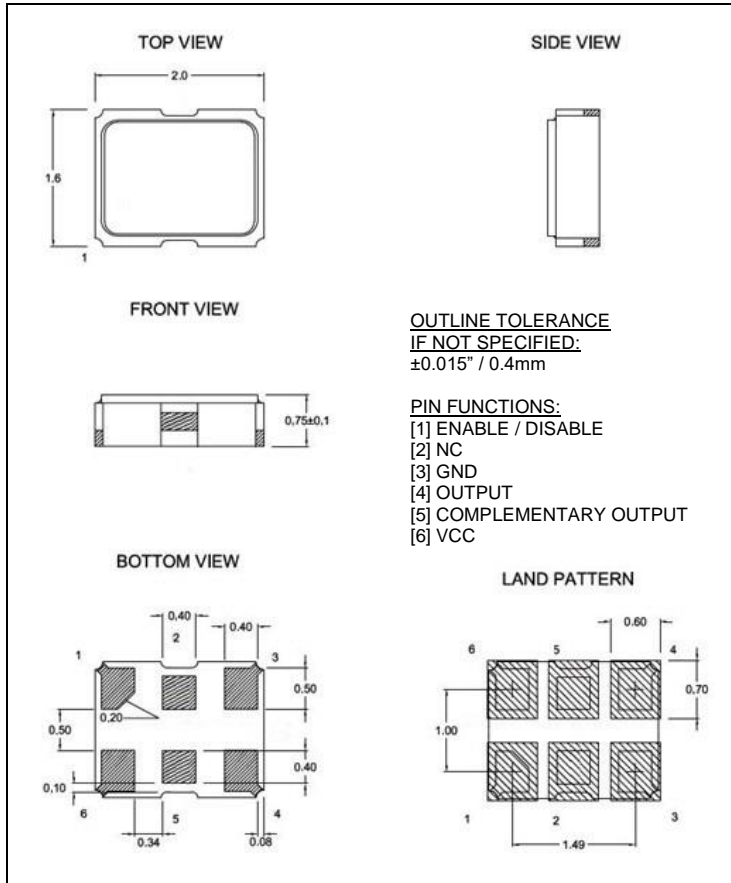


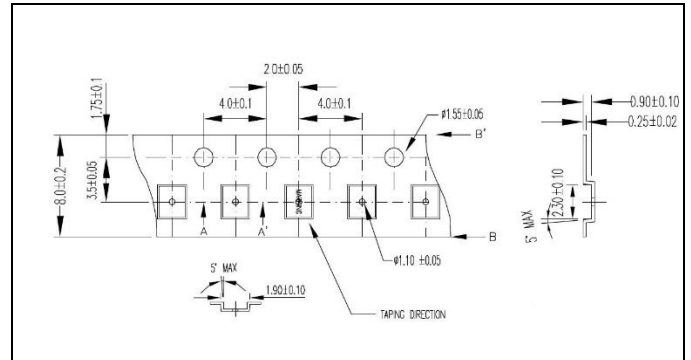
ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	f_0	Ta=25°C	156.250	MHz
Oscillation Mode			Fundamental	
Supply Voltage	V _{CC}		2.25 ~ 3.63	VDC
Supply Current, max	I _s	V _{CC} ; Ta=+25°C;	20	mA
Operating Temperature Range	T _a	---	-40 to +85	°C
Storage Temperature Range	T _(stg)	Absolute max	-55 to +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, Shock and Vibration	±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 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 to 55	%
Rise Time and Fall Time	tr / tf	@20% to 80% V _{DD}	0.4	ns
Standby Current	I _{st}		10	μA
Start Time			10	mS
Jitter, RMS, max.	J	1σ, 12kHz < F _J < 20MHz	75	fs
Phase Noise , typ	£ (Δf)	@ 10Hz	-63	dBc/Hz
		@ 100Hz	-95	dBc/Hz
		@ 1KHz	-124	dBc/Hz
		@ 10KHz	-137	dBc/Hz
		@ 100KHz	-145	dBc/Hz
		@ 1MHz	-149	dBc/Hz
		@ 20MHz	-154	dBc/Hz

MECHANICAL SPECIFICATION



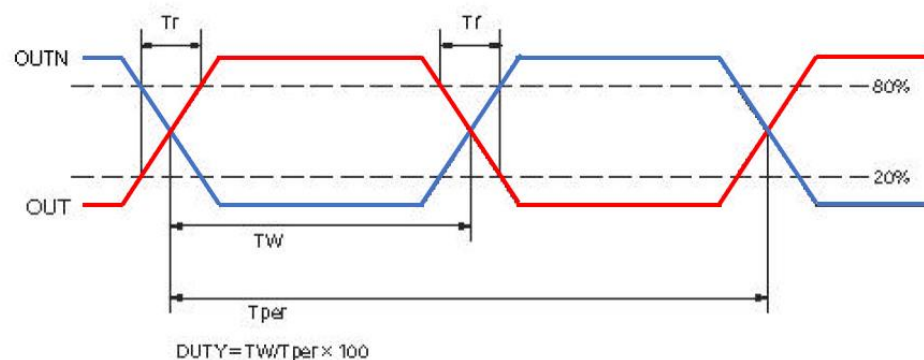
CARRIER TAPE DIMENSIONS



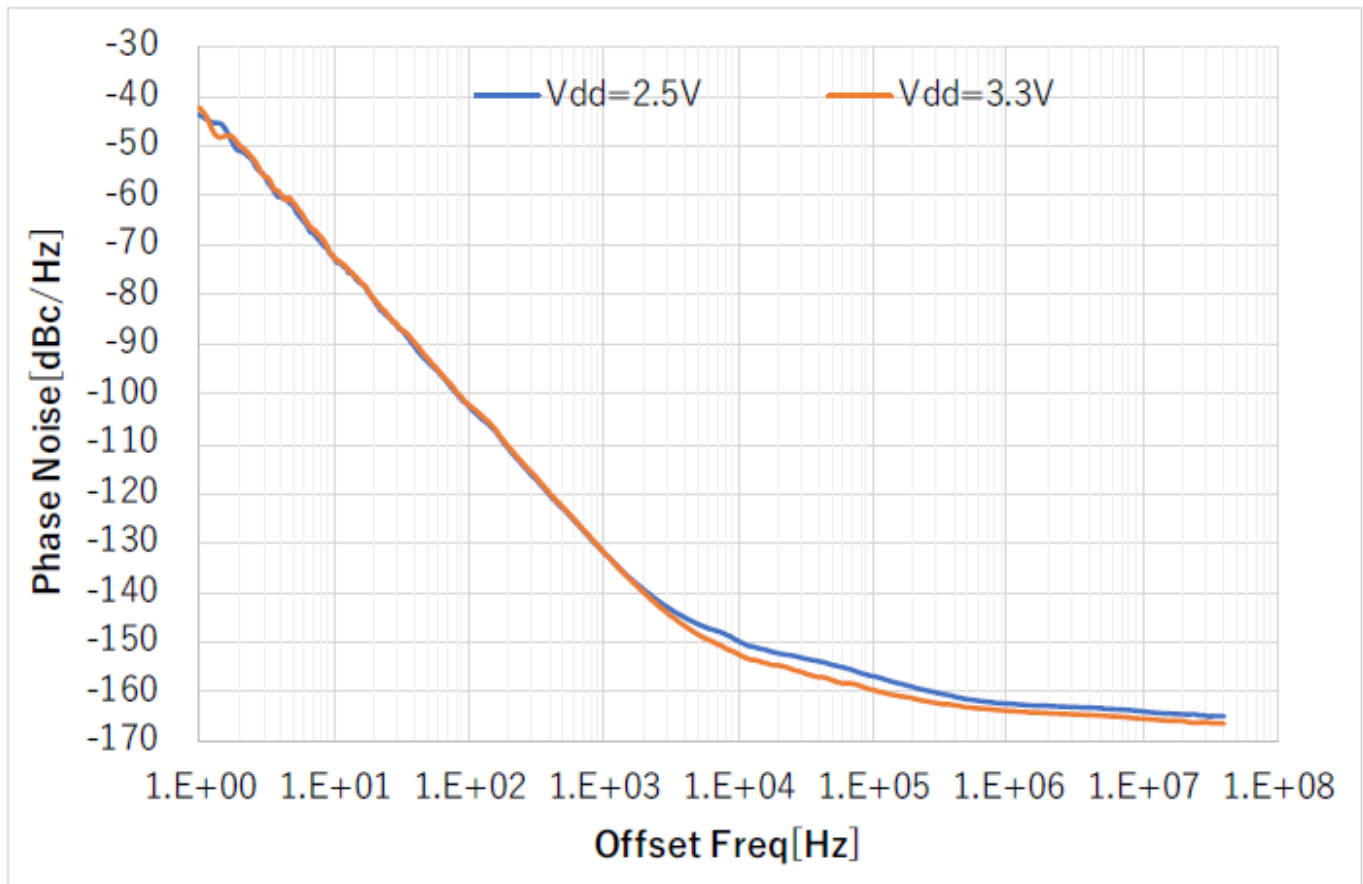
PACKAGING

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

OUTPUT WAVEFORM



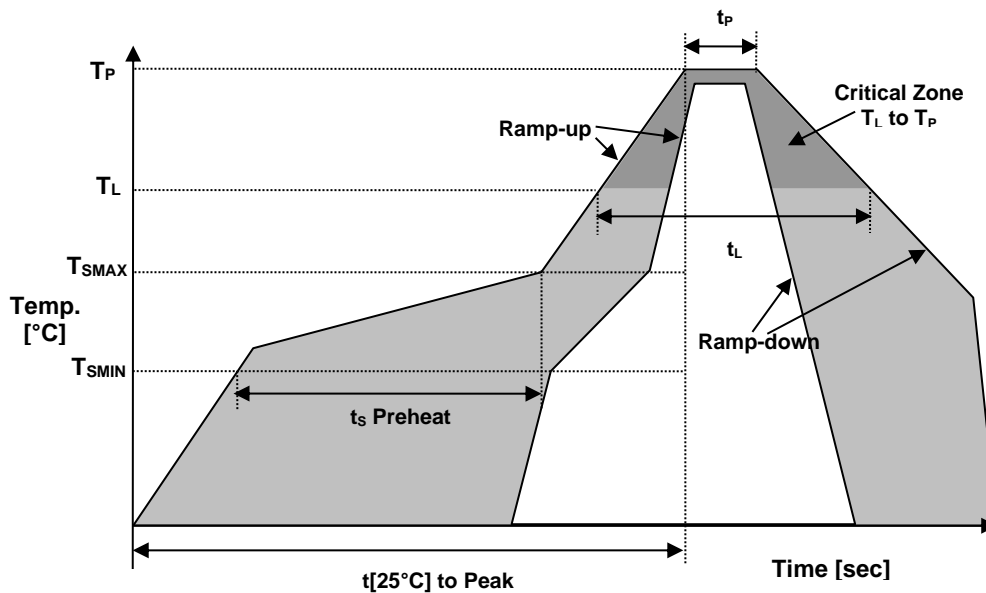
■ EXAMPLE OF PHASE NOISE FOR 153.250MHz



【Phase Jitter】

Mode	Funda	
Freq.	156MHz	
Accum	Vdd=2.5V	Vdd=3.3V
Range	fs	fs
Carrier f	156.271156	156.271156
12kHz~20MHz	43.5	36.2

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

Rx156.2
•LBEyw

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:	AR, February 14, 2024
APPROVED BY:	CP, February 14, 2024
REVISION:	A, Initial Release

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