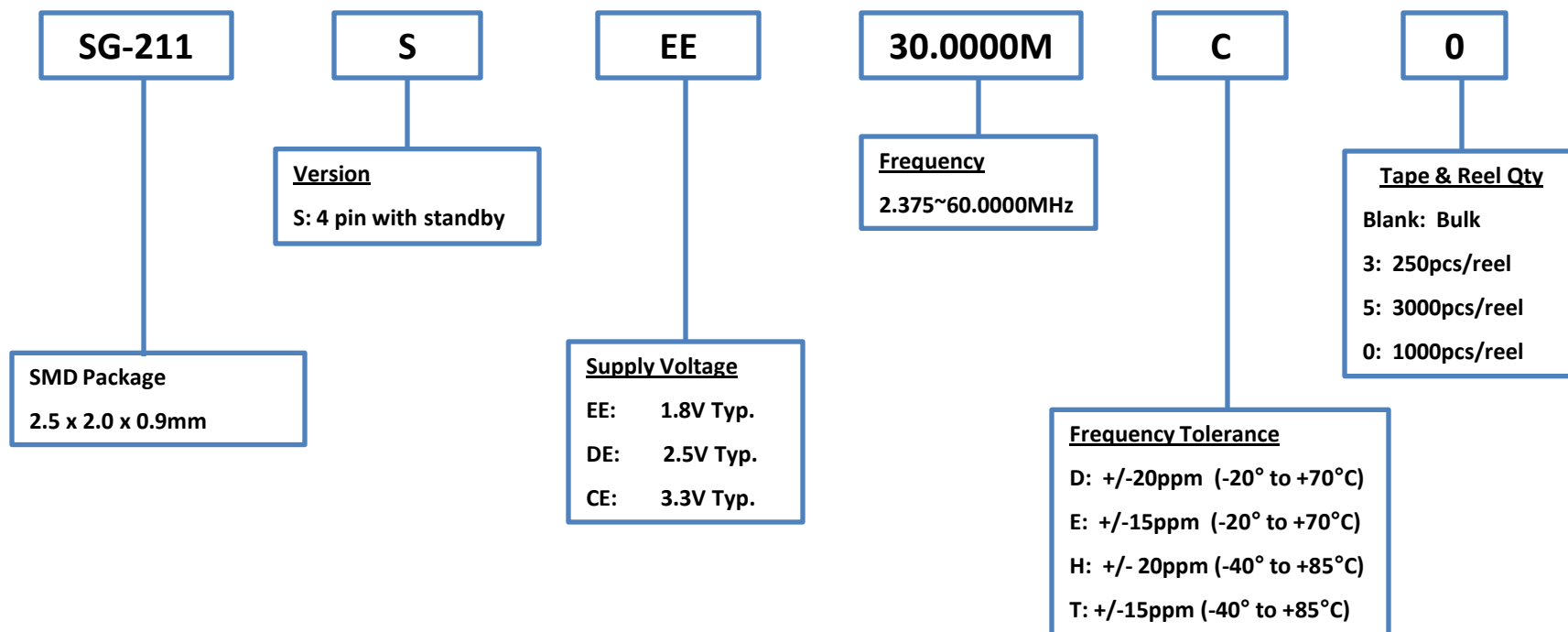
Crystal Oscillators - SPXO



Product Configuration System



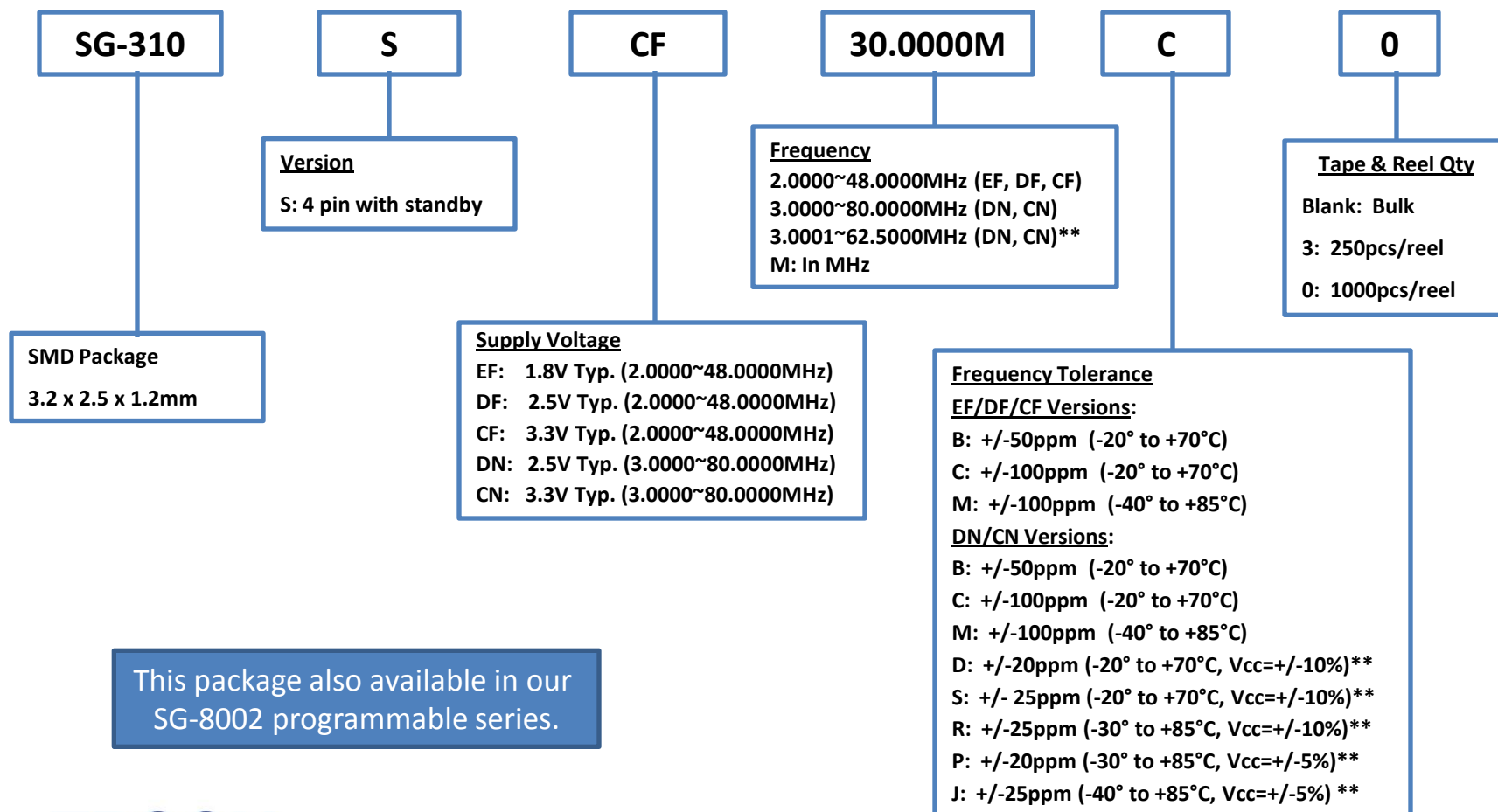
Crystal Oscillators - SPXO



Product Configuration System



Crystal Oscillators - SPXO

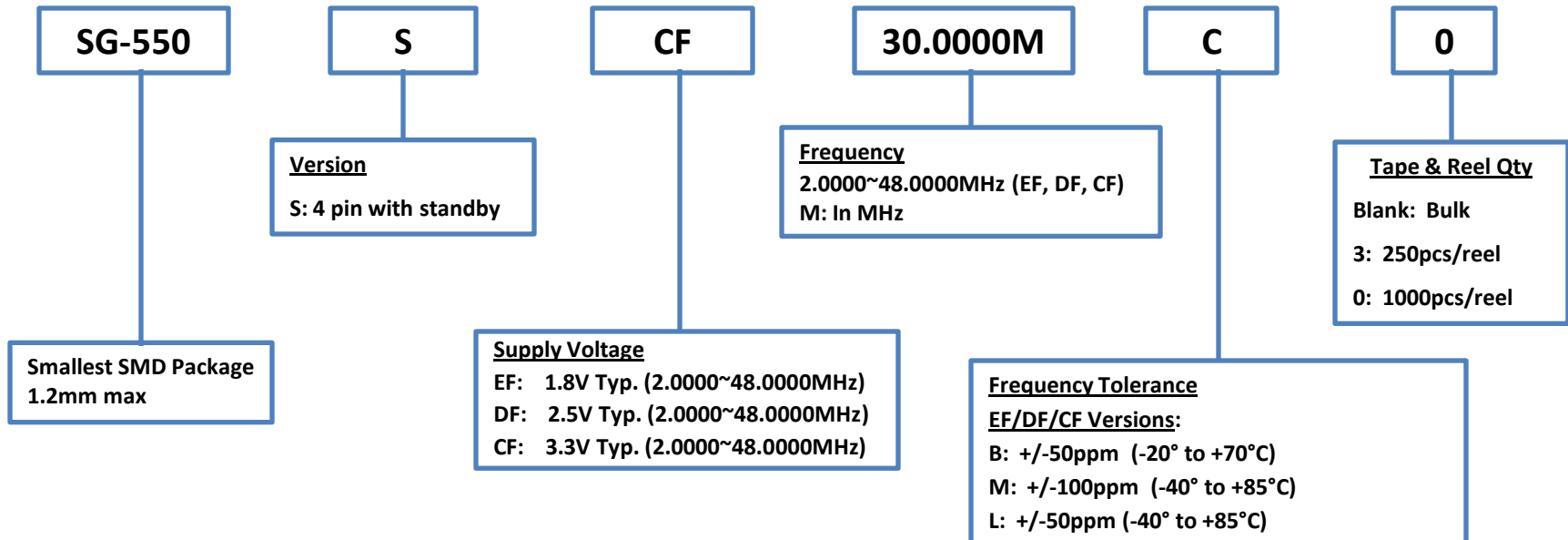


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Product Configuration System



Crystal Oscillators - SPXO



This package also available in our SG-8002LB programmable series.

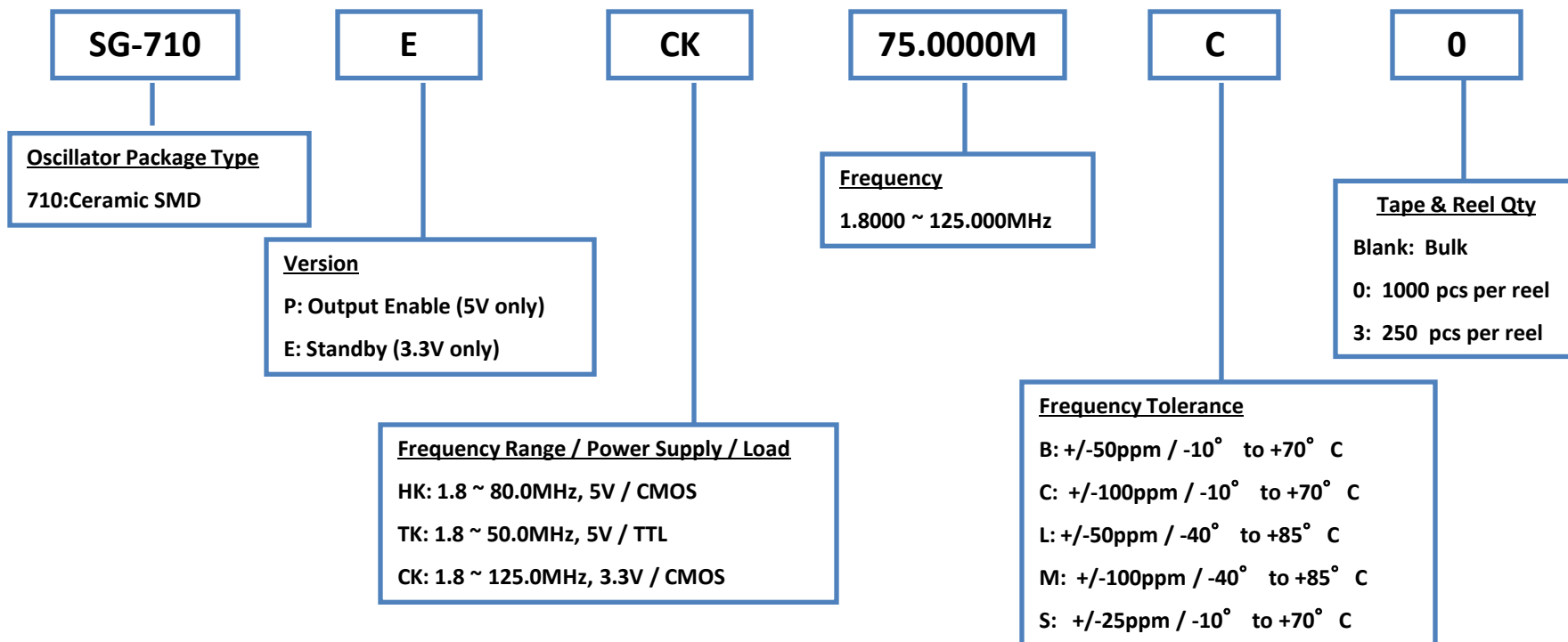
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Product Configuration System



Crystal Oscillators - SPXO



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

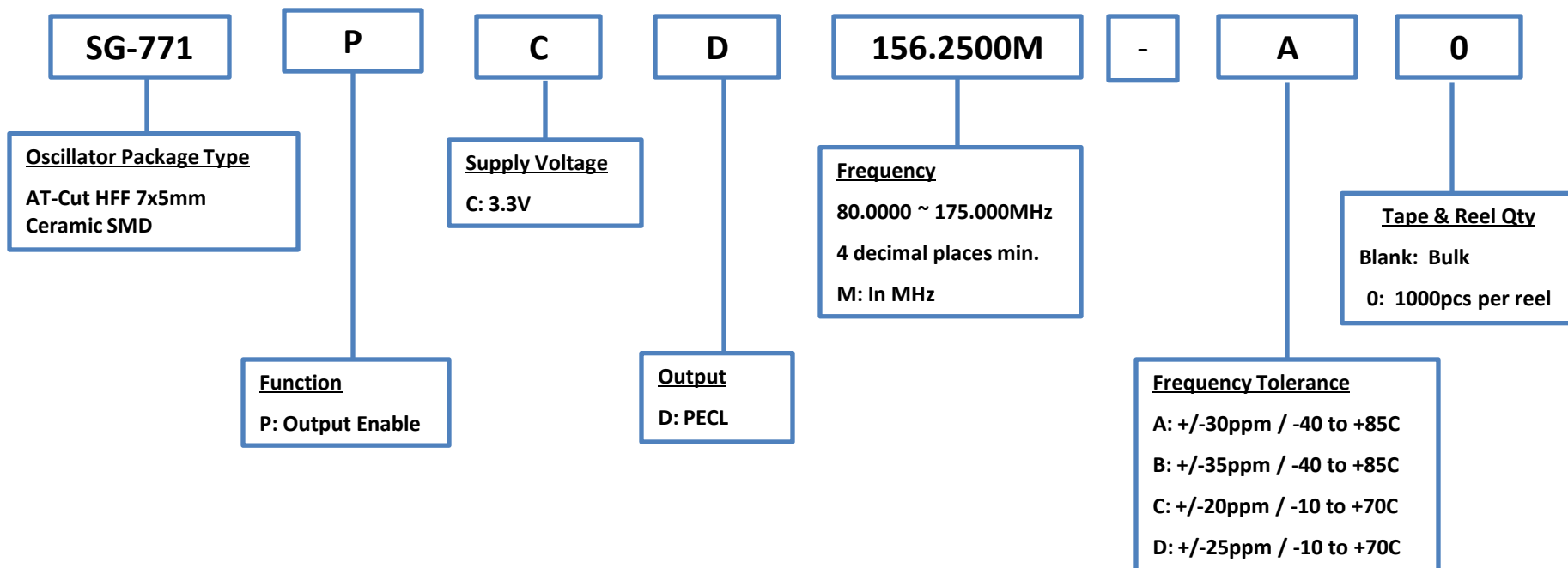
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SEPTEMBER 2014

Product Configuration System



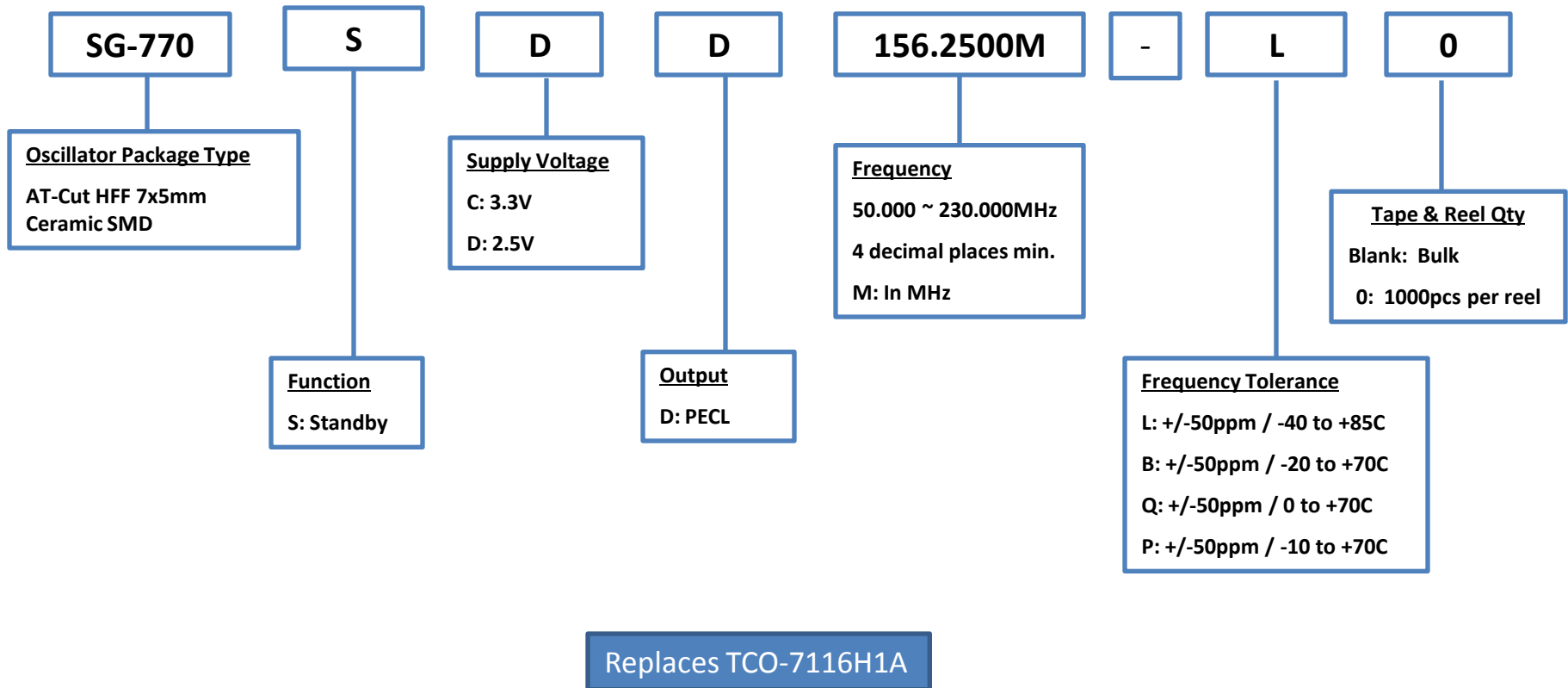
Crystal Oscillators - SPXO



Product Configuration System



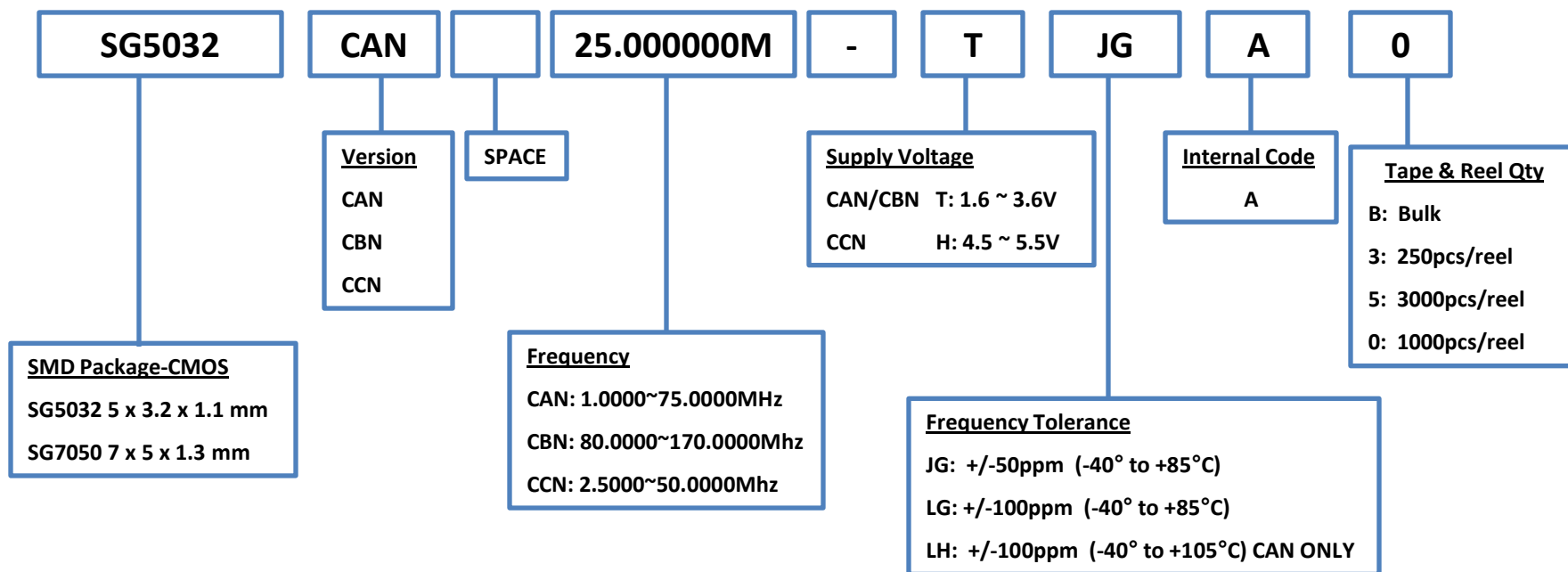
Crystal Oscillators - SPXO



Product Configuration System



Crystal Oscillators - SPXO



Example: SG5032CAN 25.0000M-TJGA

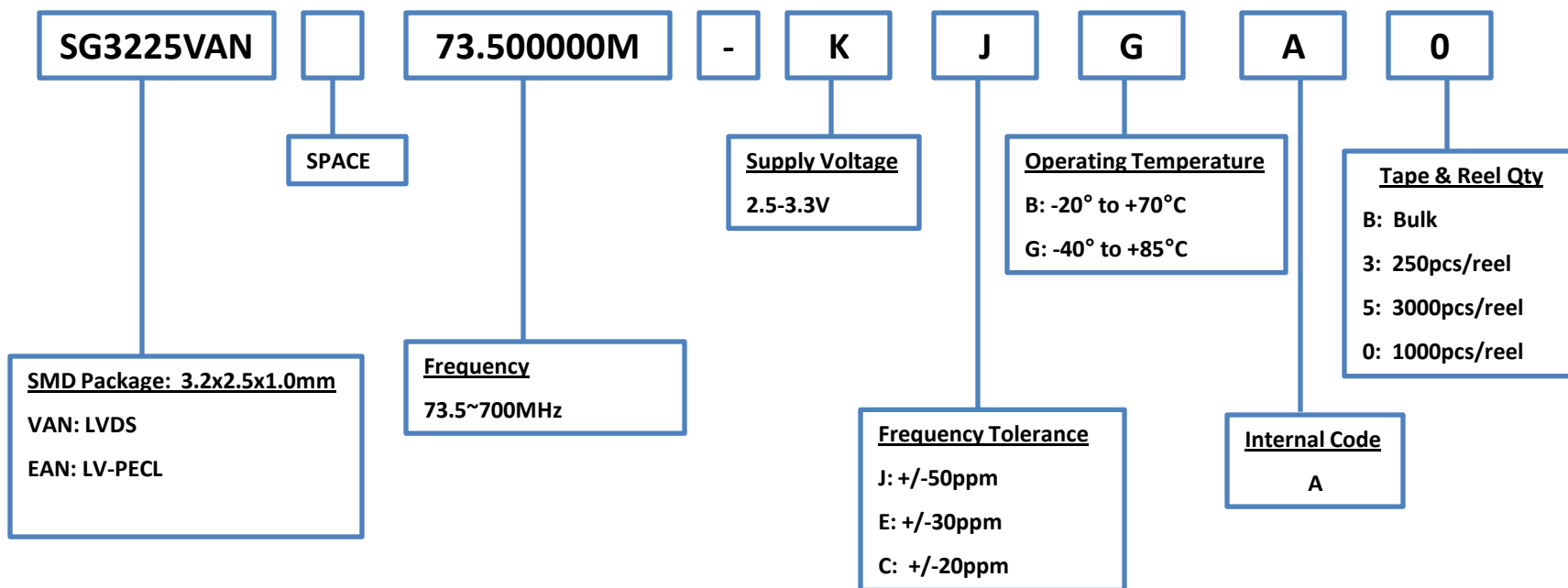
JH is not available
Please contact us about available frequencies

Product Configuration System



Crystal Oscillators – SPXO

Output : LV-PECL, LVDS



EPSON

SEPTEMBER 2014

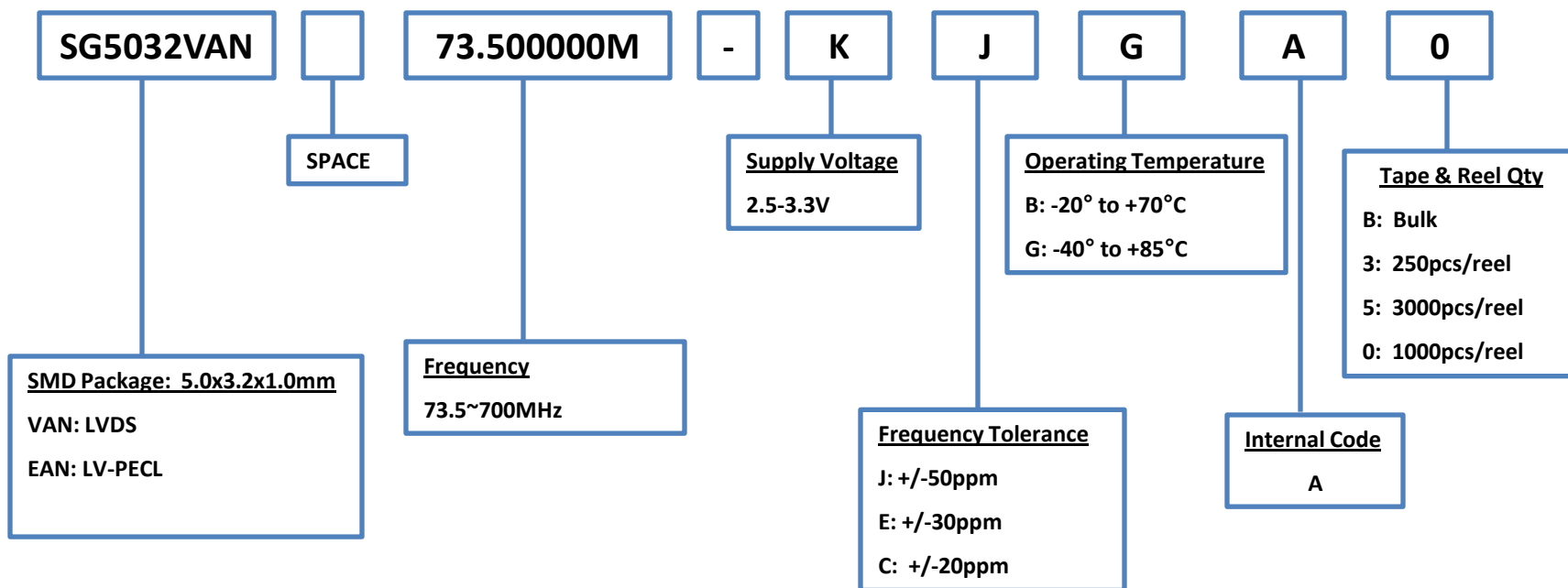
Example: SG3225VAN 73.500000M-KJGA
CG is not available

Product Configuration System



Crystal Oscillators – SPXO

Output : LV-PECL, LVDS



EPSON

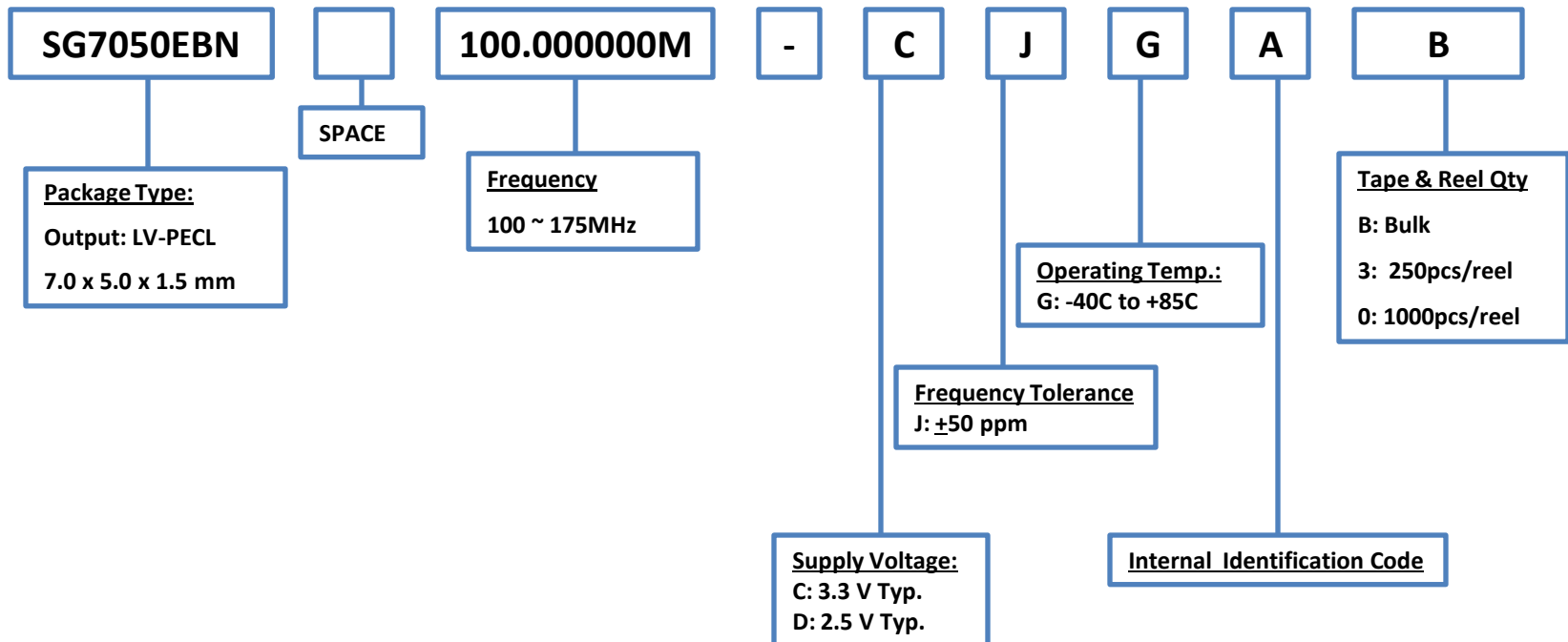
SEPTEMBER 2014

Example: SG5032VAN 73.500000M-KJGA
CG is not available

Product Configuration System



Crystal Oscillator - SPXO



NOTE:

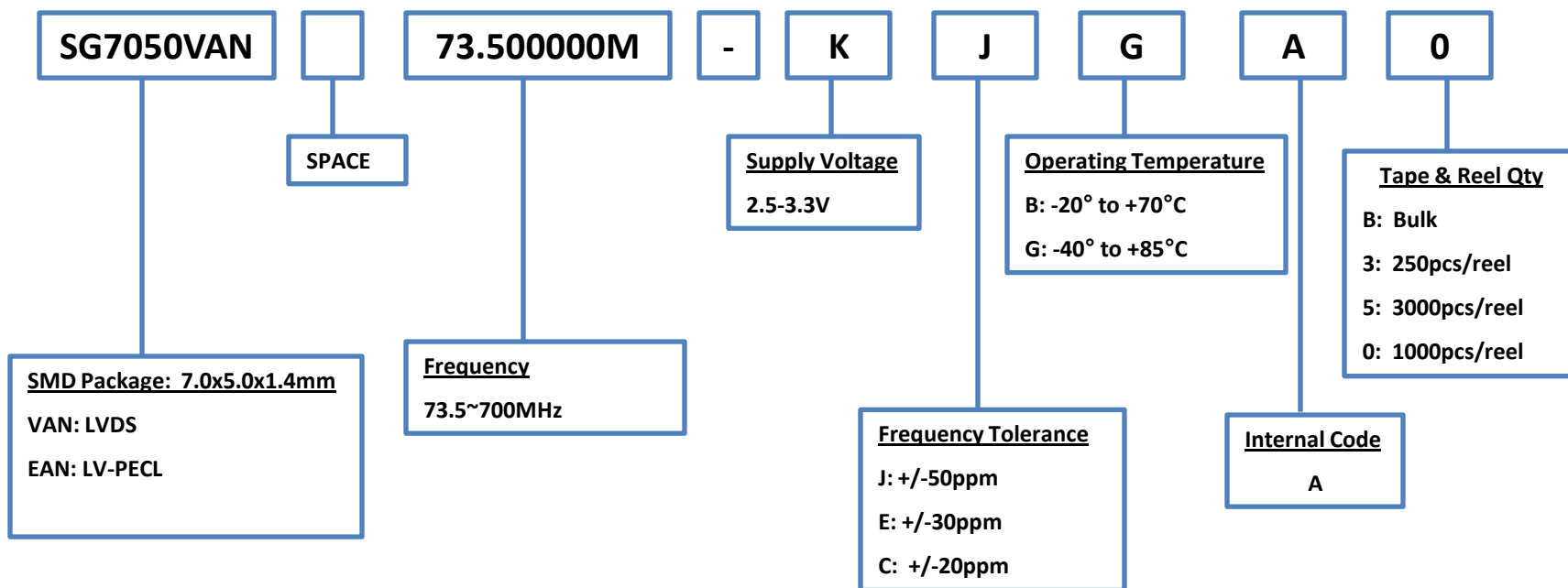
Please contact us for requirements not listed in this specification.

Product Configuration System



Crystal Oscillators – SPXO

Output : LV-PECL, LVDS



EPSON

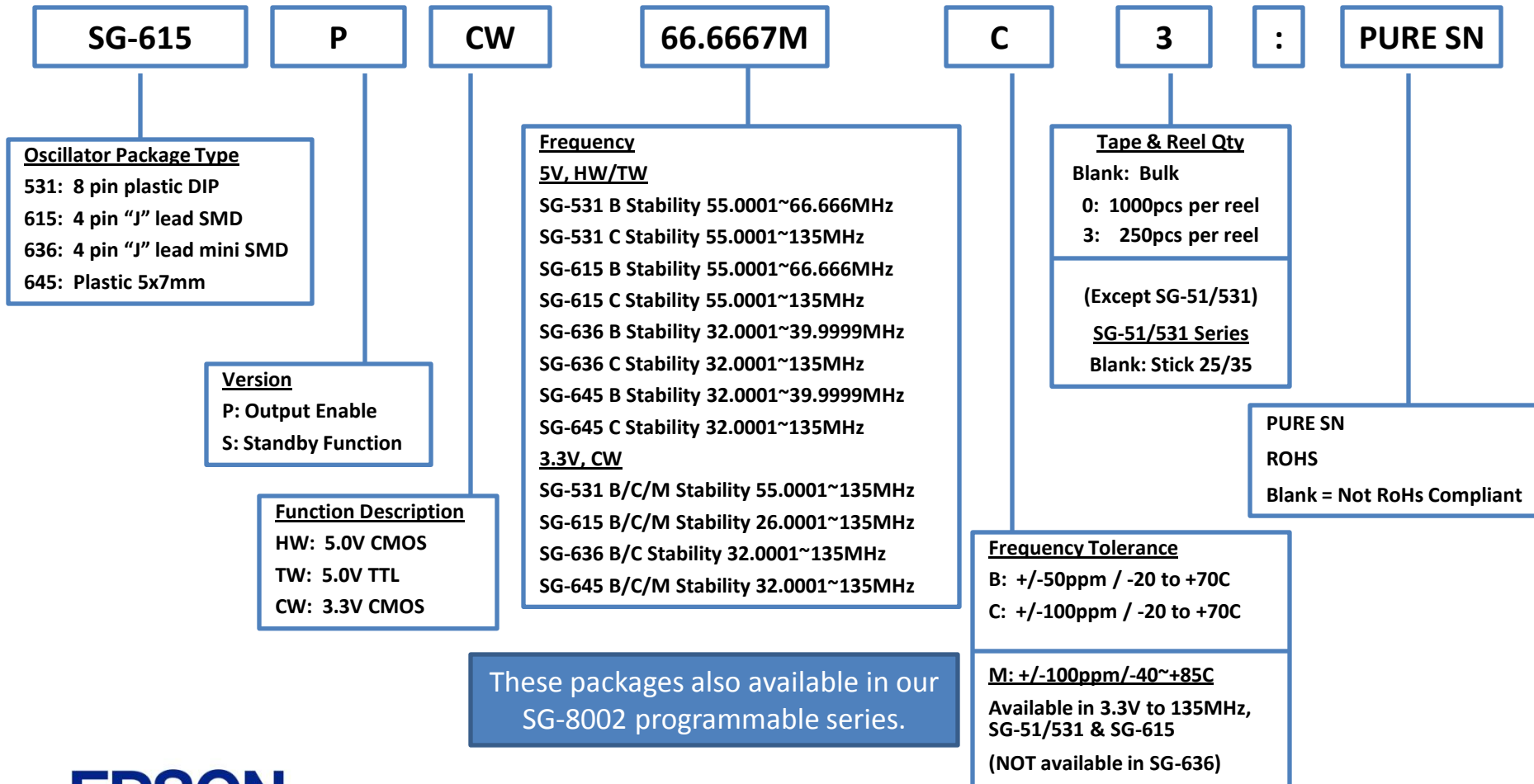
SEPTEMBER 2014

Example: SG7050VAN 73.500000M-KJGA
CG is not available

Product Configuration System



Crystal Oscillators - SPXO

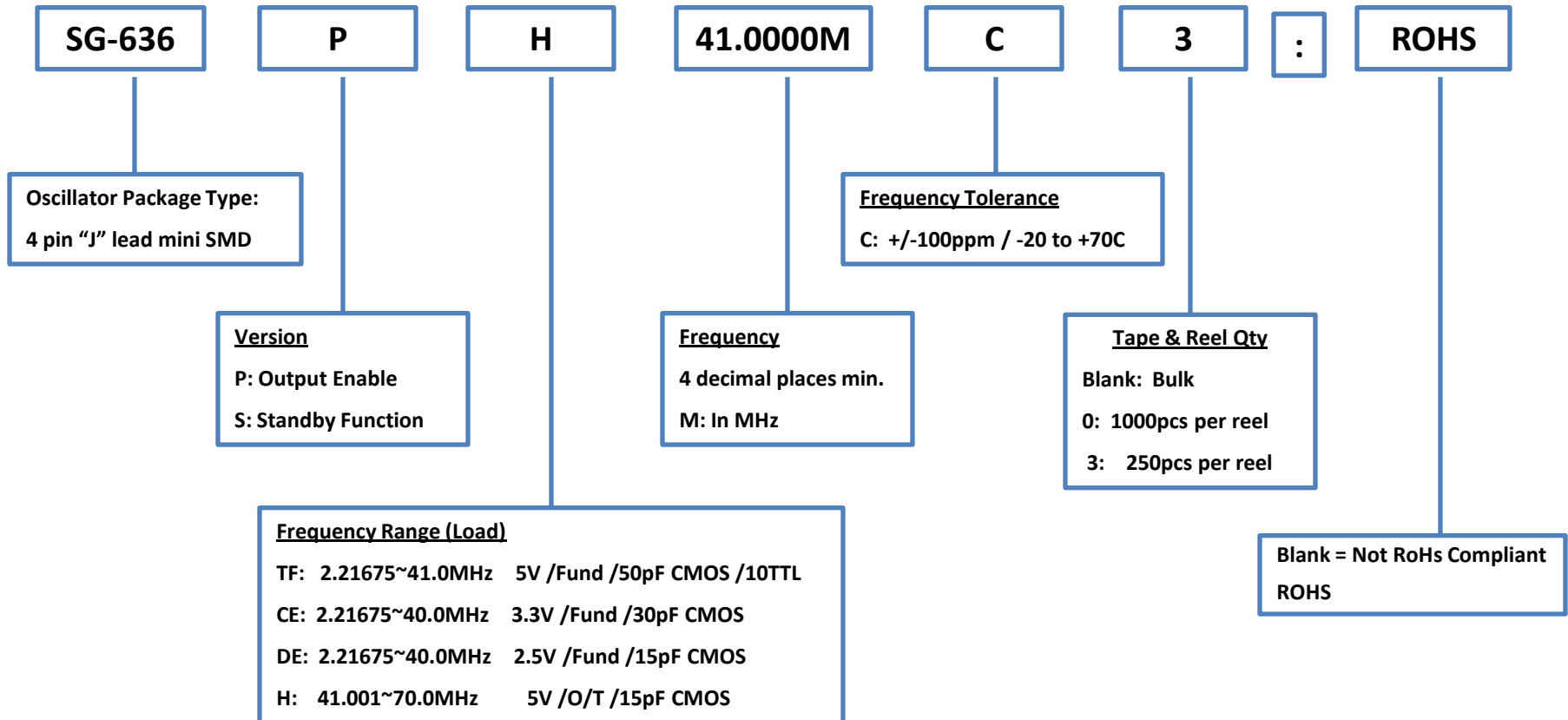


EPSON

Product Configuration System



Crystal Oscillators - SPXO



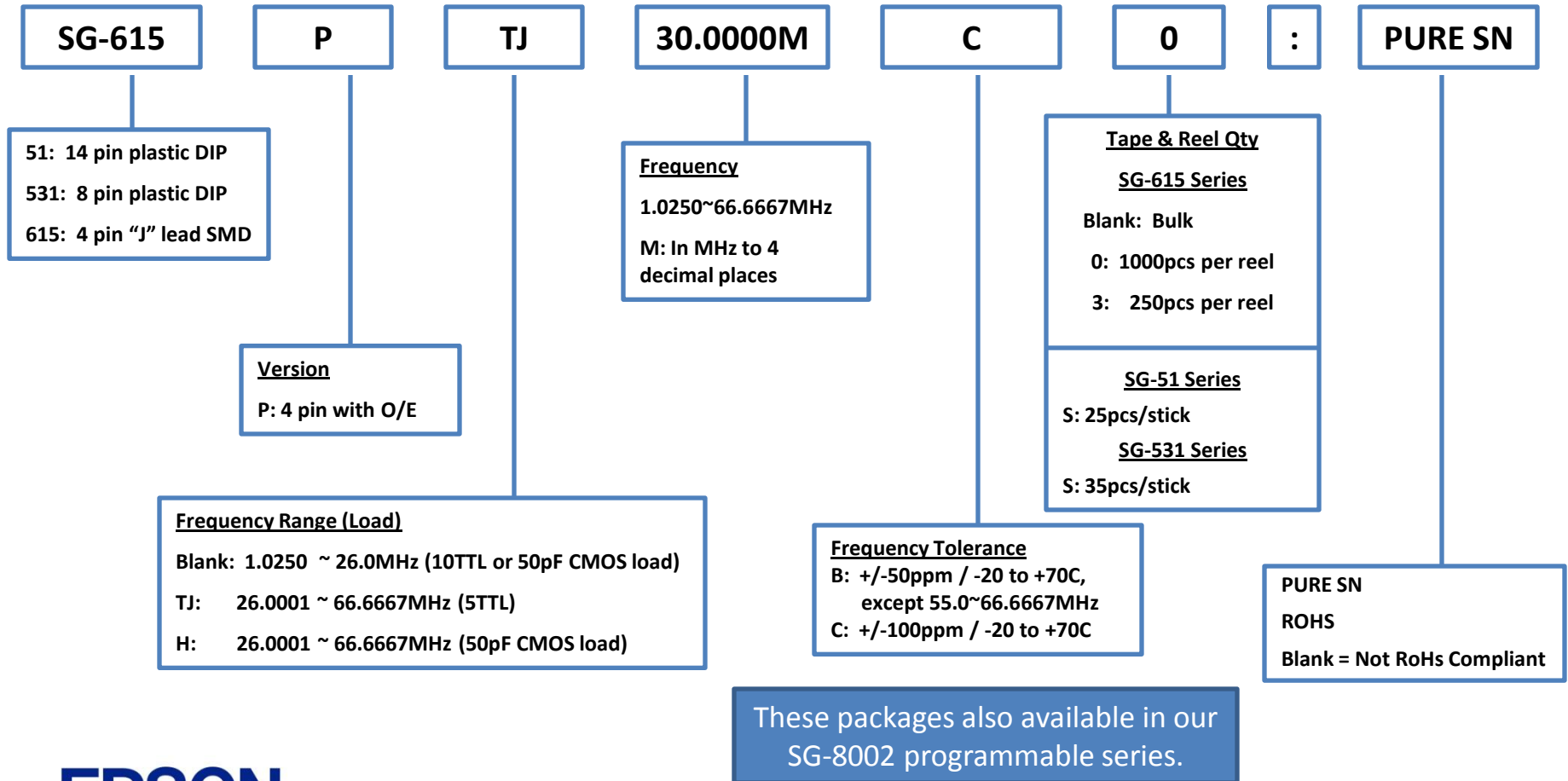
EPSON

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

Product Configuration System



Crystal Oscillators - SPXO

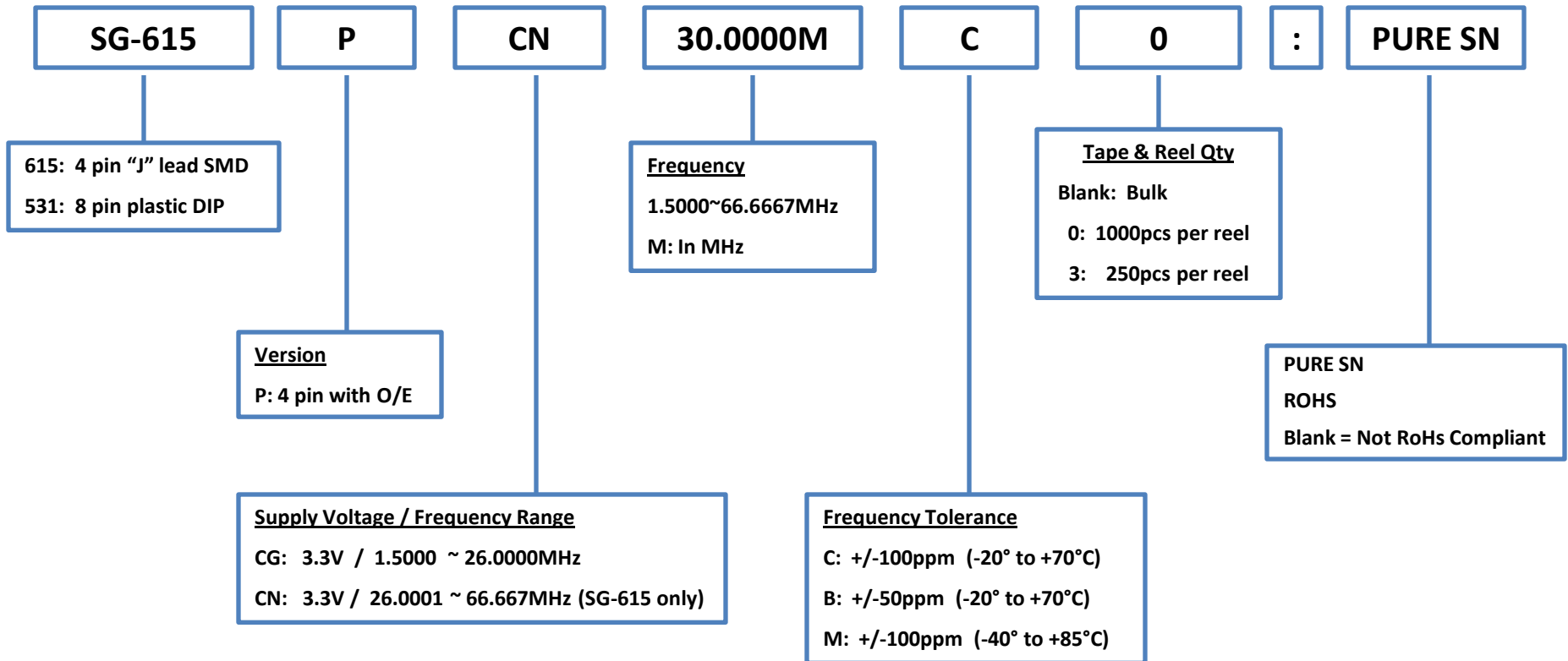


EPSON

Product Configuration System



Crystal Oscillators - SPXO

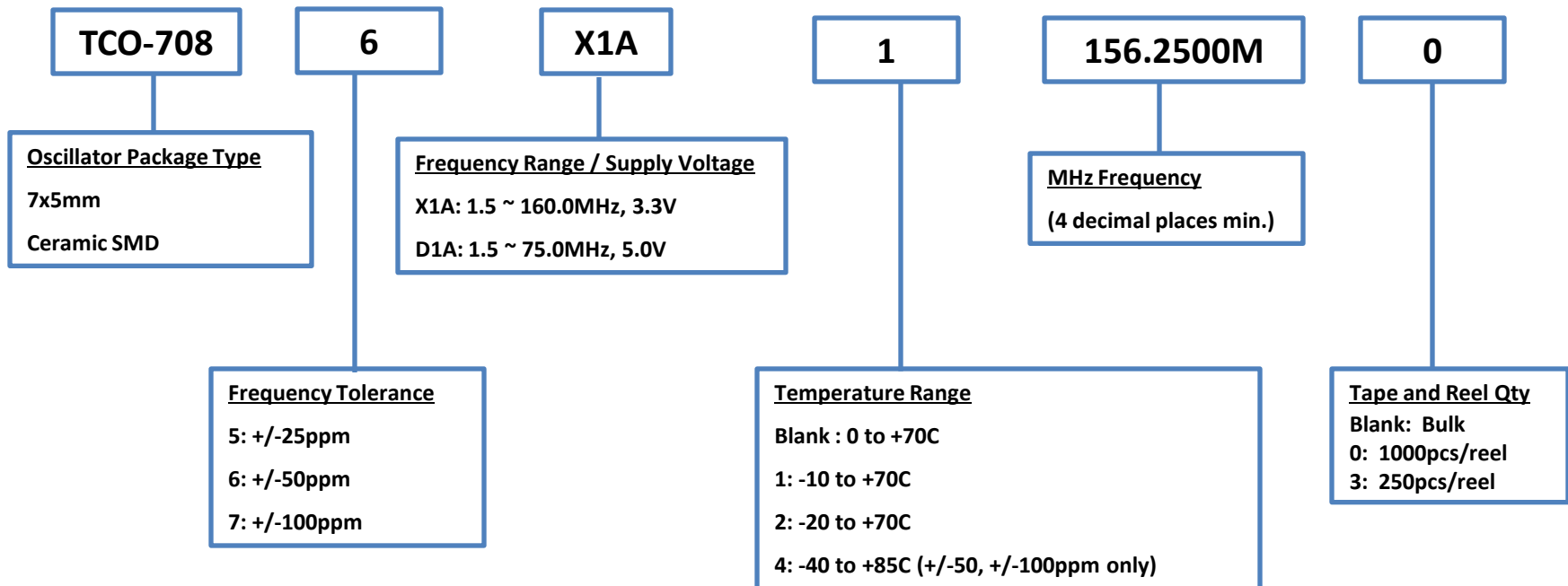


These packages also available in our SG-8002 programmable series.

Product Configuration System



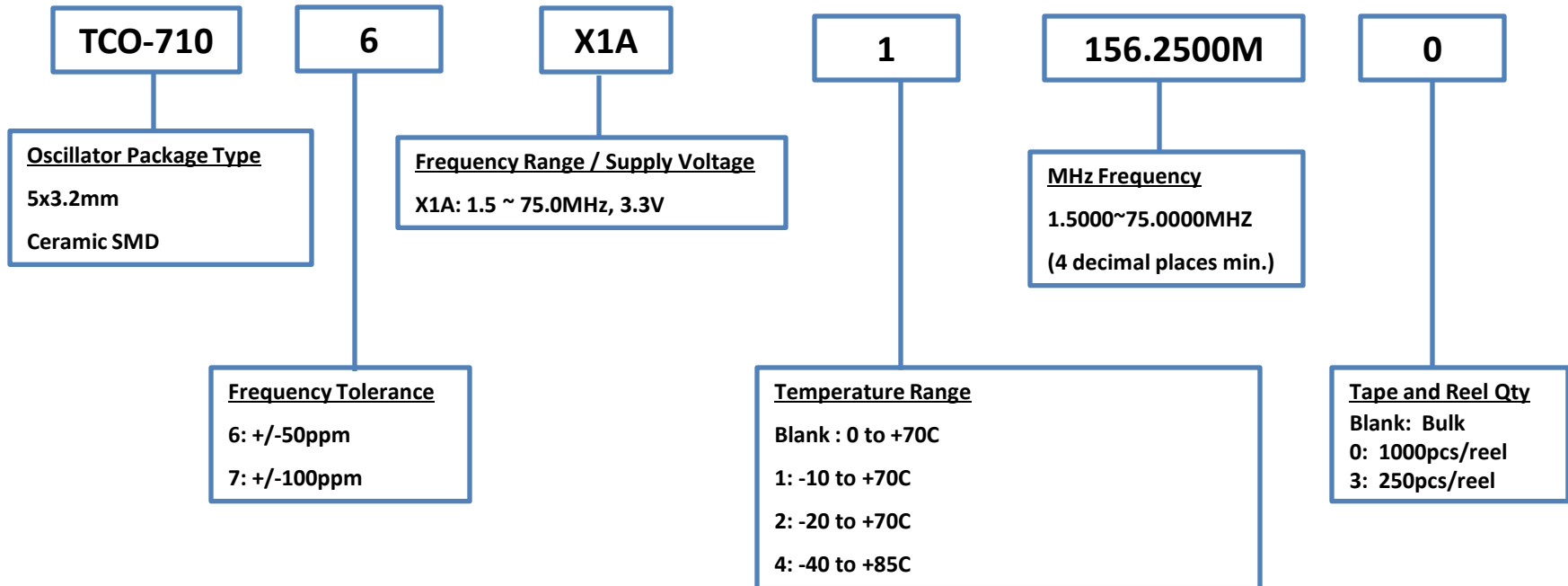
Crystal Oscillators - SPXO



Product Configuration System



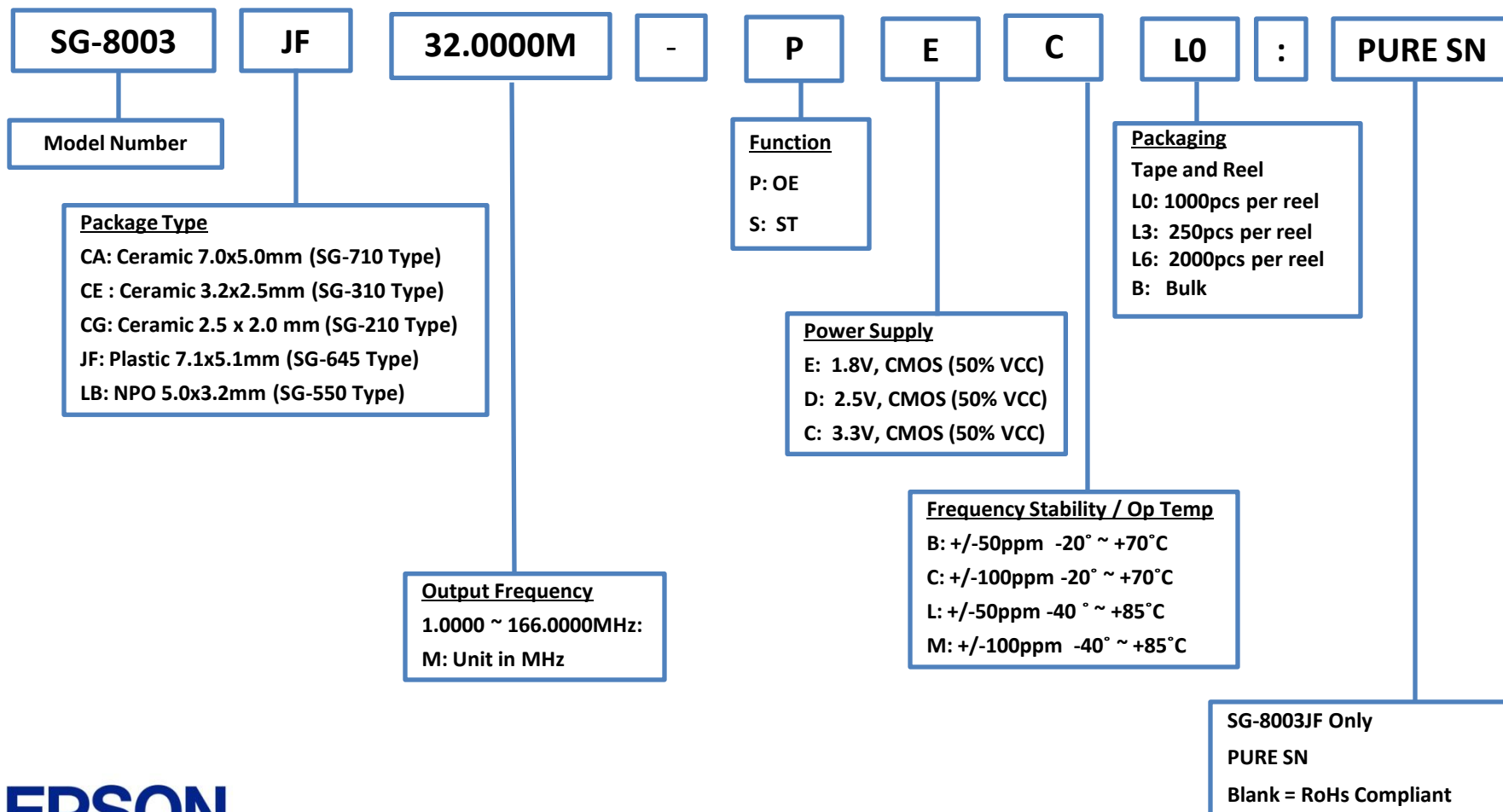
Crystal Oscillators - SPXO



Product Configuration System



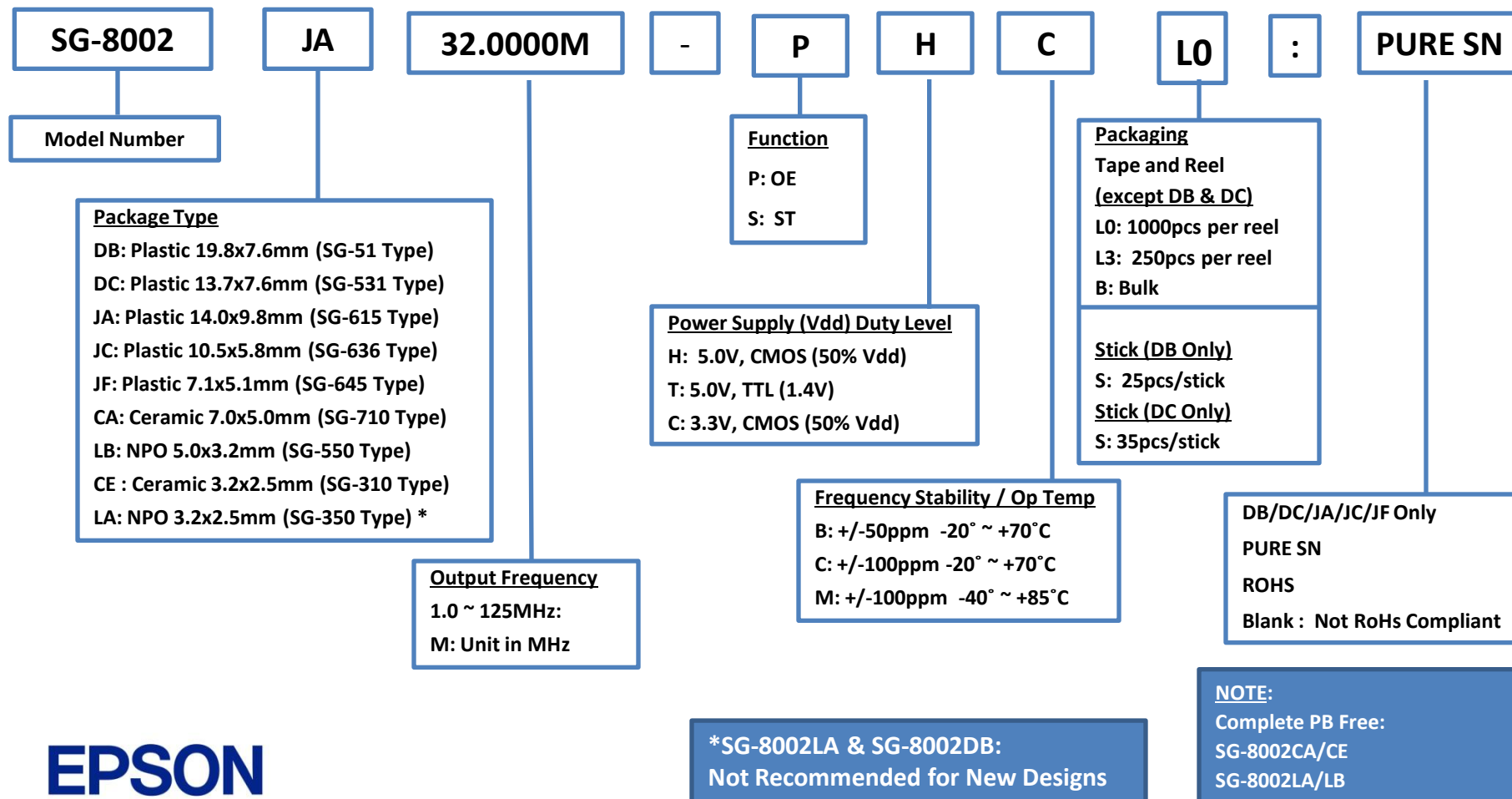
Crystal Oscillators - Programmable



Product Configuration System



Crystal Oscillators - Programmable



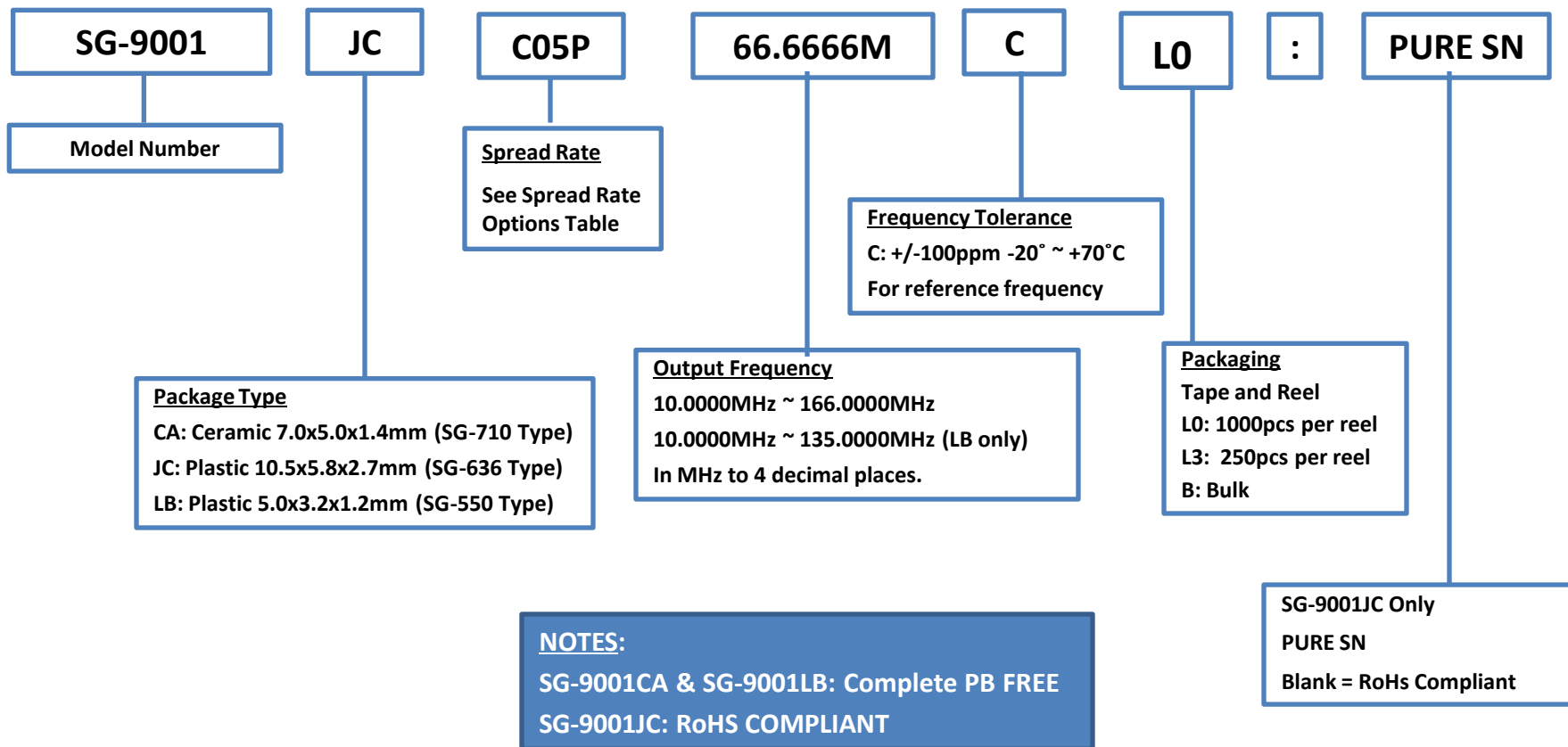
EPSON

SEPTEMBER 2014

Product Configuration System



Crystal Oscillators - Spread Spectrum



Spread Rate Options

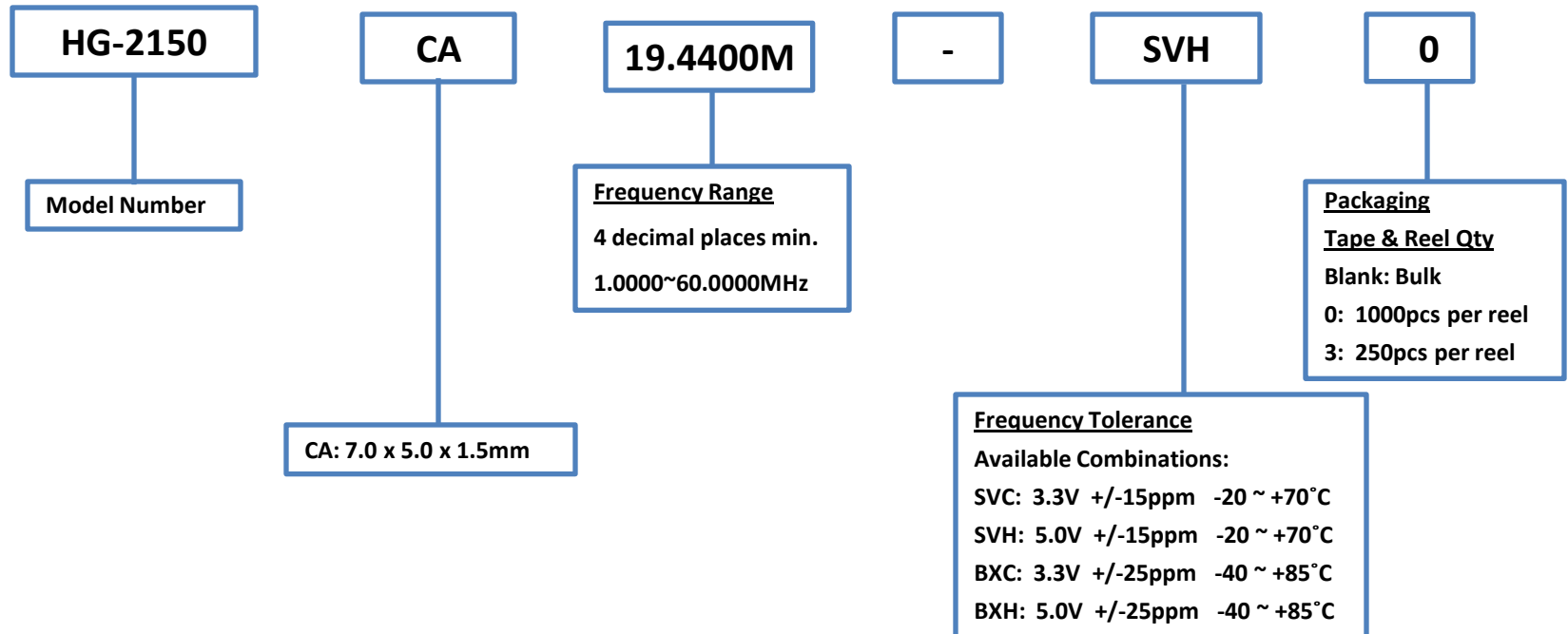
SG-9001

Center Spread		Down Spread	
Product Configuration Code	Spread Rate %	Product Configuration Code	Spread Rate %
C02P	+/- 0.25	D05P	- 0.5
C05P	+/- 0.5	D10P	- 1.0
C07P	+/- 0.75	D15P	- 1.5
C10P	+/- 1.0	D20P	- 2.0
C15P	+/- 1.5	D30P	- 3.0
C20P	+/- 2.0	D40P	- 4.0

Product Configuration System



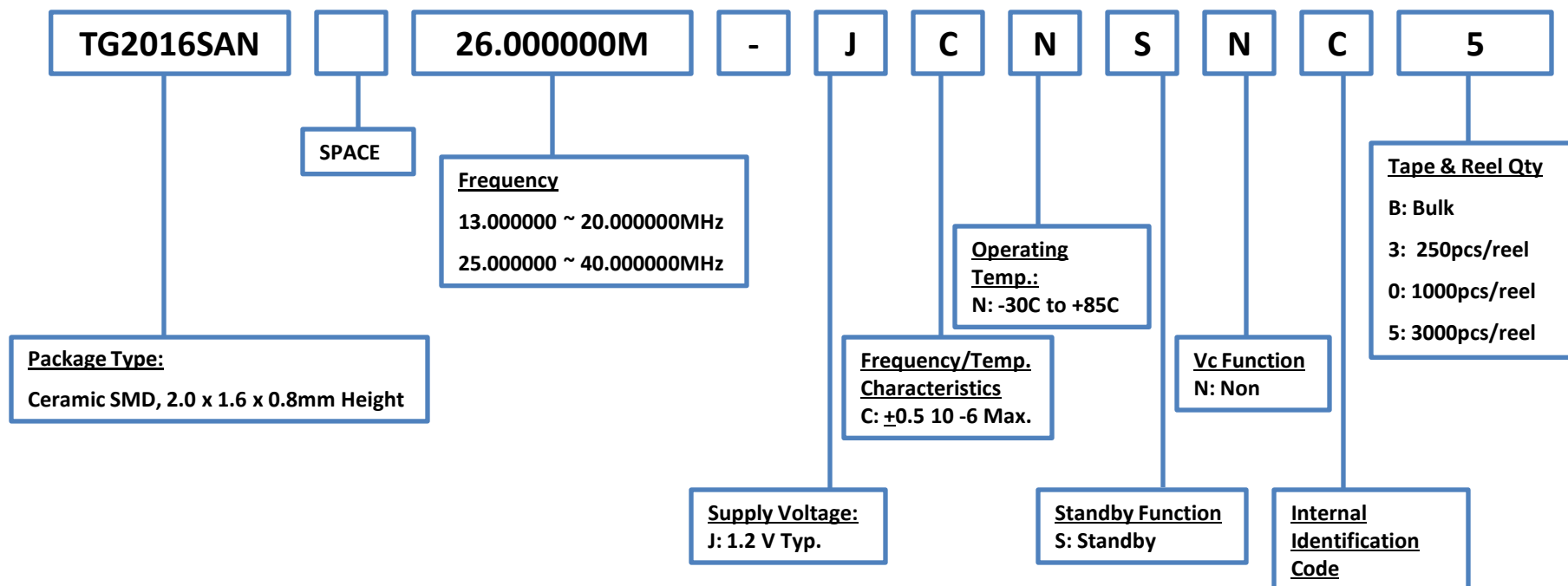
Crystal Oscillators - High Stability



Product Configuration System



TCXO



NOTE:

Please contact us for requirements not listed in this specification.

Product Configuration System



TCXO

TG-5006CJ

-

xxx

19.2000MHz

Package Type:

TG-5006CJ - 2.0 X 1.6 X 0.8 mm
TG-5006CG - 2.5 X 2.0 X 0.9 mm
TG-5006CE - 3.2 X 2.5 X 1.0 mm

TG-5035CJ - 2.0 X 1.6 X 0.8 mm
TG-5035CG - 2.5 X 2.0 X 0.9 mm
TG-5035CE - 3.2 X 2.5 X 1.0 mm

TG-5031CJ - 2.0 X 1.6 X 0.8 mm
TG-5021CG - 2.5 X 2.0 X 0.9 mm
TG-5021CE - 3.2 X 2.5 X 1.0 mm

Specification Code:

Issued by Epson after
reviewing customer
requirements

Frequency

TG-5006CJ/CG/CE: 13 ~ 52MHz
STD Freqs: 16.367667, 16.368, 16.369, 19.2, 26, 38.4MHz

TG-5035CE: 10 ~ 40 MHz
TG-5035CJ/CG/: 13 ~ 52MHz
STD Freqs: 13, 16.368, 16.369, 19.2, 26, 38.4MHz

TG-5031CJ/TG-5021CG: 13 ~ 52MHz
TG-5021CE: 10 ~ 40MHz
STD Freqs: 13, 19.2, 26, 38.4MHz

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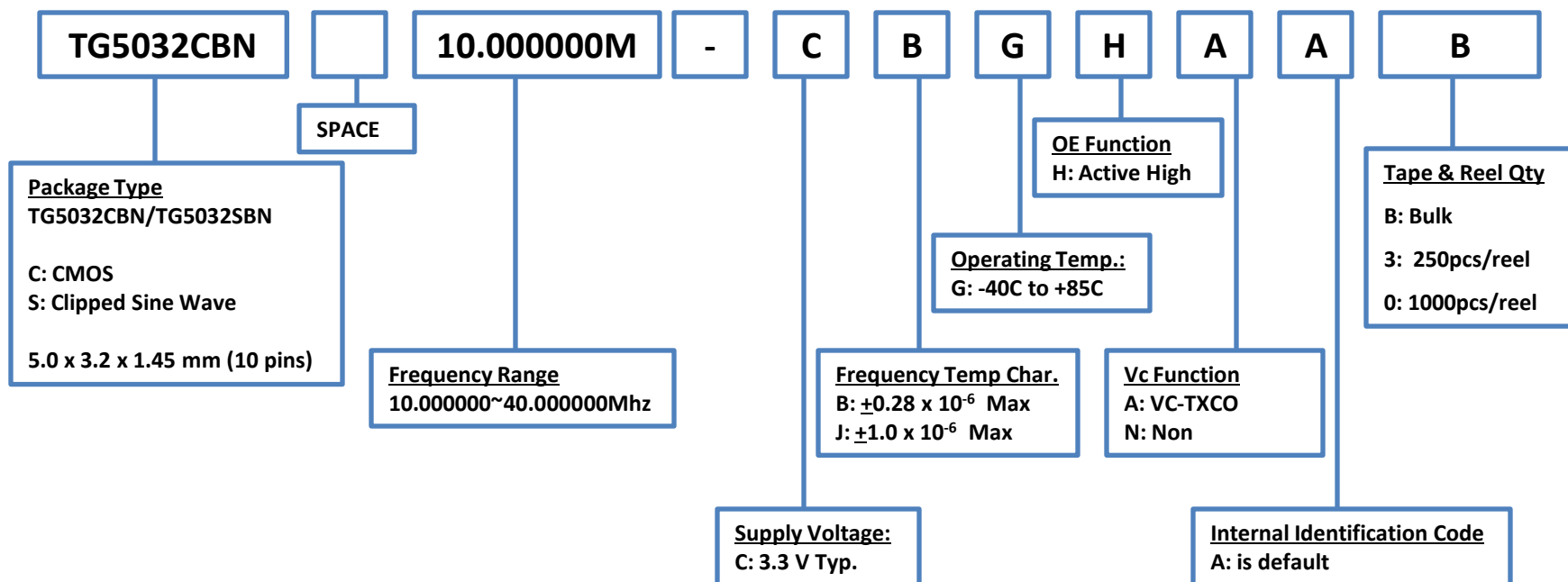
NOTE:

Please contact us for requirements not listed in this specification.

Product Configuration System



TCXO/VC-TCXO Ultra High Stability



NOTE:

STANDARD FREQUENCIES:

10.000000MHz, 12.800000MHz, 19.200000MHz, 20.000000MHz, 25.600000MHz, 26.000000MHz

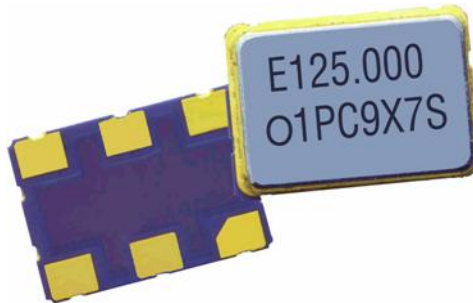
Please contact us for requirements not listed in this specification.

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Product Configuration System

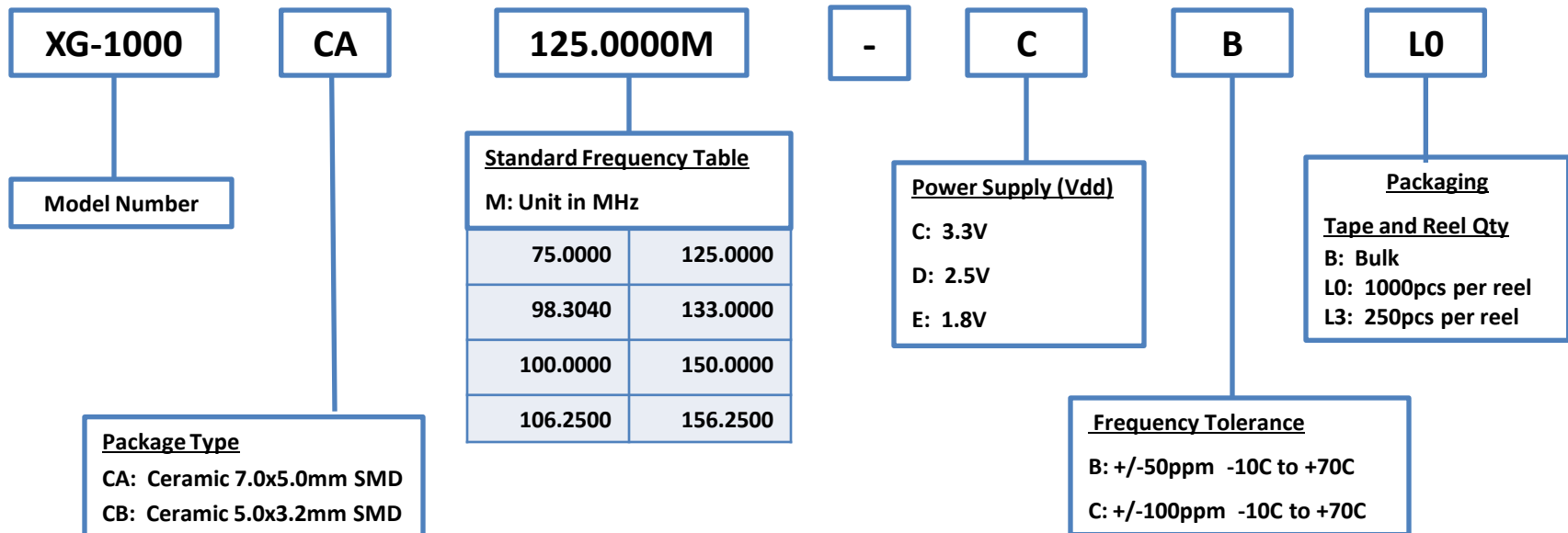
SAW OSCILLATORS



Product Configuration System

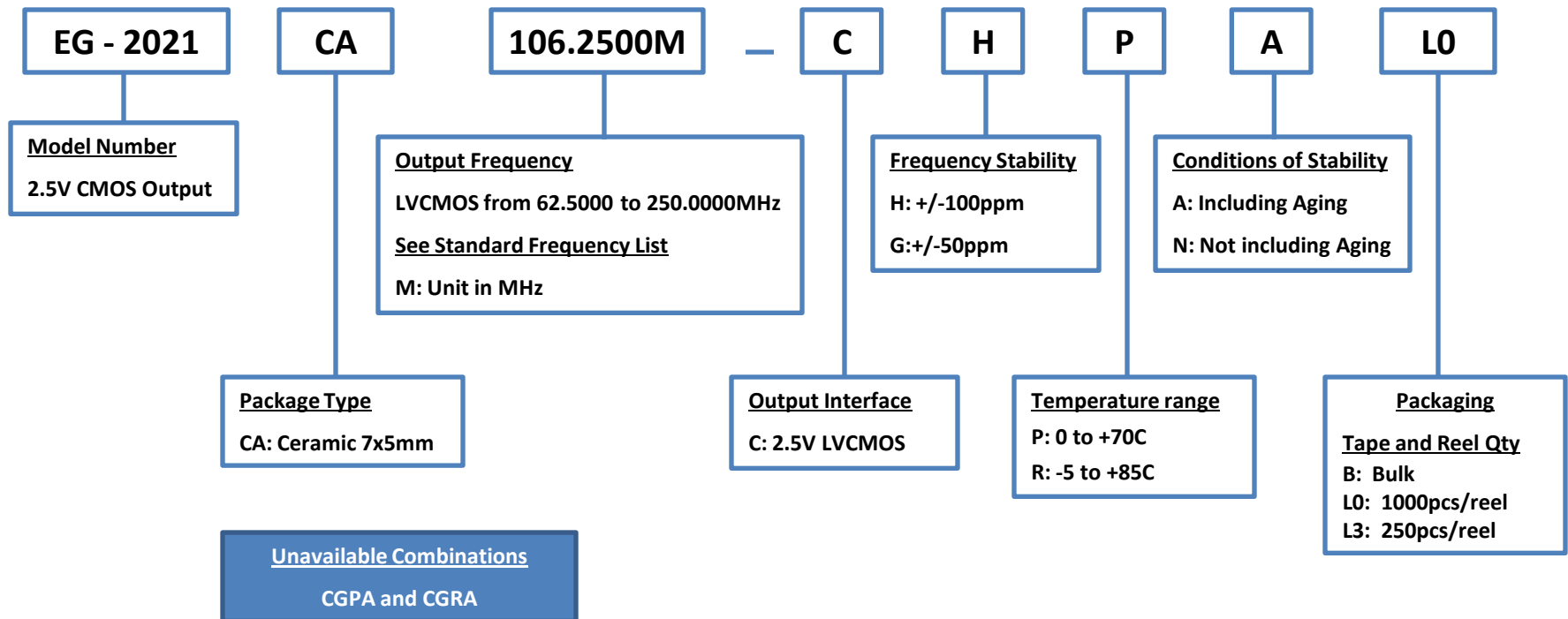


Crystal Oscillators – Low Jitter (SAW)



Product Configuration System

Crystal Oscillators – Low Jitter (SAW)



Standard Frequencies

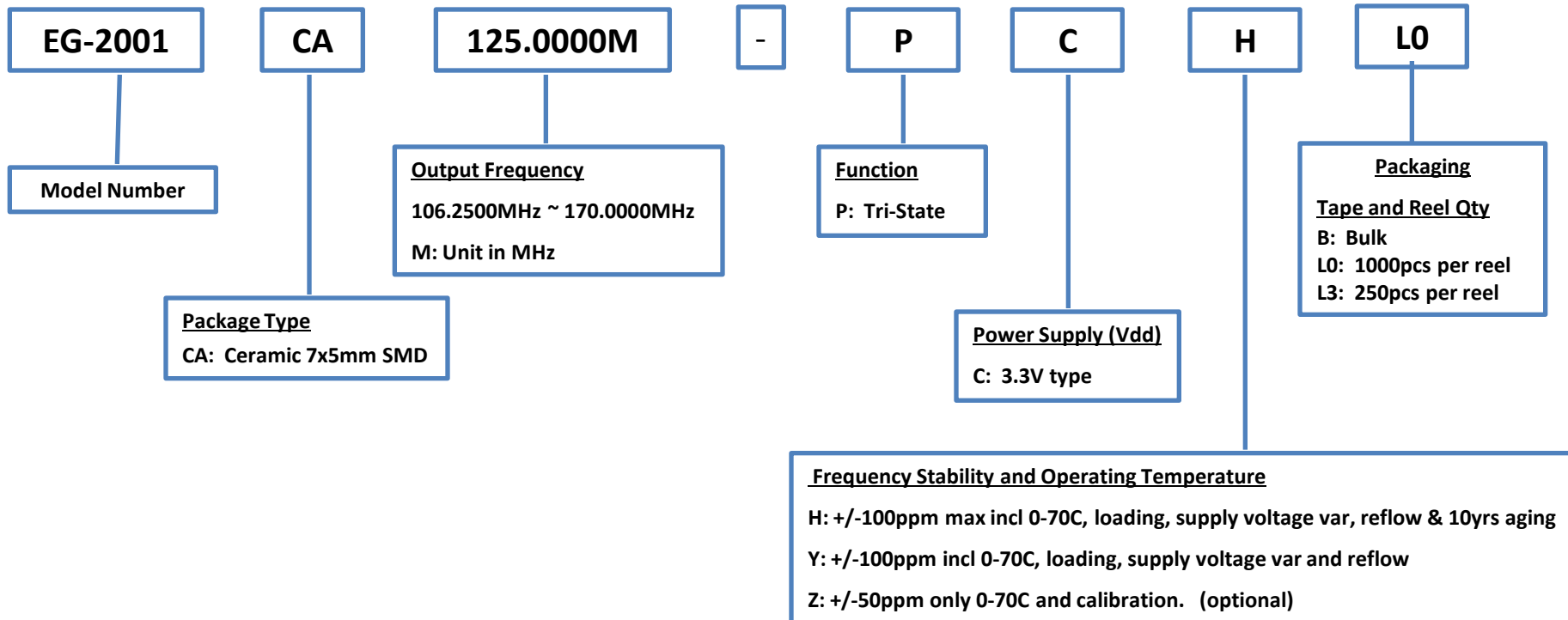
EG-2021CA (2.5V CMOS)

62.5000	125.0000
66.5000	133.0000
75.0000	150.0000
78.1250	156.2500
90.0000	250.0000
98.3040	
100.0000	
106.2500	
108.0000	
124.4160	

Product Configuration System



Crystal Oscillators – Low Jitter (SAW)



Standard Frequencies

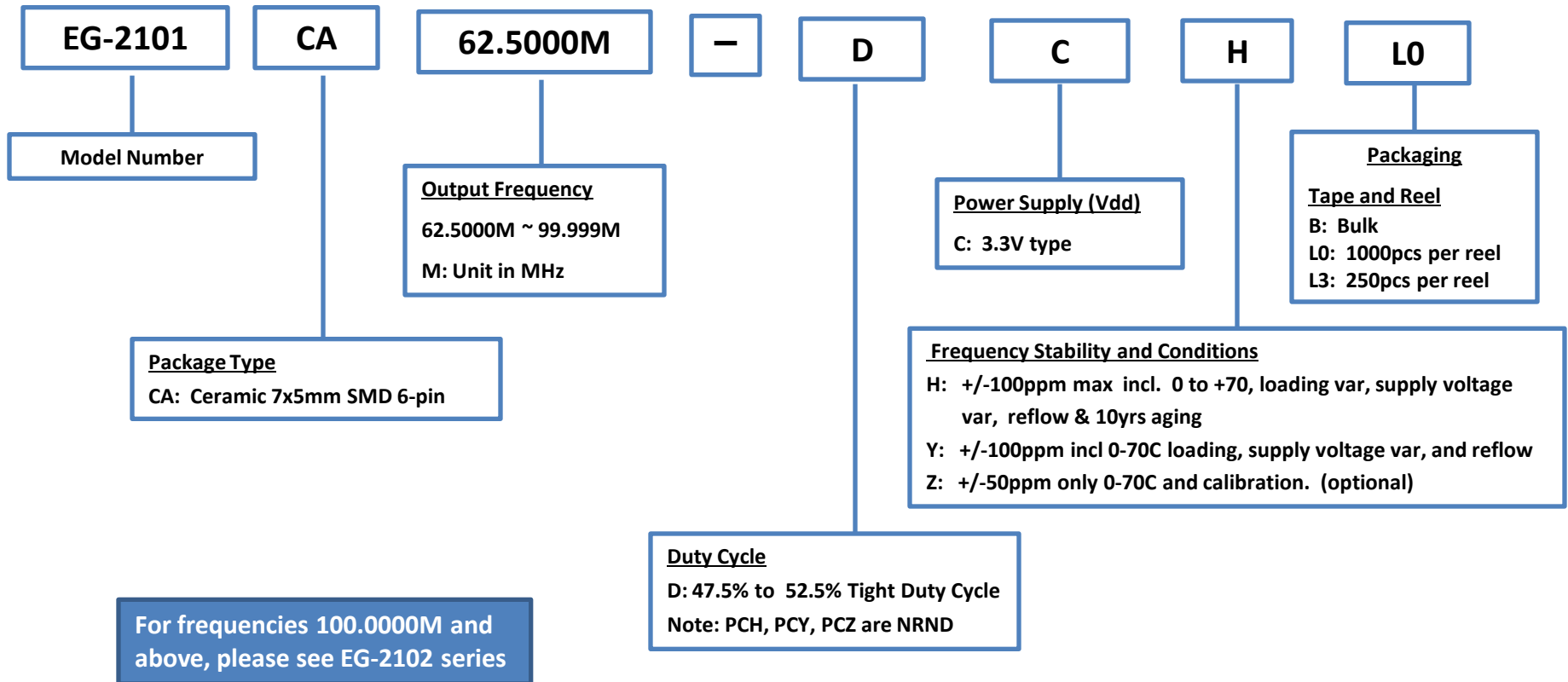
EG-2001 (3.3V CMOS)

106.2500	155.5200
108.0000	156.2500
125.0000	159.3750
128.0000	160.0000
132.8125	161.1328
133.0000	166.0000
133.3333	166.6285
135.0000	166.6667
143.0000	167.3316
150.0000	

Product Configuration System



Crystal Oscillators – Low Jitter (SAW)



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SEPTEMBER 2014

Standard Frequencies

EG-2101

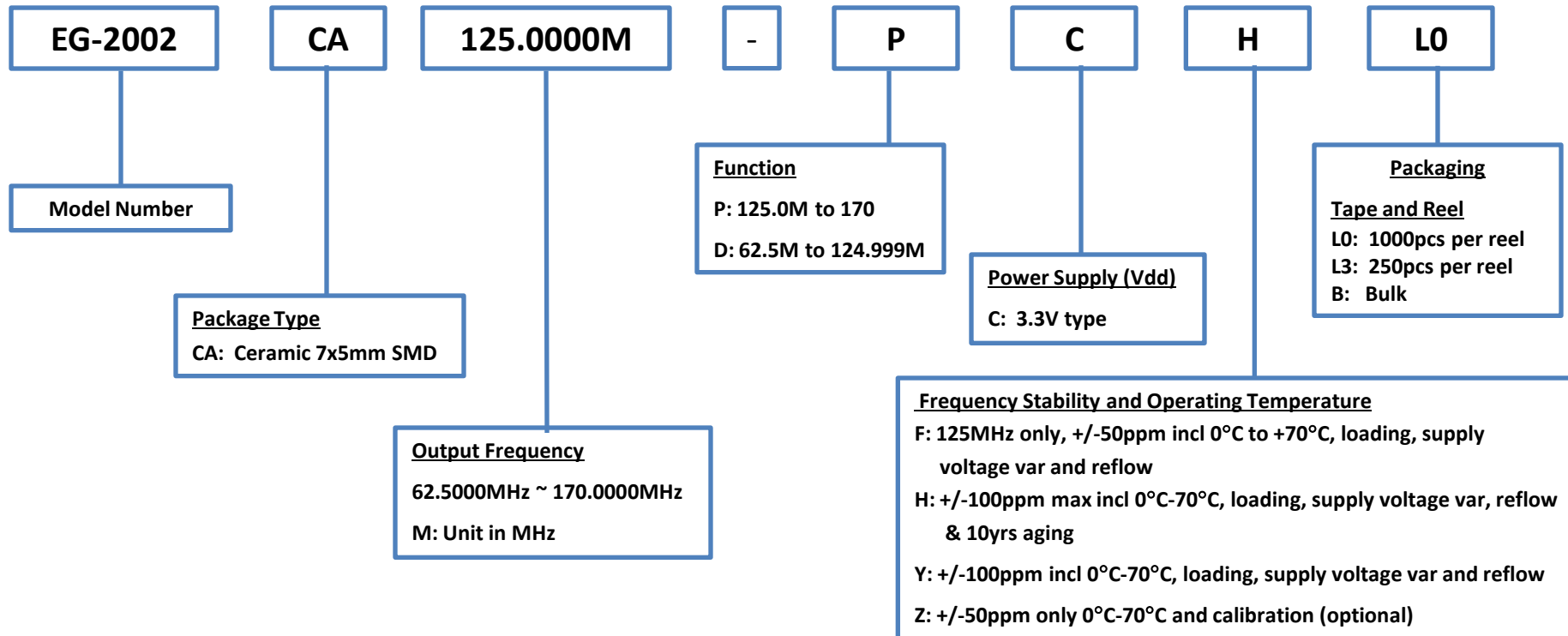
EG-2101CA DCx	
62.5000	79.6875
64.0000	80.0000
66.4063	80.5664
66.5000	83.0000
66.6667	83.3143
67.5000	83.3333
71.5000	83.6658
75.0000	87.5000
77.7600	90.0000
78.1250	

For frequencies 100.0000M and above, please see EG-2102 series

Product Configuration System



Crystal Oscillators – Low Jitter (SAW)



Standard Frequencies

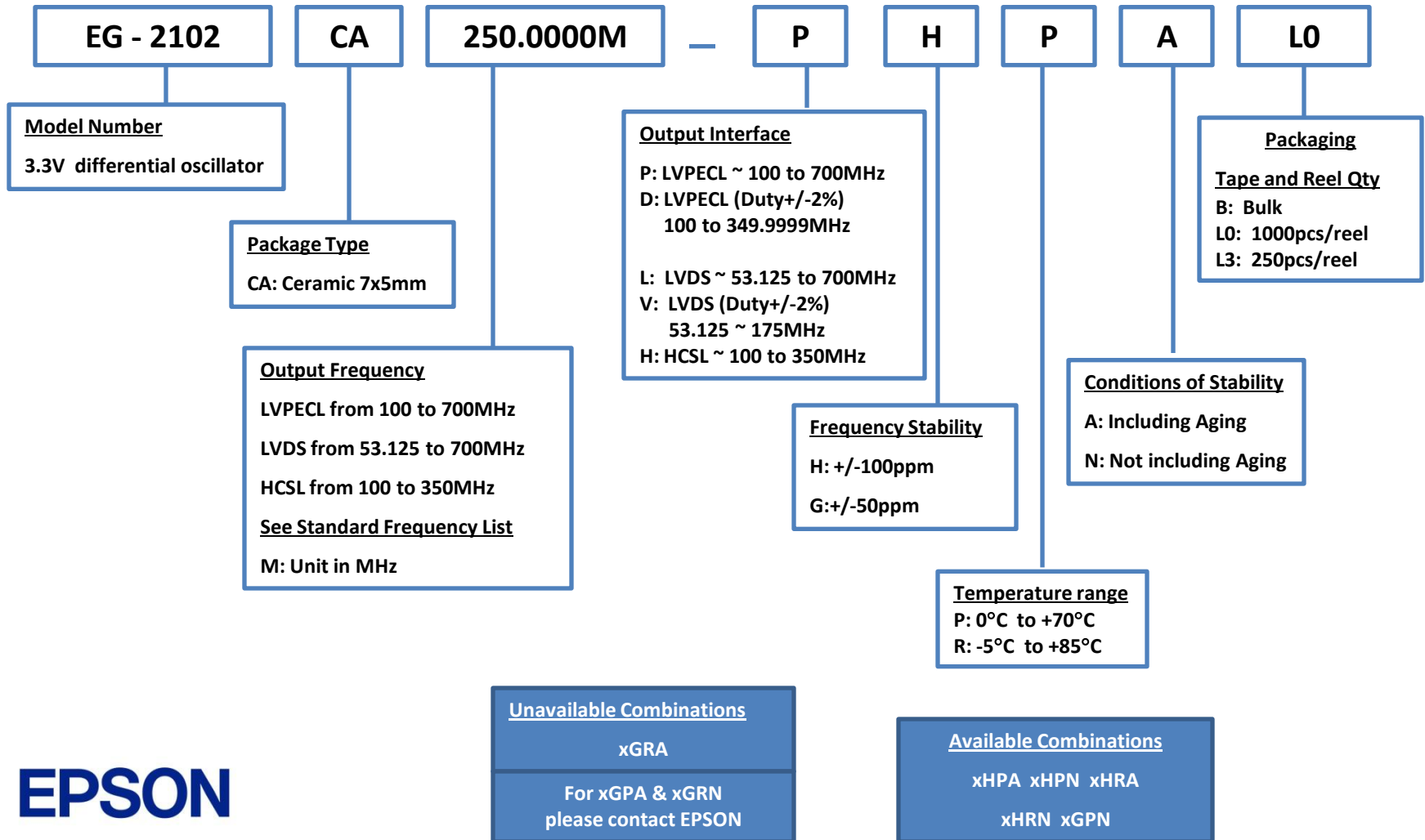
EG-2002 (LVTTL)

EG-2002CA DCx		EG-2002CA PCx	
62.5000	80.5664	125.0000	161.1328
64.0000	83.0000	128.0000	166.0000
66.4063	83.3143	132.8125	166.6286
66.5000	83.3333	133.0000	166.6667
66.6667	83.6658	133.3333	167.3316
67.5000	87.5000	135.0000	
71.5000	90.0000	143.0000	
75.0000	100.0000	150.0000	
77.7600	106.2500	155.5200	
78.1250		156.2500	
79.6875		159.3750	
80.0000		160.0000	

Product Configuration System



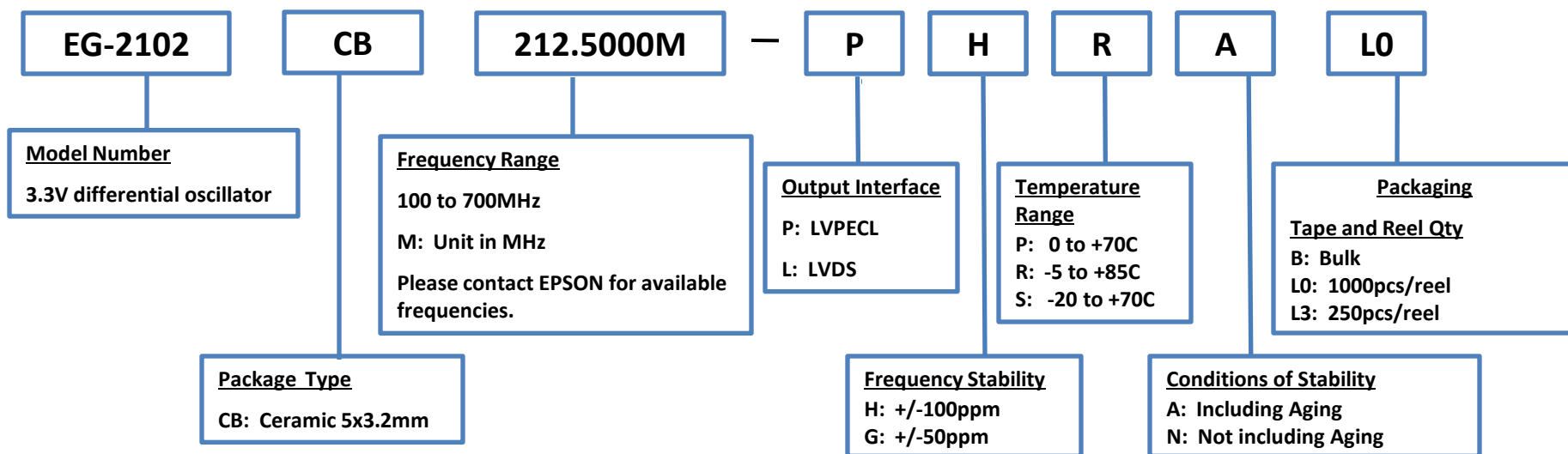
Crystal Oscillators – Low Jitter (SAW)



Product Configuration System



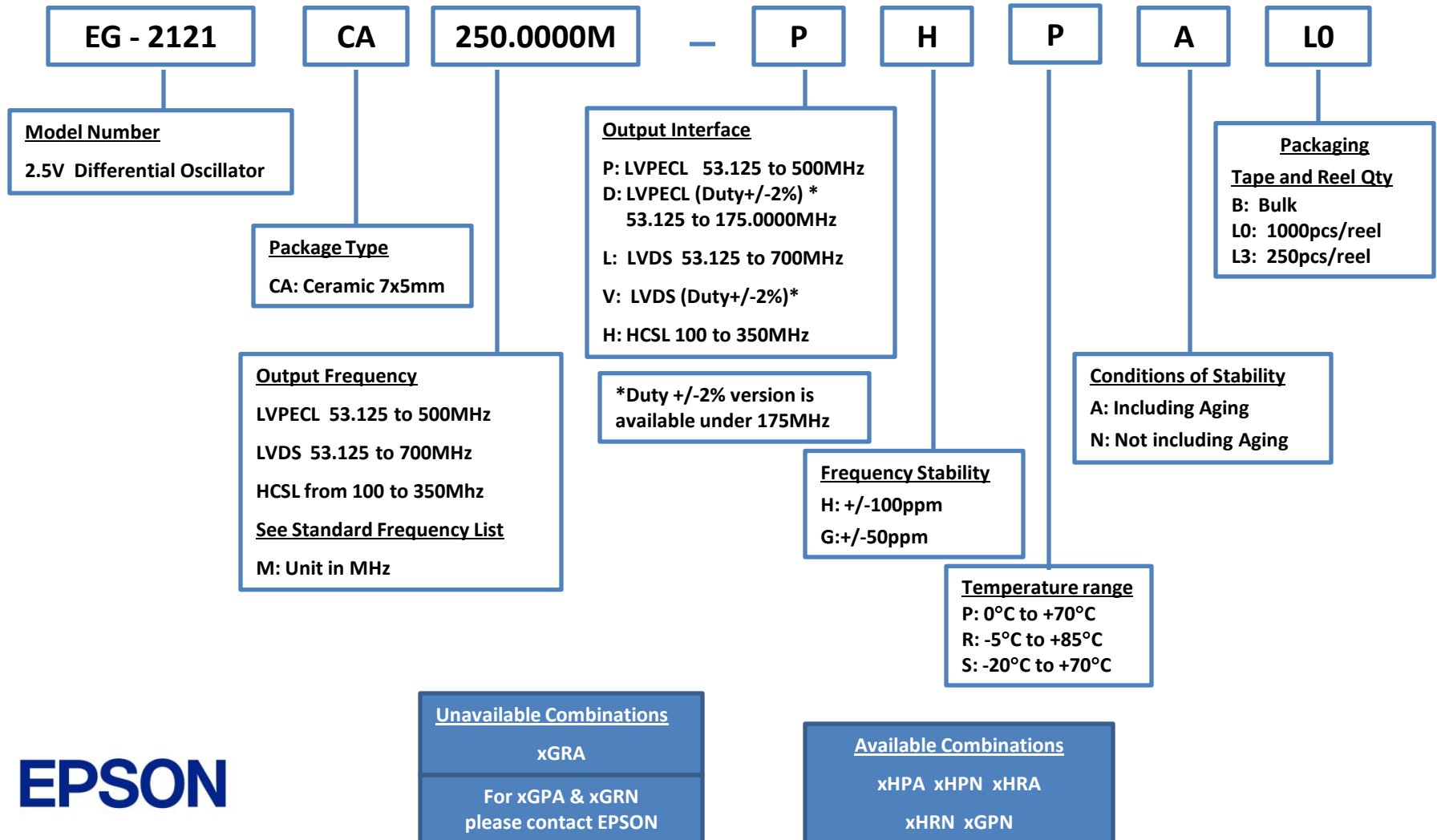
Crystal Oscillators – Low Jitter (SAW)



Product Configuration System



Crystal Oscillators – Low Jitter (SAW)



Standard Frequencies

EG-2121 P (LVPECL)

53.1250 *	97.6563	195.3125	390.6250
62.5000 *	98.3040	196.6080	393.2160
66.6667 *	100.0000	200.0000	400.0000
75.0000 *	106.2500	212.5000	425.0000
78.1250 *	124.4160	248.8320	497.6640
79.6875 *	125.0000	250.0000	500.0000
80.0000 *	132.8125	265.6250	
87.5000 *	133.0000	266.0000	
	148.3517	296.7033	
	150.0000	300.0000	
	150.8072	301.6144	
	155.5200	311.0400	
	156.2500	312.5000	
	159.3750	318.7500	
	161.1328	322.2657	
	164.3555	328.7110	
	166.6286	333.2572	
	167.3317	334.6633	
	173.3708	346.7415	
	175.0000	350.0000	
* Frequency only available for xHPA and xHPN			

Standard Frequencies

EG-2121 L (LVDS)

53.1250 *	97.6563	195.3125	390.6250
62.5000 *	98.3040	196.6080	393.2160
66.6667 *	100.0000	200.0000	400.0000
75.0000 *	106.2500	212.5000	425.0000
78.1250 *	124.4160	248.8320	497.6640
79.6875 *	125.0000	250.0000	500.0000
80.0000 *	132.8125	265.6250	531.2500
87.5000 *	133.0000	266.0000	532.0000
	148.3517	296.7033	593.4066
	150.0000	300.0000	600.0000
	150.8072	301.6144	603.2288
	156.2500	312.5000	625.0000
	159.3750	318.7500	637.5000
	161.1328	322.2656	644.5313
	164.3555	328.7109	657.4219
	166.6286	333.2571	666.5143
	167.3316	334.6633	669.3266
	173.3707	346.7415	693.4830
	175.0000	350.0000	700.0000
* Frequency only available for xHPA and xHPN			

Standard Frequencies

EG-2121 (HCSL)

-	195.3125
-	196.6080
100.0000	200.0000
106.2500	212.5000
124.4160	248.8320
125.0000	250.0000
132.8125	265.6250
133.0000	266.0000
148.3517	296.7033
150.0000	300.0000
150.8072	301.6144
155.5200	311.0400
156.2500	312.5000
159.3750	318.7500
161.1328	322.2656
164.3555	328.7109
166.6286	333.2571
167.3316	334.6633
173.3707	346.7415
175.0000	350.0000

Standard Frequencies

EG-2102P (LVPECL)

-	195.3125	390.6250
-	196.6080	393.2160
100.0000	200.0000	400.0000
106.2500	212.5000	425.0000
124.4160	248.8320	497.6640
125.0000	250.0000	500.0000
132.8125	265.6250	531.2500
133.0000	266.0000	532.0000
148.3517	296.7033	593.4066
150.0000	300.0000	600.0000
150.8072	301.6144	603.2288
155.5200	311.0400	622.0800
156.2500	312.5000	625.0000
159.3750	318.7500	637.5000
161.1328	322.2656	644.5313
164.3555	328.7109	657.4219
166.6286	333.2571	666.5143
167.3316	334.6633	669.3266
173.3707	346.7415	693.4830
175.0000	350.0000	700.0000

Standard Frequencies

EG-2102 L (LVDS)

53.1250 *	97.6563	195.3125	390.6250
62.5000 *	98.3040	196.6080	393.2160
66.6667 *	100.0000	200.0000	400.0000
75.0000 *	106.2500	212.5000	425.0000
78.1250 *	124.4160	248.8320	497.6640
79.6875 *	125.0000	250.0000	500.0000
80.0000 *	132.8125	265.6250	531.2500
87.5000 *	133.0000	266.0000	532.0000
	148.3517	296.7033	593.4066
	150.0000	300.0000	600.0000
	150.8072	301.6144	603.2288
	155.5200	311.0400	622.0800
	156.2500	312.5000	625.0000
	159.3750	318.7500	637.5000
	161.1328	322.2656	644.5313
	164.3555	328.7109	657.4219
	166.6286	333.2571	666.5143
	167.3316	334.6633	669.3266
	173.3707	346.7415	693.4830
	175.0000	350.0000	700.0000

* Frequency only available for xHPA and xHPN

Standard Frequencies

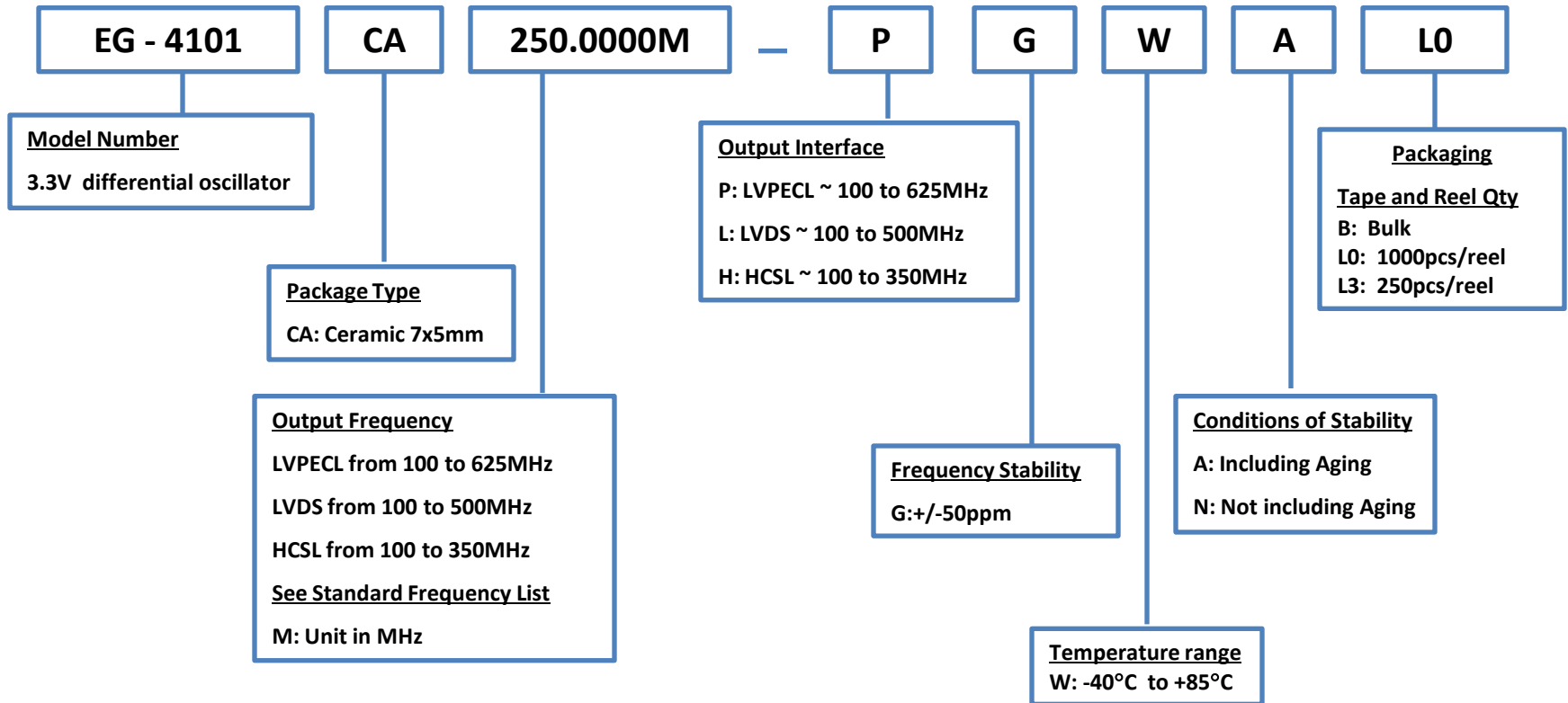
EG-2102P (HCSL)

-	195.3125
-	196.6080
100.0000	200.0000
106.2500	212.5000
124.4160	248.8320
125.0000	250.0000
132.8125	265.6250
133.0000	266.0000
148.3517	296.7033
150.0000	300.0000
150.8072	301.6144
155.5200	311.0400
156.2500	312.5000
159.3750	318.7500
161.1328	322.2656
164.3555	328.7109
166.6286	333.2571
167.3316	334.6633
173.3707	346.7415
175.0000	350.0000

Product Configuration System



Crystal Oscillators – Low Jitter (SAW)



Standard Frequencies

EG-4101 (LVPECL)

100.0000	400.0000	
106.2500	425.0000	
121.1090	484.4360	
133.0000	532.0000	
140.0000	560.0000	
140.6665	562.6660	
156.2500	625.0000	
161.1320		
168.0407		
170.0000		
200.0000		
212.5000		
242.2180		
266.0000		
280.0000		
281.3330		
312.5000		
322.2640		
336.0814		
340.0000		

Standard Frequencies

EG-4101 (LVDS)

100.0000	400.0000	
106.2500	425.0000	
121.1090	484.4360	
133.0000		
140.0000		
140.6665		
156.2500		
161.1320		
168.0407		
170.0000		
200.0000		
212.5000		
242.2180		
266.0000		
280.0000		
281.3330		
312.5000		
322.2640		
336.0814		
340.0000		

Standard Frequencies

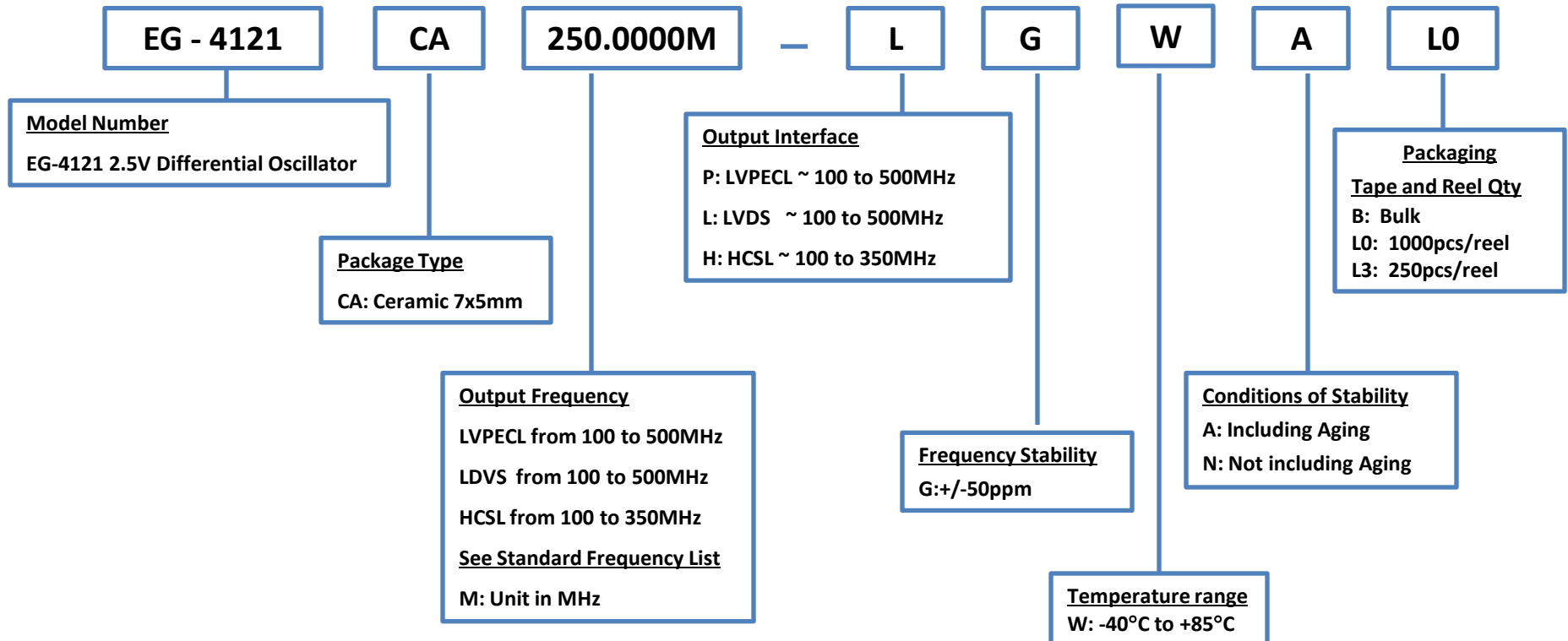
EG-4101 (HCSL)

100.0000		
106.2500		
121.1090		
133.0000		
140.0000		
140.6665		
156.2500		
161.1320		
168.0407		
170.0000		
200.0000		
212.5000		
242.2180		
266.0000		
280.0000		
281.3330		
312.5000		
322.2640		
336.0814		
340.0000		

Product Configuration System



Crystal Oscillators – Low Jitter (SAW)



Standard Frequencies

EG-4101 (LVPECL)

100.0000	400.0000	
106.2500	425.0000	
121.1090	484.4360	
133.0000		
140.0000		
140.6665		
156.2500		
161.1320		
168.0407		
170.0000		
200.0000		
212.5000		
242.2180		
266.0000		
280.0000		
281.3330		
312.5000		
322.2640		
336.0814		
340.0000		

Standard Frequencies

EG-4101 (LVDS)

100.0000	400.0000	
106.2500	425.0000	
121.1090	484.4360	
133.0000		
140.0000		
140.6665		
156.2500		
161.1320		
168.0407		
170.0000		
200.0000		
212.5000		
242.2180		
266.0000		
280.0000		
281.3330		
312.5000		
322.2640		
336.0814		
340.0000		

Standard Frequencies

EG-4101 (HCSL)

100.0000		
106.2500		
121.1090		
133.0000		
140.0000		
140.6665		
156.2500		
161.1320		
168.0407		
170.0000		
200.0000		
212.5000		
242.2180		
266.0000		
280.0000		
281.3330		
312.5000		
322.2640		
336.0814		
340.0000		

High-Frequency Applications for SAW Oscillators

- 75.000M Serial ATA/SAS
- 98.304M 1394b
- 100.000M PCI-Express, Serial ATA
- 106.250M Fibre Channel
- 125.000M 1GbEthernet; iSCSI, Infiniband, Hypertransport, PCI-express
- 133.000M Bus/Mem Clock, CPU
- 133.333M FB DIMM
- 150.000M Serial ATA, Serial SCSI
- 155.520M SONET OC-48
- 156.250M 10GbEthernet XAUI
- 159.375M 10GbFibre Channel XAUI
- 161.132M 10GbEthernet SERDES
- 164.355M 10GbFibre Channel SERDES
- 166.000M Bus/Mem Clock
- 200.000M Bus/Mem Clock
- 212.500M 4G Fibre Channel, 8Gb Fibre Channel, FCoE
- 250.000M Infiniband, High Speed Bus
- 312.500M 10GbE
- 500.000M High Speed Bus
- 622.080M SONET OC-192
- 625.000M 10GbEthernet XAUI, High Speed Bus
- 644.531M 10GbEthernet SERDES
- 669.326M SONET OC-192 Digital Wrapper

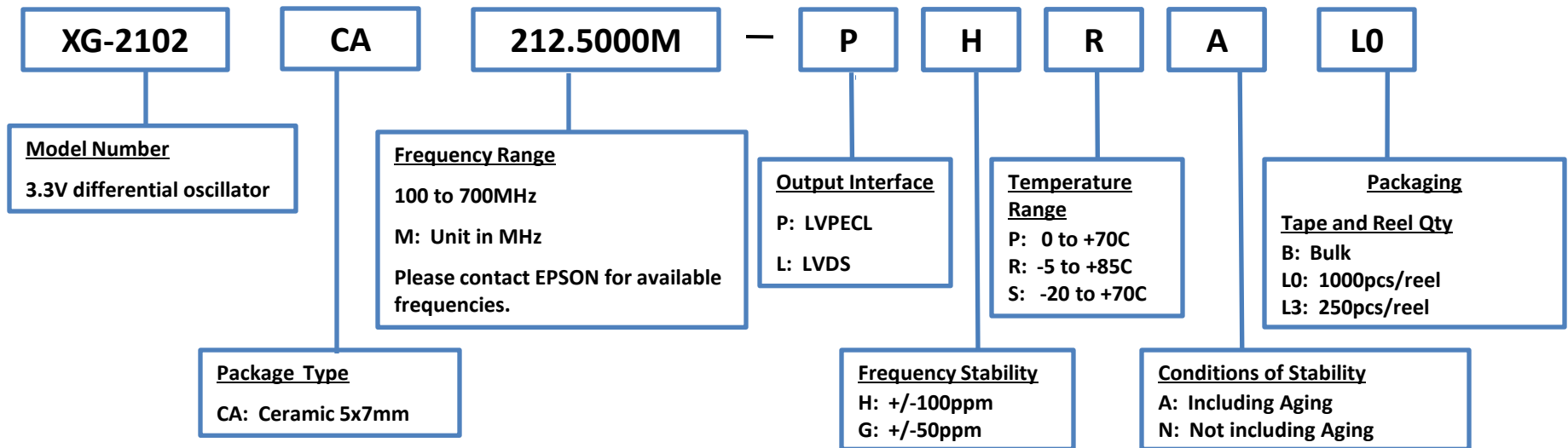
High Frequency Oscillator Applications

XO / SO (MHz)			VCXO / VCSO (MHz)		
Fibre Channel	FC-2	106.2	SONET	OC-3/12	19.44*
	FC-4/-8	212.5 / 425		OC-3/12	38.88*
	FC-10	159.375		OC-3/12/48	77.76*
Ethernet	GigE	125		OC-3	155.52*
	10 GigE/Infiniband	125 / 250		w/ FEC	166.6286
	XAU1	156.25		w/ FEC	167.3316
	XAU2	312.5		OC-6	311.04*
	10 GigE PHY	161.1328		w/ FEC	333.2572
		322.2656		w/ FEC	334.6632
PCI-Express	Phase 1	100		OC-12	622.08
	Phase 2	200		w/ FEC	666.5144
	Phase 3	400		w/ FEC	669.3264
Storage	SATA 1	75 / 150		OC-48	2488.32
	SATA 2	150 / 300			
	SAS 1	75 / 150			
	SAS 2	150 / 300			
Computer	Bus / Mem Clock	100 / 125 / 133.33 /			
		166.66			
		200 / 266.67			
			* XO / SO also		

Product Configuration System



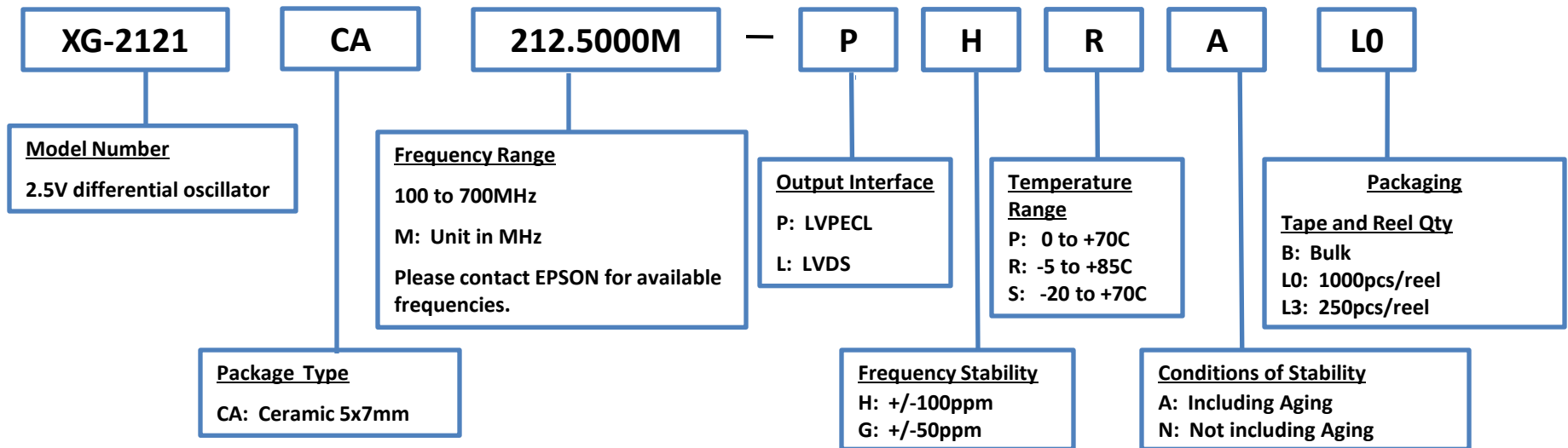
Crystal Oscillators – Low Jitter (SAW)



Product Configuration System



Crystal Oscillators – Low Jitter (SAW)



Product Configuration System



Low-Jitter SAW Oscillator (SPSO)

XG5032

Model Number

Saw Oscillator
Package size: 5.0 x 3.2 mm
Output: HCSL/Output Enable (OE)

HAN

Output

HAN: HCSL

100.000000M

Frequency Range

HCSL from 100 to 200 MHz
M: MHz

C

Supply Voltage

C: 3.3V
D: 2.5V

J

Frequency Tolerance

J: +/-50ppm
L: +/-100ppm

A

Temperature Range

A: 0 to +70C
B: -20 to +70C
D: -5 to +85C

A

Aging

A: w/10 years aging at +25C
N: w/o aging

0

Packaging

Tape and Reel Qty

B: Bulk
0: 1000pcs/reel
3: 250pcs/reel

Unavailable Combinations

JDA and JBA

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95

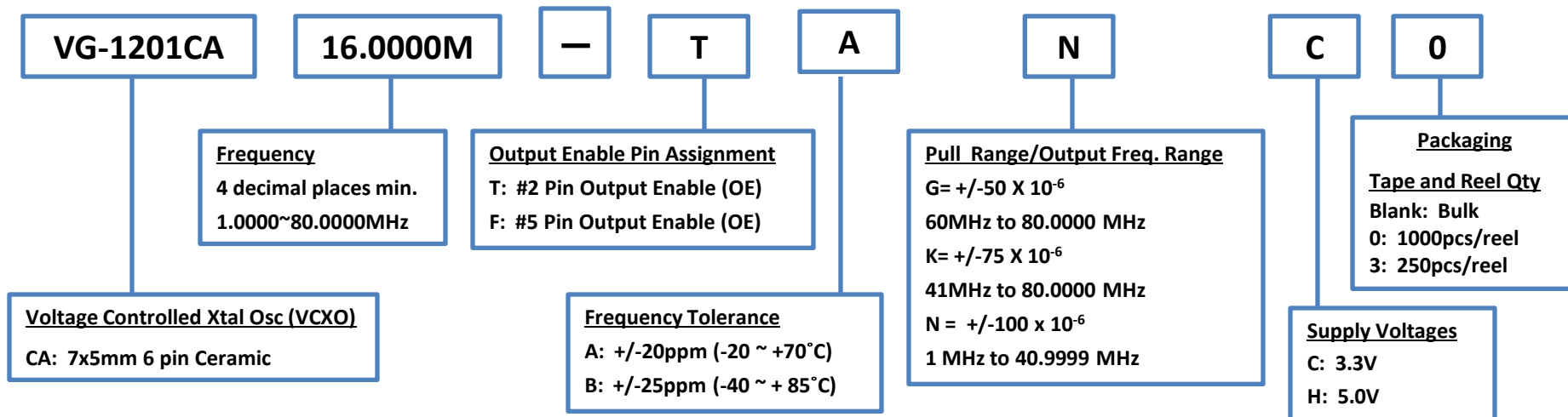
Product Configuration System

VOLTAGE CONTROLLED OSCILLATORS



Product Configuration System

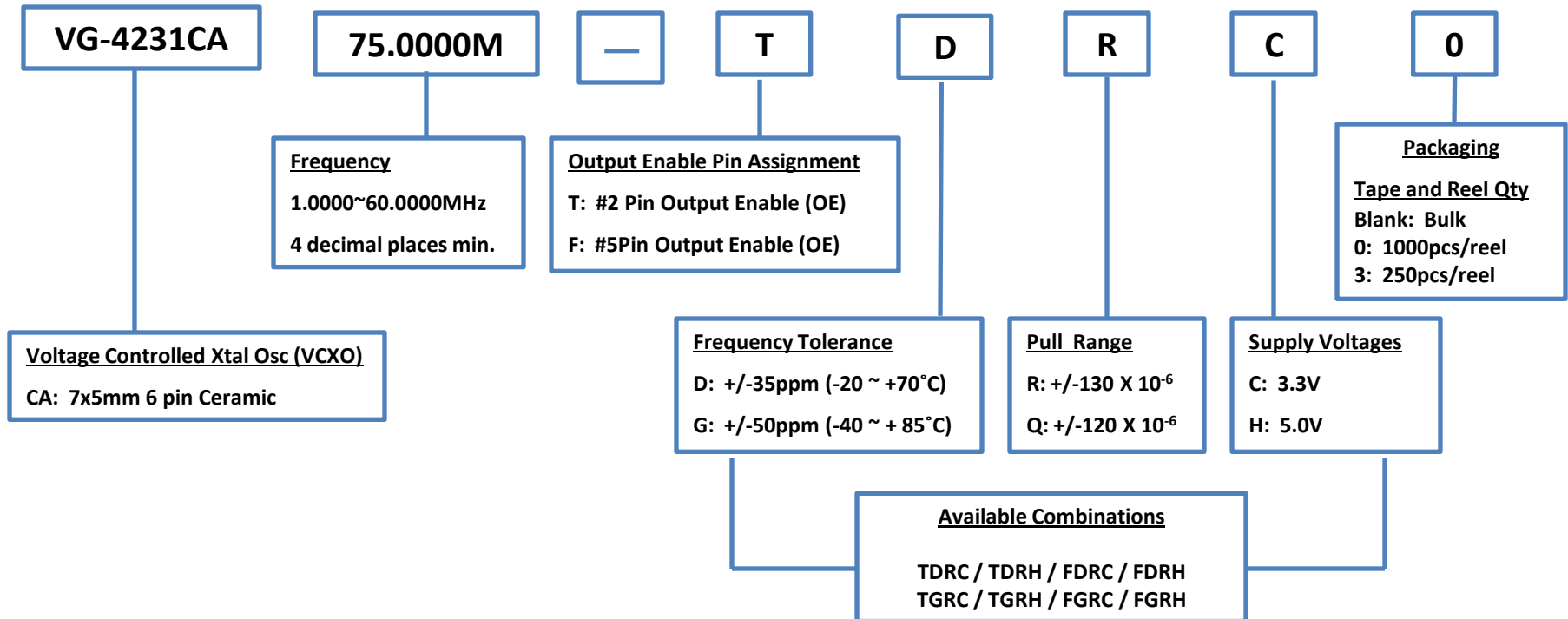
Oscillators - VCXO



<u>CODE</u>	<u>STABILITY</u>	<u>OPERATING TEMP.</u>	<u>PULL RANGE</u>	<u>OUTPUT FREQ.</u>
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

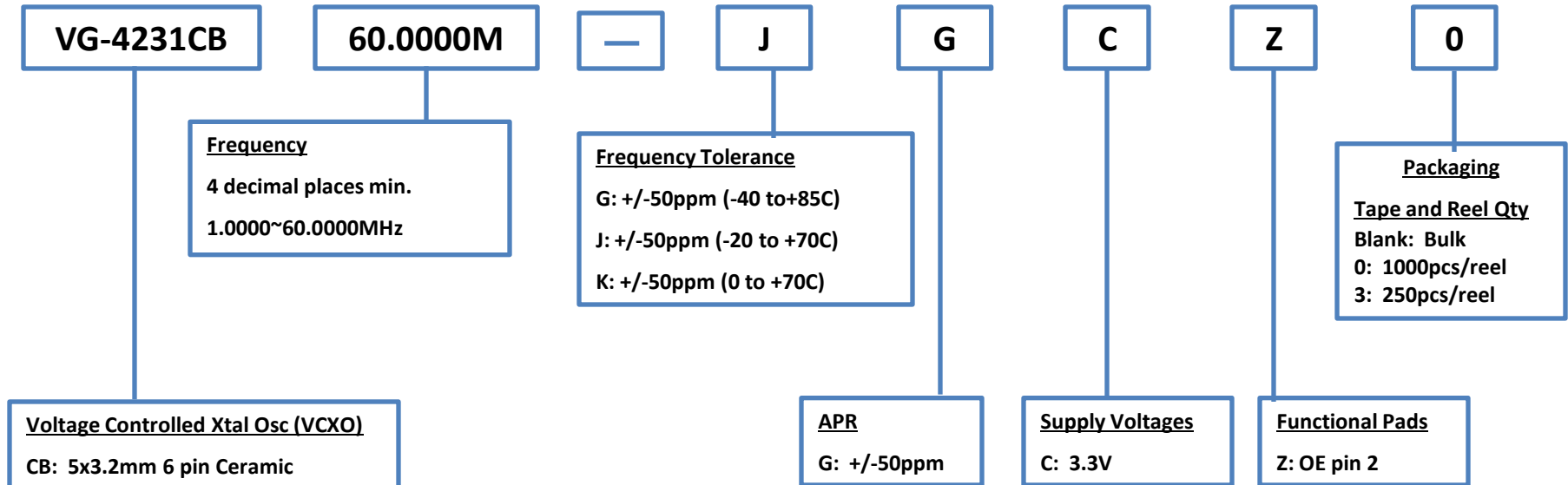
Product Configuration System

Oscillators - VCXO



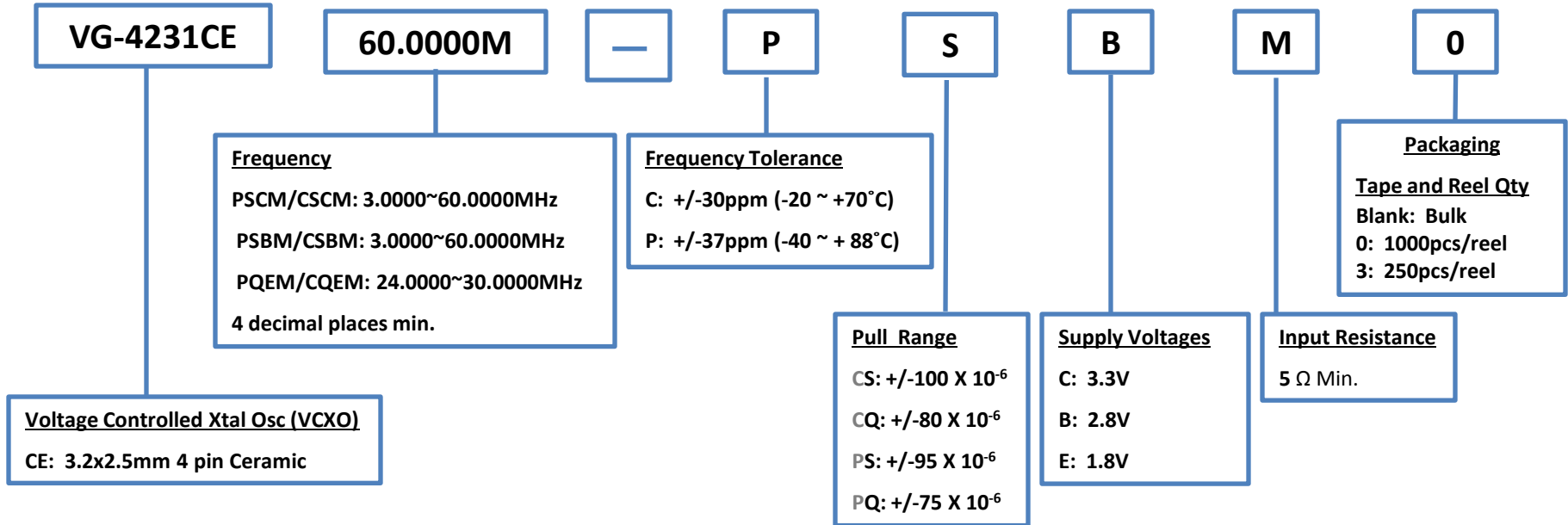
Product Configuration System

Oscillators - VCXO



Product Configuration System

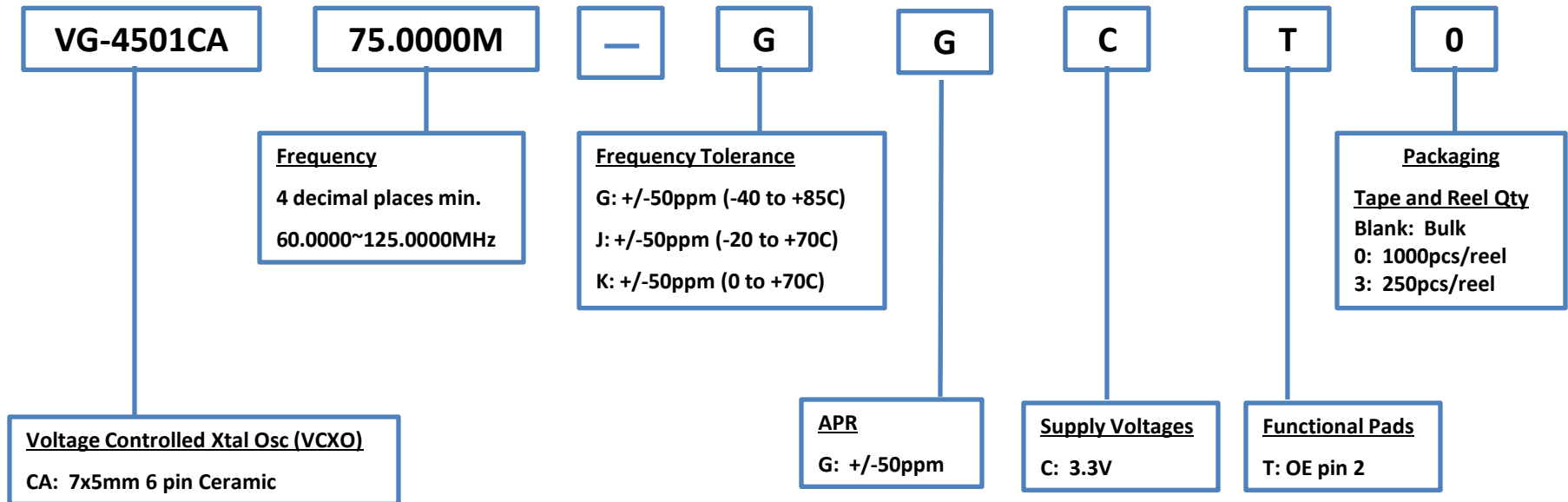
Oscillators - VCXO



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

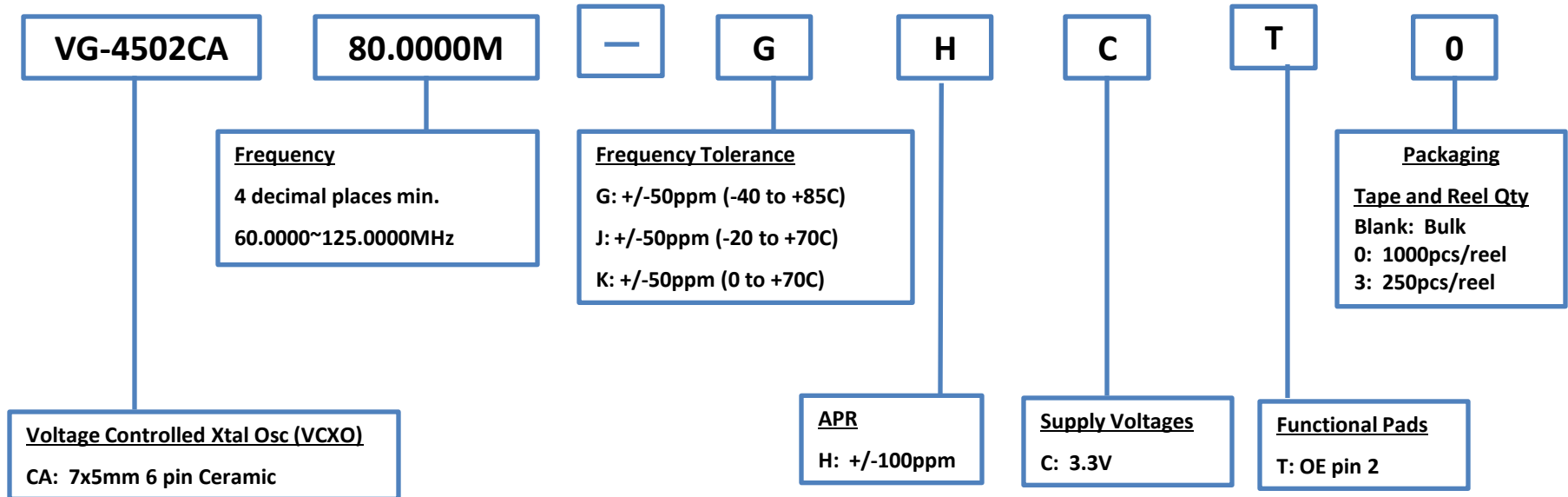
Product Configuration System

Oscillators - VCXO



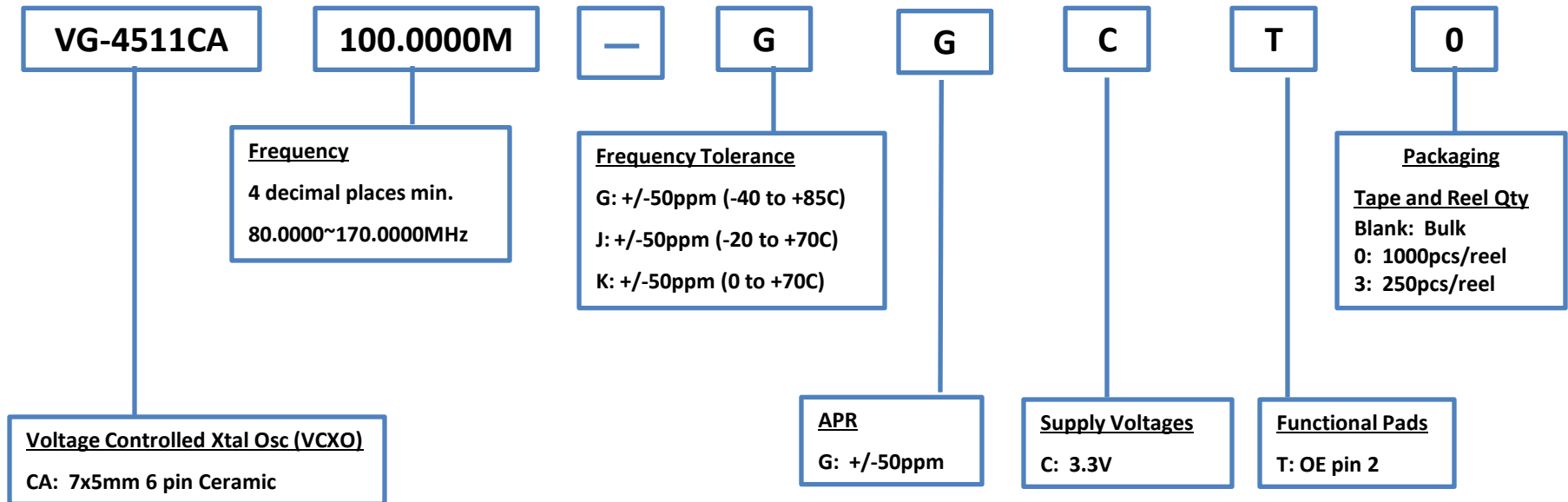
Product Configuration System

Oscillators - VCXO



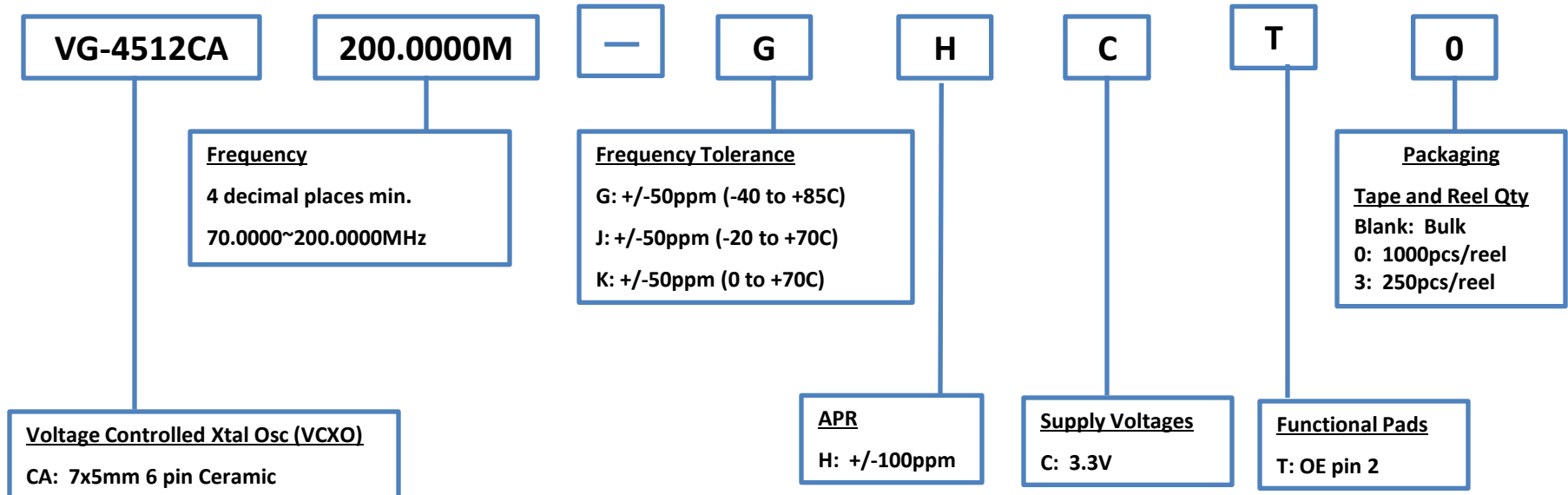
Product Configuration System

Oscillators - VCXO



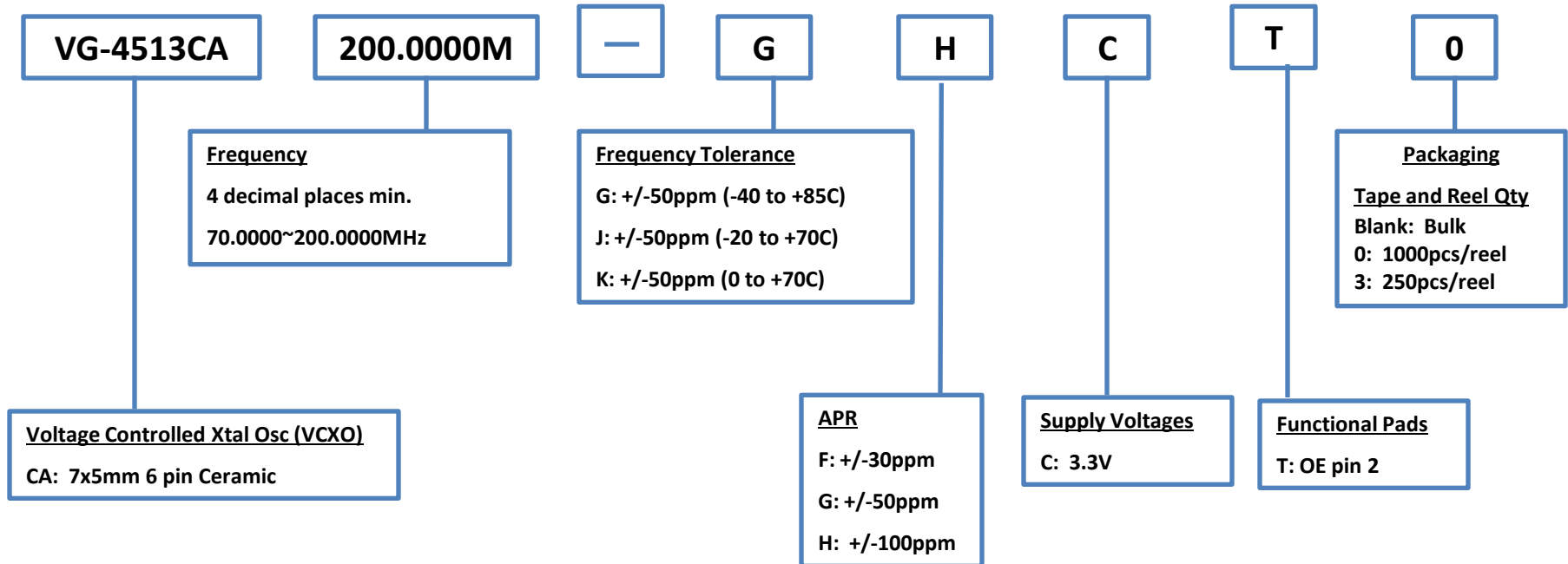
Product Configuration System

Oscillators - VCXO



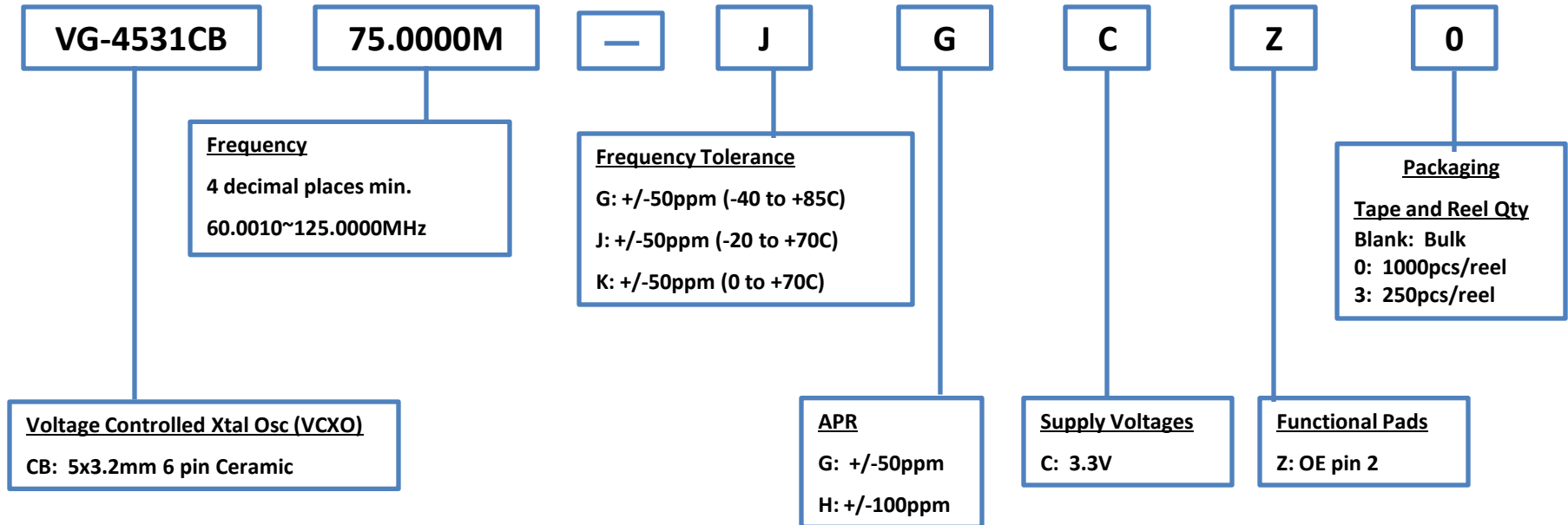
Product Configuration System

Oscillators - VCXO



Product Configuration System

Oscillators - VCXO



Product Configuration System



Oscillators - VCSO

EV-9100JG

800.0000M

-

CPGUA

0

Frequency
800.0000 ~ 2500.000 MHz

Voltage Controlled Saw Osc (VCSO)
13.9 x 9.8(max.) x 4.7(max.) mm

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

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

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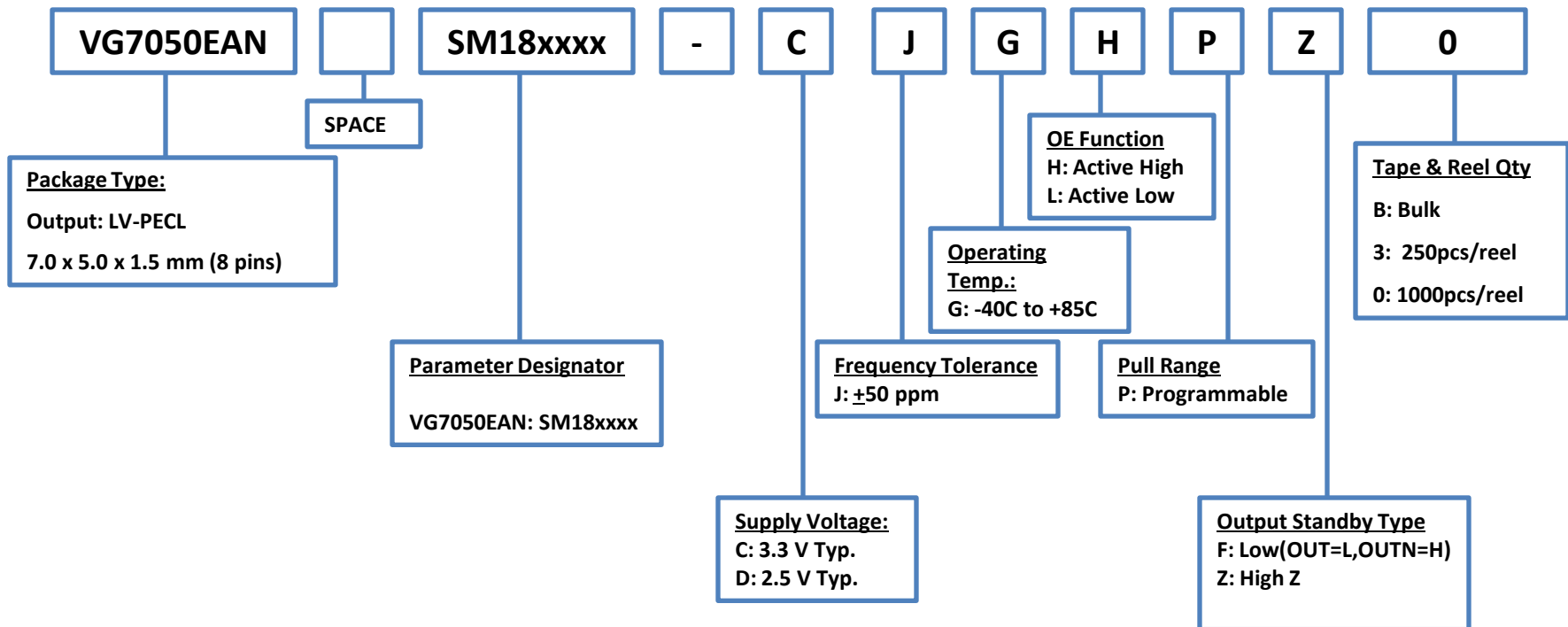
SEPTEMBER 2014

107

Product Configuration System



Programmable Voltage Controlled Oscillator (VCXO)



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NOTE:

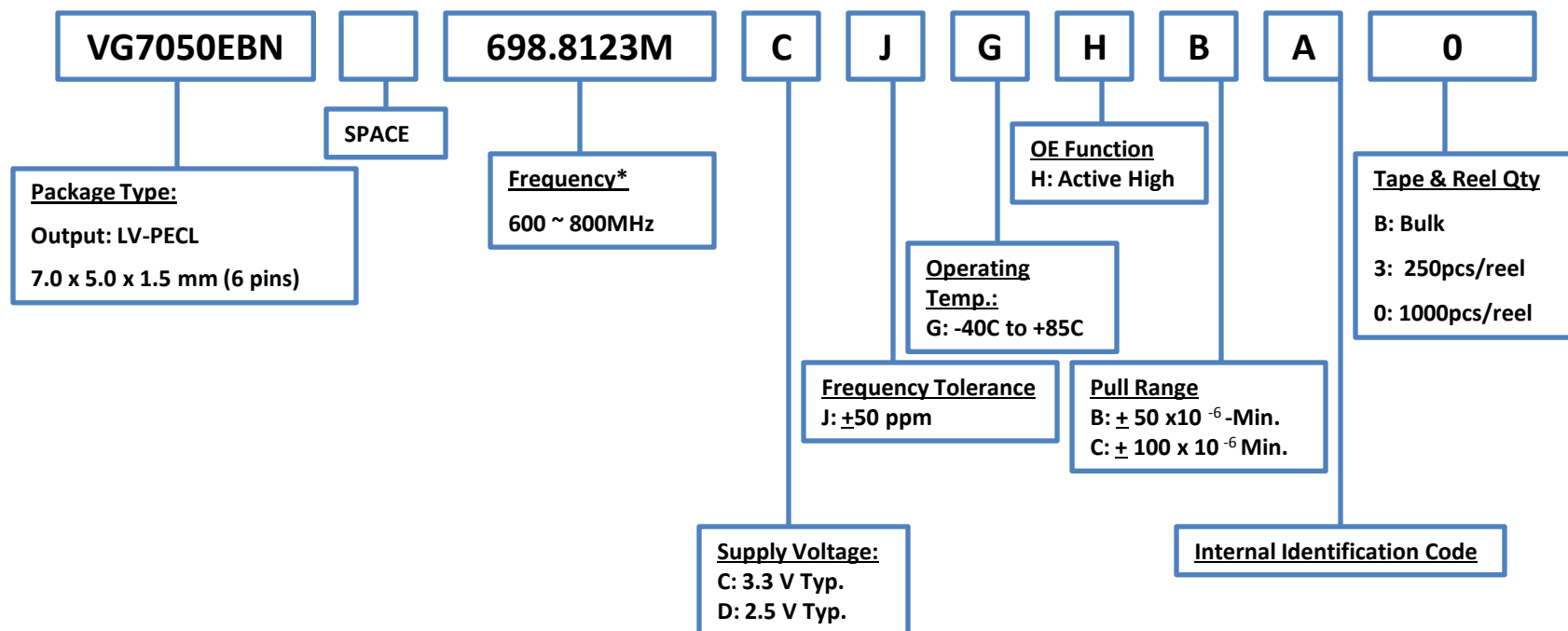
Frequency Range: 50~800MHz

Please contact us for requirements not listed in this specification.

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.

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Product Configuration System



Programmable Voltage Controlled Oscillator (VCXO)

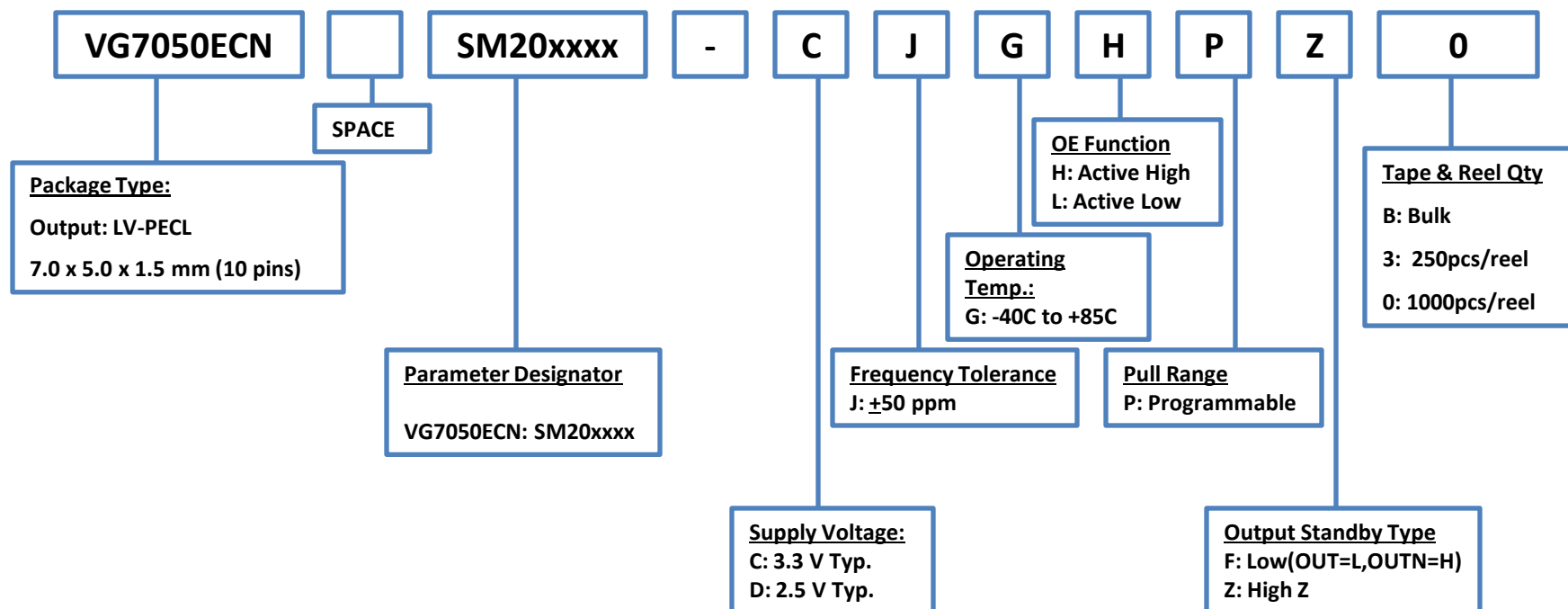
VG7050EAN

Package Type	Start-up Frequency	Vc Range	Supply Voltage	OE Function	Output Standby Type
VG7050EAN-SM18T001-CJGHPZB	622.080000 MHz	1.65+/-1.25	3.3V	Active high	Hi-Z
VG7050EAN-SM18T002-DJGHPZB	622.080000 MHz	1.25+/-1.00	2.5V	Active high	Hi-Z
VG7050EAN-SM18T003-CJGLPZB	622.080000 MHz	1.65+/-1.35	3.3V	Active low	Hi-Z
VG7050EAN-SM18T004-DJGLPZB	622.080000 MHz	1.25+/-1.00	2.5V	Active low	Hi-Z
VG7050EAN-SM18T005-CJGHPFB	622.080000 MHz	1.65+/-1.35	3.3V	Active high	Low(OUT=L,OUTN=H)
VG7050EAN-SM18T006-DJGHPFB	622.080000 MHz	1.25+/-1.00	2.5V	Active high	Low(OUT=L,OUTN=H)
VG7050EAN-SM18T007-CJGLPFB	622.080000 MHz	1.65+/-1.35	3.3V	Active low	Low(OUT=L,OUTN=H)
VG7050EAN-SM18T008-DJGLPFB	622.080000 MHz	1.25+/-1.00	2.5V	Active low	Low(OUT=L,OUTN=H)

Product Configuration System



Programmable Voltage Controlled Oscillator (VCXO)



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NOTE:

Frequency Range: 50~800MHz

Please contact us for requirements not listed in this specification.

Product Configuration System



Programmable Voltage Controlled Oscillator (VCXO)

VG7050ECN

Package Type	Start-up Frequency 1	Start-up Frequency 2	Start-up Frequency 3	Start-up Frequency 4	Vc Range	Supply Voltage	OE Function	Output Standby Type
VG7050ECN-SM20T001-CJGHPZB	622.080000 MHz	644.531250 MHz	669.326582 MHz	693.482991 MHz	1.65+/-1.25	3.3V	Active high	Hi-Z
VG7050ECN-SM20T002-DJGHPZB	622.080000 MHz	644.531250 MHz	669.326582 MHz	693.482991 MHz	1.25+/-1.00	2.5V	Active high	Hi-Z
VG7050ECN-SM20T003-CJGLPZB	622.080000 MHz	644.531250 MHz	669.326582 MHz	693.482991 MHz	1.65+/-1.35	3.3V	Active low	Hi-Z
VG7050ECN-SM20T004-DJGLPZB	622.080000 MHz	644.531250 MHz	669.326582 MHz	693.482991 MHz	1.25+/-1.00	2.5V	Active low	Hi-Z
VG7050ECN-SM20T005-CJGHPFB	622.080000 MHz	644.531250 MHz	669.326582 MHz	693.482991 MHz	1.65+/-1.35	3.3V	Active high	Low(OUT=L,OUTN=H)
VG7050ECN-SM20T006-DJGHPFB	622.080000 MHz	644.531250 MHz	669.326582 MHz	693.482991 MHz	1.25+/-1.00	2.5V	Active high	Low(OUT=L,OUTN=H)
VG7050ECN-SM20T007-CJGLPFB	622.080000 MHz	644.531250 MHz	669.326582 MHz	693.482991 MHz	1.65+/-1.35	3.3V	Active low	Low(OUT=L,OUTN=H)
VG7050ECN-SM20T008-DJGLPFB	622.080000 MHz	644.531250 MHz	669.326582 MHz	693.482991 MHz	1.25+/-1.00	2.5V	Active low	Low(OUT=L,OUTN=H)

Product Configuration System

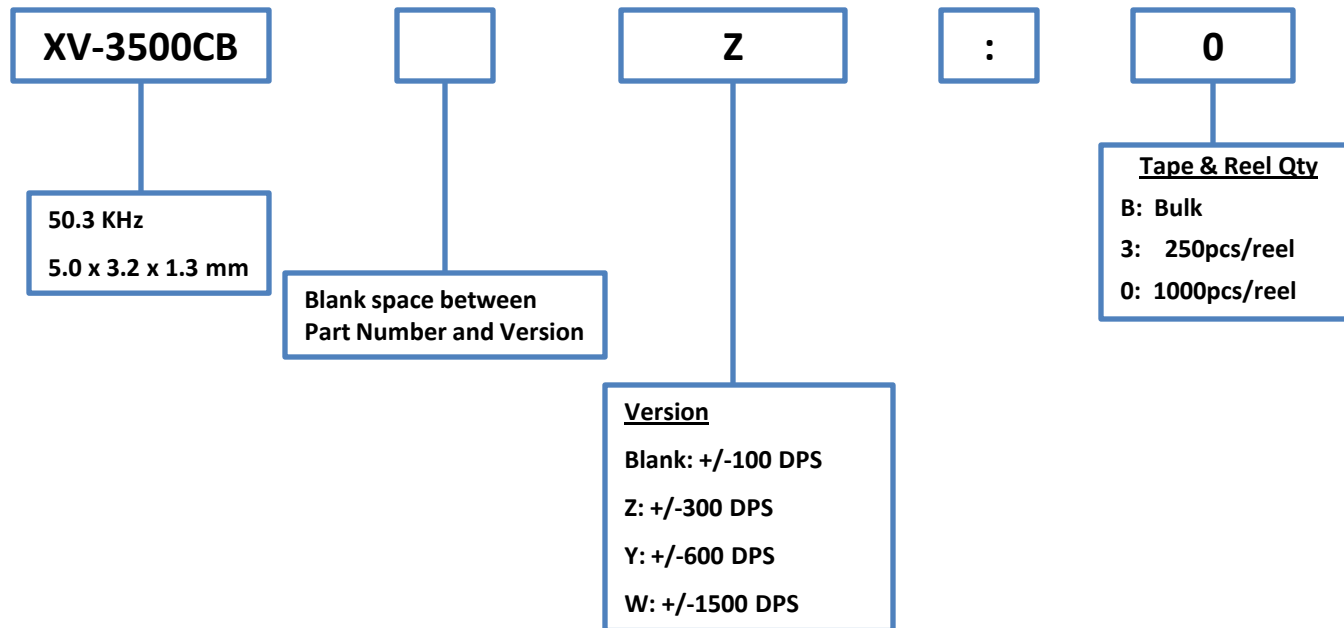
SENSING DEVICES



Product Configuration System

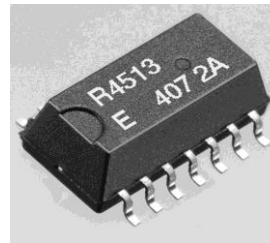
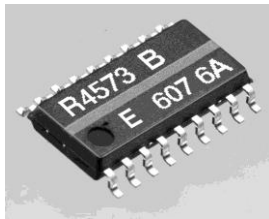


Gyro Sensor



Product Configuration System

REAL TIME CLOCKS



Product Configuration System



Real Time Clock Modules – Serial (3 Wire & 4 Wire)

RA-4565SA

:

B

0

:

PURE SN

Base Model	Pkg.
RA-4565SA	SOP 14 PIN
RA-4574SA	SOP 14 PIN
RTC-4543SA	SOP 14 PIN
RTC-4543SB	SOP 18 PIN
RTC-4574JE	VSOJ 20 PIN
RTC-4574SA	SOP 14 PIN
RTC-4701JE	VSOJ 20 PIN
RTC-4701NB	SON 22 PIN
RTC-9701JE	VSOJ 20 PIN
RX-4581NB	SON 22 PIN

Frequency Tolerance:	
RA-4565SA	B=5+/-23PPM
RA-4574SA	B=5+/-23PPM
RTC-4543SA	A=5+/-12PPM B=5+/-23PPM
RTC-4543SB	A=5+/-12PPM B=5+/-23PPM
RTC-4574JE	B=5+/-23PPM
RTC-4574SA	B=5+/-23PPM
RTC-4701JE	B=5+/-23PPM
RTC-4701NB	B=5+/-23PPM
RTC-9701JE	B=5+/-23PPM
RX-4581NB	B=5+/-23PPM

Tape & Reel Qty
SOP Package Type Only
 Blank: Bulk
 0: 1000 pcs. per reel
 3: 250 pcs. per reel
DIP Package Type Only
 S: 25pcs/Stick

PURE SN
 ROHS
 Blank : Not RoHS Compliant

Note:

SA, SB and NB packages are available as RoHS Compliant "ROHS" or PURE SN
 JE packages are available as RoHS Compliant "ROHS" or PURE SN only

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116

Product Configuration System



Real Time Clock Modules – Serial (3 Wire & 4 Wire)

RX-4571SA

:

B

0

:

PURE SN

Base Model	Pkg.
RTC-4574NB	SON 22 PIN
RX-4045NB	SON 22 PIN
RX-4045SA	SOP 14 PIN
RX-4574LC	VSOJ 12 PIN
RX-4575LC	VSOJ 12 PIN
RX-4571LC	VSOJ 12 PIN
RX-4571NB	SON 22 PIN
RX-4571SA	SOP 14 PIN
RX-4801SA	SOP 14 PIN
RX-4803SA	SOP 14 PIN
RX-4803LC	VSOJ 12 PIN

Frequency Tolerance (Ta =+25 °C):	
RTC-4574NB	B=5+/-23PPM
RX-4045NB, RX-4045SA	AA=5+/-5PPM AC=0+/-5PPM
RX-4574LC	B=5+/-23PPM
RX-4575LC	B=5+/-23PPM
RX-4571LC	B=5+/-23PPM
RX-4571NB	B=5+/-23PPM
RX-4571SA	B=5+/-23PPM
RX-4801SA	Over -40 to +85 °C UB=+/-5PPM
RX-4803SA, RX-4803LC	Over -40 to +85 °C UA=+/-3.4PPM UB=+/-5PPM

Tape & Reel Qty
SOP Package Type Only
 Blank: Bulk
 0: 1000 pcs. per reel
 3: 250 pcs. per reel
DIP Package Type Only
 S: 25pcs/Stick

PURE SN
 Blank : Already RoHS Compliant

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Note:

All LC packages are already RoHS Compliant with “PURE SN”

*RX-4575LC - Sn-Ag Plating NOT PURE SN

Product Configuration System



Real Time Clock Modules – I²C-Bus

RX-8581SA

:

B

0

:

PURE SN

Base Model	Pkg.
RA-8565SA	SOP 14 PIN
RX-8025NB	SON 22 PIN
RX-8025SA	SOP 14 PIN
RX-8564LC	VSOJ 12 PIN
RX-8571SA	SOP 14 PIN
RX-8571NB	SON 22 PIN
RX-8571LC	VSOJ 12 PIN
RX-8581JE	VSOJ 20 PIN
RX-8581NB	SON 22 PIN
RX-8581SA	SON 14 PIN
RX-8731LC	VSOJ 12 PIN

Frequency Tolerance:	
RA-8565SA	B=5+/-23PPM
RX-8025NB	AA=5+/-5PPM
RX-8025SA	AA=5+/-5PPM
RX-8564LC	B=5+/-23PPM
RX-8571SA	B=5+/-23PPM
RX-8571NB	B=5+/-23PPM
RX-8571LC	B=5+/-23PPM
RX-8581JE	B=5+/-23PPM
RX-8581NB	B=5+/-23PPM
RX-8581SA	B=5+/-23PPM
RX-8731LC	B=5+/-23PPM

Tape & Reel Qty
SOP Package Type Only
 Blank: Bulk
 0: 1000 pcs. per reel
 3: 250 pcs. per reel
DIP Package Type Only
 S: 25pcs/Stick

PURE SN
 Blank : Already RoHS Compliant

Note:
 All LC packages are already RoHS Compliant with “PURE SN”

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118

Product Configuration System



Real Time Clock Modules – I²C-Bus

RA-8581SA

Base Model	Pkg.
RA-8581SA	SOP 14 PIN
RTC-8564JE	VSOJ 20 PIN
RTC-8564NB	SON 22 PIN
RX8010SJ	SOP 8 PIN
RA4803SA	SOP 14 PIN
RA8803SA	SOP 14 PIN
RX8900SA	SOP 14 PIN
RA8900SA	
RX8900CE	3.2x2.5mm
RA8900CE	10 PIN Ceramic

:

B

Frequency Tolerance:	
RA-8581SA	B=5+/-23PPM
RTC-8564JE	B=5+/-23PPM
RTC-8564NB	B=5+/-23PPM
RX8010SA	B=5+/-23PPM
RX4803SA and RX8803SA	UA= +/-3.4PPM -40°C to 85°C UB= +/-5.0PPM -40°C to 85°C UC=+/- 5PPM -30°C to 70°C AA=5+/-5PPM 25°C
RX8900SA RA8900SA and RX8900CE RX8900CE	UA=+/-3.4PPM -40°C to 85°C UB=+/-5PPM -40°C to 85°C UC=+/-5PPM -30°C to 70°C

0

:

PURE SN

Tape & Reel Qty
SOP Package Type Only
 B: Bulk
 0: 1000 pcs. per reel
 3: 250 pcs. per reel

Blank : CE Package
 RX8010SJ: PURE SN
 RA4803SA: PURE SN
 RX8803SA: PURE SN
 RX8900SA: PURE SN
 RA-8581SA: ROHS or PURE SN
 RTC-8564JE: ROHS
 RTC-8564NB: ROHS or PURE SN

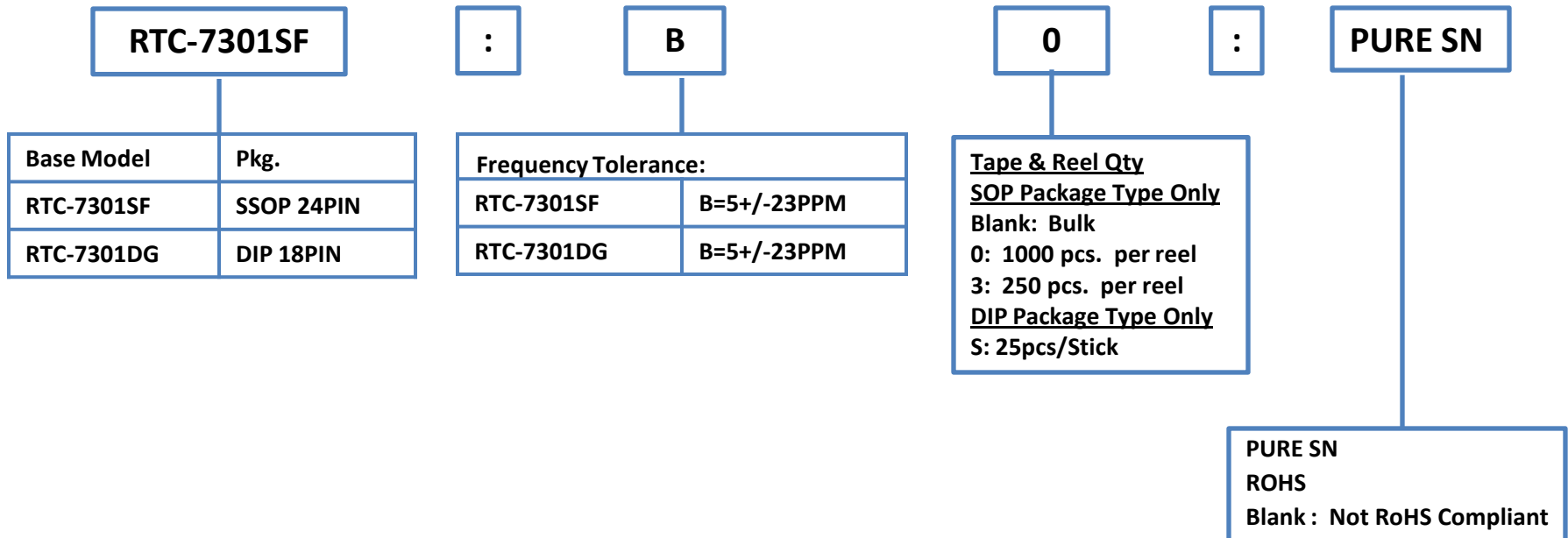
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Product Configuration System



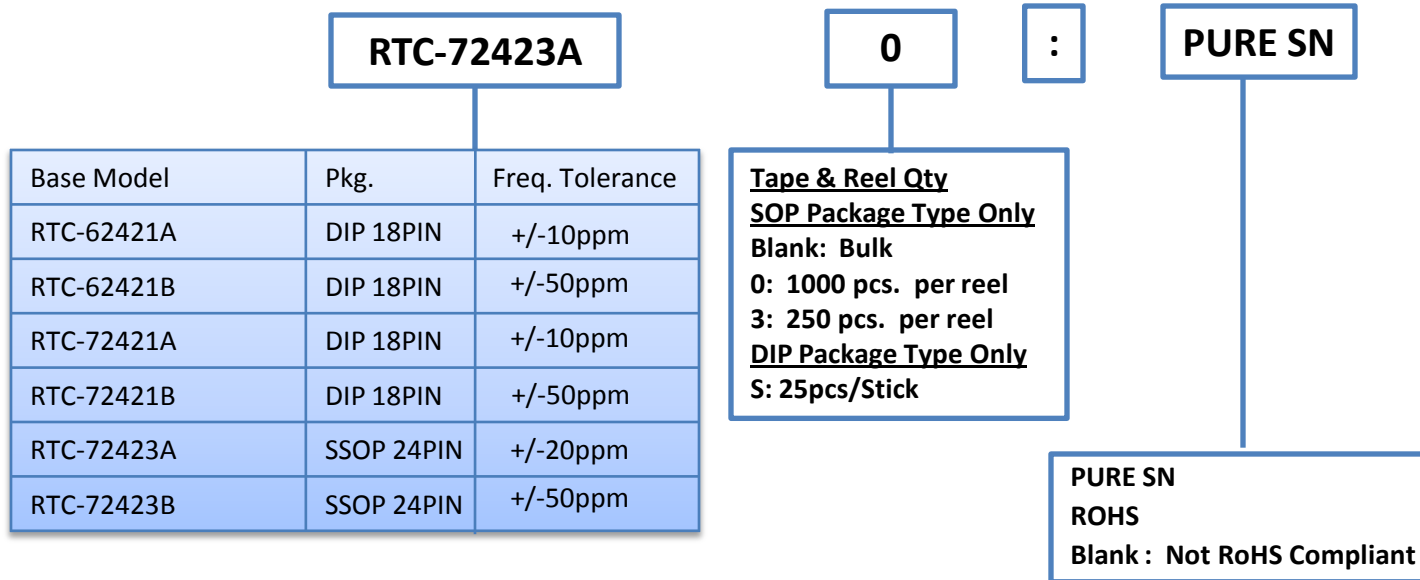
Real Time Clocks – Parallel 4-bit



Product Configuration System



Real Time Clocks – Parallel 4-bit



Product Configuration System



Real Time Clock Modules – I²C-Bus and SPI

