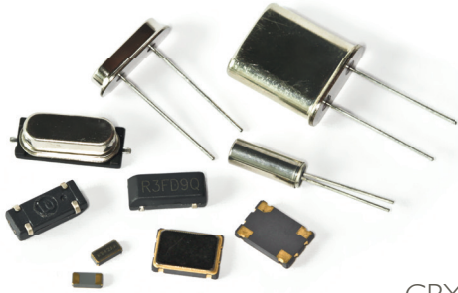


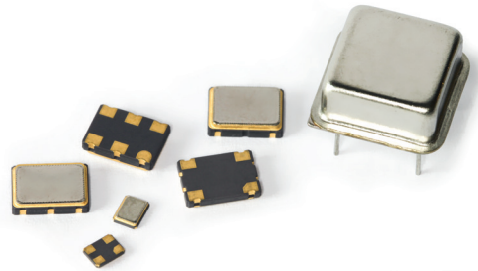
HM INTERNATIONAL

Frequency Technology

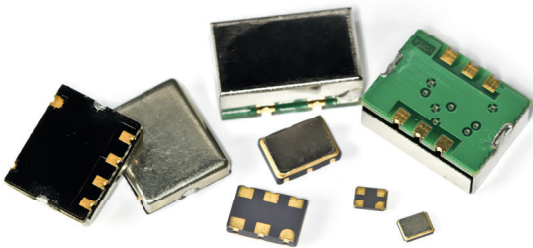
PRODUCT OVERVIEW



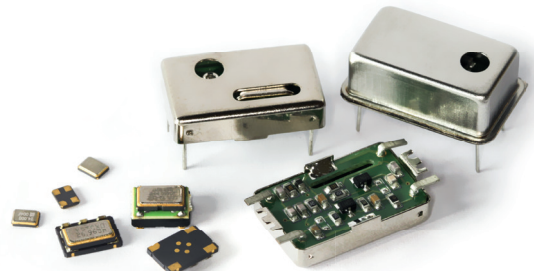
CRYSTALS



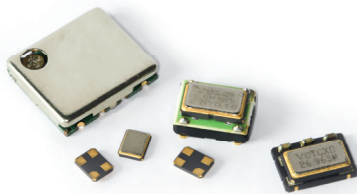
OSCILLATORS



VCXO



TCXO









VCTCXO



SMD CRYSTALS

				
Product	X16	X20	X25	X32
Dimensions (mm)	1.6x1.2x0.4	2.0x1.6x0.5	2.5x2.0x0.65	3.2x2.5x0.75
Frequency Range	26 - 54 MHz	20 - 80 MHz	12 - 80 MHz	8 - 200 MHz
				
Product	X53	X532	X63	X632
Dimensions (mm)	5.0x3.2x0.9	5.0x3.2x1.2	6.0x3.5x1.1	6.0x3.5x1.1
Frequency Range	8 - 150 MHz	8 - 80 MHz	8 - 150 MHz	8 - 50 MHz
				
Product	X75	49SM	49SX3	49MJ
Dimensions (mm)	7.0x5.0x1.2	11.4x4.7x4.2	12.9x4.5x4.8	13.5x11.0x5.3
Frequency Range	6 - 160 MHz	3.2 - 100 MHz	3.2 - 70 MHz	1.8432 - 200 MHz
				
Product	UM1MJ	UM5MJ		
Dimensions (mm)	8.0x7.8x3.5	6.0x7.8x3.5		
Frequency Range	4 - 200 MHz	10 - 200 MHz		

THRU-HOLE CRYSTALS

				
Product	TB39	49U	50U	49S
Dimensions (mm)	3.0x9.0 cylindrical	11.0x4.7x13.5	11.0x4.7x13.5	11.0x4.7x3.5
Frequency Range	3.5-70 MHz	1.0 - 200 MHz	1.0 - 200 MHz	3.2 - 100 MHz
				
Product	UMI	UM5	48U	51U
Dimensions (mm)	7.8x3.3x8.0	7.8x3.3x6.0	19.4x8.95x19.8	19.4x8.95x19.8
Frequency Range	4 - 200 MHz	10 - 200 MHz	0.8 - 200 MHz	0.8 - 200 MHz

KHZ CRYSTALS

Product

X15

Dimensions (mm)

1.6x1.0x0.5

Frequency Range

32.768 kHz



X21

2.0x1.2x0.6

32.768 kHz



X31

3.2x1.5x0.9

32.768 kHz



X130C

6.9x1.4x1.3

32.768 kHz



Product

SX99

Dimensions (mm)

8.0x3.8x2.5

Frequency Range

32.768 kHz



TB26SMD

6.0x2.0 cylindrical

32.768 kHz



SX206

6.0x2.0 cylindrical

32.768 kHz



TB26

6.0x2.0 cylindrical

32.768 kHz



Product

TB38

Dimensions (mm)

8.0x3.0 cylindrical

Frequency Range

32.768 kHz



32.768 KHZ OSCILLATORS

Product

SX2K

Dimensions (mm)

2.5x2.0x0.9

Frequency Range

32.768 kHz

Output Logic

HCMOS



SX31KF

3.2x1.5x1.2

32.768 kHz

HCMOS



SX3K

3.2x2.5x1.2

32.768 kHz

HCMOS



SX5K

5.0x3.2x1.3

32.768 kHz

HCMOS



Product

SX7K

Dimensions (mm)

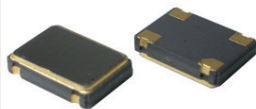
7.0x5.0x1.5

Frequency Range

32.768 kHz

Output Logic

HCMOS



OSCILLATORS

Product Dimensions (mm) Frequency Range Output Logic				
	SX1.	SX2.	SX3.	SX3SS
	2.0x1.6x0.8	2.5x2.0x0.9	3.2x2.5x1.2	3.2x2.5x1.1
	1.0 - 80.0 MHz HCMOS - TTL	1.0 - 133.0 MHz HCMOS - TTL	1.0 - 200.0 MHz HCMOS-TTL-LVPECL- LVDS-HCSL	12.5 - 42.0 MHz HCMOS Low EMI
Product Dimensions (mm) Frequency Range Output Logic				
	SX5.	SX5SS	SX7.	SX7SS
	5.0x3.2x1.3	5.0x3.2x1.3	7.0x5.0x1.5	7.0x5.0x1.8
	1.0 - 1450.0 MHz HCMOS-TTL-LVPECL- LVDS-HCSL-True Sine	6.0 - 160.0 MHz HCMOS Low EMI	0.5 - 1450.0 MHz HCMOS-TTL-LVPECL- LVDS-HCSL-True Sine	3.5 - 220.0 MHz HCMOS Low EMI
Product Dimensions (mm) Frequency Range Output Logic				
	SP2.	SP5.	DLH.	DL.
	14.3x8.7x5.5	11.4x9.6x2.5	12.7x12.7x5.08	20.7x12.7x5.08
	0.5 - 800.0 MHz HCMOS-TTL-LVPECL- LVDS-HCSL	0.5 - 800.0 MHz HCMOS-TTL-LVPECL- LVDS-HCSL-True Sine	0.5 - 800.0 MHz HCMOS-TTL-LVPECL- LVDS-HCSL	0.5 - 800.0 MHz HCMOS-TTL-LVPECL- LVDS-HCSL-True Sine

PROGRAMMABLE OSCILLATORS

Product Dimensions (mm) Frequency Range Output Logic				
	SX2P	SX3P	SX5P	SX7P
	2.5x2.0x0.9	3.2x2.5x1.2	5.0x3.2x1.3	7.0x5.0x1.5
	1.0 - 200.0 MHz HCMOS-TTL	1.0 - 200.0 MHz HCMOS-TTL	1.0 - 200.0 MHz HCMOS-TTL	1.0 - 200.0 MHz HCMOS-TTL

VCXO

Product



SX2.V

Dimensions (mm)

2.5x2.0x0.9

Frequency Range

1.0 - 30.0 MHz

Output Logic

HCMOS-TTL

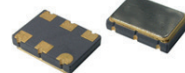


SX3.V

3.2x2.5x1.2

1.0 - 54.0 MHz

HCMOS-TTL

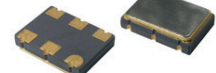


SX5.V

5.0x3.2x1.3

1.0 - 1450.0 MHz

HCMOS-TTL-LVPECL-
LVDS-HCSL-True Sine



SX7.V

7.0x5.0x1.5

1.0 - 1450.0 MHz

HCMOS-TTL-LVPECL-
LVDS-HCSL-True Sine

Product



SP2.V

Dimensions (mm)

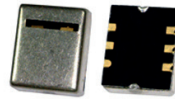
14.3x8.7x5.5

Frequency Range

0.75 - 800.0 MHz

Output Logic

HCMOS-TTL-LVPECL-
LVDS-HCSL



SP5.V

11.4x9.6x2.5

1.0 - 800.0 MHz

HCMOS-TTL-LVPECL-
LVDS-HCSL-True Sine



DLH.V

12.7x12.7x5.08

1.0 - 125.0 MHz

HCMOS-TTL-LVPECL-
LVDS-HCSL



DL.V

20.7x12.7x5.08

1.0 - 800.0 MHz

HCMOS-TTL-LVPECL-
LVDS-HCSL-True Sine

32.768 KHZ VC-TCXO

Product



SX7K(V)TM

Dimensions (mm)

7.0x5.0x2.3

Frequency Range

32.768 kHz

Output Logic

HCMOS

Temperature Stability

+/-0.5 ppm



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TCXO - VCTCXO



SX1.T

Product
Dimensions (mm) 2.0x1.6x0.7
Frequency Range 16.0 - 38.4 MHz
Output Logic Clipped Sine
Temperature Stability +/-0.5 ppm



SX2.T

Dimensions (mm) 2.5x2.0x0.9
Frequency Range 4.0 - 54.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.5 ppm



SX3.T

Dimensions (mm) 3.2x2.5x1.3
Frequency Range 1.0 - 1450.0 MHz
Output Logic Clipped Sine - HCMOS - LVPECL - LVDS
Temperature Stability +/-0.5 ppm



SX5.T

Dimensions (mm) 5.0x3.2x1.2
Frequency Range 4.0 - 54.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.5 ppm



SX5.TG

Product
Dimensions (mm) 5.0x3.2x1.65
Frequency Range 10.0 - 40.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.05 ppm



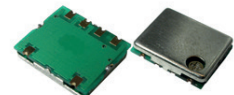
SX7.T

Dimensions (mm) 7.0x5.0x1.8
Frequency Range 4.0 - 250.0 MHz
Output Logic Clipped Sine - HCMOS LVPECL-LVDS
Temperature Stability +/-0.5 ppm



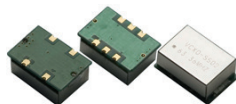
SX7.TG/TT/TR

Dimensions (mm) 7.0x5.0x2.0
Frequency Range 5.0 - 40.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.05 ppm - Stratum III



SP4.T

Dimensions (mm) 11.4x9.6x2.5
Frequency Range 1.0 - 125.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.5 ppm



SP2.T

Product
Dimensions (mm) 14.3x8.7x5.5
Frequency Range 1.0 - 200.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.5 ppm



CI8.T

Dimensions (mm) 18.3x11.7x4.5
Frequency Range 1.0 - 125.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.5 ppm



AI8.T

Dimensions (mm) 18.3x11.7x4.5
Frequency Range 1.0 - 125.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.5 ppm



DL.T

Dimensions (mm) 20.7x13.1x7.48
Frequency Range 1.0 - 125.0 MHz
Output Logic Clipped Sine - HCMOS
Temperature Stability +/-0.5 ppm