

Specification of Simple Packaged Crystal Oscillators

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|------------------------------------|--------------------------|
| 1. NDK Part Number | NZ2520SH-16.64M-RNA5013A |
| 2. Chipset Maker | Renesas |
| 3. Chipset Name | R-Car H3 |
| 4. NDK Specification Number | RNA5013A |
| 5. Type | NZ2520SH |

6. Absolute Maximum ratings

	Item	Ratings			Notes
		Min.	Max.	Units	
1	Supply voltage	-0.3	+4.0	V	-
2	Storage temp. rage	-55	+125	°C	-

7. Electrical Specification

	Parameters	SYM.	Electrical Spec.				Notes
			Min.	Typ.	Max.	Units	
1	Nominal frequency	f _{nom}		16.64		MHz	-
2	Supply voltage	V _{CC}	1.62	1.8	1.98	V	-
3	Current consumption (Operating)	I _{CC}	-	-	3.5	mA	at 1.8V, 25°C
4	Current consumption (Stand-by)	I _{ST}	-	-	20	µA	at 1.8V, 25°C
5	Output level	-	CMOS				-
6	Load capacitance	CL			15	pF	-
7	Operating temp. rage	T _{opr}	-40	-	+105	°C	-
8	Overall frequency tolerance	Δf/f _{nom}	-40	-	+40	ppm	*1
9	Output voltage	V _{OL}	-	-	0.1 V _{CC}	V	-
		V _{OH}	0.9 V _{CC}	-	-	V	-
10	Rise time (T _r), Fall time (T _f)	T _r /T _f	-	-	6	ns	0.1 V _{CC} to 0.9 V _{CC}
11	Symmetry	SYM	45	-	55	%	at 1/2 V _{CC}
12	Start-up time	T _{su}	-	-	4	ms	
13	Output wave form	-	Rectangular				-
14	Stand-by function						
	#1 PAD input		# 3 PAD output				
	H level (0.7 V _{CC} to V _{CC}) or Open		Operating				
	L level (0.3 V _{CC} max.)		High impedance				

*1 'Inclusive of frequency. tolerance (at 25 °C), requery/temperature characteristics, frequency/voltage coefficient.

8. Dimension

