NextGen Components,Inc.

PART CODE: **XG12M00000L420**

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q0531 - XG12M00000L420
DATE	MAY 31, 2023
REVISION	A0
DESCRIPITION	MHz DIP Crystal, L7.9*W3.2*H8.2mm, UM-1 Type, 2 Pins, CA Series 12.000MHz, +/-30ppm, 20pF, Stability +/-50ppm @Operating Temperature Range -40°C ~+85°C, ESR 50 ohm Max, Reflow Profile Condition 260 °C Max. RoHS/RoHS III compliant Package in Bulk
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	TGS CA 12M0A30-20-50-40-50 BLF
PART CODE	XG12M00000L420

VENDOR APPROVE
Issued/Checked/Approved NextGen Components, Inc. Mandy Xu NextGen Components, Inc. Ruby Zhang NextGen Components, Inc. Jack Zhang
DATE: MAY 31, 2023

CUSTOMER APPROVE
DATE:

NextGen Components,Inc.

PART CODE: **XG12M00000L420**

DIP MHZ CRYSTAL UM-1 TYPE 2 PINS CA SERIES

MAIN FEATURE

- MHz DIP Crystal, UM-1 Type, L7.9*W3.2*H8.2mm, 2pins, CA SERIES
- Low Cost, High precision, High frequency stability
- Cross More Competitors Part
- RoHS/RoHS III compliant

APPLICATION

- Measurement Instrument
- Communication Electronics

PART CODE GUIDE

RFQ
Request For Quotation

XG	12M00000	L	420
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1) XG: Part family Code for MHz DIP Crystal, L7.9*W3.2*H8.2mm, UM-1 Type, 2 Pins, CA series

2) 12M00000: Frequency range code for 12.000MHz

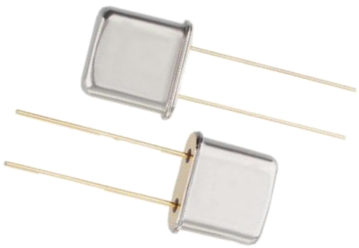
3) L: DIP type, Bulk Package

4) 420: Specification code for original part no. **TGS CA 12M0A30-20-50-40-50 BLF**

DIP MHZ CRYSTAL UM-1 TYPE 2 PINS CA SERIES

DIMENSION (Unit: mm)

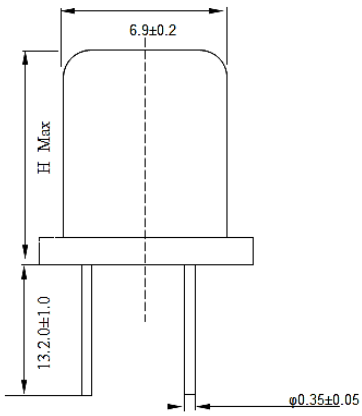
Image for reference



CA series

L7.9*W3.2*H8.2mm,

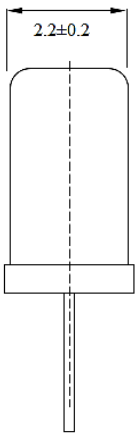
UM-1 Type, H: 8.2mm

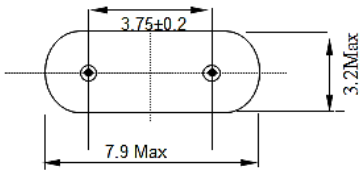


Marking

Frequency Range

or Internal control code





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DIP MHZ CRYSTAL UM-1 TYPE 2 PINS CA SERIES

ELECTRICAL PARAMETERS

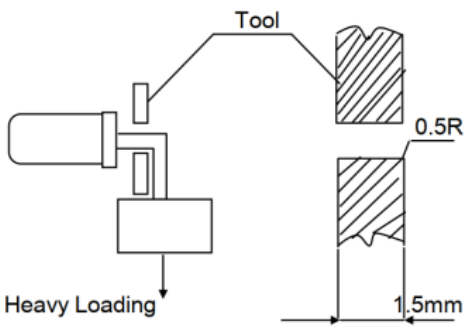
Parameter		Part No. Symbol	Units	Value			Condition
				Min.	Typical	Max.	
Original Manufacturer		TGS	TGS Crystals				
Holder Type		CA	MHz DIP Crystal, UM-1 Type L7.9*W3.2*H8.2mm, 2 Pins				
Frequency Range		12M0	MHz	12.000			
Mode of Oscillation		A		AT Fundamental			
Frequency Tolerance		30	ppm	-30		+30	@25°C
Load Capacitance		-20	pF	20			
Stability over Operation Temperance		-50	ppm	-50		+50	
Operation Temperance		-40	°C	-40		+85	
Storage Temperance			°C	-55		+125	
Equivalent Series Resistance (ESR)		50	Ω			50	
Drive Level			µW			100	
Shunt Capacitance (C0)			pF	0		7.0	
Motional Capacitance (C1)			fF	N/A			
DLD2			Ω	N/A			
FLD2			ppm	N/A			
RDL2			Ω	N/A			
SPDB			dB	N/A			
Aging			ppm/year			±5	@1st year
Insulation Resistance			MΩ	500			@100VDC ± 15VDC
Others	**Package**	B	Bulk				
	RoHS Status	LF	RoHS III compliant				
	Add Value		N/A				
	Internal Control Code *		N/A				

Note: Original Part Number: **TGS CA 12M0A30-20-50-40-50 BLF**

RELIABILITY

Test Items	Test Method And Conditions	Specification No:
Shock	Orient the sample in any attitude and drop in three times form a height of 75 cm onto a hardwood board with a thickness of 3 cm	A
Vibration	Subject the sample to 1--2 minute cycles of frequencies of 10 to 55Hz and amplitudes of 1.5mm fo two hours in each of the x, y and z directions or for 6 hours in total	A
Tesile strength of terminal	apply a 1.5kg tensile load to each terminal and sustain it for 30±5 seconds	A.C
Solderability	Dip terminals in a 230±5℃ solder bath for 5±0.5 seconds the solder shall leave an undipped terminal length of 2mm at their base	D
Resistance to Soldering heat	Dip the terminals in a 260±℃ solder bath for 10±0.5 seconds the solder shall leave an undipped terminal length of 2mm at their base	A
Leakage test	Take measurements with a heliun leakage	E
Thermal shock	Subject the sample to 5 temperature variation cycles at -40℃ for 30 minutes and +100℃ for the next 30 minutes in each cycle	A
Cold	Expose the sample in an inoperative mode to 500 hours in a -40℃ environment	A

RELIABILITY

Test Items	Test Method And Conditions	Specification No:
Cold	Expose the sample in an inoperative mode to 500 hours in a -40℃ environment	A
Dry heat	Expose the sample in an inoperative mode to 500 hours of a +85℃ environment	B
Damp heat	Expose the sample in an inoperative mode to 500 hours of a +65℃ to 95% RH environment	B
Bending Strength of terminal	Apply a 500g load to one of the terminals and after tilting the main unit resonator for 90°, restore to its original attitude .Then tilt it in an opposite direction for 90°, and restore to its original attitude 	A.C

DIP MHZ CRYSTAL UM-1 TYPE 2 PINS CA SERIES

SPECIFICATIONS

NO	SPECIFCATIONS REQUESTED
A	Any variation between the pre-and post-test frequencies shall remain within ±5 ppm , The post-test quivalent series resistance shall pemain within ics specified tolerance range
B	Any variation between the pre-and post-test frequencies shall remain within ±10 ppm , The post-test quivalent series resistance shall pemain within ics specified tolerance range
C	After each test, no visible damage shall be nanifested, nor shall the hermetic seal break down
D	At least 90% of each dipped area shall be covered by fresh solder
E	The post-test leakage factor shall be 10-7 mbar.1/sec max

DISCLAIMER