

Engineering/Process Change Notice

ECN/PCN No.: 4528

For Manufacturer						
Product Description: Low Frequency SMD Microprocessor Crystal	Abracon Part Number / Part Series: ABC2	☐ Documentation only☒ ECN☐ EOL	⊠ Series ☐ Part Number			
Affected Revision:	New Revision:	Application:	☐ Safety☑ Non-Safety			

Prior to Change:

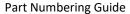
ABC2 Rev P

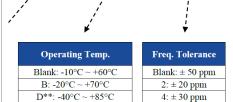
Frequency Range

3.5MHz to 36MHz Fundamental, AT 27MHz to 70MHz 3rd Overtone, AT

Table 1

Frequency Ranges	Operation mode	ESR (max)
3.200MHz ~ 3.499MHz	Fundamental	200 Ω
3.500MHz ~ 3.999MHz	Fundamental	140 Ω
4.000MHz ~ 4.399MHz	Fundamental	120 Ω
4.400MHz ~ 4.899MHz	Fundamental	100 Ω
4.900MHz ~ 5.999MHz	Fundamental	80 Ω
6.000MHz ~ 6.999MHz	Fundamental	60 Ω
$7.000 \mathrm{MHz} \sim 7.999 \mathrm{MHz}$	Fundamental	50 Ω
$8.000 MHz \sim 10.999 MHz$	Fundamental	45 Ω
11.000MHz ~ 11.999MHz	Fundamental	40 Ω
$12.000 MHz \sim 14.999 MHz$	Fundamental	35 Ω
$15.000 MHz \sim 36.000 MHz$	Fundamental	30 Ω
$27.000MHz \sim 70.000MHz$	3rd OT	100 O





Freq. Stability
Blank: Standard
G*: ± 15 ppm
W*: ± 25 ppm
Y: ± 30 ppm
H: ± 35 ppm
$Z: \pm 50 \text{ ppm}$
Q: ± 100 ppm

After Change:

ABC2 Rev Q

Frequency Range 3.2MHz to 30MHz Fundamental Mode, AT Removal of 3rd Overtone, AT

Limit frequency range to 30MHz



Form #7020 | Rev. G | Effective: 02/22/2021 |











^{*} Option B and -10 ~60°C only ** Option Y, H, Z and Q only for F>6.0MHz; Option Z and Q only for F<6.0MHz



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Table 1

Frequency Ranges	Operation mode	ESR (max)
3.200MHz ~ 3.499MHz	Fundamental	200 Ω
3.500MHz ~ 3.999MHz	Fundamental	140 Ω
4.000MHz ~ 4.399MHz	Fundamental	120 Ω
4.400MHz ~ 4.899MHz	Fundamental	100 Ω
4.900MHz ~ 5.999MHz	Fundamental	80 Ω
6.000MHz ~ 6.999MHz	Fundamental	60 Ω
$7.000 MHz \sim 7.999 MHz$	Fundamental	50 Ω
$8.000 MHz \sim 10.999 MHz$	Fundamental	45 Ω
11.000MHz ~ 11.999MHz	Fundamental	40 Ω
12.000MHz ~ 14.999MHz	Fundamental	35 Ω
$15.000 MHz \sim 30.000 MHz$	Fundamental	30 Ω

Removal of $3^{\rm rd}$ Overtone Frequency Range, Limit frequency Range to $30 {\rm MHz}$

**Option Q only for F \geq 6.0MHz; Option Z and Q only for F<6.0MHz

D**: -40°C ~ +85°C

Removal of Frequency Stability Options G, W, and H Update note (**) on Operating Temperature Option D

Cause/Reason for Change:

Updated electrical specifications to reflect current production capabilities.

- p		F				
Change Plan						
Effective Date: 1/6/2022	Additional Remarks:					
Change Declaration:						
Issued Date:	Issued By:		Issued Department:			
1/6/2022	Stephanie Lopez		Engineering			
Approval:	Approval:		Approval:			
Thomas Culhane	Reuben Q	uintanilla	Ying Huang			
Engineering Director	Quality Director		Purchasing Director			
	,	on EOL only				
Last Time Buy (if applicable):	10171010	Alternate Part Numb	per / Part Series:			
N/A	Alternate Part Numb		N/A			
Additional Approval:	Additional Approval		Additional Approval:			
Customer Approval (If Applicable)						
Qualification Status:						
	☐ Approved [☐ Not accepted				
Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.						
Customer Part Number:		Customer Project:				
Company Name:	Company Representative:		Representative Signature:			
Customer Remarks:						

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