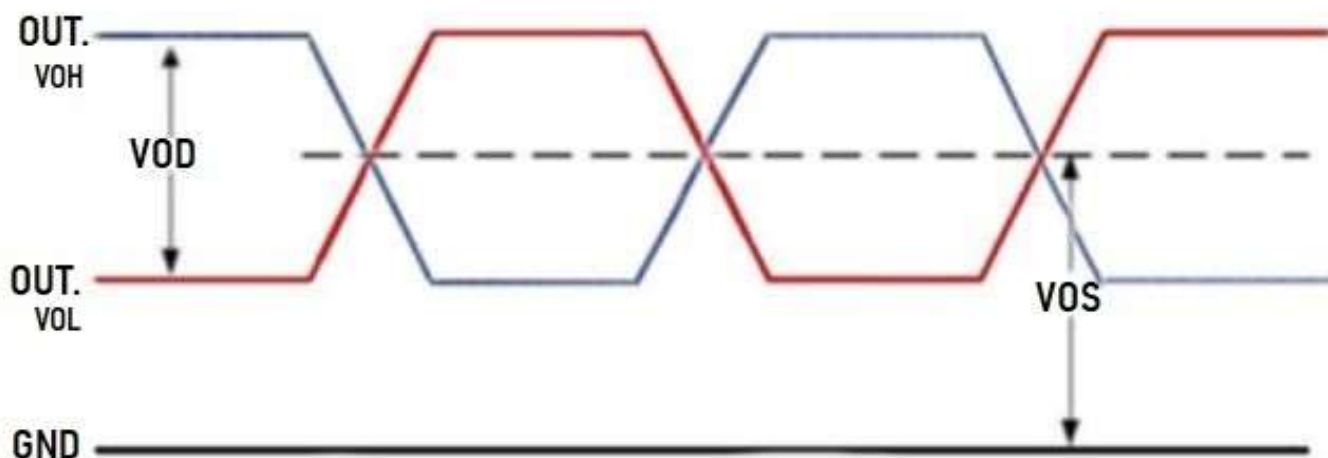


#### ELECTRICAL SPECIFICATION

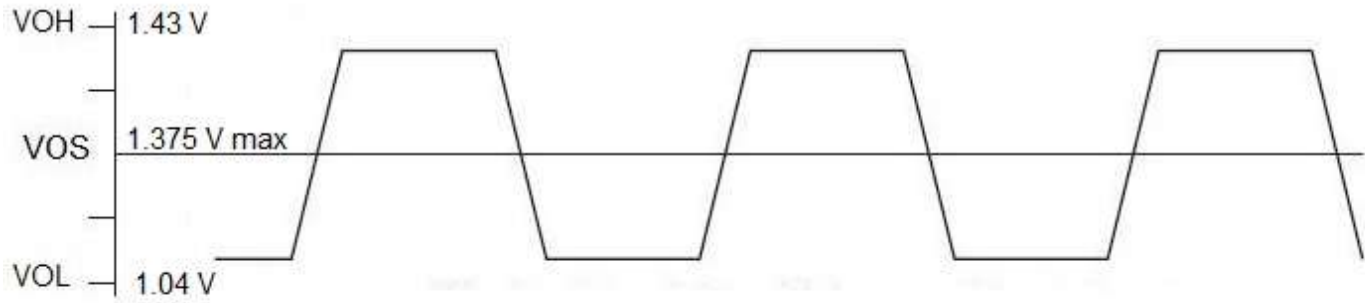


PARAMETERS	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	$f_o$	$T_a=25^{\circ}\text{C}$	156.250	MHz
Supply Voltage	$V_{CC}$	$V_{CC} \pm 5\%$	2.5 to 3.3	VDC
Supply Current, max	$I_s$	$V_{CC}; T_a=+25^{\circ}\text{C};$	40	mA
Operating Temperature Range	$T_a$	---	-40 to +85	$^{\circ}\text{C}$
Storage Temperature Range	$T_{(stg)}$	Absolute max	-55 to +125	$^{\circ}\text{C}$
Output Logic Type	---		LVDS	
Overall Freq. Stability, max.	$\Delta f/f_o$	Inclusive of $25^{\circ}\text{C}$ Tolerance, Changes due to Operating Temperature, 10 years Aging	$\pm 20$ ⇄	ppm
Output Voltage	$V_{OL}$	$V_{OL, \text{min}}$	0.8	V
	$V_{OH}$	$V_{OH, \text{max}}$	1.6	V
Differential Output Voltage	$V_{OD}$	$V_{OD \text{ min/max}}$	247 / 454	mV
Common Mode Output Voltage	$V_{OS}$	$V_{OS \text{ min/max}}$	1.125 / 1.375	V
Output Load	---	Connected between Out and Complementary Out	100	$\Omega$
Enable / Disable Function	E/D	Pin 1: N.C. (Open) or High ( $0.7 \times V_{CC}$ )	Pin 4 & 5 – Oscillation (Enabled)	
		Pin 1: Low ( $0.3 \times V_{CC}$ )	Pin 4 & 5 – High Impedance (Disabled)	
Symmetry (Duty Cycle)	DC	@50% $V_{DD}$	45 to 55	%
Rise Time and Fall Time, max	$t_r / t_f$		400	ps
Jitter, RMS, max.	J	@12kHz ~ 20MHz	0.125 / 0.3	ps

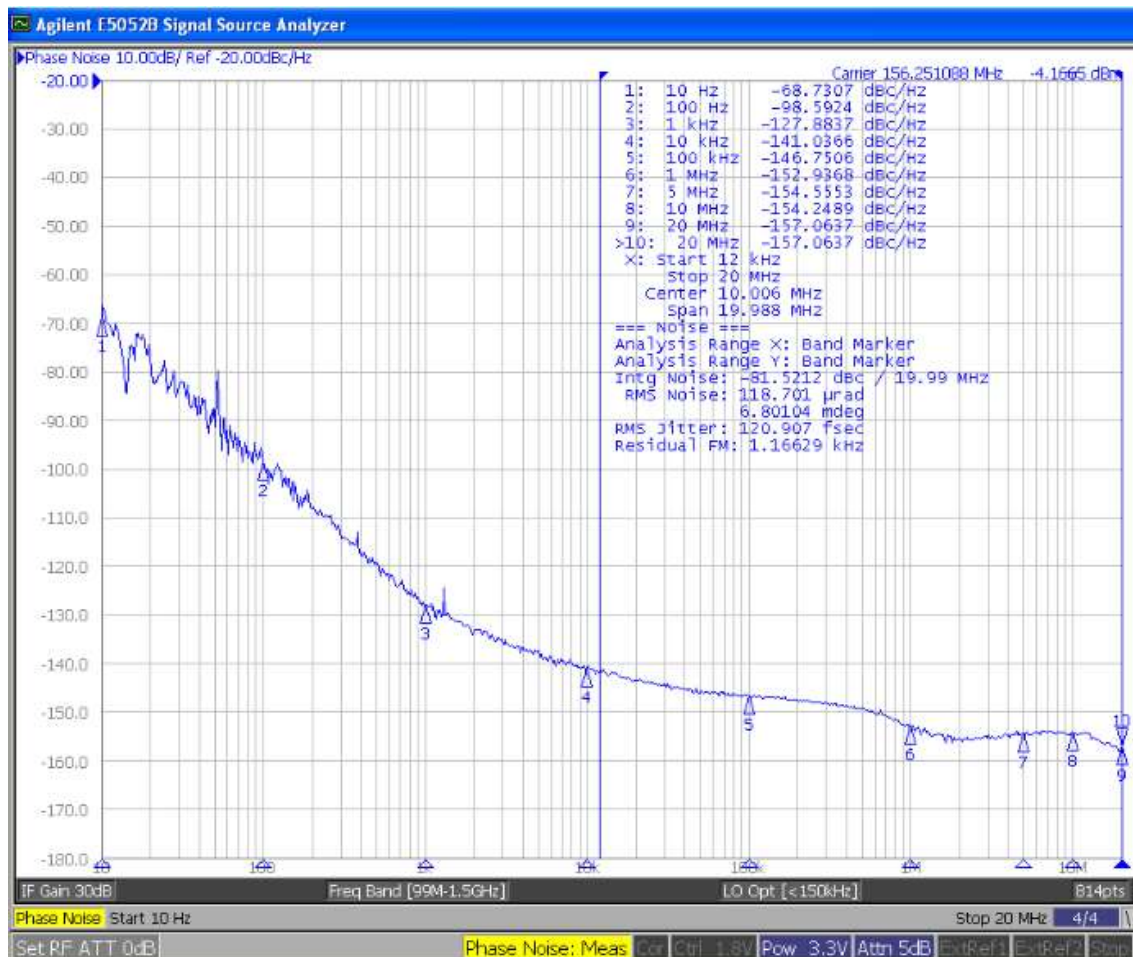
#### WAVEFORM DIAGRAM



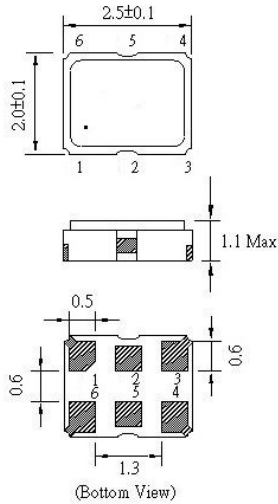
#### LVDS TYPICAL OUTPUT LEVEL



#### ■ PHASE NOISE



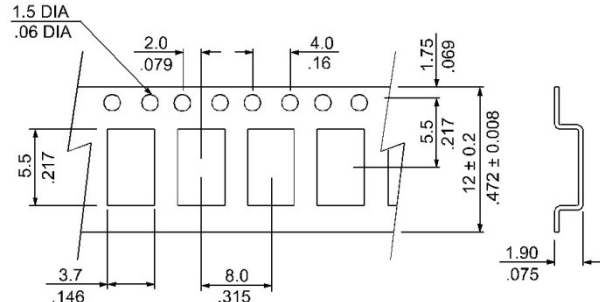
#### MECHANICAL SPECIFICATION



##### Pin Connections

- 1 – Enable / Disable
- 2 – NC
- 3 – Ground
- 4 – Output
- 5 – Complimentary Output
- 6 – Vcc

#### CARRIER TAPE DIMENSIONS

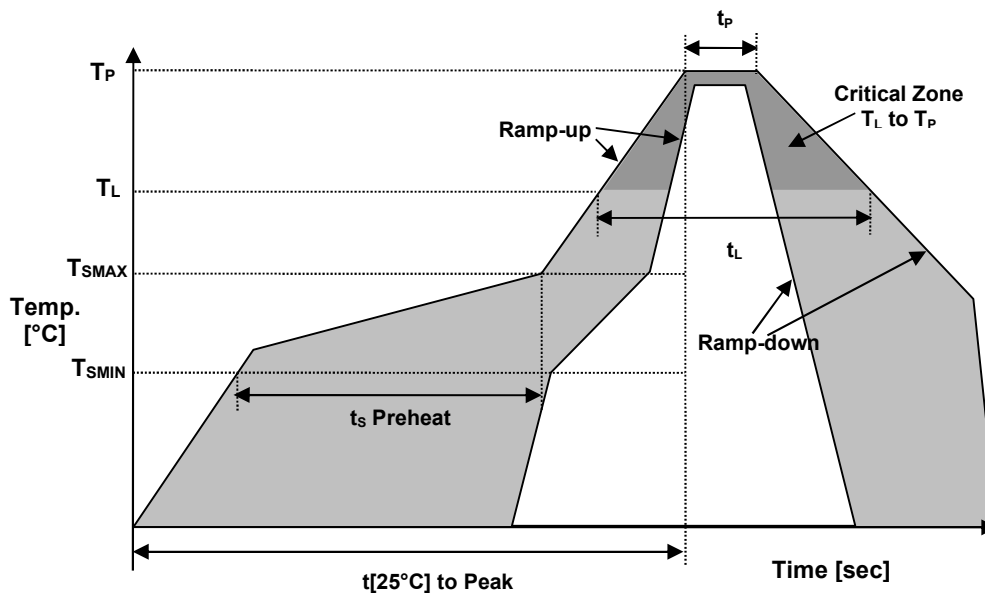


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

#### PACKAGING

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

#### REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T <sub>SMIN</sub>	150°C
Temperature Max Preheat	T <sub>SMAX</sub>	200°C
Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> )	t <sub>S</sub>	60-180 sec.
Temperature	T <sub>L</sub>	217°C
Peak Temperature	T <sub>P</sub>	260°C
Ramp-up rate	R <sub>UP</sub>	3°C/sec max.
Ramp-down rate	R <sub>DOWN</sub>	6°C/sec max.
Time within 5°C of Peak Temperature	t <sub>P</sub>	10 sec.
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.
Time	t <sub>L</sub>	60-150 sec.

#### ENVIRONMENTAL

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



#### MARKING

Rx156.2  
 •LBDEyw

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

YEAR CODE	
Year	Code
2015	5
2016	6
2017	7
2018	8
2019	9
2020	0
2021	1
2022	2
2023	3
2024	4
2025	5

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:	CP, January 20, 2020
APPROVED BY:	Jl, January 20, 2020
REVISION:	A, Initial Release B, CP April 15, 2020 Updated to the current specs level C, CP August 20, 2020 Updated the marking D, AR, August 26, 2020 Updated Waveform Diagram E, Updated reel qty KJ 10-12-2022