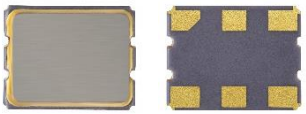
CLF3225-156.250-J-50-X-T-N1

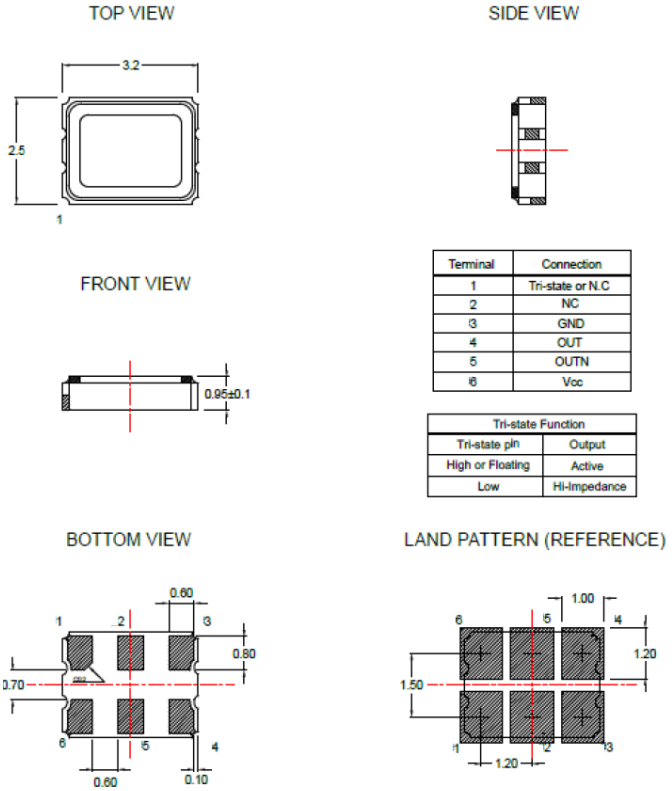


ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE		UNIT
Nominal Frequency	fo	Ta=25°C	156.250		MHz
Oscillation Mode			Fundamental		-
Supply Voltage Range	V_{CC}	Vcc ±5%	2.5 ~ 3.3		VDC
Supply Current, max	I_S	Vcc; Ta=+25°C;	20		mA
Operating Temperature Range	Ta	---	-40 ~ +85		°C
Storage Temperature Range	$T_{(stg)}$	Absolute max	-55 ~ +125		°C
Output Logic Type	---		LVDS		
Freq. Stability, max	Δf/fo	Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load, Aging	±50		ppm
Output Voltage	V_{OL}	Logic "0" Level, min	0.9		VDC
	V_{OH}	Logic "1" Level, max	1.6		VDC
Output Load	---	Connected between Out and Complementary Out	100		Ω
Enable / Disable Function	E/D	Pin 1: High, Pins 4 & 5 – Oscillation (Enabled), min	0.7 x Vcc		V
		Pin 1: Low, Pins 4 & 5 – High Impedance (Disabled), max	0.3 x Vcc		V
Symmetry (Duty Cycle)	DC	@50% Vdd	45 ~ 55		%
Offset Voltage, min/typ/max	Vos		1.125/1.25/1.375		V
Differential Output Swing, min	Vopp		0.4		V
Rise Time and Fall Time	tr / tf	@20% to 80% Vdd	0.4		ns
Standby Current, max	Ist		10		µA
Start Up Time, max			2		ms
Jitter, RMS, max	J	1σ, 12kHz < F_j < 20MHz	50		fs
Phase Noise, typ	£ (Δf)		2.5V	3.3V	dBc/Hz
		@ 10Hz	-75.40	-73.74	
		@ 100Hz	-105.60	-104.71	
		@ 1kHz	-134.60	-133.87	
		@ 10kHz	-150.75	-149.44	
		@ 100kHz	-157.38	-153.29	
		@ 1MHz	-161.58	-162.25	
		@ 40MHz	-164.00	-167.62	

CLF3225-156.250-J-50-X-T-N1

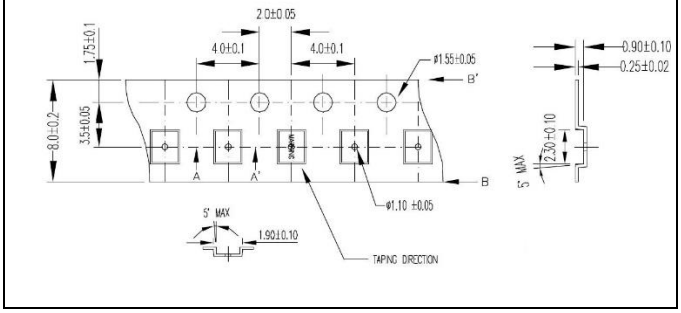
MECHANICAL SPECIFICATION



Terminal	Connection
1	Tri-state or N.C
2	NC
3	GND
4	OUT
5	OUTN
6	Vcc

Tri-state Function	
Tri-state pin	Output
High or Floating	Active
Low	Hi-Impedance

CARRIER TAPE DIMENSIONS

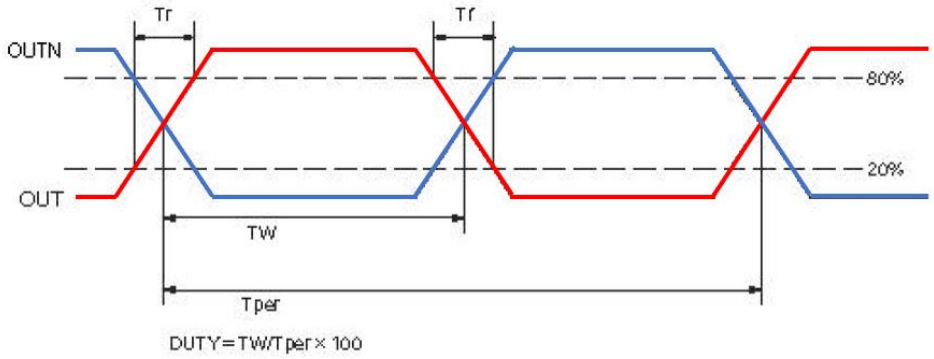


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

PACKAGING

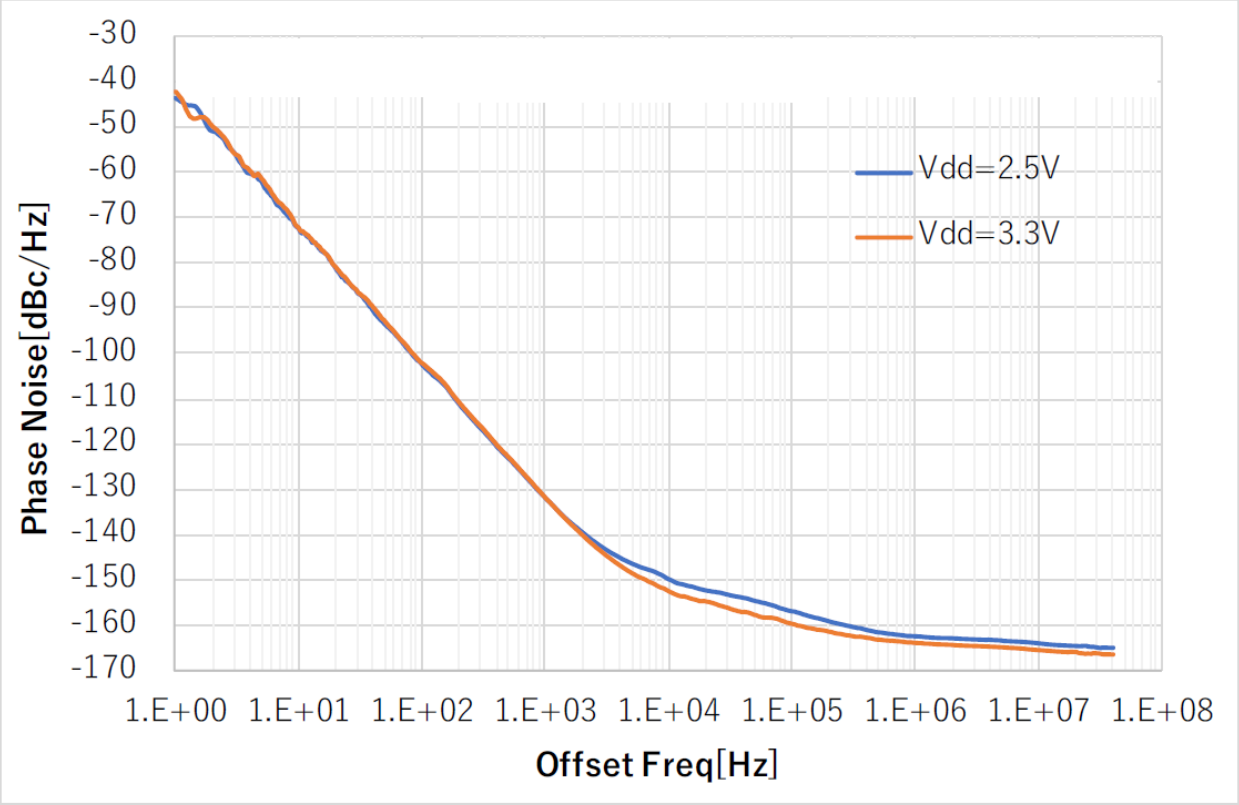
180 mm REEL DIAMETER
8 mm TAPE WIDTH, 4 mm PITCH
QUANTITY: 3000 PIECES PER REEL

OUTPUT WAVEFORM

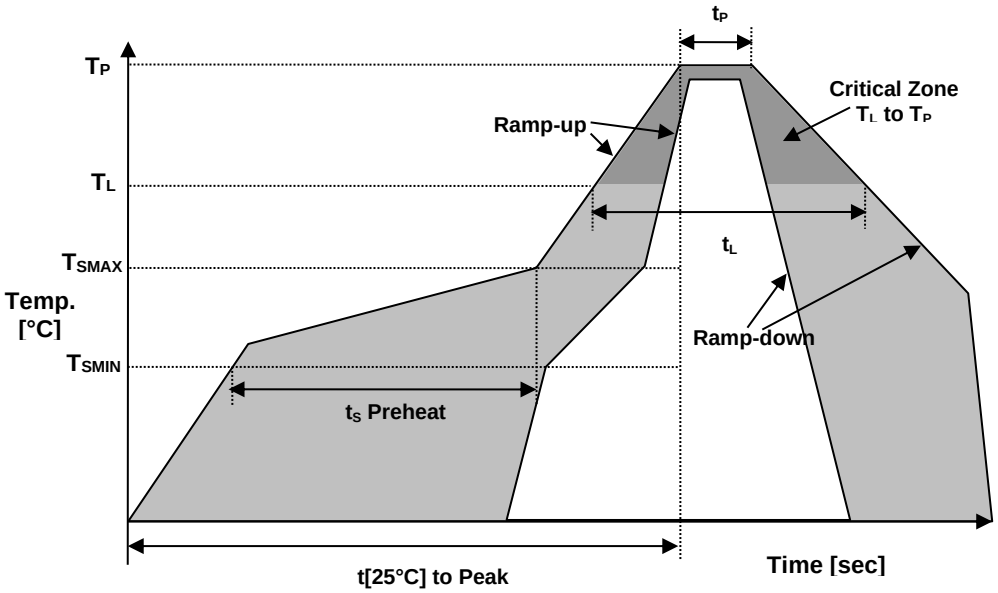


EXAMPLE OF PHASE NOISE

VDD=2.5V and 3.3V 156.25MHz



REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T_{SMIN}	150°C
Temperature Max Preheat	T_{SMAX}	200°C
Time (T_{SMIN} to T_{SMAX})	t_S	60-180 sec.
Temperature	T_L	217°C
Peak Temperature	T_P	260°C
Ramp-up rate	R_{UP}	3°C/sec max.
Ramp-down rate	R_{DOWN}	6°C/sec max.
Time within 5°C of Peak Temperature	t_P	10 sec.
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.
Time	t_L	60-150 sec.

ENVIRONMENTAL

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

MARKING

Rxx156
•JBEyw

x – Internal Production ID code
y – Year code
w – Week code

YEAR CODE	
Year	Code
2019	9
2020	0
2021	1
2022	2
2023	3
2024	4
2025	5
2026	6
2027	7
2028	8
2029	9

ALPHA WEEK CODE TABLE					
Week	Code	Week	Code	Week	Code
1	a	19	s	37	K
2	b	20	t	38	L
3	c	21	u	39	M
4	d	22	v	40	N
5	e	23	w	41	O
6	f	24	x	42	P
7	g	25	y	43	Q
8	h	26	z	44	R
9	i	27	A	45	S
10	j	28	B	46	T
11	k	29	C	47	U
12	l	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	X
15	o	33	G	51	Y
16	p	34	H	52	Z
17	q	35	I		
18	r	36	J		

APPROVAL

RALTRON	
DRAWN BY:	JS, February 14, 2025
APPROVED BY:	CP, February 14, 2025
REVISION:	A, Initial Release