NOTICE OF CHANGE

Change Type:	Notification Only	**Raised Date**	05-12-2022
Customer:		**Effect. Date**	01-03-2023
Contract:			
Project:			
Impact:	function		
Parts Affected:	All parts using PC40 Core material		
Obsolescence	☑ last order of PC40 material end of March 2023 with last supply March 2025.		
Last Buy	☑ last order of PC40 material end of March 2023 with last supply March 2025.	**Reference:**	NOC-22-003

Industrivangen 5
4550 Asnaes
Denmark

Details of Change

Flux has received notification that PC40 will be discontinued from manufacturer.
National Magnetics, who is machining IM cores, have confirmed the same notification.
There is a deadline for last order of PC40 material end of March 2023 with last supply March 2025.

Flux has made agreement with National Magnetics to secure further stock of PC40 block material to be able to continue manufacturing of historic IM designs for a longer period than our stock is expected to last (12 months from today).

To place a frame order of PC40 block material, Flux urgently needs your forecast and commitment for the period you wish to maintain the use of PC40 IM cores.
If no input is received before middle of March, in time for planning and placing new frame order, the PC40 IM cores in general will be obsolete at the time our stock runs out.

Justification

We have been informed that PC47 is intended to replace PC40. We have made below brief comparison of the two materials on IM designs:

PC40 -> PC47
Permeability: 2300 -> 2500 has no influence on IM due to gap
Loss at 100kHz 200mT
Lowest loss PC40 90°C – PC47 100°C
Loss 400kW/m3 -> 250kW/m3 (62,5%)
Loss 120°C 500 -> 375 kW/m3 (75%)
Loss 60°C 475 -> 425 kW/m3
Loss 30°C 600 -> 600 kW/m3
Saturation at 120°C 350 -> 375mT
PC47 is a good replacement for PC40.
PC47 material is not yet available as block material for machining and a lead time of 56 weeks has been informed.

Flux Approval

Name: Michael Simpson Quality Engineer	**Signature:**	**Date:** 05-12-2022

Customer

Name:	**Signature:**	**Date:**

Other Documents

NOTICE OF CHANGE

Reference:	NOC-22-003
Date:	05-12-2022

Changes Affecting Contract

Schedule:	☐	
Price:	☐	
Baseline:	☑	Change of material
Legislation:	☐	

Changes Affecting Product

Design:	☐	
Processes:	☐	
Materials:	☑	PC40 -> PC47
Process Flow:	☐	
Testing:	☐	
Documentation:	☐	
Equipment:	☐	
International Standards:	☐	
Legislation:	☐	

Changes Affecting QMS

Supplier:	☐	
Sub-contractor:	☐	
Organisation:	☐	
Legislation:	☐	
International Standards:	☐	
Origin:	☐	

Michael Simpson

From: Lars A. Gregersen
Sent: 5. december 2022 13:48
To: Carl Aage Dahl Winther; Charles Hemmingsen; Christian Lerche Sørensen; John Rasmussen; Martin Thomsen; Oliver Ekberg
Cc: Michael Simpson; Keld Voigt Broch; Dorthe Rousing; Mette Friis
Subject: Discontinuation of PC40 core material

Hej alle,

Nedenstående meddelelse er i dag sendt til IR og Thales:

To whom it may concern,

Regarding PC40 block material used for production of IM designs:

Flux has received notification that PC40 will be discontinued from manufacturer.
National Magnetics, who is machining IM cores, have confirmed the same notification.
There is a deadline for last order of PC40 material end of March 2023 with last supply March 2025.

Flux has stock of machined IM cores equal to quantities used the past 12 months.

We have been informed that PC47 is intended to replace PC40. We have made below brief comparison of the two materials on IM designs:

"
PC40 -> PC47
Permeability: 2300 -> 2500 has no influence on IM due to gap

Loss at 100kHz 200mT
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PC47 is a good replacement for PC40.
"

PC47 material is not yet available as block material for machining and a lead time of 56 weeks has been informed.

Flux has made agreement with National Magnetics to secure further stock of PC40 block material to be able to continue manufacturing of historic IM designs for a longer period than our stock is expected to last (12 months from today).

To place a frame order of PC40 block material, Flux urgently needs your forecast and commitment for the period you wish to maintain the use of PC40 IM cores.
If no input is received before middle of March, in time for planning and placing new frame order, the PC40 IM cores in general will be obsolete at the time our stock runs out.

Best regards

Lars A. Gregersen
COO - Defence and Space

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ESA Qualified Manufacturer