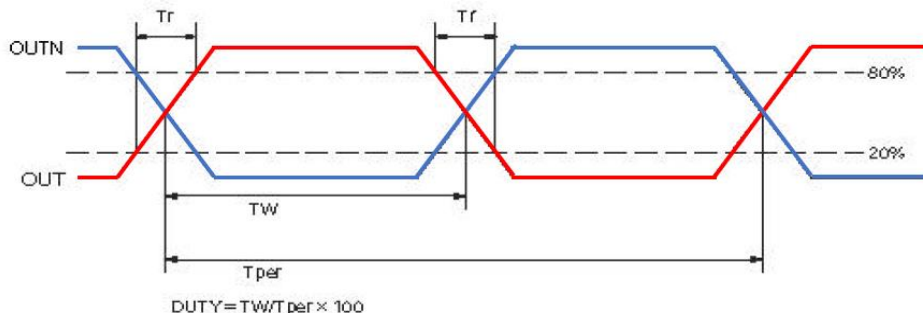


#### ELECTRICAL SPECIFICATION

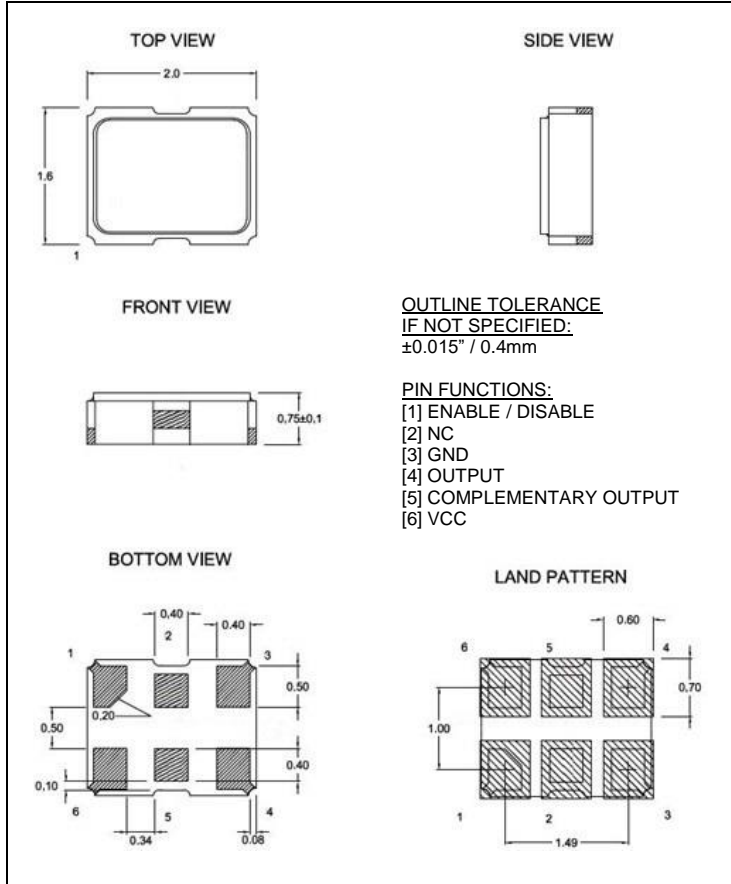
PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT	
Nominal Frequency	$f_0$	Ta=25°C	156.250	MHz	
Oscillation Mode			Fundamental	-	
Supply Voltage Range	V <sub>CC</sub>	V <sub>CC</sub> ±5%	2.5 ~ 3.3	VDC	
Supply Current, max			20	mA	
Operating Temperature Range	Ta	---	-40 ~ +85	°C	
Storage Temperature Range	T <sub>(stg)</sub>	Absolute max	-55 ~ +125	°C	
Output Logic Type	---		LVDS		
Freq. Stability, max	$\Delta f/f_0$	Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load and Aging	±50	ppm	
Output Voltage	V <sub>OL</sub>	Logic "0" Level, min	0.9	VDC	
	V <sub>OH</sub>	Logic "1" Level, max	1.6	VDC	
Output Load	---	Out-OutN	100	Ω	
Enable / Disable Function	E/D	Pin 1: High, Pins 4 & 5 – Oscillation (Enabled), min	0.7 x V <sub>CC</sub>	V	
		Pin 1: Low, Pins 4 & 5 – High Impedance (Disabled), max	0.3 x V <sub>CC</sub>	V	
Symmetry (Duty Cycle)	DC	@50% Wave Form	45 ~ 55	%	
Stand by Current, max			10	μA	
Offset Voltage, min/typ/max	V <sub>OS</sub>		1.125 / 1.25 / 1.375	V	
Output Swing, min	V <sub>OPP</sub>		0.4	V	
Rise Time and Fall Time, max	t <sub>r</sub> / t <sub>f</sub>	@20% to 80% Wave Form	0.4	ns	
Start up Time, max	t <sub>start</sub>		2	ms	
Jitter, RMS, max	J	1σ, 12kHz < F <sub>J</sub> < 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	

#### OUTPUT WAVEFORM

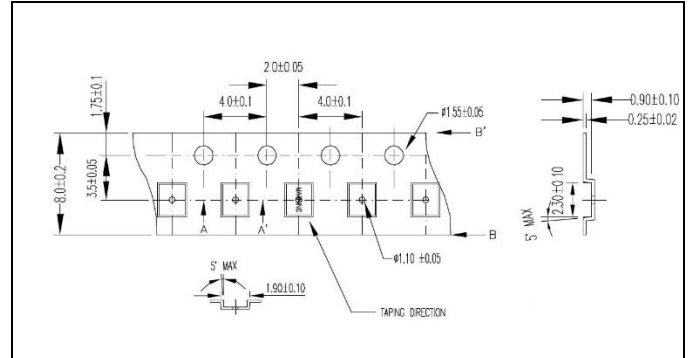


### CLF2016-156.250-J-50-X-T-TR

#### MECHANICAL SPECIFICATION



#### CARRIER TAPE DIMENSIONS

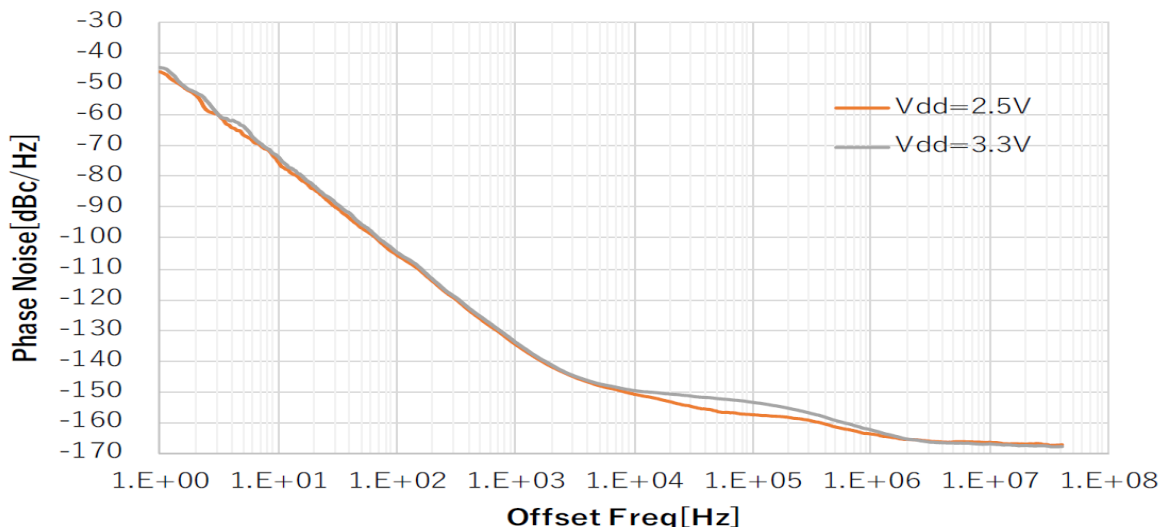


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

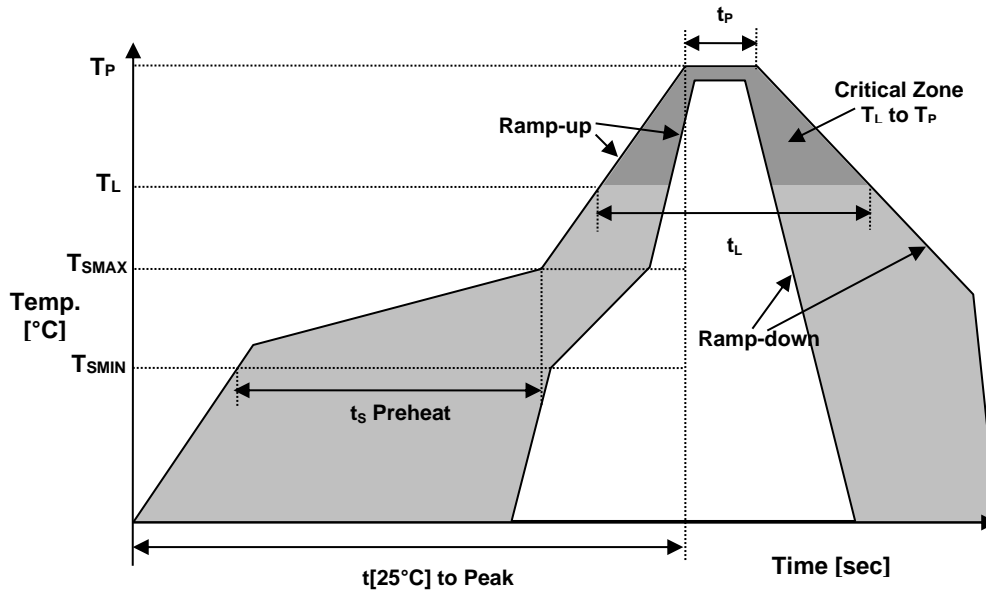
#### PACKAGING

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

#### PHASE NOISE GRAPH



### 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 $t_{[25^\circ C] \text{ to Peak}}$	$t_{[25^\circ C] \text{ to Peak}}$	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		
18	r	36	J		

■ APPROVAL

RALTRON	
DRAWN BY:	JS, November 14, 2024
APPROVED BY:	CP, November 14, 2024
REVISION:	A, Initial Release

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