

21st December 2018

PCN (Product Change Notification) reference: **2018/02 Stage 2**

Subject: Introduction of Second Source for Electrode Material

Dear Customer,

The purpose of this notification is to advise that Knowles is continuing to gradually phase-in a second source of electrode material. Stage 1 introduction has been very successful (formal notification was issued to Stage 1 associated customers) and Knowles is now beginning Stage 2 which will phase-in the electrode material for other products. The reason for second source of electrode material is to mitigate risks associated with a single supplier to prevent potential future business disruption, such as resulting from a natural disaster.

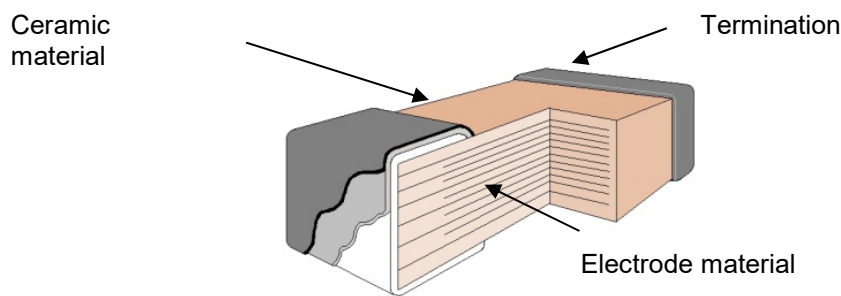


Diagram of internal construction

There are no changes to component specifications and no changes to part numbers. Qualification tests including AEC-Q200 stress test have been completed and data packs are available on request.

If you require further information, please contact Knowles sales.

Yours sincerely,



Alice Liu
Quality Manager, Knowles Capacitors

PCN Details

PCN reference: 2018/02 Stage 2

PCN Issue Date: Stage 1: 9th April 2018.
 Stage 2: January 2019. Gradual phase-in approach.

Product: Implementation conducted in 2 stages.

Stage 1:

0805Y0500104KXT
2220Y1K00104KJTAF2
2220J1K00104KJTAF2
1812Y6300104KJT
1812J1K00473KJT

Stage 2:

Syfer part numbers:

Example	0805	Y	050	0104	K	X	T	
	Case Size	Termination	Voltage	Capacitance	Capacitance Tolerance	Dielectric	Packaging	Suffix Code



PCN affects all MLC dielectric codes:

Novacap part numbers:

Example	1206	RB	472	J	101	N	T	
	Case Size	Dielectric	Capacitance	Capacitance Tolerance	Voltage	Termination	Packaging	



PCN affects dielectric codes:
 B, N, RB and RN

Request Description: Second source of electrode ink.

Reasons for Request: Mitigate risks associated with a single supplier, such as a natural disaster.

Changes to Form, Fit or Function: No changes to component specifications.

Changes to Quality or Reliability: None.

Changes to Part Numbers: None.

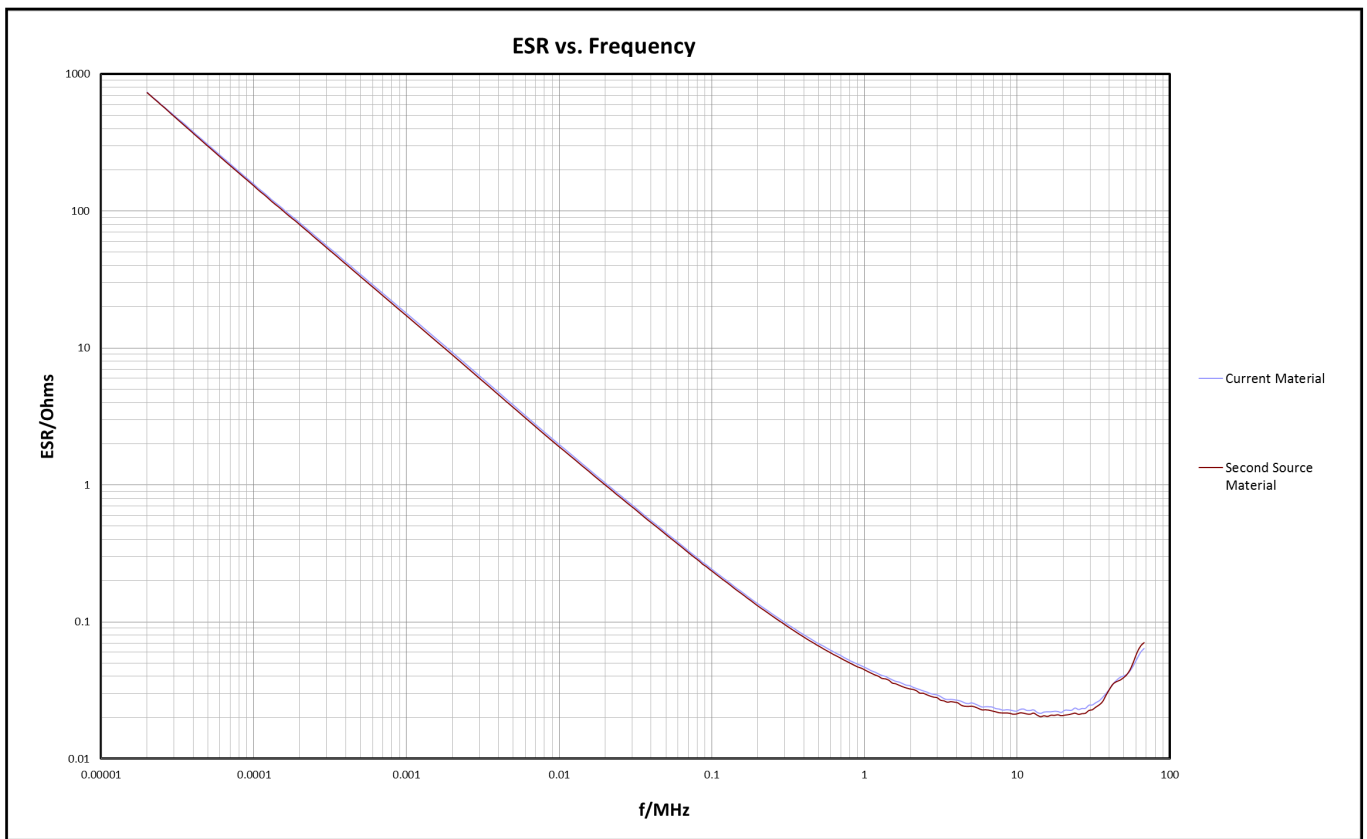
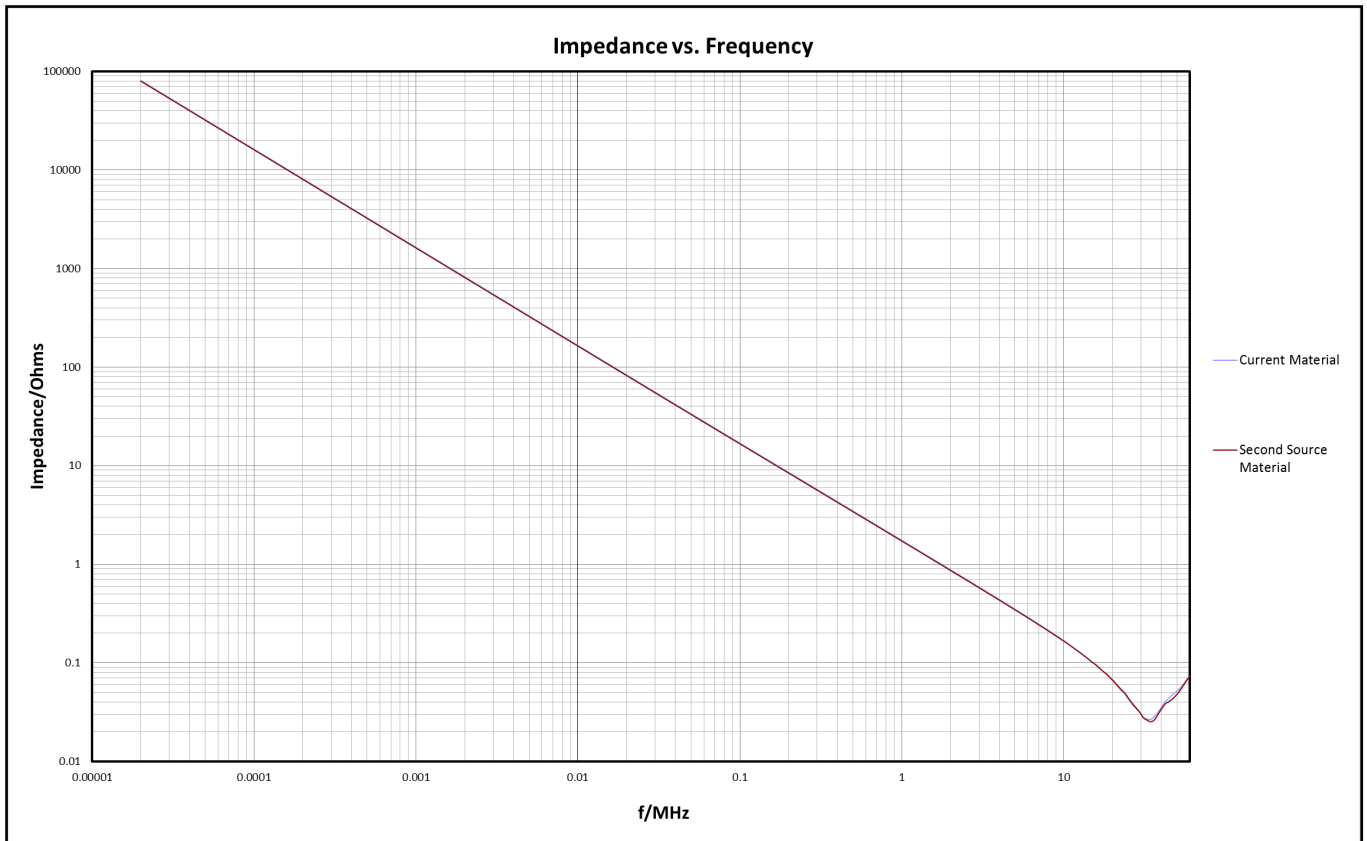
Qualification Results: Available on request.

Are Samples Available? Available on request.

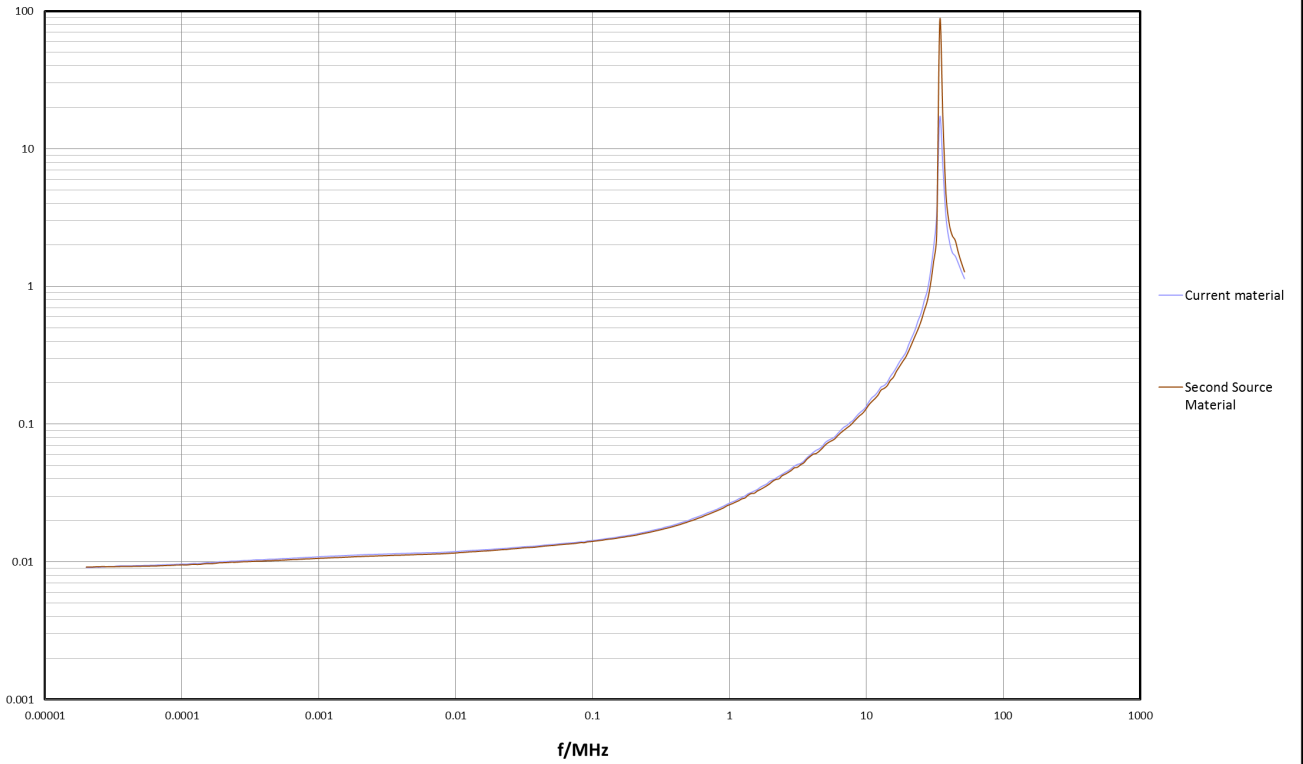
Implementation date: 90 days after PCN release.

Performance curves examples – current and second source material

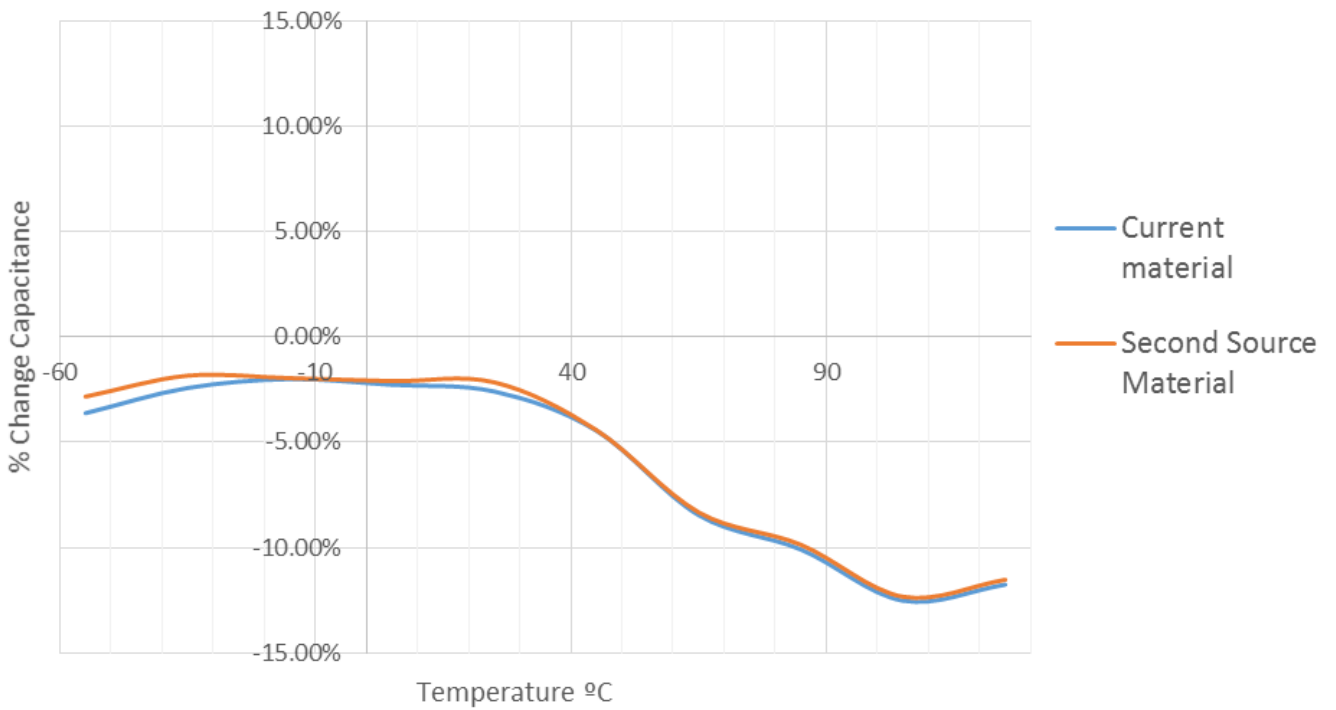
0805Y0500104*X* / *J*



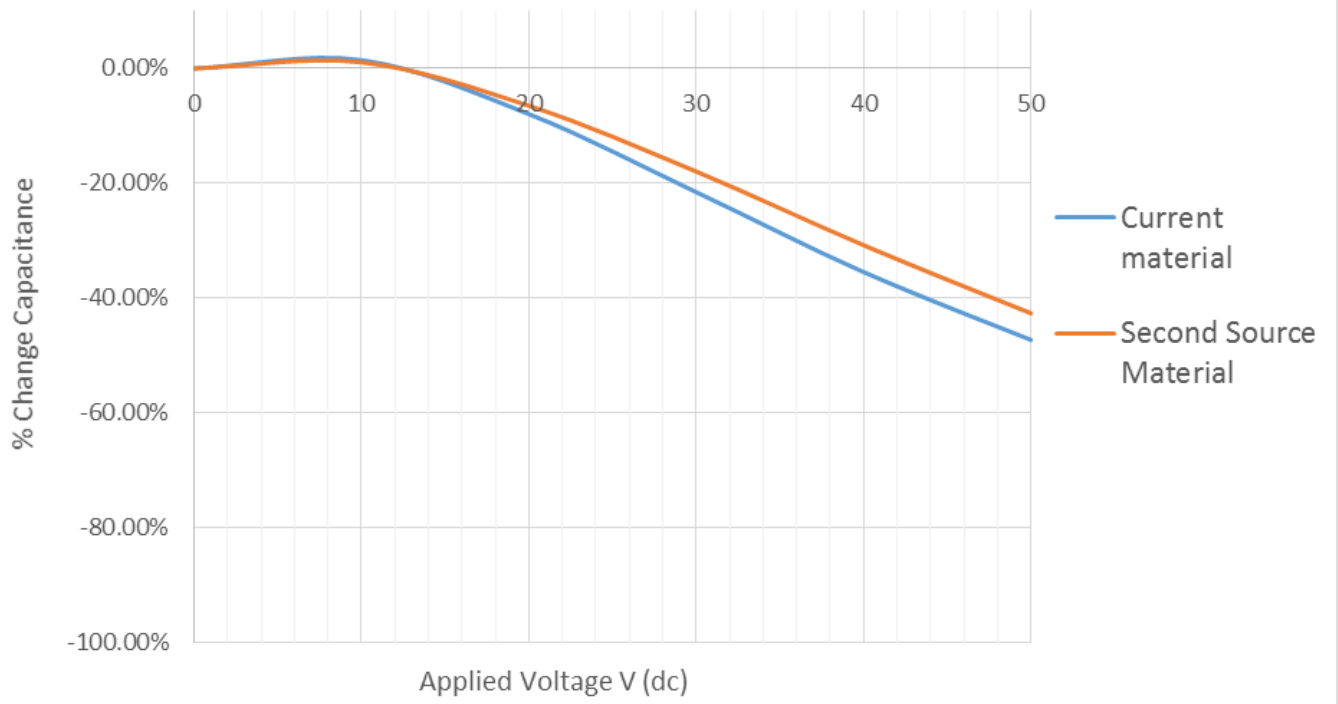
Df vs. Frequency

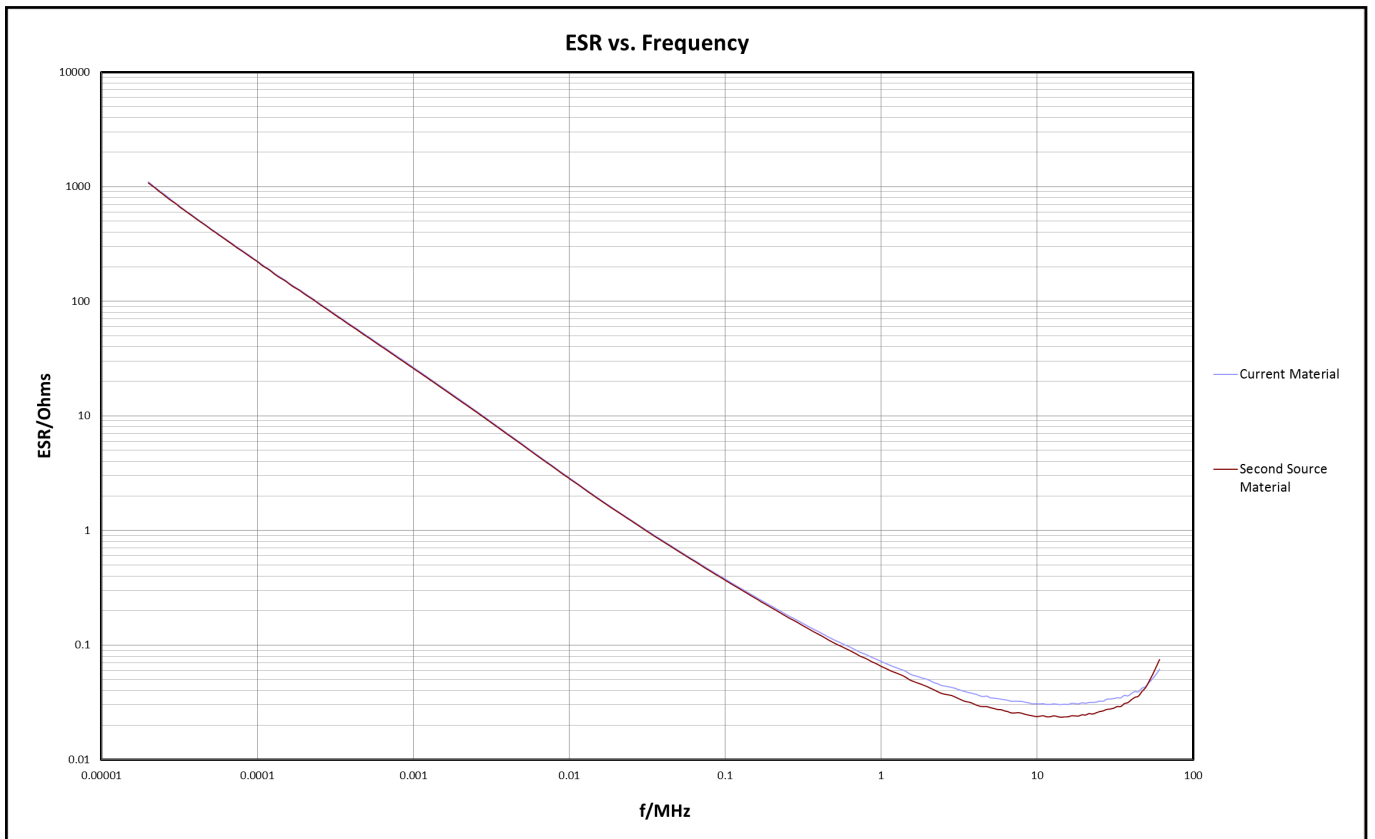
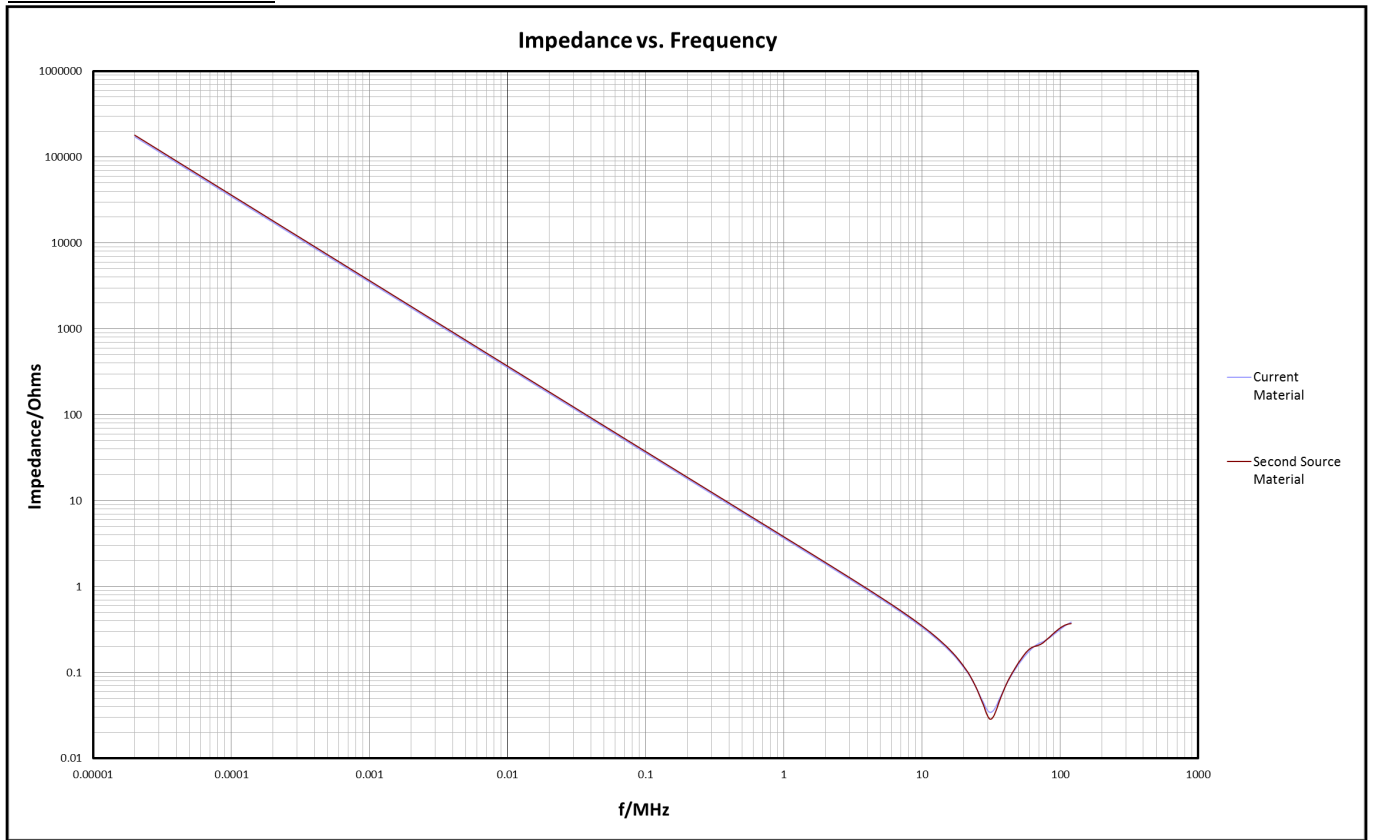


TC Curve

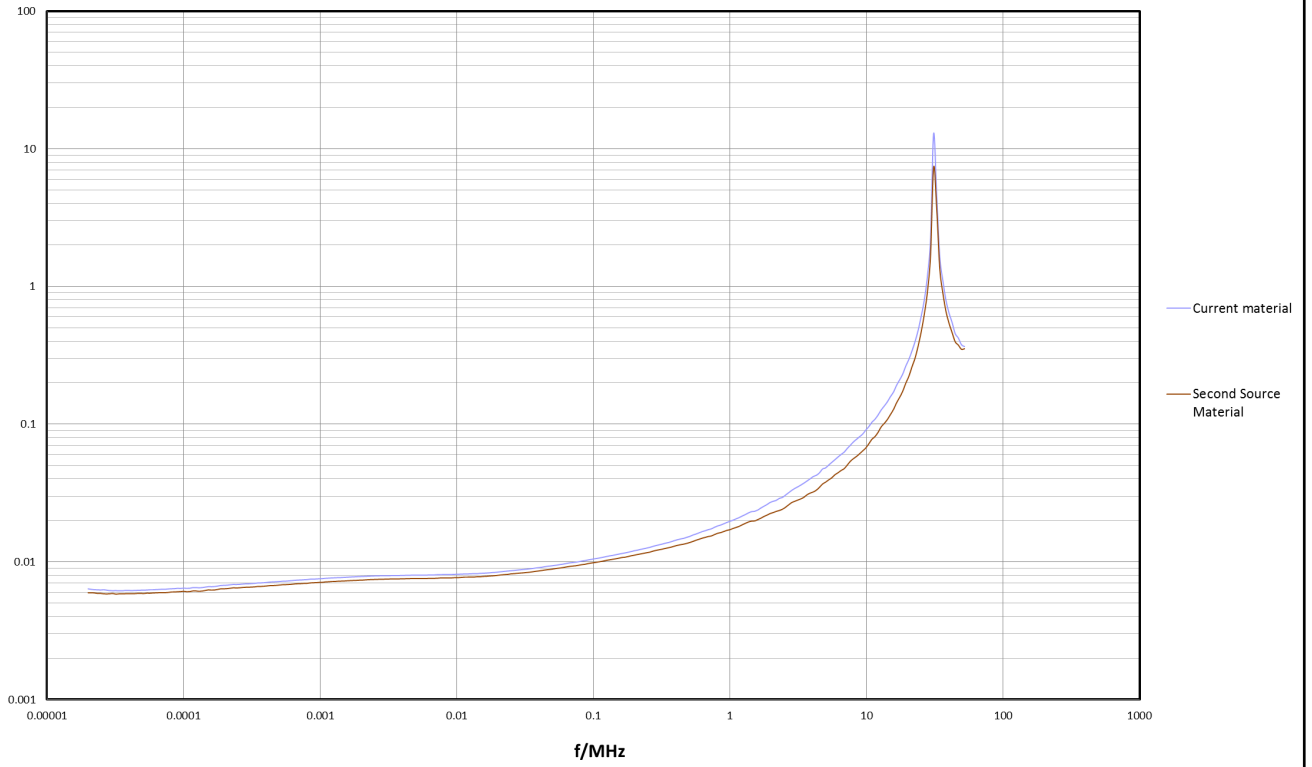


VC Curve

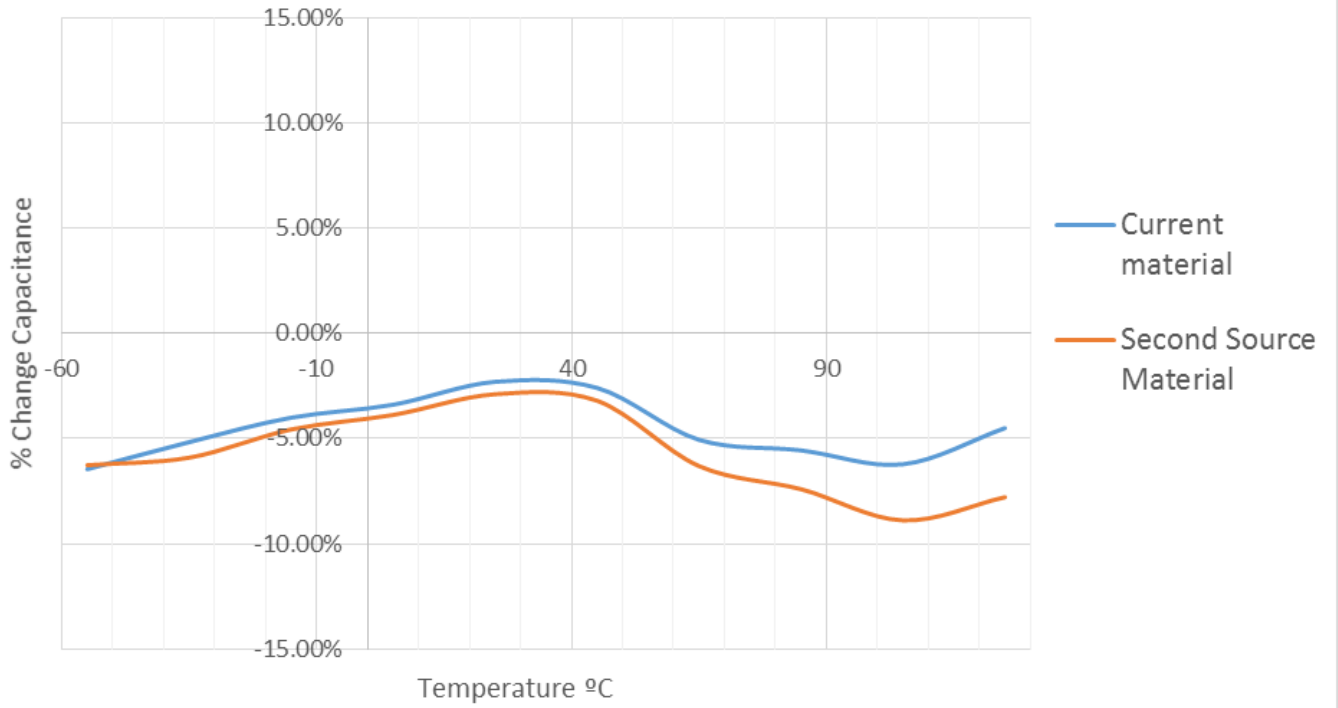




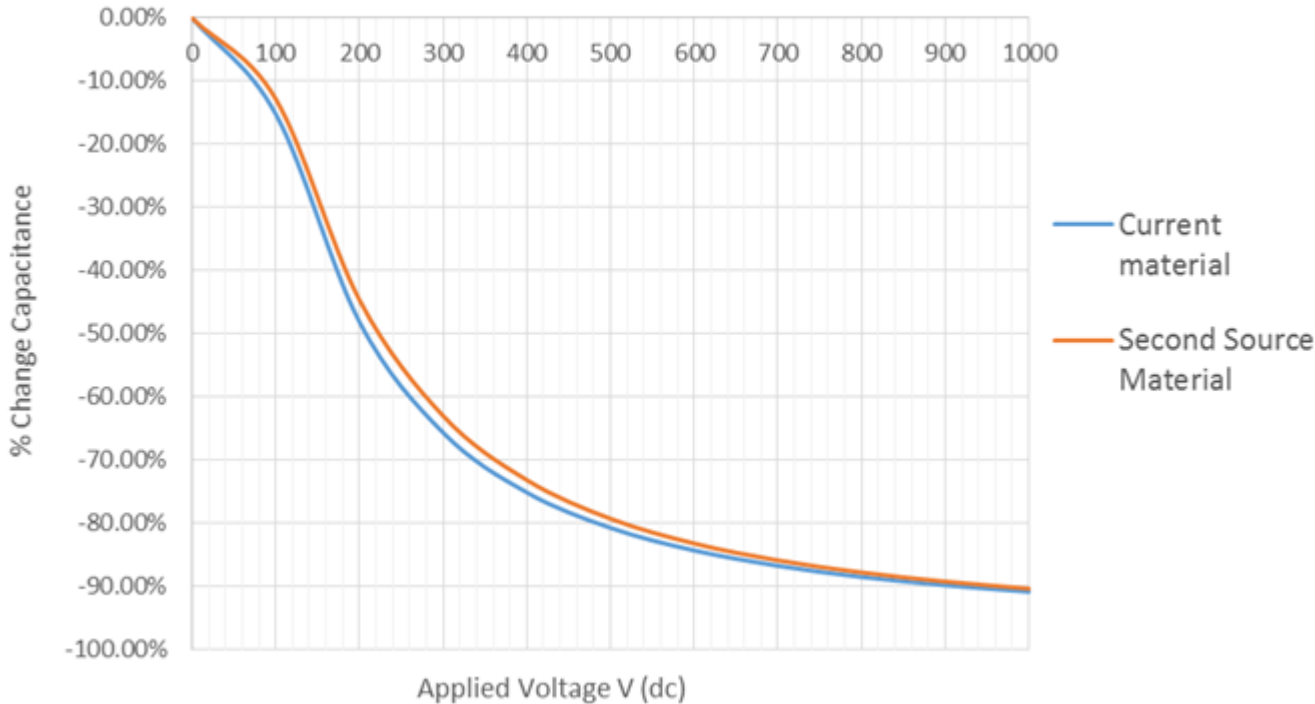
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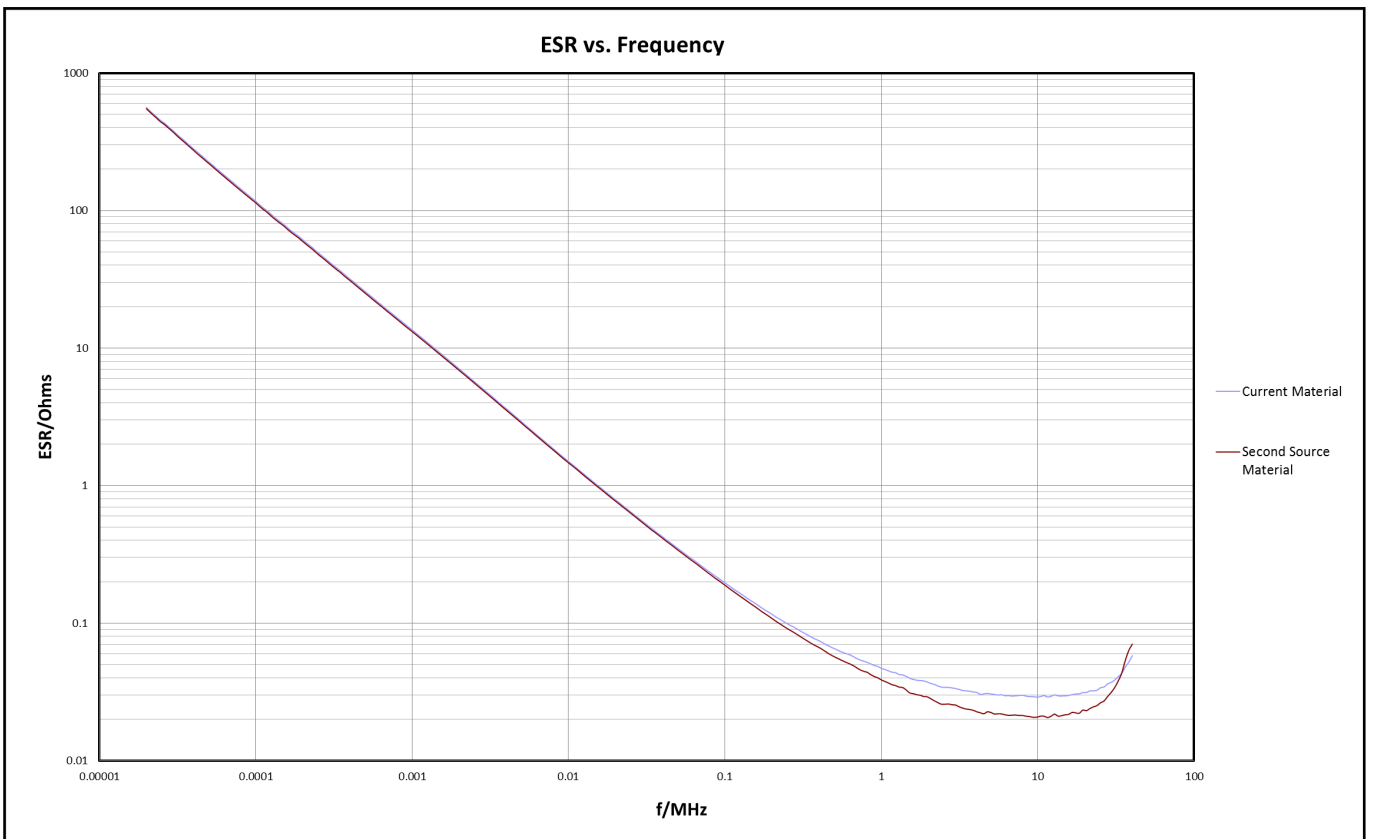
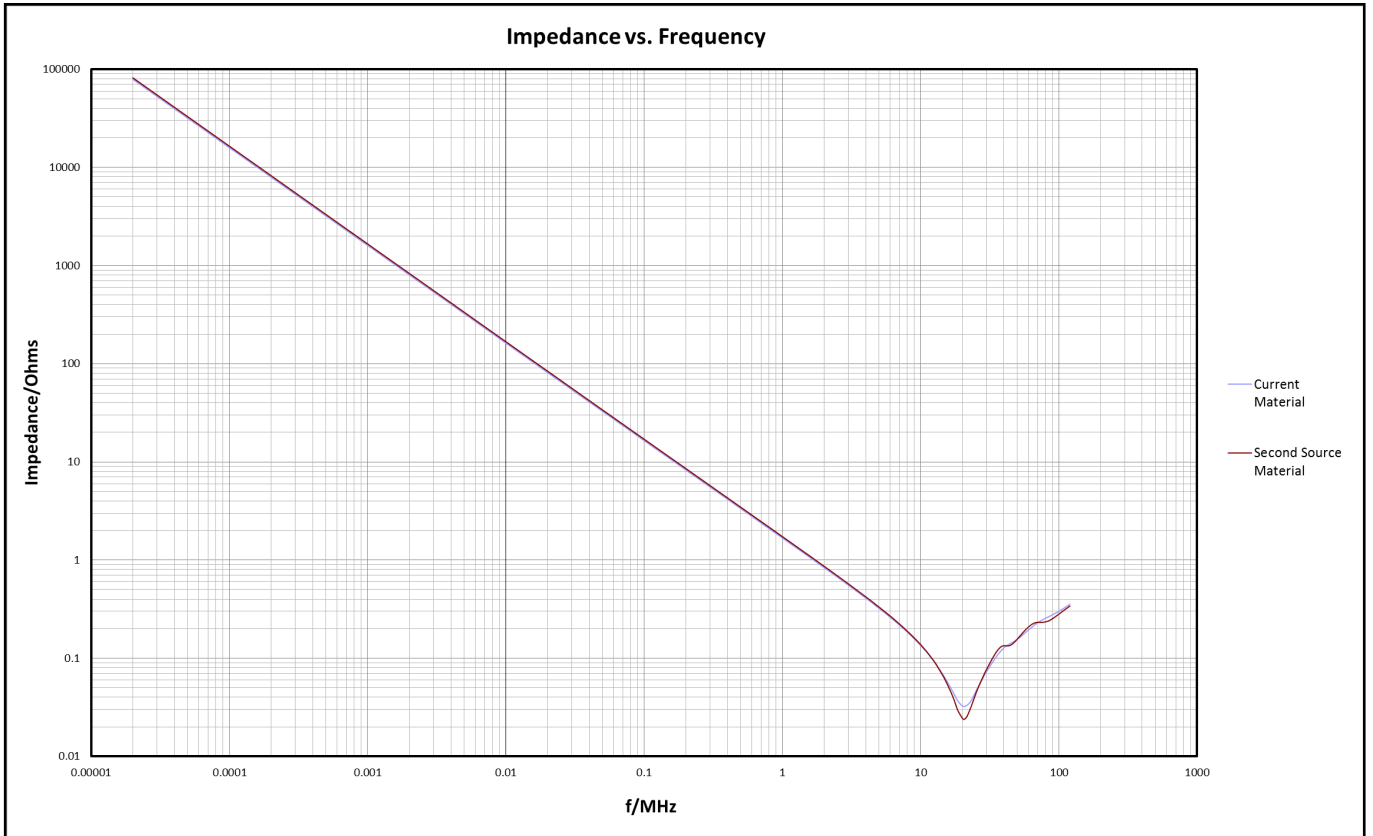


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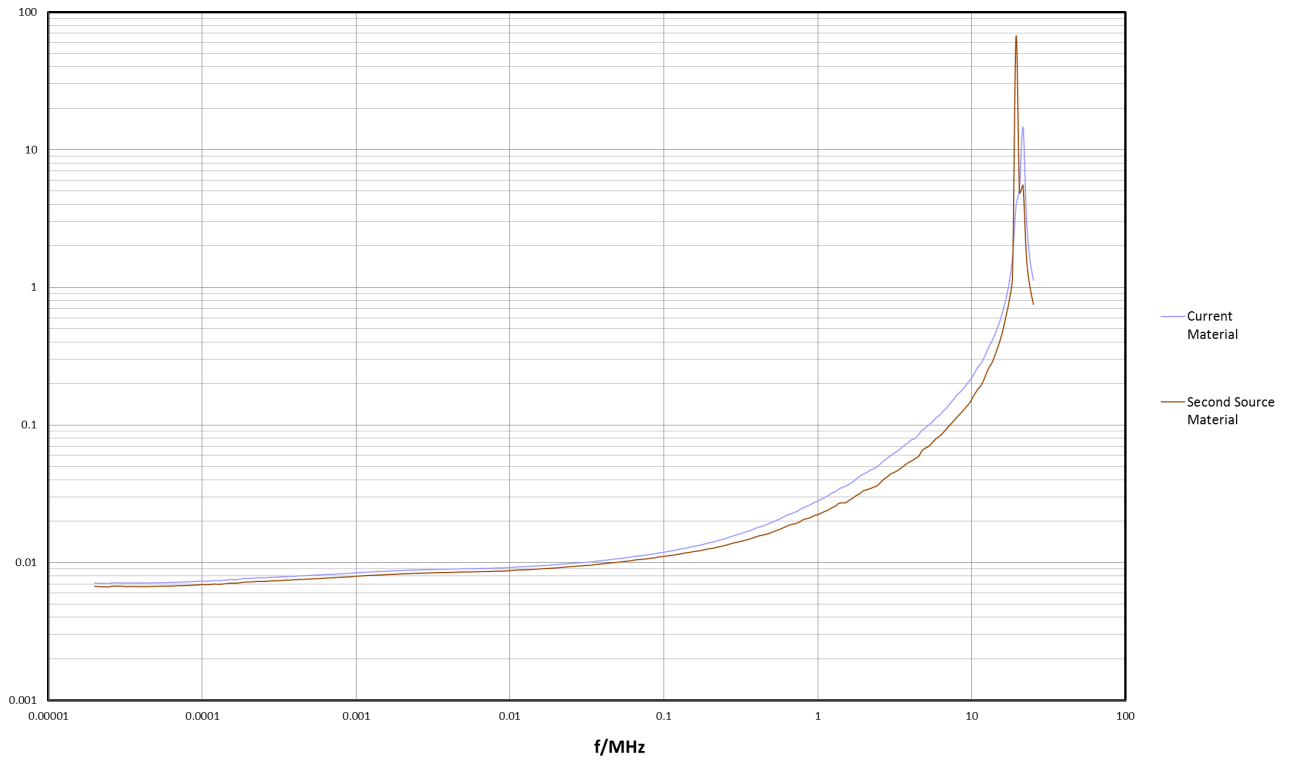


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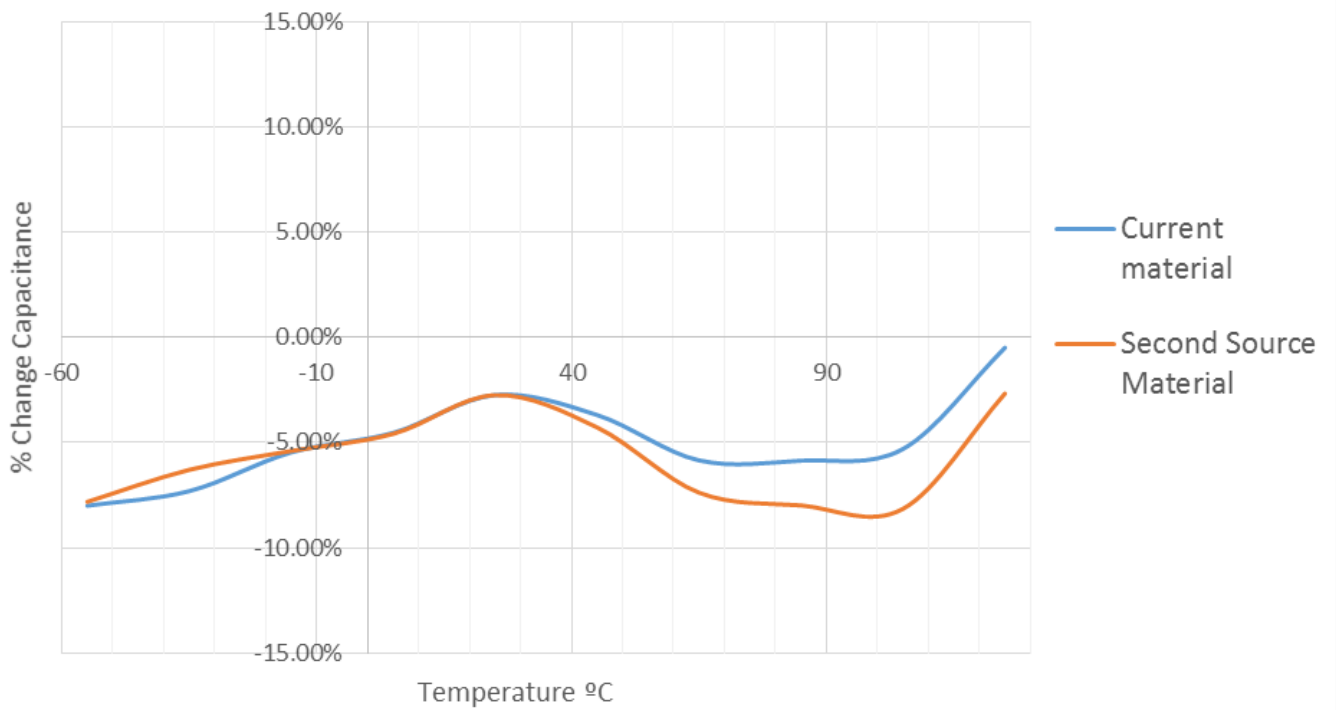




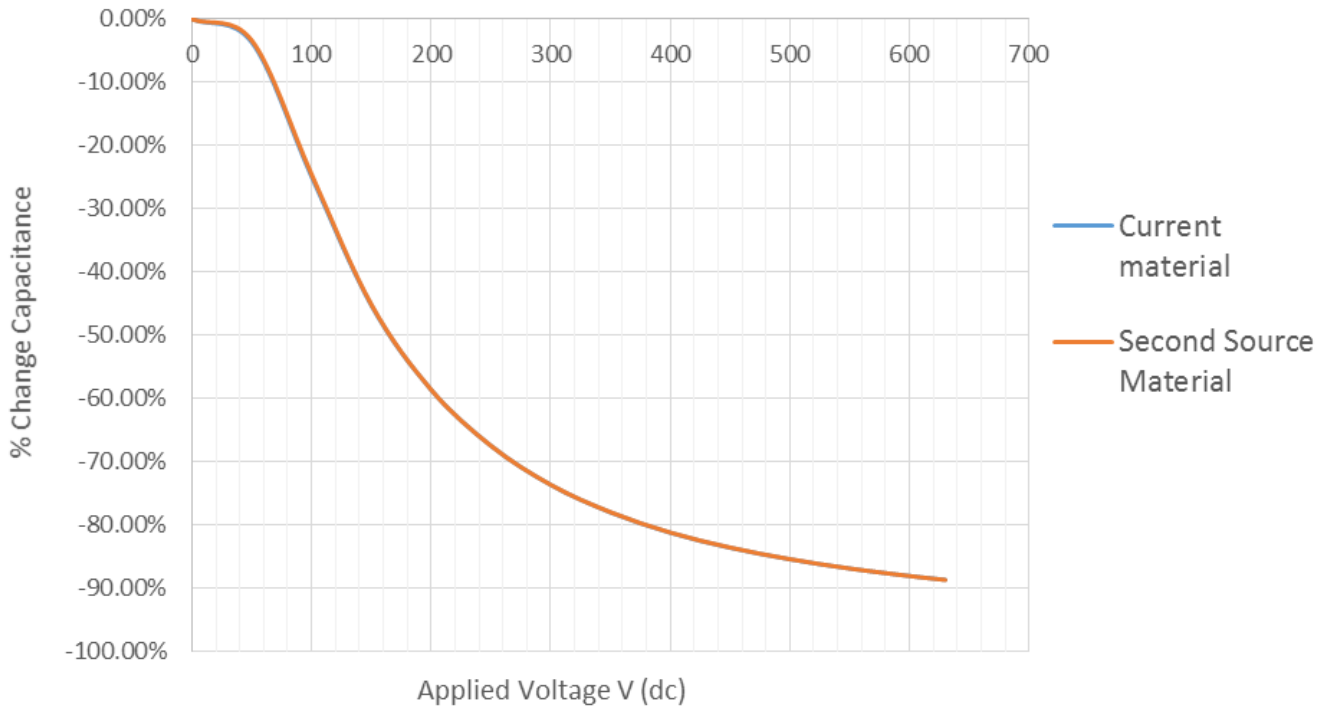
Df vs. Frequency

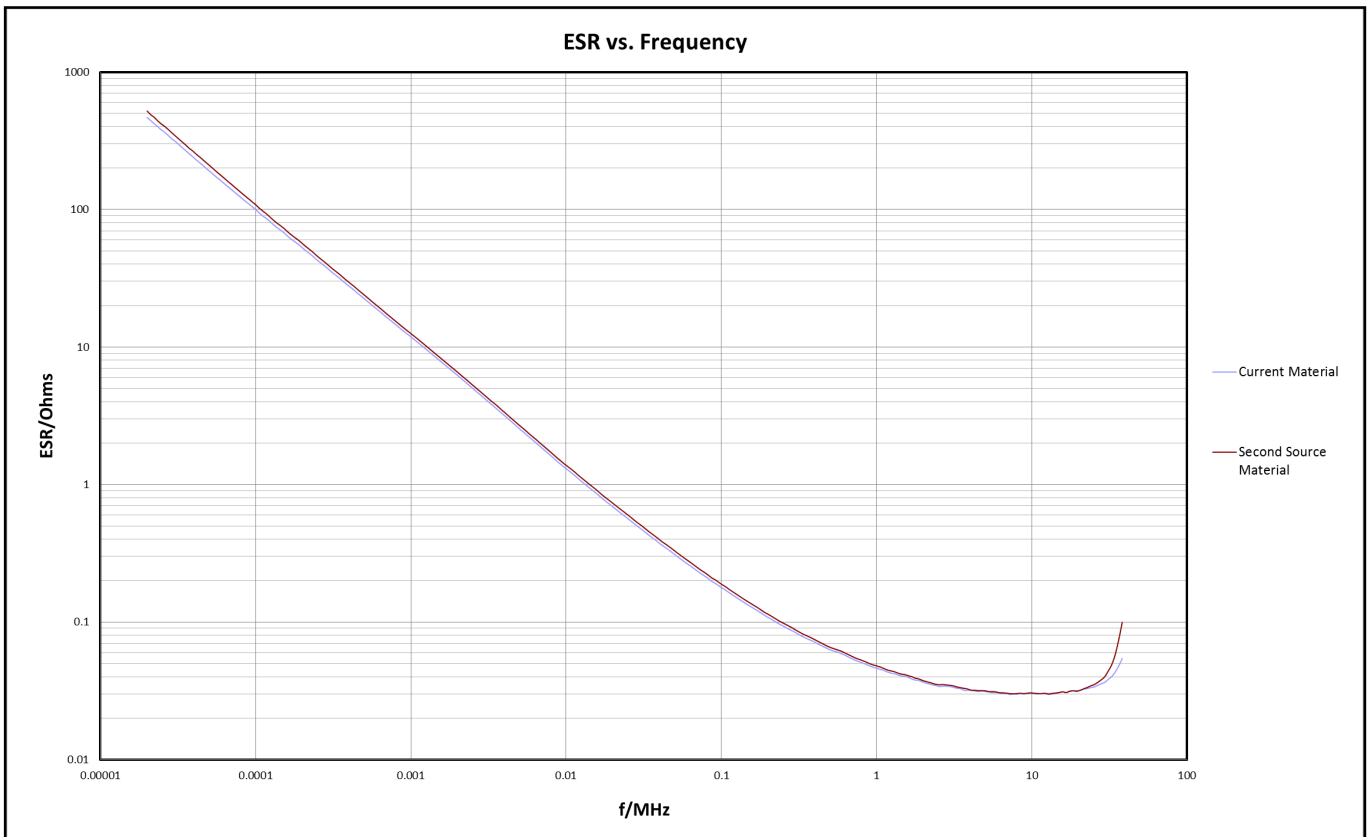
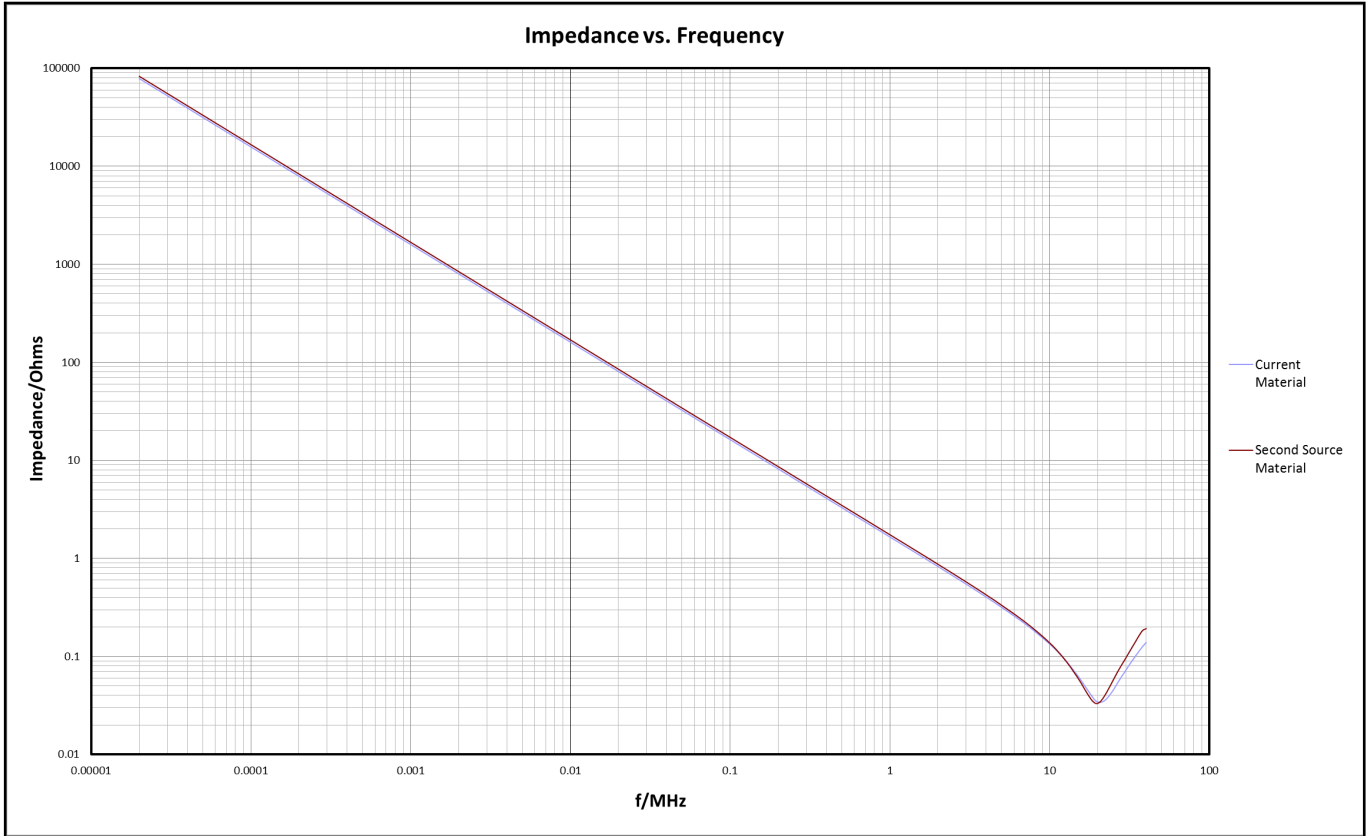


TC Curve

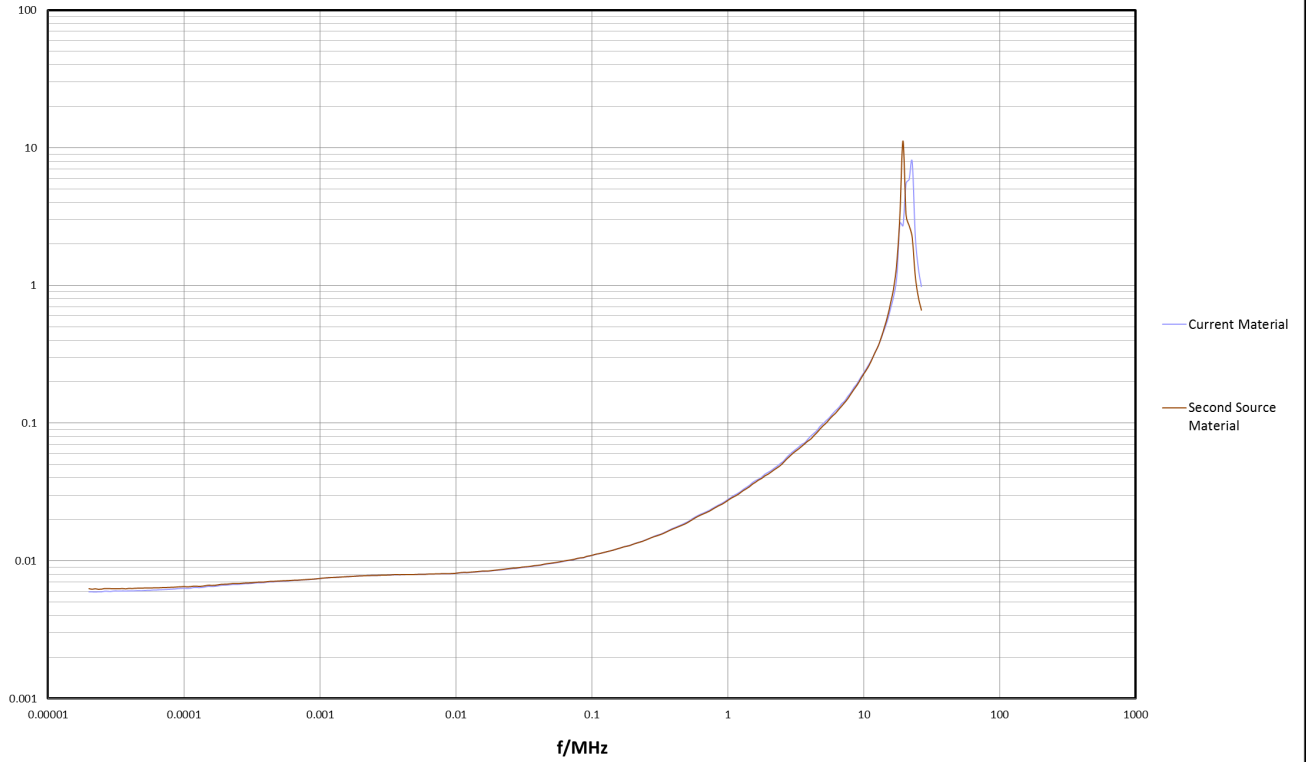


VC Curve

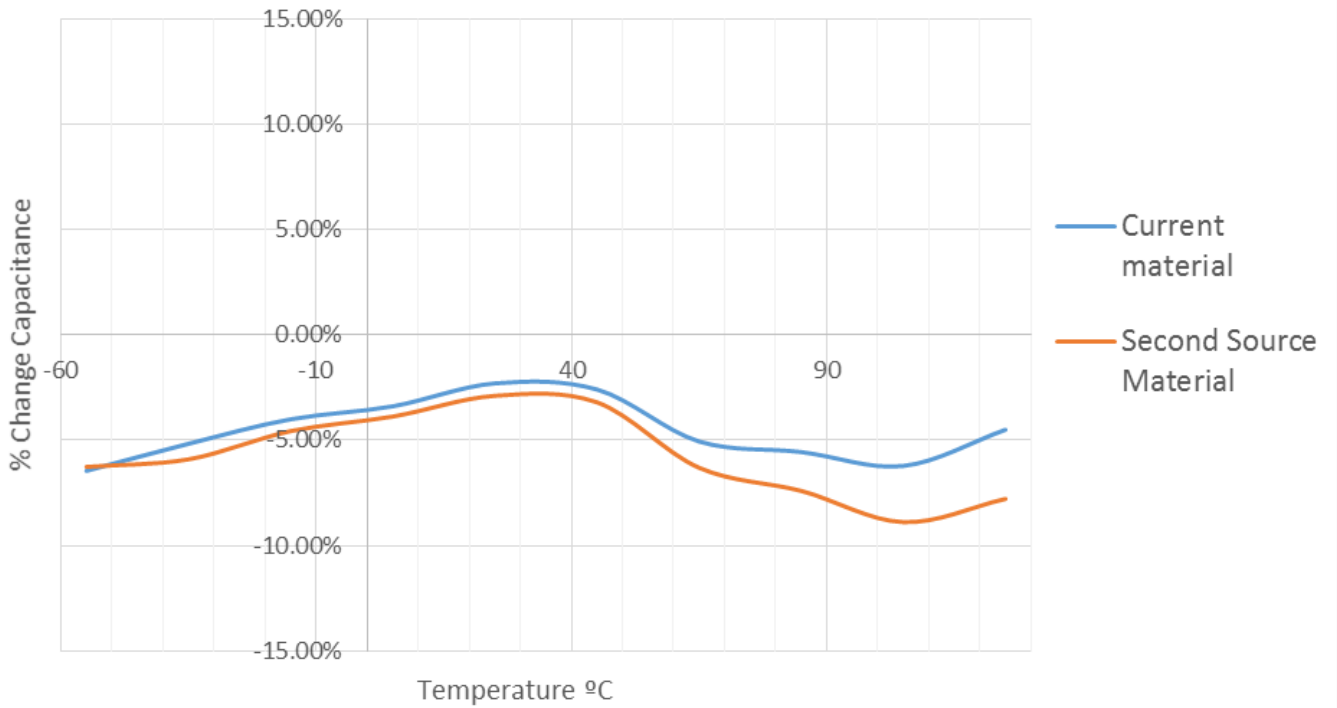


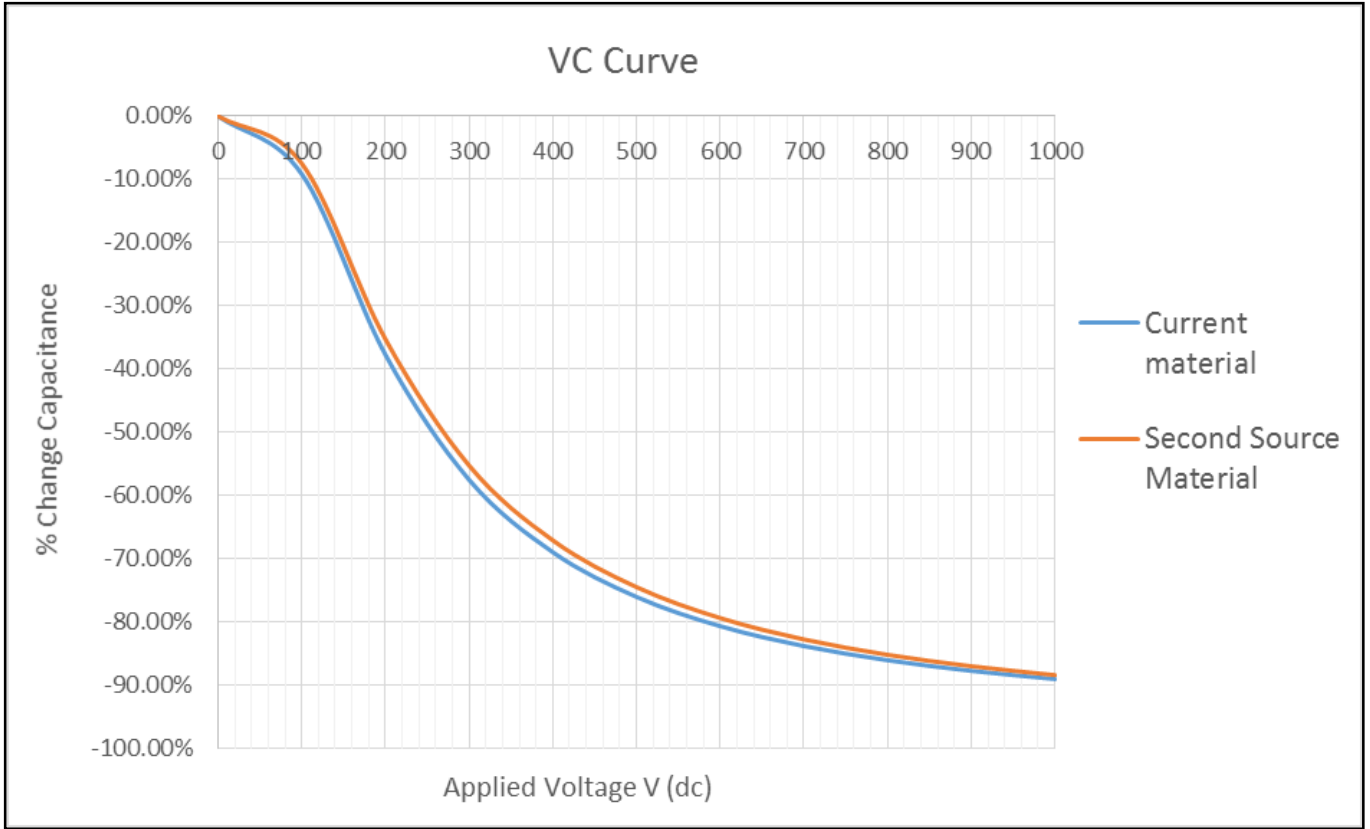


Df vs. Frequency



TC Curve





No notable difference between performance curves was identified. Performance was within specification where applicable.