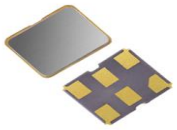
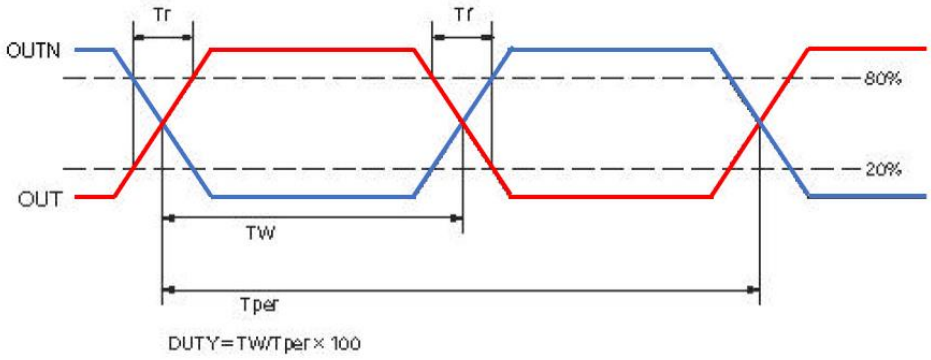
CLF2520-156.257812-1.8-50-X-T-N1



ELECTRICAL SPECIFICATION

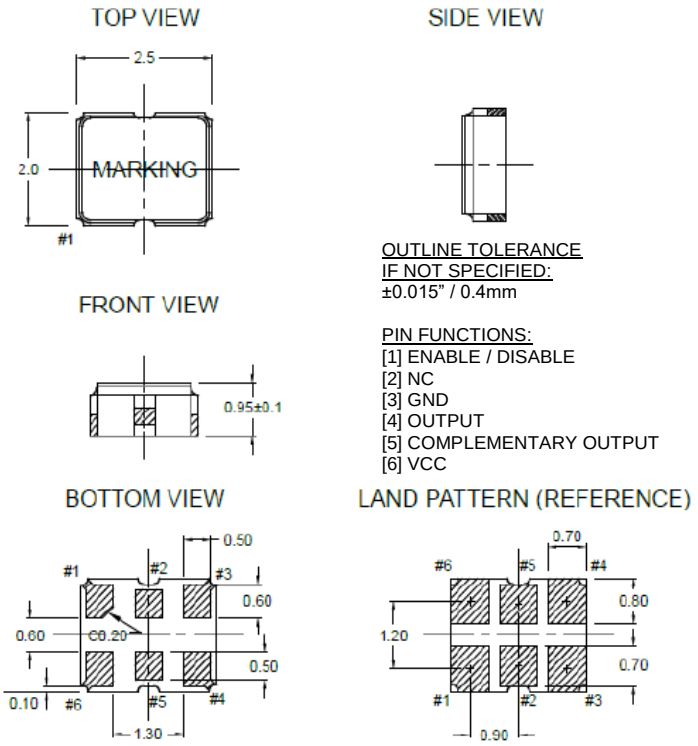
PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	fo	Ta=25°C	156.257812	MHz
Oscillation Mode			Fundamental	-
Supply Voltage	V_{CC}	Vcc ±5%	1.8	VDC
Supply Current, max			15	mA
Operating Temperature Range	Ta	---	-40 ~ +85	°C
Storage Temperature Range	$T_{(stg)}$	Absolute max	-55 ~ +125	°C
Output Logic Type	---		LVDS	
Freq. Stability, max	Δf/fo	Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load and 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	---	Out-OutN	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% Wave Form	45 ~ 55	%
Stand by Current, max			10	µA
Offset Voltage min/typ/max	V_{os}		1.125/1.25/1.375	V
Differential Output Swing, min	V_{opp}		0.25	V
Rise Time and Fall Time, max	tr / tf	@20% to 80% Wave Form	0.5	ns
Start up Time, max	t_{start}		2	ms
Jitter, RMS, typ	J	1σ, 12kHz < F_j < 20MHz	47.8	fs
Phase Noise @1.8V, typ	£ (Δf)	@10Hz	-75.33	dBc/Hz
		@100Hz	-105.47	
		@1kHz	-133.22	
		@10kHz	-145.88	
		@100kHz	-153.83	
		@1MHz	-161.58	
		@40MHz	-164.00	

OUTPUT WAVEFORM



CLF2520-156.257812-1.8-50-X-T-N1

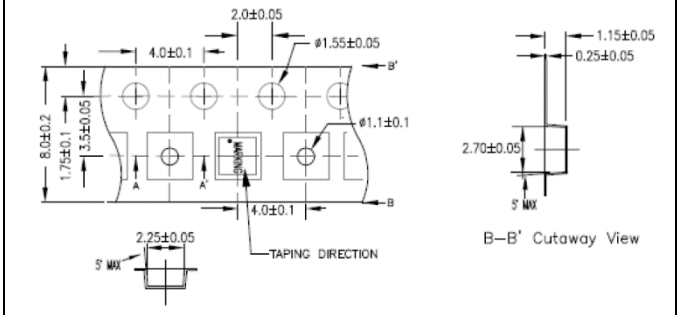
MECHANICAL SPECIFICATION



OUTLINE TOLERANCE
IF NOT SPECIFIED:
±0.015" / 0.4mm

PIN FUNCTIONS:
[1] ENABLE / DISABLE
[2] NC
[3] GND
[4] OUTPUT
[5] COMPLEMENTARY OUTPUT
[6] VCC

CARRIER TAPE DIMENSIONS

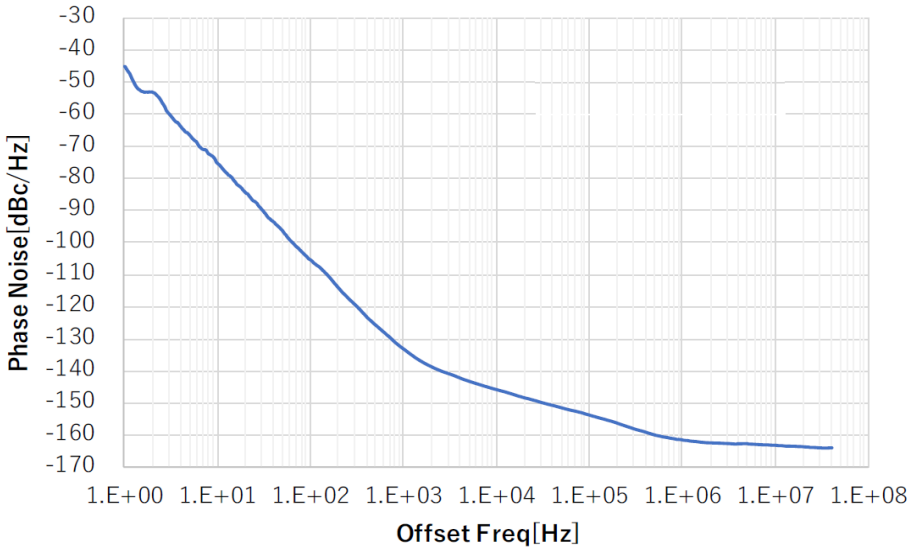


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

PACKAGING

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

PHASE NOISE GRAPH



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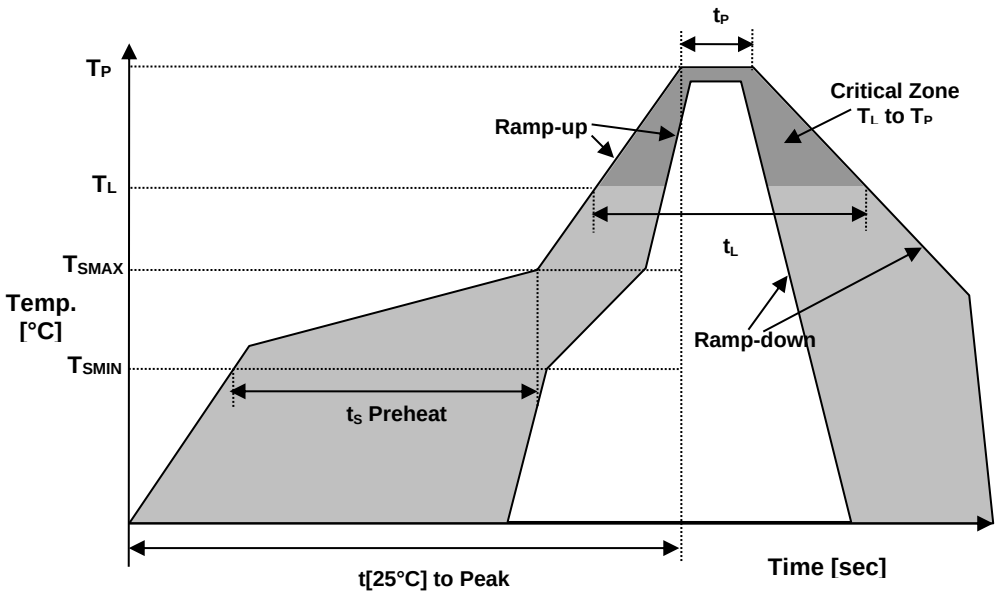
REFLOW PROFILE



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
•1BEyw

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