

# CLOCK OSCILLATOR

CO2520-25.000-3.3-50-X-T-TR Rev B

### ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT	
Nominal Frequency	fo	Ta=25°C	25.000	MHz	
Supply voltage range	V <sub>CC</sub>		3.3	VDC	
Supply current, max	Is	Ta=25°C	2.5	mA	
Operating temperature	Та		-40 ~ +85	°C	
Storage temperature	T <sub>(stg)</sub>	Absolute max	-55 ~ +125	°C	
Frequency Tolerance	Δf/fo	Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load, Aging, Shock and Vibration	±50	ppm	
	V <sub>OL</sub>	Logic "0" Level	0.1 x Vcc	VDC	
Output Voltage	V <sub>OH</sub>	Logic "1" Level	0.9 x Vcc	VDC	
Output Load		CMOS Output	15	pF	
	E/D	Pin 1: N.C. (Open) or High		Pin 3 – Oscillation (Enabled)	
Enable / Disable Function		Pin 1: Low	Pin 3 – High Impedance (Disabled)		
Symmetry (Duty Cycle)	DC	@50% Vdd	45 to 55	%	
Rise Time and Fall Time, Max	tr / tf	@10% to 90% Vdd	10	ns	
Stand-by Current	I <sub>(std)</sub>		10	μA	
Start up time, Max	ts	V <sub>OUT</sub> ≥ 90% V <sub>P-P</sub>	10	ms	

### MECHANICAL SPECIFICATION





NOTE: A capacitor of 0.01 µF between Vcc and Ground is recommended



# CLOCK OSCILLATOR

CO2520-25.000-3.3-50-X-T-TR Rev B

### REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T <sub>SMIN</sub>	150°C
Temperature Max Preheat	T <sub>SMAX</sub>	200°C
Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> )	ts	60-180 sec.
Temperature	TL	217°C
Peak Temperature	T <sub>P</sub>	260°C
Ramp-up rate	R <sub>UP</sub>	3°C/sec max.
Ramp-down rate	R <sub>DOWN</sub>	6°C/sec max.
Time within 5°C of Peak Temperature	t <sub>P</sub>	10 sec.
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.
Time	tL	60-150 sec.

### • ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS	Compliant
REACH-SVHC	Compliant
HALOGEN-FREE	Compliant
TERMINATION FINISH	Au





# CLOCK OSCILLATOR

CO2520-25.000-3.3-50-X-T-TR Rev B

#### MARKING

Rx25.0T •33BEyw

x - Internal Production ID code

- y Year code
- w-Week code

YEAR CODE		
Year	Code	
2011	1	
2012	2	
2013	3	
2014	4	
2015	5	
2016	6	
2017	7	
2018	8	
2019	9	

ALPHA WEEK CODE TABLE					
Week	Code	Week	Code	Week	Code
1	а	19	S	37	K
2	b	20	t	38	L
3	С	21	u	39	М
4	d	22	V	40	N
5	е	23	w	41	0
6	f	24	х	42	Р
7	g	25	у	43	Q
8	ĥ	26	z	44	R
9	i	27	А	45	S
10	j	28	В	46	Т
11	k	29	С	47	U
12	I	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	Х
15	0	33	G	51	Y
16	р	34	Н	52	Z
17	q	35	I		
18	r	36	J		

#### APPROVAL

RALTRON		
DRAWN BY:	CP, December 22, 2014	
APPROVED BY:	CP, December 22, 2014	
REVISION:	A, Initial Release	
	B, Updated to current spec	
	levels KJ 3/25/19	

Raltron Electronics / RAMI Technology USA, LLC, including its affiliates, employees, agents and other persons acting on its behalf (collectively Raltron/RAMI Tech), disclaim any and all liability for any errors or inaccuracies contained in this data sheet. While Raltron/RAMI Tech has made every reasonable effort ensure the accuracy of all product information, specifications and data contained herein. Raltron/RAMI Tech does not guarantee that the information is provided only for reference purposes only and is subject to change, correction or revision, at any time without notice. Raltron/RAMI Tech does not guaranties expressed or implied. The user of products in such applications shall assume all risks of such use and will agree to hold Raltron/RAMI Tech, harmless against all damages.

Copyright © 2016, Raltron Electronics / RAMI Technology USA, LLC. All rights reserved. No part of this document may be reproduced in any form without the prior written permission of Raltron Electronics / RAMI Technology USA, LLC.