



# DOCUMENT CHANGE REQUEST

DCR number	1524	Changes required for:	MRB decision	Originator:	Carole Gagnard
Date:	2022/11/03	Date sent:	2022/09/14	Organisation:	Rakon
Status:	IMPLEMENTED				

Title: CRYSTAL OSCILLATORS, CLASS 2, 4MHz TO 100MHz, AHCMOS COMPATIBLE OUTPUT, RAD-

Number:	3503/001	Issue:	6
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Other documents affected:

Page:

pages 6 to 12, 14, 16 to 17, 19 to 22

Paragraph:

§1.4.3, §1.5, §1.6.1 to 1.6.5, §1.7, §1.8, §2.3.1, §2.3.2, §2.5, §2.9.1, §2.9.2 and APPENDIX A

Original wording:

§1.4.3, §2.9.1 : suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
§1.5 : Variants 01 to 06: +2.97V  $\leq$  VCC  $\leq$  +3.63V (where nominal VCC, VCCNom =+3.3V)  
§1.6.1, 1.6.2, 1.6.3 and 1.6.4 :The terminal identification is specified by marking of the terminal number on the lid as shown.  
§1.6.5 : Dual-in-Line Package (DIL1) – 14 leads  
§1.7 and §1.8 : suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
§2.3.1 suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
Frequency-Voltage Tolerance : For 2.97V, 3.3V & 3.63V  
Rise time/Fall time : For 16MHz  $\leq$  fNom  $\leq$  100MHz: 7 ns  
§2.3.2 suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
Frequency-Voltage Tolerance : For 2.97V, 3.3V & 3.63V limit : +/-3ppm  
Rise time/Fall time : For 16MHz  $\leq$  fNom  $\leq$  100MHz: 7 ns  
§2.5, §2.9.2 suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
Rise time/Fall time : For 16MHz  $\leq$  fNom  $\leq$  100MHz: 7 ns  
Appendix A

Proposed wording:

§1.4.3, §2.9.1 : suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
§1.5 : Variants 01 to 04 and 06: +3.13V  $\leq$  VCC  $\leq$  +3.47V (where nominal VCC, VCCNom =+3.3V) and suppression of variant 07 to 12  
§1.6.1, 1.6.2, 1.6.3 and 1.6.4 The terminal identification is specified by marking of terminal number 1 on the lid only  
§1.6.5 : suppression of the paragraph  
§1.7 and 1.8: suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
§2.3.1 suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
Frequency-Voltage Tolerance : For 3.13V, 3.3V & 3.47V  
Rise time/Fall time : For 16MHz  $\leq$  fNom < 80MHz: 7 ns / For 80 MHz  $\leq$  fNom  $\leq$  80MHz: 5 ns  
§2.3.2 suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
Frequency-Voltage Tolerance : For 3.13V, 3.3V & 3.47V limit : +/-4ppm  
Rise time/Fall time : For 16MHz  $\leq$  fNom < 80MHz: 7 ns / For 80 MHz  $\leq$  fNom  $\leq$  80MHz: 5 ns  
§2.5, §2.9.2 suppression of variant 05 (DIL1 package) and variant 07 to 12 (5V supply voltage)  
Rise time/Fall time : For 16MHz  $\leq$  fNom < 80MHz: 7 ns / For 80 MHz  $\leq$  fNom  $\leq$  80MHz: 5 ns



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APPENDIX A add a deviation on Para. 1.4.3 Component Type Variants : For frequency lower than 24MHz, customer should contact RAKON to confirm feasibility

Justification:

NCCS n°NC2RAKC2204 :

- limitation of voltage tolerance to 3.3V+/-5% for variant 01 to 04 and 06
- removal of 5V configuration (variant 07 to 12)
- removal of DIL1 configuration (variant 5)
- introduction of a rise time/ fall time limit at 5s between 80MHz and 100MHz (customers request)
- add a warning about frequency below 24MHz to allow RAKON to discuss with prospective customer about potential dips on some frequencies from this range with current qualified configuration

Attachments:

esc3503001iss7\_draft(2).pdf

Modifications:

N/A

Approval signature:

Date signed:

2022-11-03