

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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## **PACKAGE DIMENSIONS (mm)**

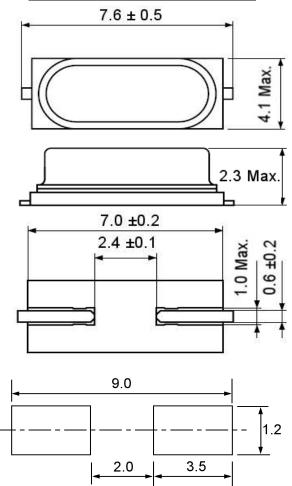


Figure 1) Top, Side, Bottom Views and Land

**SIGNATURES** 

DK

Dimensions in mm

DRN BL

CHK RC

APP

\* This crystal has been qualified by Linear Technology for use with the Eterna meshnetworking family of products. Network operation relies on timing more precise than provided by the crystal accuracy itself, requiring that crystals be characterized and qualified.

REVISIONS				
REV	DESCRIPTION	DATE	APPROVED	

## **ELECTRICAL SPECIFICATIONS**

Frequency: 20.000000 MHz

Frequency Tolerance @ +25 °C: ± 10 ppm Max.

\* Frequency Stability -40 to +85 °C: ± 30 ppm Max.

Crystal Cut: AT Strip

Load Capacitance (CL): 10 pF

Recommended Drive Level: 500  $\mu$ W Max. Effective Series Resistance: 50  $\Omega$  Max.

Shunt Capacitance: 7 pF Max.

Mode of Operation: Fundamental

Aging (first year): ± 3 ppm/ Max.

Storage Temperature: -60 to +105 ℃
Operating Temperature: -60 to +105 ℃

Package Type: CSM-3X



DATE

1/6/2012

1/6/2012

1/6/2012

ECS Part Number: ECS-200-CDX-0914

ECS INC. INTERNATIONAL

1105 S. Ridgeview

Olathe, KS 66062

CAGE CODE: 1G8B7

	(913) 782-7787	
TITLE	20.000 MHz Crystal, CSM-3X	
	Pb Free/RoHS Complian	Ι
SIZE	DWG NO. ECS-200-CDX-0914	REV
Α	DWG NO. ECS-200-CDX-0914	

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