

M/A-COM Technology Solutions, Inc.

4 East Gate Road,
Little Island,
Co. Cork,
Ireland.
www.macomtech.com

April 27th 2018



Digi-Key Corporation
701 Brooks Ave South
Thief River Falls, Minnesota 56701

ATTN: Quality/Purchasing Manager

Subject: Alternative Core Supplier.

PCN-01124

Dear Valued Customer:

Please accept this PCN letter as formal notification for the change of M/A-COM Technology Solutions part number(s) shown below.

The device(s) listed on this page are the affected device(s).

According to our records, this device has been purchased by your company within the past twenty-four (24) months.

M/A-COM Part Number(s):

MABA-011028

Technical details of this change notice follow on the next page(s).

Please contact me if you have any questions.

Sincerely,
Alan Miller

Product Line Manager (CATV)
M/A-COM Technology Solutions
Cell: +978-427-7482

Email: Alan.Miller@macomtech.com

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PCN Number: PCN-01124		PCN Number: April 27 th 2018	
Title: Alternate Core supplier for P/N MABA-011028 needed due to discontinuance of core material from primary supplier.			
Proposed 1st Ship Date: July 31st 2018		Estimated Sample Availability: Samples available upon request	
Change Type:			
Assembly Site	Design	Electrical Specification	
Test Site	Assembly Process	Mechanical Specification X	
Test Process	Assembly Materials X	Packing/Shipping/Labeling X	
PCN Details			
Description of Change:			
MACOM has identified a second source for the core used on MABA-011028.			
1. Update Datasheet from V2 to V3.			
2. The core dimensions are slightly changed.			
3. The carrier tape dimensions are slightly changed in parallel to fit this new core.			
Current Core	MABA-011028	Alternative Core	



Reason for Change:

Addition of second source for ferrite core required to ensure consistency of supply chain.

Products Affected:

MABA-011028

Anticipated impact on Fit, Form, Function:

Form Fit and Function unaffected.

Changes to product identification resulting from this PCN:

None

Qualification: Test Results

A comparative analysis were performed which showed no significant shift in electrical/mechanical parameters between transformers using the current and second source supplied core.

Appendix I : MABA-011028 Electrical Test Data

Appendix II: 30pcs outline dimensions data of the new core.

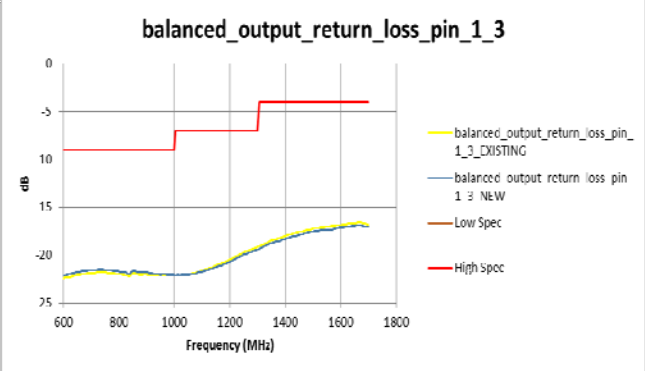
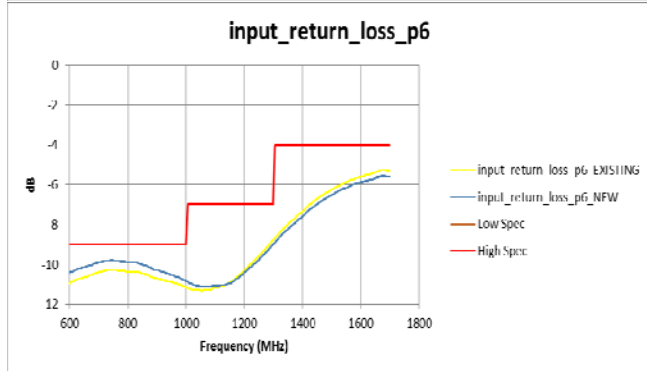
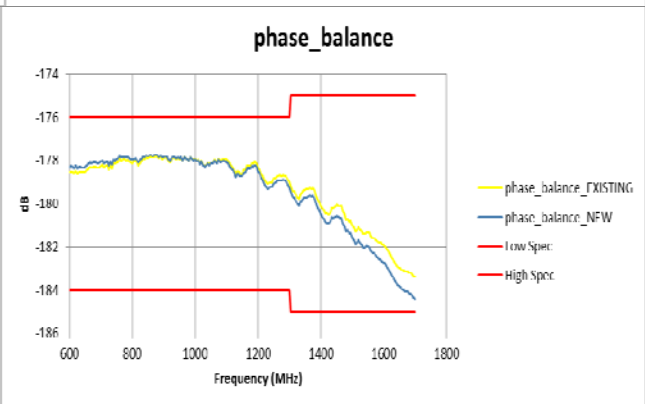
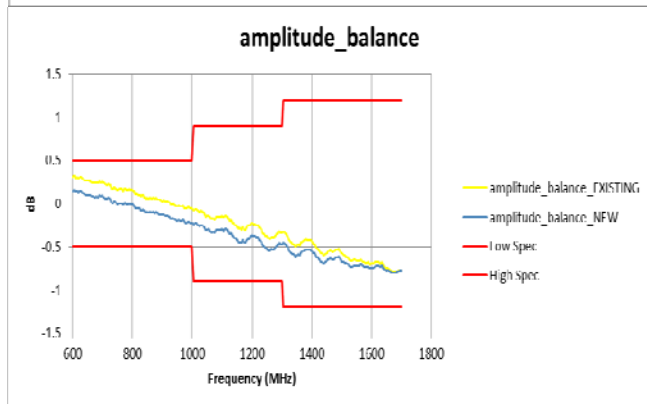
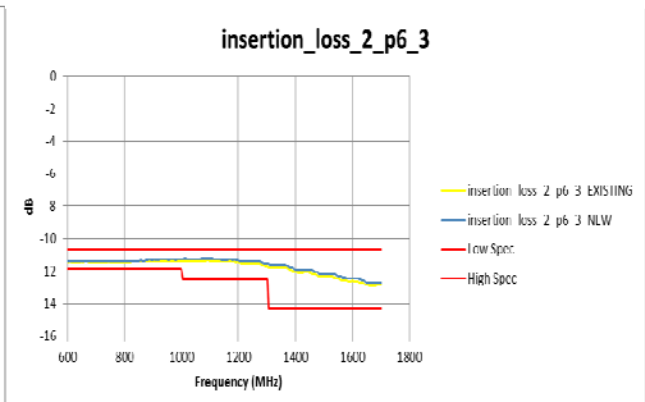
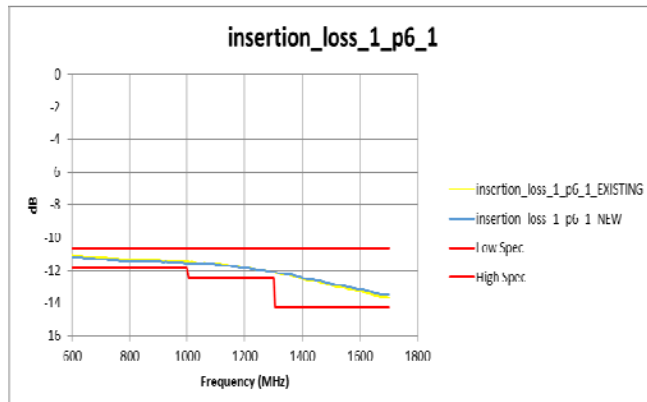
Appendix III: MABA-011028 updated datasheet.

Appendix IV: New carrier tape with XYZ measurement and

Appendix V: Drop test Data.

Appendix I

MABA-011028 Electrical Test Data



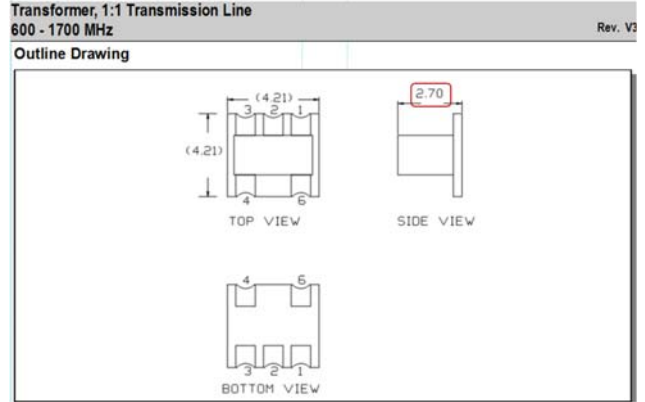
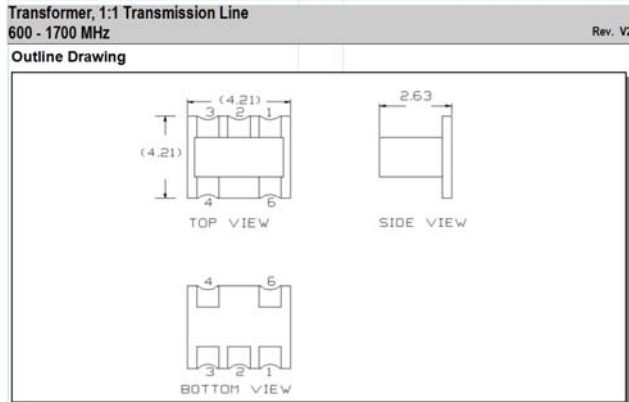


Appendix II

The new core dimensions data

Milimeters			
Unit #	x	y	z
1	4.21	4.25	2.66
2	4.22	4.21	2.68
3	4.25	4.22	2.67
4	4.26	4.27	2.70
5	4.23	4.21	2.66
6	4.22	4.19	2.67
7	4.21	4.26	2.68
8	4.25	4.22	2.70
9	4.20	4.23	2.71
10	4.21	4.24	2.66
11	4.23	4.21	2.68
12	4.19	4.20	2.68
13	4.21	4.21	2.69
14	4.20	4.25	2.70
15	4.22	4.19	2.72
16	4.25	4.20	2.68
17	4.20	4.21	2.66
18	4.19	4.22	2.67
19	4.22	4.18	2.66
20	4.21	4.22	2.67
21	4.19	4.23	2.69
22	4.20	4.24	2.67
23	4.26	4.26	2.70
24	4.18	4.21	2.66
25	4.20	4.20	2.68
26	4.22	4.21	2.69
27	4.21	4.19	2.73
28	4.20	4.19	2.66
29	4.23	4.18	2.68
30	4.21	4.20	2.66
max	4.26	4.27	2.73
average	4.22	4.22	2.68
min	4.18	4.18	2.66

Appendix III
 MABA-011028 updated datasheet.



Transformer, 1:1 Transmission Line
 600 - 1700 MHz Rev. V2

Tape & Reel Information			Ordering Information			
Parameter	Units	Value	Part Number	Description		
Qty per reel	-	2000	MABA-011028	Tape & Reel		
Reel size	mm	330	MABA-011028-TB	Customer Evaluation Board		
Tape width (W)	mm	12.00	Recommended Maximum Ratings			
Pitch (P ₁)	mm	8.00	Parameter	Units	Min	Max
A ₀	mm	4.5	Input Power	mW		250
B ₀	mm	4.5	DC Current	mA		200
K ₀	mm	2.73	Operating Temperature Range	°C	-40	+115
Orientation	-	F31	Temperature data available on request			
Reference Application note ANI-019 for orientation						

Old datasheet Rev.v2

Transformer, 1:1 Transmission Line
 600 - 1700 MHz Rev. V3

Tape & Reel Information			Ordering Information			
Parameter	Units	Value	Part Number	Description		
Qty per reel	-	2000	MABA-011028	Tape & Reel		
Reel size	mm	330	MABA-011028-TB	Customer Evaluation Board		
Tape width (W)	mm	12.00	Recommended Maximum Ratings			
Pitch (P ₁)	mm	8.00	Parameter	Units	Min	Max
A ₀	mm	4.5	Input Power	mW		250
B ₀	mm	4.5	DC Current	mA		200
K ₀	mm	2.90	Operating Temperature Range	°C	-40	+115
Orientation	-	F31	Temperature data available on request			
Reference Application note ANI-019 for orientation						

The updated datasheet Rev.v3



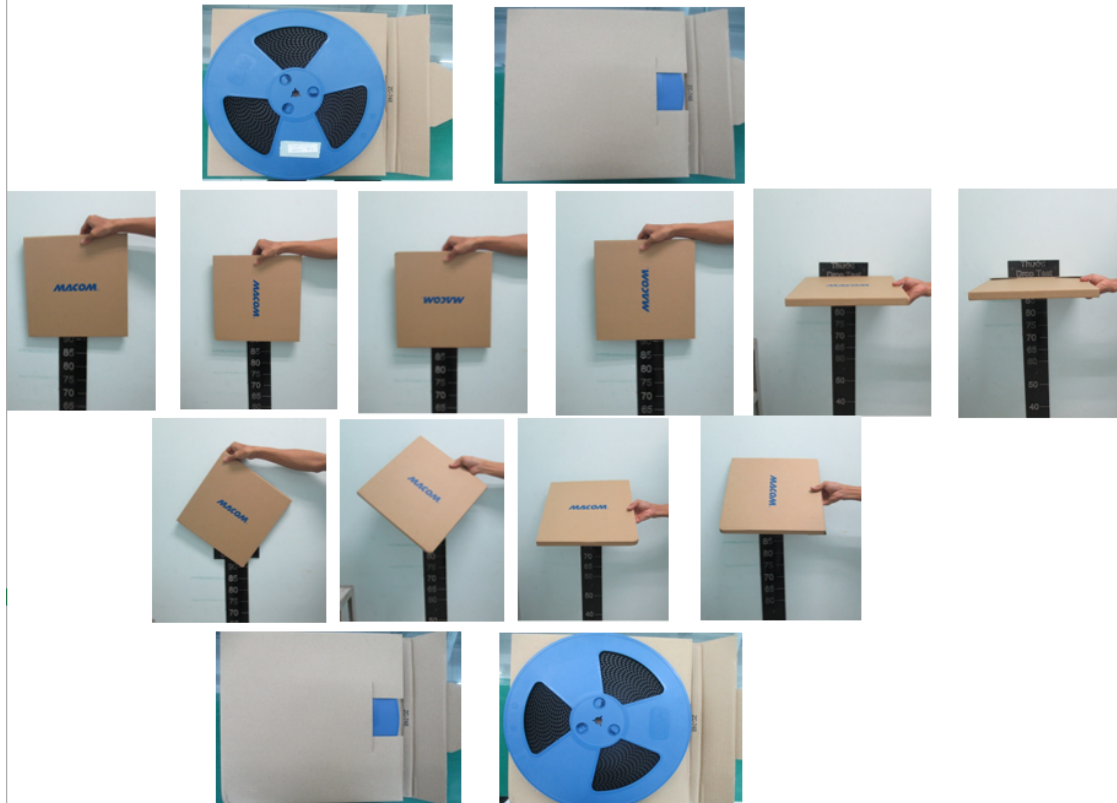
Appendix IV

Carrier tape measurement data

Item	Ao	Bo	Ko
No/ Spec	4.5±0.1mm	4.5±0.1mm	2.9±0.1mm
1	4.55	4.53	2.92
2	4.54	4.54	2.90
3	4.53	4.53	2.92
4	4.55	4.55	2.93
5	4.54	4.53	2.95
6	4.53	4.54	2.93
7	4.56	4.54	2.92
8	4.55	4.53	2.93
9	4.57	4.55	2.95
10	4.54	4.54	2.90
11	4.55	4.53	2.92
12	4.54	4.54	2.90
13	4.53	4.53	2.92
14	4.55	4.55	2.93
15	4.54	4.53	2.95
16	4.53	4.54	2.93
17	4.56	4.54	2.92
18	4.55	4.53	2.93
19	4.57	4.55	2.95
20	4.54	4.54	2.90
21	4.55	4.53	2.92
22	4.54	4.54	2.90
23	4.53	4.53	2.92
24	4.55	4.55	2.93
25	4.54	4.53	2.95
26	4.53	4.54	2.93
27	4.56	4.54	2.92
28	4.55	4.53	2.93
29	4.57	4.55	2.95
30	4.54	4.54	2.90
Min	4.53	4.53	2.90
Max	4.57	4.55	2.95
Avg:	4.546	4.538	2.925

Appendix V:
 Drop test(90cm,10times)

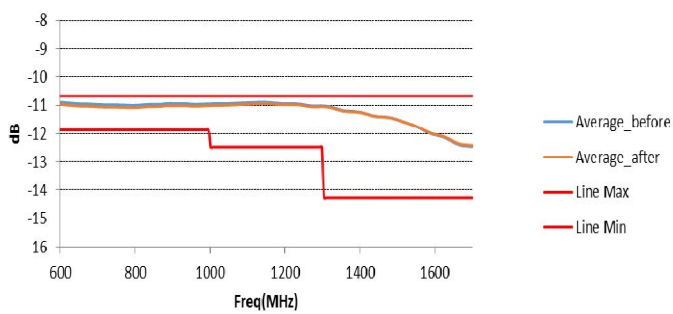
Drop test for carrier tape



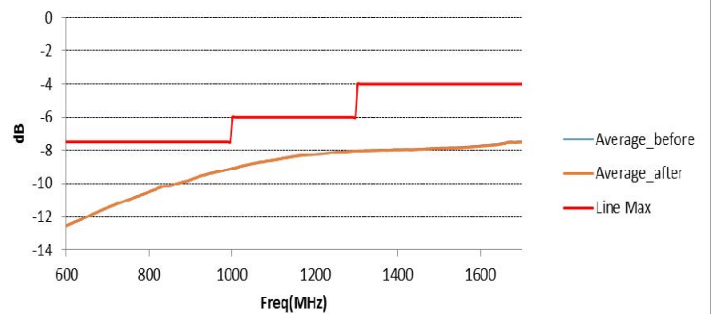
=> carrier tape and units good after drop test.



Insertion loss Pin 6 to 1



Input return loss Pin 6



Electrical comparison data-before&after drop test