



ELECTRICAL SPECIFICATION

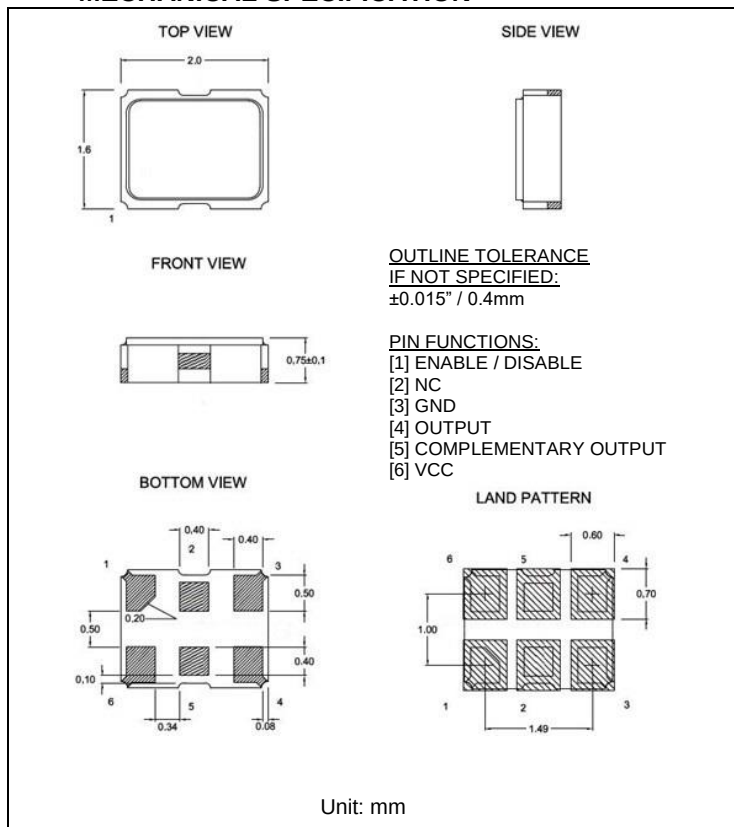
PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	fo	Ta=25°C	156.250	MHz
Supply Voltage	V _{CC}	V _{CC} ±5%	1.8	VDC
Supply Current, typ/max	I _S	Ta=+25°C	20/30	mA
Operating Temperature Range	Ta		-40 to +85	°C
Storage Temperature Range	T _(stg)	Absolute max	-55 to +125	°C
Output Logic Type			HCSL	-
Frequency Stability, max.	Δf/fo	Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Voltage, Load Variations and Aging	±100	ppm
Output Voltage	V _{OL}	V _{OL} , min	-0.15	VDC
	V _{OH}	V _{OH} , max	+1.0	VDC
Output Load		Connected to ground	50	Ω
Differential Output Swing, min			0.55	V
Enable / Disable Function	E/D	Pin 1: High, Pins 4 & 5 – Oscillation (Enabled), min	0.7 x V _{CC}	V
		Pin 1: Low, Pins 4 & 5 – High Impedance (Disabled), max	0.3 x V _{CC}	V
Symmetry (Duty Cycle)	DC	@50% V _{DD}	45 ~ 55	%
Rise Time and Fall Time	tr / tf	@20% to 80% output swing level	0.6	ns
Stand-by Current, max	I _(std)		10	μA
Start-up Time, max			2	ms
Phase Jitter, RMS, typ	J	1σ, 12kHz < F _J < 20MHz	50.7	fs
Phase Noise @1.8V, typ	£(Δf)	@10Hz	-75.14	dBc/Hz
		@100Hz	-105.69	
		@1kHz	-133.25	
		@10kHz	-147.69	
		@100kHz	-156.14	
		@1MHz	-161.14	
		@10MHz	-161.98	

HCSL CLOCK OSCILLATOR

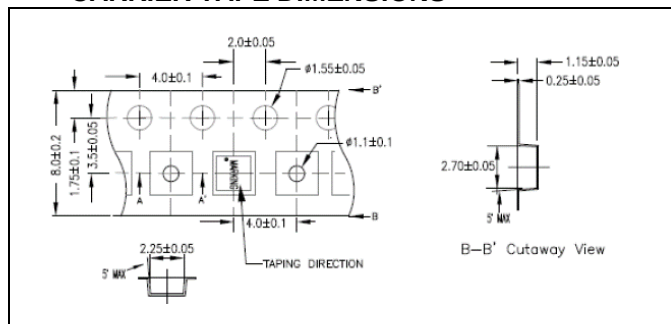
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CHF2016-156.250-1.8-100-X-T-N1

MECHANICAL SPECIFICATION



CARRIER TAPE DIMENSIONS

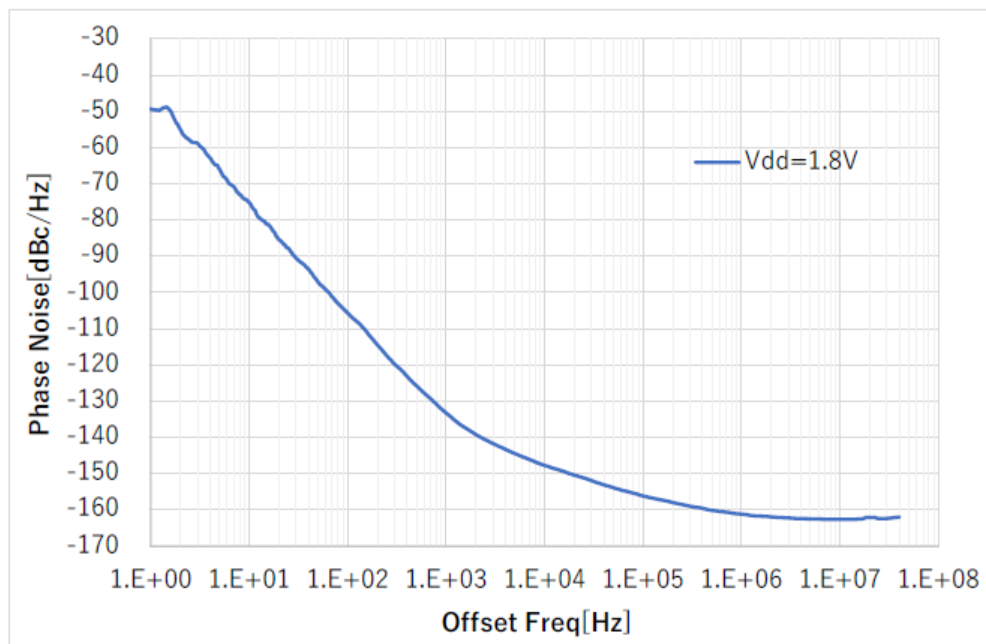


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

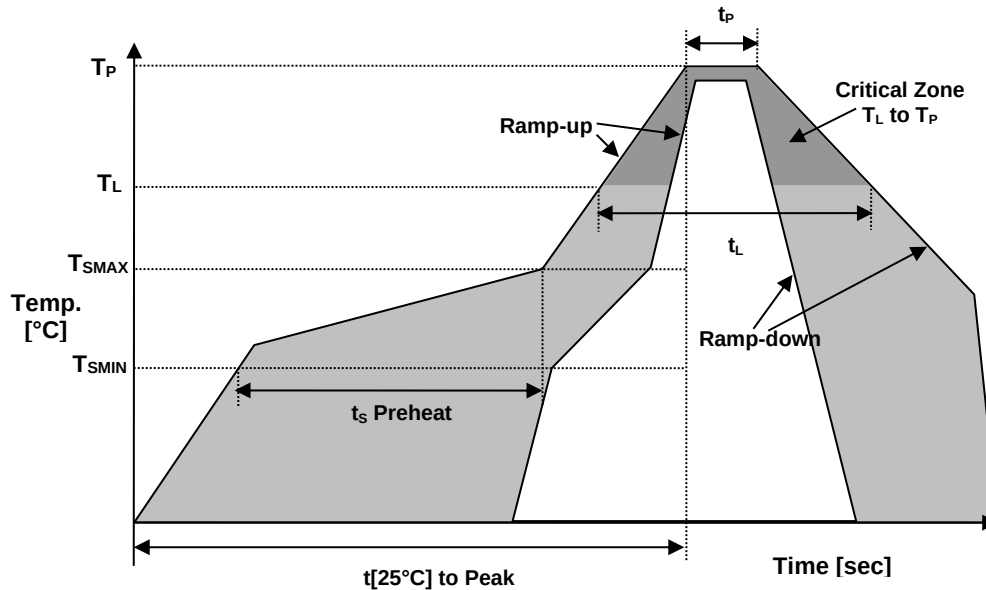
PACKAGING

178 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	60-120 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 $t[25^\circ\text{C}]$ to Peak Temperature	$t[25^\circ\text{C}]$ 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
•1CEyw

x – 1 or 2 digits as Internal Production ID code
y – Year code
w – Week code

YEAR CODE	
Year	Code
2018	8
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, March 4, 2025
APPROVED BY:	CP, March 4, 2025
REVISION:	A, Initial Release

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