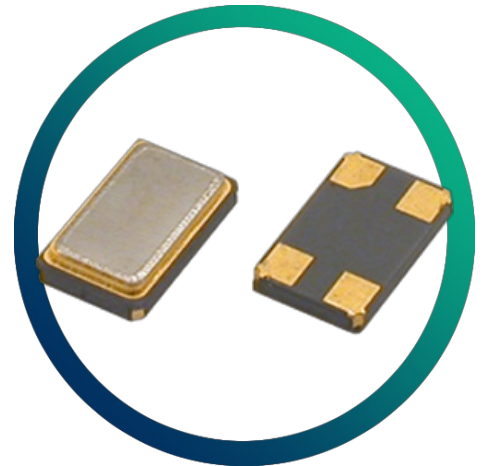


# GSX-433

## 4.0 x 2.5mm SM Crystal for Bluetooth/Wireless



- Good frequency perturbation
- Metal lid can be grounded to minimise EMI
- Seam sealed for excellent long-term stability
- Ultra-miniature for maximum space saving
- Ideal for Bluetooth / Wireless applications

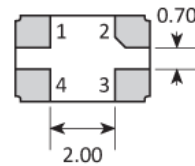
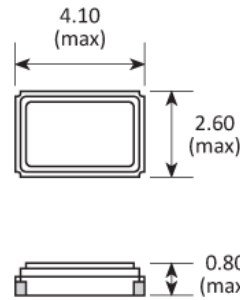
### CONFIGURABLE OPTIONS

Parameter	Option Code
<b>Frequency</b>	
<b>Calibration tolerance</b>	
Any	
±10ppm	1
±15ppm	P
±20ppm	2
<b>Temperature stability</b>	
Any	
±10ppm	1
±15ppm	P
±20ppm	2
±30ppm	3
<b>Operating temperature range</b>	
Any	
-10 to +60°C	1
-20 to +70°C	2
-30 to +80°C	3
<b>Circuit condition</b>	
Any	
9pF	N
12pF	B
16pF	D
Series resonant	S
<b>Oscillation mode</b>	
Fundamental	F

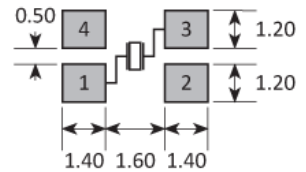
## SPECIFICATIONS

Frequency range	12.0 ~ 44.0MHz
Dimensions	4.0 x 2.5 x 0.8mm
Storage temperature range	-40 to +85°C
Equivalent series resistance	60Ω max
Frequency perturbation	±1ppm max
Ageing	±1ppm max first year
Test drive level	10μW
Soldering condition	260°C, 10 sec x2 max.

## PACKAGE DRAWING



### SOLDER PAD LAYOUT



TOP VIEW

PAD	CONNECTION
1	Crystal
2	Ground & lid
3	Crystal
4	Ground & lid

Dimensions in mm

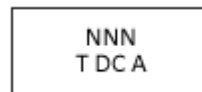
## ORDERING INFORMATION

To request a quotation for the GSX-433 please use the configurable options form to choose the options you require and then submit your configured product to our team. Our expert advisers are always happy to help with your requirements and can be contacted on +44 1460 256 100 or at [sales@golledge.com](mailto:sales@golledge.com).

Following product selection you will be issued with a seven character Golledge part number. Your Golledge part number is the internationally accepted Golledge manufacturing part number (MPN) that should be used for all project documentation, including bills of materials (BoMs) and purchase orders.

If you have any queries regarding any of our documentation our dedicated sales team will be happy to help.

## MARKING



Marking type: Laser  
 NNN = Part ID code  
 A = Optional factory mark

DC = Date code in YW

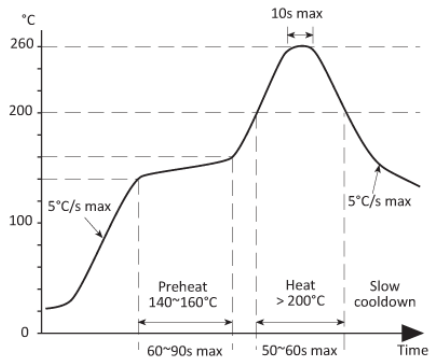
Year	2013	2014	2015	2016
	2017	2018	2019	2020
Code	Z	z	<u>Z</u>	<u>z</u>

Week codes:

A ~ Z: weeks 1 to 26  
 a ~ z: weeks 27 to 52

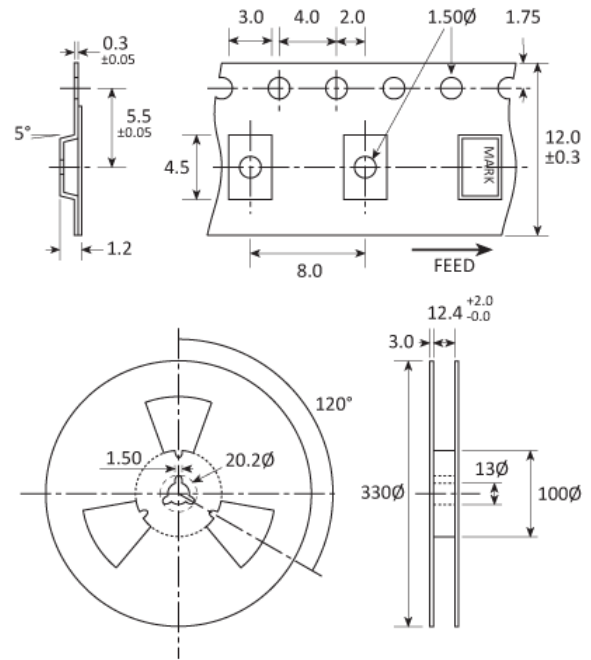
Example: "zC" = 2018 week 3

**SOLDERING PROFILE**



Solderability limits: 260°C max x 10sec max x 2 max

**TAPE & REEL SPECIFICATION**



Dimensions in mm

**HANDLING & STORAGE**



Human Body Model (HBM) 1A (250V to <500V)



Moisture Sensitivity Level (MSL): 1 (or not applicable)

**CONSTRUCTION**

Ceramic body with gold-plated pads Metal lid, seam sealed

## MATERIAL COMPOSITION

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Lead-free (< 0.1% by weight)



RoHS 2 compliant with no exemptions. [See our](#)

[declaration](#)



REACH compliant. [See our statement](#)



Free of conflict minerals. [See our declaration](#)



Free of Halogens. [See our declaration](#)



Free of Ozone-depleting substances. [See our](#)

[declaration](#)

## OTHER INFORMATION

### About Golledge

We are the UK's leading supplier of frequency control products and are proud to serve the global electronics industry. Our philosophy is a focus firmly on your requirements by striving to meet and exceed your needs. We do this by ensuring the utmost quality and consistency in our products and services. If you have any queries about the Golledge service or any of our products please get in touch, we'd love to hear from you.

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Our customer feedback is testament to our quality; "Never had such good service as this from anyone in 35 years of being in the industry, this is impressive and has really helped us out of a corner to keep the design flowing" Andy (Senior Design Engineer), "As always your support is state of the art" Nicoleta (Material Management), "Legendary work - as usual it has to be said" John (Operations).

To take advantage of our highly praised service get in touch with us today.