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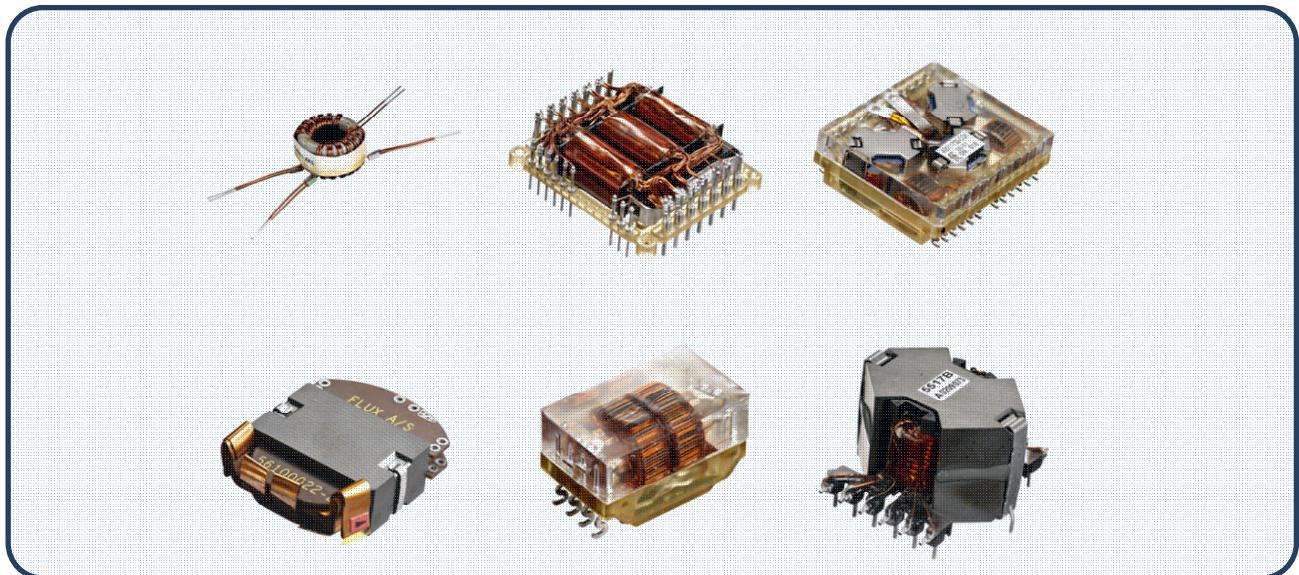
Qualification, Periodic Testing and LOT Validation

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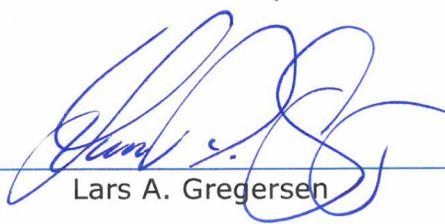
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Author


Michael D. Simpson

**Chief Operating Officer
(Defence and Space)**


Lars A. Gregersen

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DOCUMENT CHANGE LOG

Change No.	Date	Initiator	Pages Affected	Short Description of Change
2	11/06/24	MS	18 & 23 onwards	Addition of pico log data in the presentation of data section (section 8).

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11.12	Q12 - ESCC320101301F14391002-1	90
11.13	Q13 - ESCC320101301F12391001-2	91
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1. INTRODUCTION

This reports the Qualification, Periodic Testing and LOT Validation of parts within the Technology Domain of the Flux A/S Technology Flow Approval. Testing is performed in line with 3201/013. The components under test were defined in section 3.1

2. REFERENCE DOCUMENTS

Ref.	Document	Title
RD1	3201	Generic Specification: Coils, RF and Power, Fixed (Inductors and Transformers)
RD2	3201/13	Detail Specification: Customised Magnetics
RD3	MIL-STD-202	Test Method Standards - Electronic and Electrical Component Parts
RD4	FT08711502	Screen Testing
RD5	FT08699003	Declared Materials List
RD6	FT08699004	Declared Processes List
RD7	FT08699015	Technology Flow
RD8	FT08699016	ESA Qualification, Verification and Perdiodic Testing
RD9	124-20389-1	Vibration and Shock of Test Components

3. SAMPLES DEFINITION

3.1 Range of component families for testing

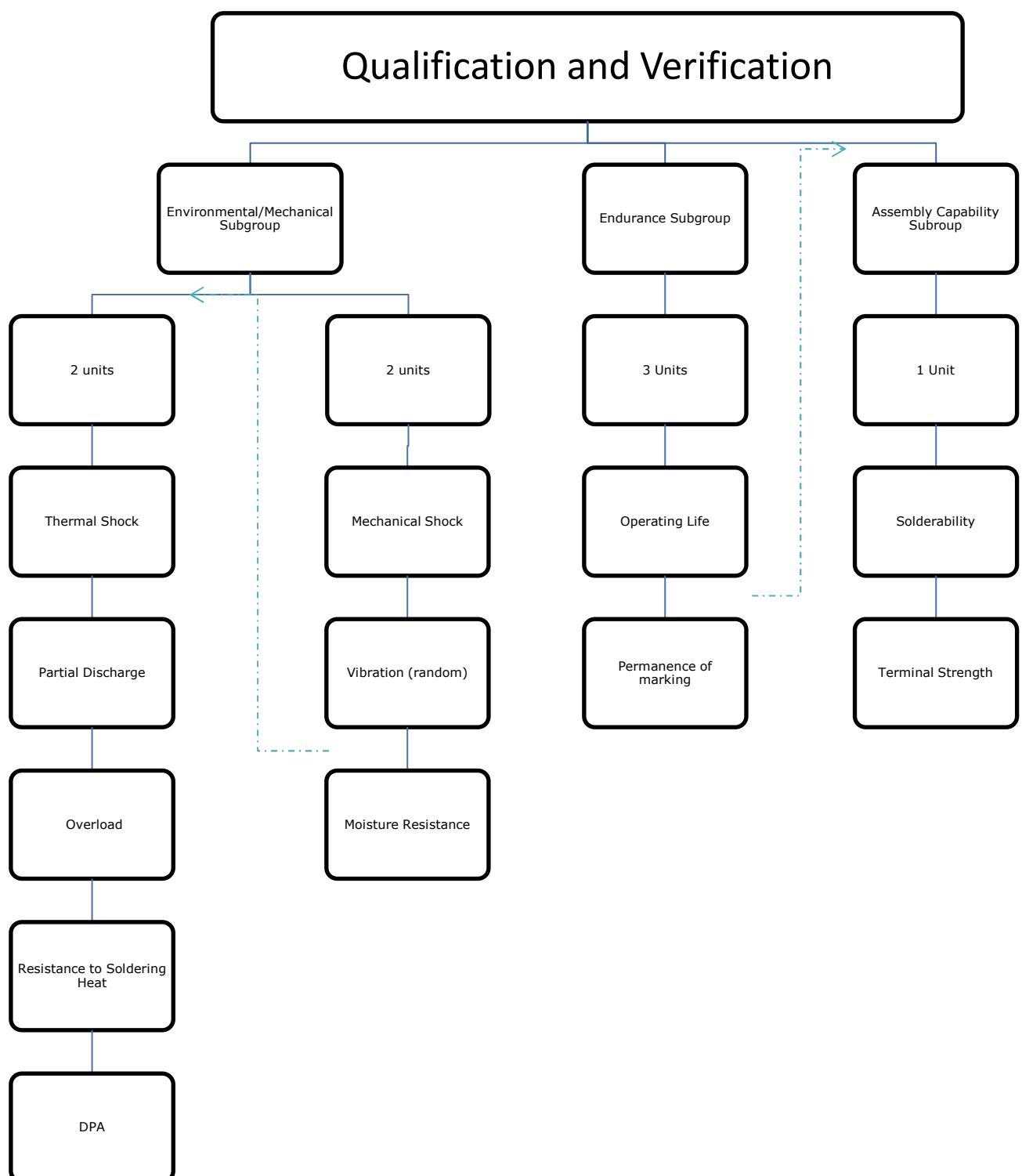
These parts were selected as representative of Flux's domain:

Evaluation Sample	Flux Part No	Description	Quantity
Q1	ESCC320101301F12181014-1	Inductor 195µH 1.9A (Attrition lager 3-2)	5
Q2	ESCC320101301F12900107-1	Flux Standard CM Toroid	5
Q3	ESCC320101301F12251047-1	Coupled Inductor	5
Q4	14890203-1-B	Gate Transformer	5
Q5	ESCC320101301F12311058-1	R12-I-5796 Inductor	5
Q6	ESCC320101399F14230080-2	Transformer EFD-3032	5
Q7	ESCC320101301F14280078-1	IM2 DCDC UDCA GTS	5
Q8	ESCC320101301F12800484-1	EP5 Inductor SMD (XAL)	5
Q9	ESCC320101301F14270167-1	Hi Power Inductor	5
Q10	ESCC320101301F15530201-1	1553 Bus transformer	5
Q11	14381003-1-PFM	EE43/10/28 3C95 Housing	5
Q12	ESCC320101301F14391002-1	Planar Transformer 450 V 2.5 kW	5
Q13	ESCC320101301F12391001-2	Ion motor inductor	5
Q14	ESCC320101301F12819002-1	ER 14,5 Inductor 27nH	5
Q15	ESCC320101301F12829003-1	E18 Inductor	5
Q16	ESCC320101301F12839009-1	E22 Inductor 82,5nH	5
Q17	ESCC320101301F14229007-1	RM8-SMD/THT-L25-20P Pin SMD	5
Q18	ESCC320101301F14229006-2	RM8-SMT-L32-20P GW SMD	5
Q19	ESCC320101301F 14260119-1	Transformer 180W	5

Table 3-1 Test samples

4. QUALIFICATION AND VERIFICATION TESTING

4.1 Original subgroups



4.2 Modified test flow

Test performed based the requirements of ESCC 3201/013. In order to reduce the number of units and increase the stringency of the testing, the same units will be used for both columns of the Environmental/Mechanical Groups. Additionally the unit in the Assembly Capability subgroup will be selected from the Endurance subgroup. This Testing is destructive and the samples are not suitable for flight use.

Group and Test	Sample					Method (Para)	Requirement (Para)
	1	2	3	4	5		
Environmental/Mechanical Groups.	Electrical characteristics	✓	✓			5.7.1	5.7.2
	Mechanical Shock	✓	✓			5.10.1	5.10.2
	Vibration (random)	✓	✓			5.9.1	5.9.2
	Moisture Resistance	✓	✓			5.15.1	5.15.2
	Electrical characteristics	✓	✓			5.7.1	5.7.2
	Thermal Shock	✓	✓			5.17.1	5.17.2
	Partial Discharge (Hi Power Transformer only)	✓	✓			5.13.1	5.13.2
	Temperature Rise (selected units)	✓				5.18	
	Overload	✓	✓			5.16.1	5.16.1
	Induced Voltage	✓	✓			5.5.1	5.5.2
	Dielectric Withstanding Voltage (at	✓	✓			5.6.1	5.6.2
	Electrical characteristics	✓	✓			5.7.1	5.7.2
	Visual Inspection	✓	✓			5.2.2.1	5.2.2.2
	Resistance to soldering heat	✓	✓			5.3.1	5.3.2
	DPA	✓				5.14.1	5.14.2
Endurance	Life			✓	✓	✓	5.11.1
	Permanence of Marking			✓	✓	✓	5.8.1
	Electrical characteristics			✓	✓	✓	5.7.1
	Visual Inspection			✓	✓	✓	5.2.2.1
Assembly	Solderability					✓	5.3.1
	Terminal Strength					✓	5.4.1
	Visual Inspection					✓	5.2.2.1
Sample Size = 5				Failures Allowed = 0			

4.3 Test facilities

All testing was performed at Flux's facilities in Asnaes, Denmark with the exception of Vibration and Mechanical Shock, which was performed at Force in Hørsholm, Denmark.

5. TEST METHODS AND REQUIREMENTS

The requirements for testing and the acceptance criteria is defined herein.

5.1 Screening

Screening shall be performed in accordance with FT08711502, prior to the start of Qualification, Periodic and LOT Validation Testing.

5.2 Visual inspection

5.2.1 Visual inspection method

Visual inspection shall be aided by magnification appropriate to the size of inspection item, between 4x to 10x magnifications. Additional magnification shall be used to resolve suspected anomalies or defects.

5.2.2 Visual inspection requirements

5.2.2.1 External

The components shall be examined to verify that the materials, external design and construction, physical dimensions, marking and workmanship are in accordance with the requirements defined in the relevant procedures and the reference documents given in section 2 of this procedure

5.2.2.2 Post-test

No more than 10% of the surface shall have pooling, flaking, chipping, cracking, crazing or other impairment of the protective coating. There shall be no leakage of the filling material, no evidence of other physical damage, such as cracks, bursting, or bulging of the case or corrosion affecting the mechanical or electrical operation of the samples.

5.3 Solderability

Solderability shall be performed on samples with PCB terminals. Solderability is not applicable for flying leads.

5.3.1 Solderability method

Solderability shall be tested by the "Soldering iron method", specified in MIL-STD-202, method 208. By using the "Soldering iron method" no separate test for resistance to soldering heat will be performed, and the purpose of this test will be:

- a) Qualification of the component resistance to heat when soldered with a soldering iron.
- b) Qualification of the solderability of the component terminals.

Practical test method to be applied:

- Minimum two of each type of terminals shall be tested
- A standard soldering iron shall be used. Tip temperature shall be 320 °C +/- 10 °C
- Solder alloy shall be Sn63Pb37 and flux shall be type RMA.
- The solder tip shall be held on the middle of the terminal for 2 Sec +/- 0,5 sec
- Solder iron tip shall be calibrated to reach 280°C on the calibration wire in 2 sec

5.3.2 Solderability requirements

The pins shall be visually inspected. Any termination that has less than 5% of the examination area dewetted, nonwetted or with pinholes will be accepted. Inspection is in accordance with MIL-STD-202^(RD2), method 208.

5.4 Terminal strength

Up to a maximum of 4 identical terminals per sample are to be subjected to terminal strength testing. Terminal strength is not applicable for flying leads.

5.4.1 Terminal strength method

Terminal Strength: Unless otherwise specified in the Magnetic Sheet for the component under test, the Terminal Strength shall be tested as specified in Para. 8.17 of ESCC 3201.

5.4.2 Terminal strength requirements

There shall be no evidence of loosening or rupturing of terminals, or other mechanical damage.

5.5 Induced voltage

5.5.1 Induced voltage method

Wound toroids manufactured on a winding machine shall be subjected to a voltage sufficient to cause twice the rated voltage across any winding or 300V for wires <0.250mm and 500V for wires ≥ 0.250mm whichever is greater

This test will be performed as surge test with 10 pulses.

5.5.2 Induced voltage requirements

During this test the magnetic device shall be inspected for evidence of continuous arcing, flashover, breakdown of insulation, and abrupt changes in the input current. Means shall be provided to indicate fluctuations of input current.

5.6 Dielectric withstanding voltage

5.6.1 Dielectric withstanding voltage method

The dielectric withstanding voltage test, serves to determine whether insulating materials and spacing between different parts in the magnetic component are adequate.

The test consists of the application of an AC voltage higher than rated voltage for a specific time between mutually insulated portions of a component part or between insulated portions and ground.

The test shall be applied between each winding and shield, and all of the other windings and shields connected to the core (if accessible). Alternatively the test shall be applied between each winding and shield, and each of the other windings, shields and core (if accessible).

Atmospheric pressure applies

<i>Voltage</i>	<i>TBD.</i>
<i>Max. Current</i>	<i>TBD</i>
<i>Ramp Time</i>	<i>Max. 1 s</i>
<i>Dwell Time</i>	<i>Min. 60 s for qualification</i> <i>Min. 5 s for validation</i>
<i>Frequency</i>	<i>50 Hz</i>

5.6.2 Dielectric withstanding voltage requirements

During and post test the magnetic device shall be inspected for evidence of arcing, flashover, breakdown of insulation, and damage.

5.7 Electrical characteristics

5.7.1 Electrical characteristics test method

The applicable electrical measurements as specified in the detail specification, shall be measured in accordance with FT08711502 and as agreed in the baseline for each part.

5.7.2 Electrical characteristics requirements

The measured electrical characteristics shall fall within the limits specified in the detail specification, including any formally agreed deviation. Drift shall be calculated with reference to the first measurement after production screening

5.8 Permanence of marking

5.8.1 Permanence of marking method

Components shall be tested using the methods detailed MIL-STD-202,method 215.

The following shall reply:

- The marked portion of the components shall be brushed.
- The solvents tested shall be:
 - Demineralized water
 - 2-propanol

5.8.2 Permanence of marking requirements

There shall be no evidence of mechanical damage and the markings shall remain legible. The paint or exterior finish shall not soften, peel, or show other signs of deterioration.

5.9 Vibration

MIL-PRF-27^(RD1) states that MIL-STD-202^(RD2) method 201 or 204 be used. Flux feels that these two options form an unrealistic scenario, therefore we elected to increase the vibration testing and use method 214. The purpose of which is:

'This test is conducted for the purpose of determining the ability of the component parts to withstand the dynamic stress exerted by random vibration applied between upper and lower frequency limits to simulate the vibration experienced in various service field environments'

5.9.1 Vibration test method

The components shall be mounted on a PCB and a vibration fixture and exposed to random vibration according to MIL-STD-202^(RD2), method 214, condition H.

Test conditions are as follows: random vibration

- Vibration level: 30 g rms.
- Duration: 5 minutes per axis.
- Level applied to fixture.

Axis	Frequency Range (Hz)	Level	G rms. Acceleration	Duration per axis
X,Y,Z	20 -100	+ 6 dB/oct	30	300 sec.
	100-1600	0.5 g ² /Hz		
	1600-2000	- 12 dB/oct		

Table 5-3 Vibration test level

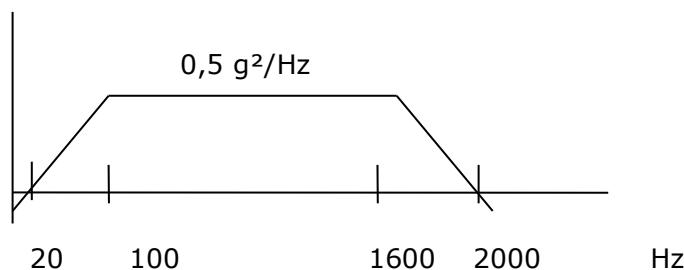


Figure 9-4 Vibration test PSD spectrum

5.9.2 Vibration test requirements

There shall be no evidence of physical damage in accordance with MIL-PRF-27^(RD1), section 4.7.16. Visual inspection shall be performed after vibration testing.

5.10 Mechanical shock

5.10.1 Mechanical shock method

The components shall be mounted on a PCB and a vibration fixture. The components shall be exposed to three shocks in each direction of the three perpendicular axes.

For Qualification Testing, and Periodic Testing for renewal of qualification after lapse: test condition: D (half sine, 500g, 1ms) shall apply.

For Periodic Testing for extension of qualification: test condition I (sawtooth, 100g, 6ms) shall apply.

5.11 Life test

5.11.1 Life test method

Operating Life: Unless otherwise specified, shall be replaced by either Passive Life or Operating Life, as specified in the magnetic sheet for the component under test, as follows:

5.11.1.1 Passive life

MIL-STD-202, Method 108 with the following details:

- Mounting: the components shall be mounted on racks or on a PCB
- Duration:
 - 2000 (+48 -0) hours for Qualification Testing, and Periodic Testing for renewal of qualification after lapse.
 - 1000 (+48 -0) hours for Periodic Testing for extension of qualification Ambient test temperature: maximum operating temperature as specified in Maximum Ratings
- Operating conditions: Non-operating
- Data points:
Intermediate and End-Point Electrical Measurements shall be performed as specified in the Magnetic Sheet for the component under test at 0, and 1000 hours. If drift values are specified, the drift shall always be related to the 0-hour measurement.

The components shall be stabilised at ambient room conditions for a minimum of 30 minutes after removal from the test chamber, prior to the performance of measurements.

On completion of testing, the components shall be visually examined. There shall be no evidence of any damage.

5.11.1.2 Operating life

MIL-STD-202, Method 108 with the following details:

- Mounting: the components shall be mounted on racks or on a PCB
- Duration:
 - 2000 (+48 -0) hours for Qualification Testing, and Periodic Testing for renewal of qualification after lapse.
 - 1000 (+48 -0) hours for Periodic Testing for extension of qualification.

- Operating conditions: 5 ON/OFF cycles/week as follows:
 - Cycles 1 to 4: ON for 20 hours: operating at maximum operating temperature as specified in Maximum Ratings, plus OFF for 3 hours: non-operating at $T_{amb} = +22 \pm 3^\circ\text{C}$

followed by:

- Cycle 5: ON for 68 hours: operating at maximum operating temperature as specified in Maximum Ratings, plus OFF for 3 hours: non-operating at $T_{amb} = +22 \pm 3^\circ\text{C}$

During ON periods, unless otherwise specified in the Magnetic Sheet for the component under test, the component with all normally loaded secondaries loaded with their specified impedances, shall be loaded with 100% rated power as specified in the Magnetic Sheet for the component under test.

- Data Points:

Intermediate and End-Point Electrical Measurements shall be performed as specified in the Magnetic Sheet for the component under test at 0, 1000 and 2000 hours. If drift values are specified, the drift shall always be related to the 0-hour measurement.

The components shall be stabilised at ambient room conditions for a minimum of 30 minutes after removal from the test chamber, prior to the performance of measurements.

5.11.2 Life test requirements

On completion of testing, the components shall be visually examined. There shall be no evidence of any damage.

5.12 Insulation resistance

5.12.1 Insulation resistance method

At specified voltage with insulation resistance (IR) of 7,500 megohms minimum, unless stated otherwise.

5.12.2 Insulation resistance requirements

There shall not be any evidence of physical damage in accordance with MIL-PRF-27^(RD2).

5.13 Internal mechanical examination (Destructive physical analysis(DPA))

5.13.1 DPA method

Components are to be moulded into adequate material, and cut and polished. The cut planes shall include solderings if any, and the core. Multiple cutplanes may be necessary. The components are to be visually inspected and photographed.

5.13.2 DPA requirements

There shall not be any evidence of physical damage of core, wires, coilformer, solderings, and insulation materials or impregnation material.

5.14 Partial discharge

Transformer only – the applicable parts are listed below.

Evaluation Sample	Flux Part No	Description	Quantity
Q12	ESCC320101301F 14391002-1-C	Planar Transformer 450 V 2.5 kW	5

5.14.1 Partial discharge Method

- a. Magnitude of test voltage: 533Vac peak
- b. Frequency: 50Hz
- c. Test duration: 10 minutes min (after ramp up / before ramp down)
- d. Background noise: <2pC
- e. Pressure: <2Pa
- f. Pass criteria: no pulse ($\geq 5\text{pC}$) during the test duration shall be observed

5.15 Moisture resistance

5.15.1 Moisture resistance method

Moisture resistance is to be performed by exposing the components to a number of temperature and humidity cycles as specified in MIL-STD-202^(RD2), method 106F. The components are not to be polarised or loaded during humidity cycles. Cycle steps 7a (-10°C conditioning) and 7b (vibration) are not applicable.

5.15.2 Moisture resistance requirements

There shall be no evidence of physical damage, or corrosion affecting the mechanical or electrical operation of the component, in accordance with MIL-PRF-27^(RD1), section 4.7.20.

5.16 Overload

5.16.1 Overload method

Overload test have been performed by applying operating conditions as specified for each component, with the following exceptions:

- Power is to be at 112% of nominal power
- Temperature: Increase 1 temperature class

The operating conditions were applied for at least 48h in accordance with in accordance with MIL-PRF-27^(RD1), section 6.11.

5.16.2 Overload requirements

There shall be no evidence of physical damage in accordance with MIL-PRF-27^(RD1), section 3.24.

5.17 Thermal shock

5.17.1 Thermal shock method

Thermal shock shall be performed using an environmental chamber. The following test conditions shall be used; if not otherwise specified in the Order Baseline Matrix.

Parameter	Requirement
Minimum temperature	- 55°C ±3°C
Maximum temperature	+120°C ±3°C
Transition temperature	Room Temperature
Dwell time at min. and max. temperature	30 min.
Dwell time at transition temperature	4 min.
Transfer time	< 5 min.
Number of cycles	100

The first five cycles shall run continuously. After five cycles, the test may be interrupted after the completion of any full cycle, and the components allowed to return to ambient room temperature before testing is resumed.

5.17.2 Thermal shock requirement

The components shall be examined for evidence of leakage and other visible damage according to MIL-PRF-27^(RD1) section 3.24.

5.18 Temperature rise

This test will be performed when requested by the customer.

5.18.1 Temperature rise method

The temperature rise of components shall be determined by any suitable method, but preferably by the resistance-change method.

The device with all normally loaded secondaries loaded with their specified impedances, shall have their windings loaded with the rated currents and voltages at the minimum frequency specified in the Detail Specification. Forced-air circulation shall be shut off when the electrical conditions are applied.

5.18.2 Temperature rise requirement

The units shall be within the specified parameters.

6. FAILURE ANALYSIS

In case of a failure, further testing shall be stopped and report in accordance with FT 08783001^(RD7). All failed components shall be analysed. The depth of the failure analysis shall depend upon the circumstances in which the failure occurred and upon what useful information can be gained. Reverse processing shall be included as an additional test step. As a minimum the failure mode shall be determined in each case. Failed components shall be marked as failed, and marked with the test in which failure was discovered.

7. ACCEPT/REJECT CRITERIA

Lot acceptance samples where one or more sample units do not fulfil the requirements for any one or more tests are to be removed and are considered not acceptable. If, however, the cause of the failure can be identified as bad workmanship, wrong handling or similar reasons and is clearly not related to the general performance of material, process or topology, the sample can be considered as acceptable.

8. TEST RESULTS

8.1 Presentation of results

The results are presented and summarised in herein any remarks relevant to the test campaign are detailed in sections 8.8 through 8.10.

8.2 Vibration and Mechanical Shock

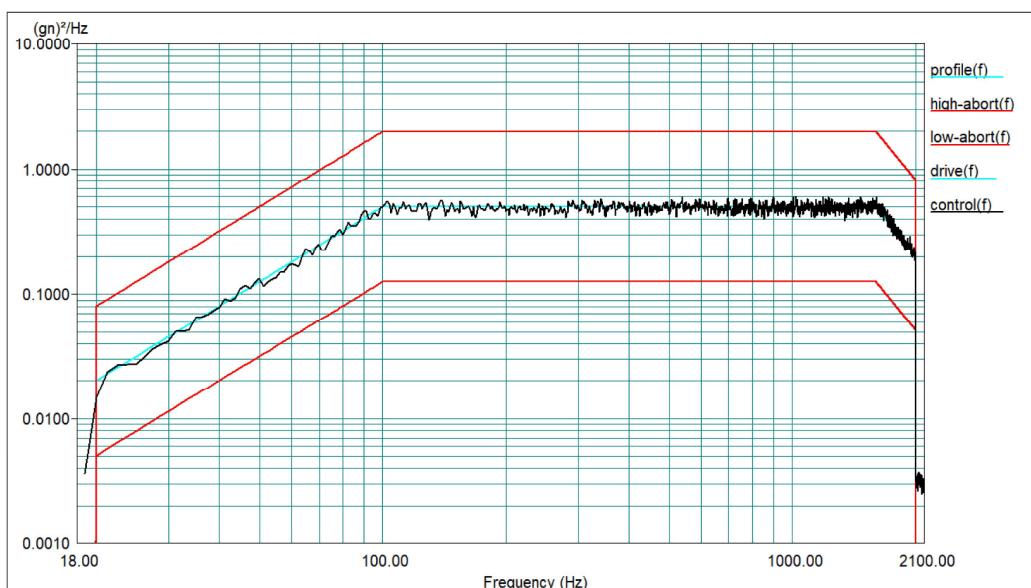
Vibration and Mechanical shock was performed at Force all units passed without comments.
The plots shown are extracts from Force Report 124-20389-1^(AD9).

Appendix 1 List of instruments

NO.	DESCRIPTION	MANUFACTURER	TYPE NO.
ECOVIB	EI.Dyn. Shaker	HBK-LDS	V8750 Combo
EVFGT-18-2	Shock Generator	AVEX	SM110-MP
33264	Accelerometer	Brüel & Kjær	4371
31865	Accelerometer	Brüel & Kjær	4371
31620	Accelerometer	Brüel & Kjær	4393
43296	Preamplifier, 4-Channel	Brüel & Kjær	2692
43356	Preamplifier, 4-Channel	Kistler	5165A4
43357	Preamplifier, 4-Channel	Kistler	5165A4
43235	Shaker Controller	LDS Dactron	LAS 200
43213	Oscilloscope, PC-A/D	Picotech	2205
43329	Humidity Logger	Elma	DT-172

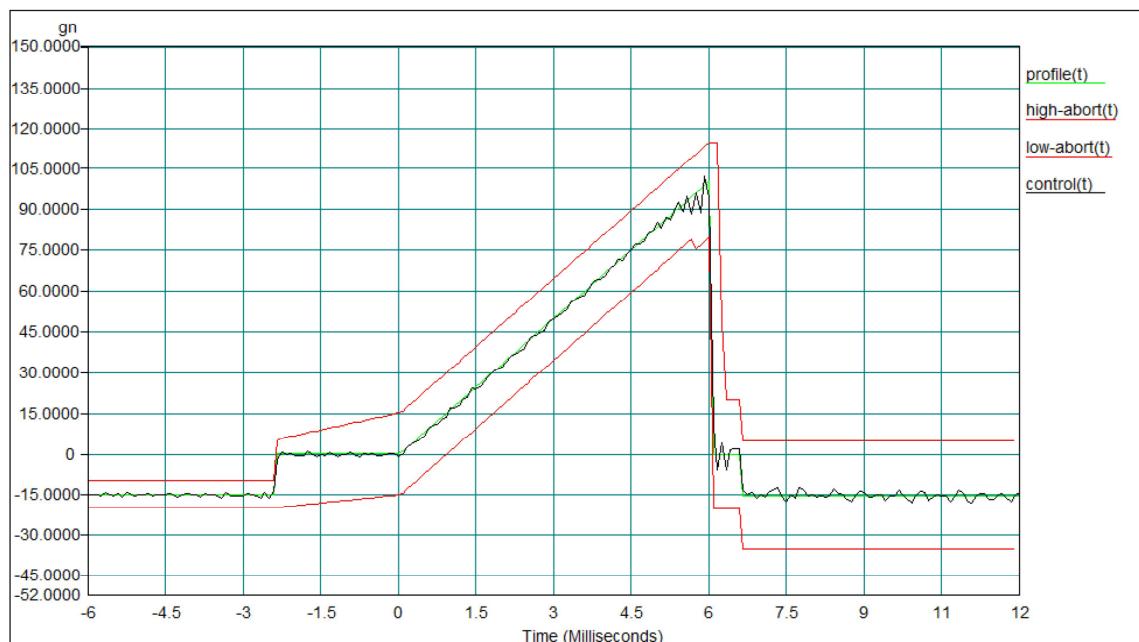
8.2.1 Random Vibration

This was performed on all units from subgroup 3

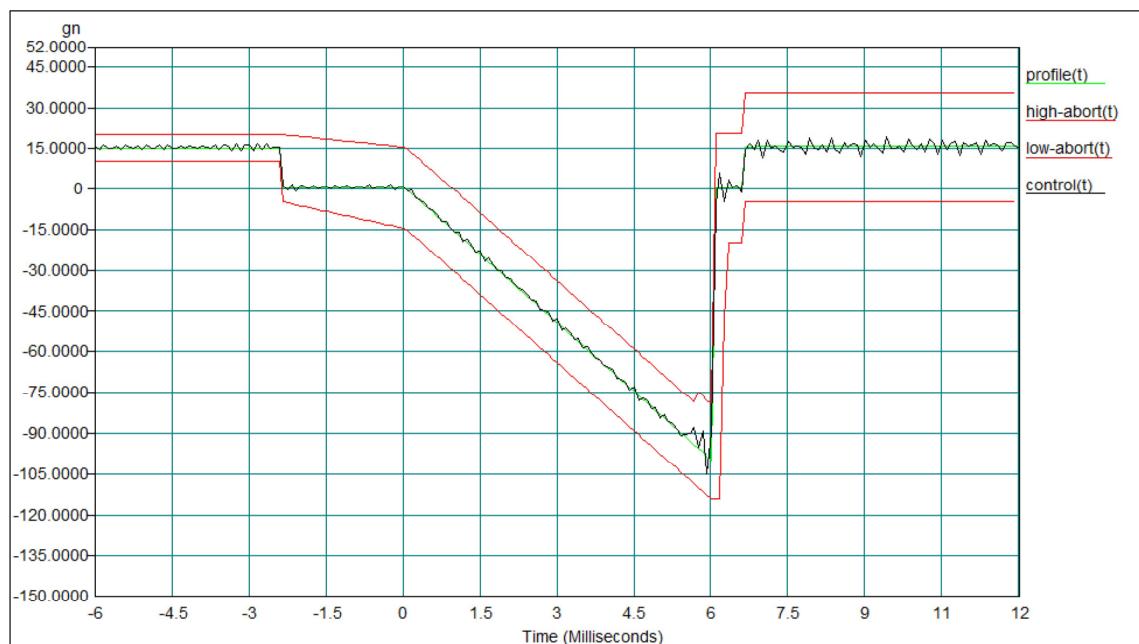


Curve 1 Exposure curve e.g., 1st run. Similar curve for all runs.

8.2.2 Mechanical Shock 100g



Curve 2 Positive shock e.g. 2nd run. Similar curves for all runs.

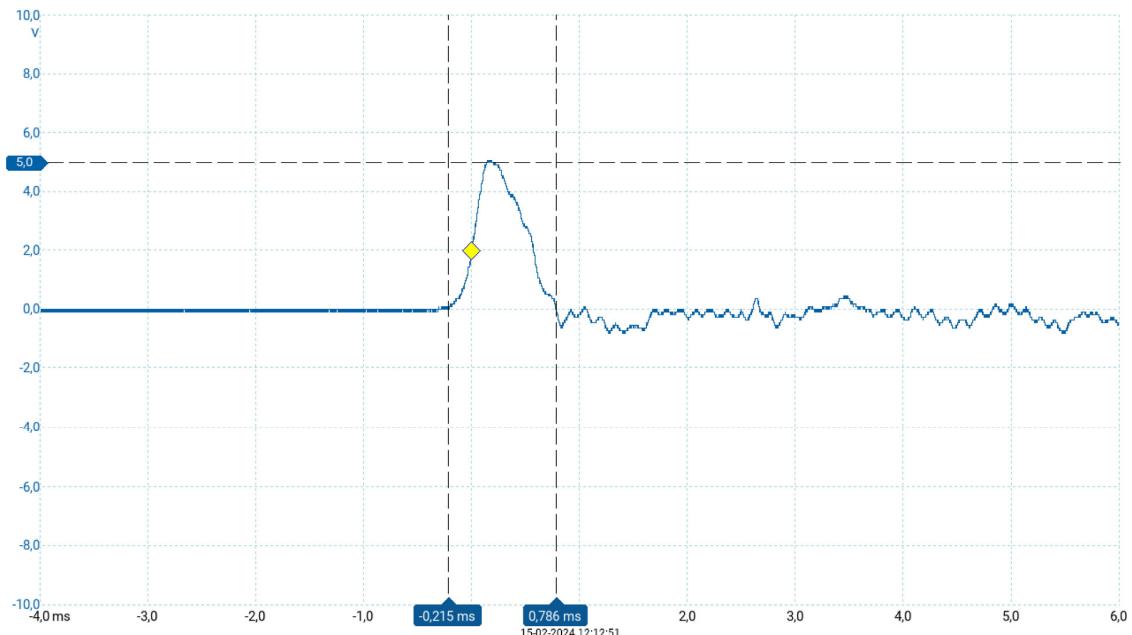


Curve 3 Negative shock e.g. 3rd run. Similar curves for all runs.

8.2.3 Mechanical Shock 500g



Photo 25 Test setup on shock machine for shocks in negative Z-axis. Several runs performed to complete all the shocks.

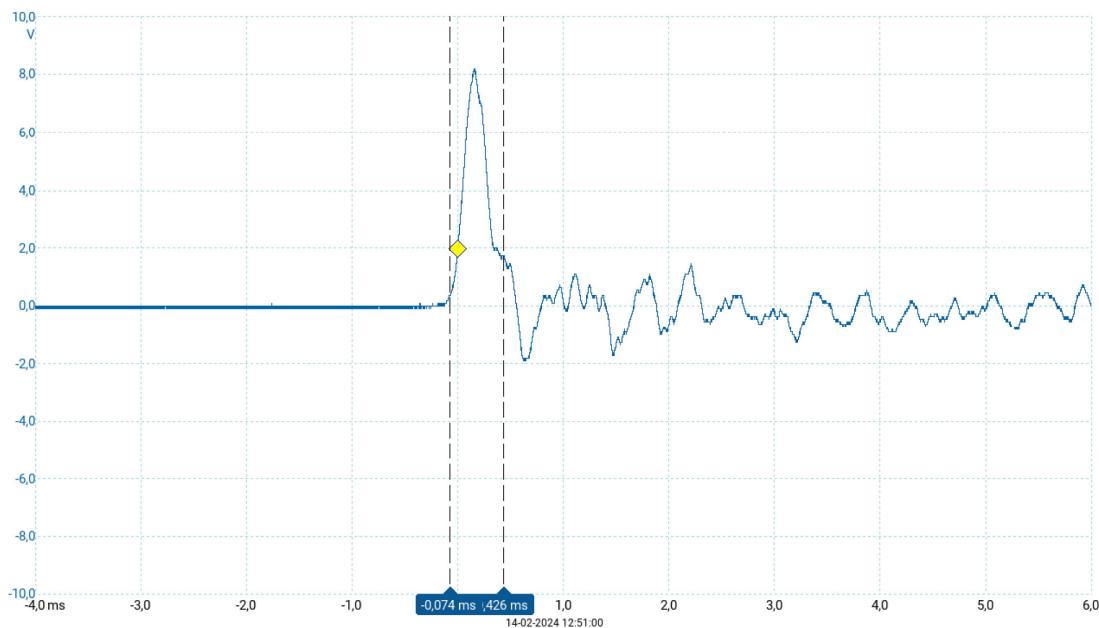


Curve 4 Positive shock e.g. X-axis – Similar curves for all other axes and directions. Dashed vertical lines indicates 1 ms. 1 V on the Y-axis corresponds to 100 g

8.2.4 Mechanical Shock 800g



Photo 28 Test setup on shock machine for shocks in negative Z-axis. Another run with the other two test objects performed to complete all the shocks.

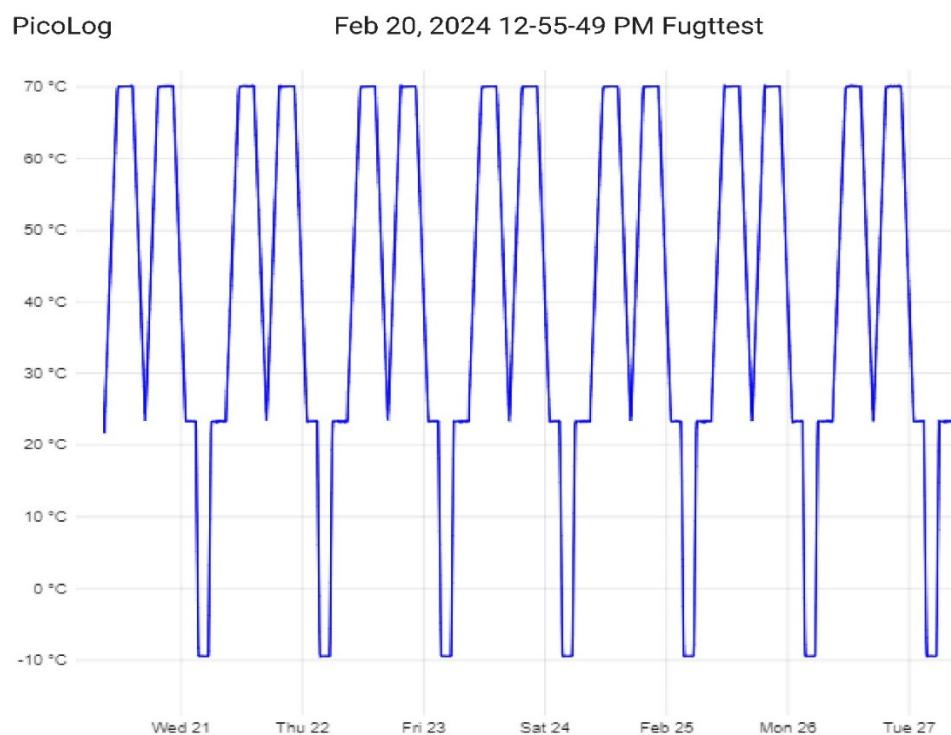


Curve 5 Positive shock e.g. X-axis – Similar curves for all other axes and directions. Dashed vertical lines indicates 0.5 ms. 1 V on the Y-axis corresponds to 100 g

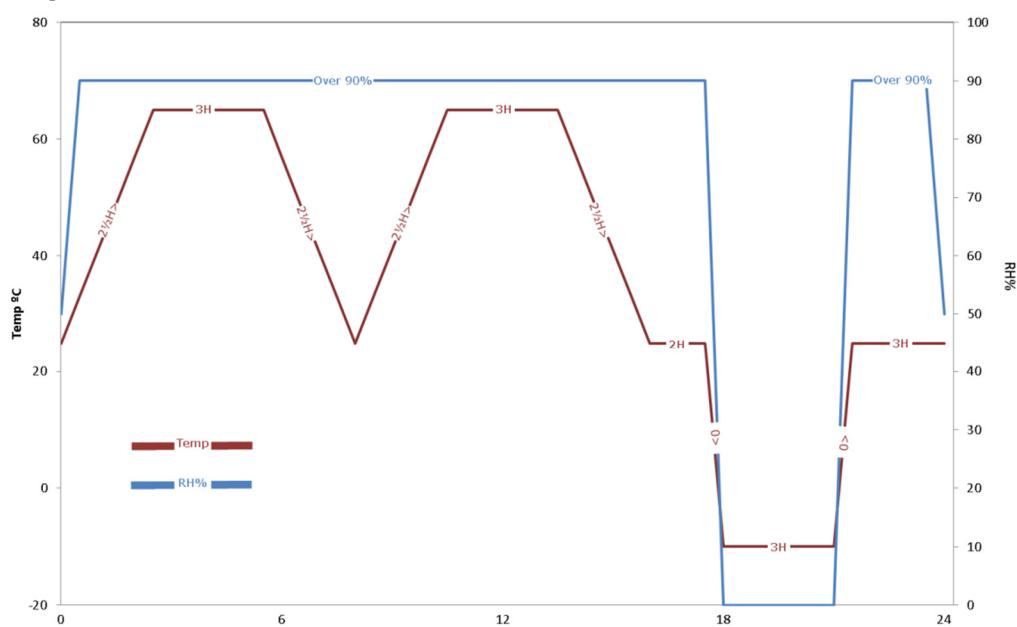
8.3 Moisture Test

8.3.1 Extract from picolog

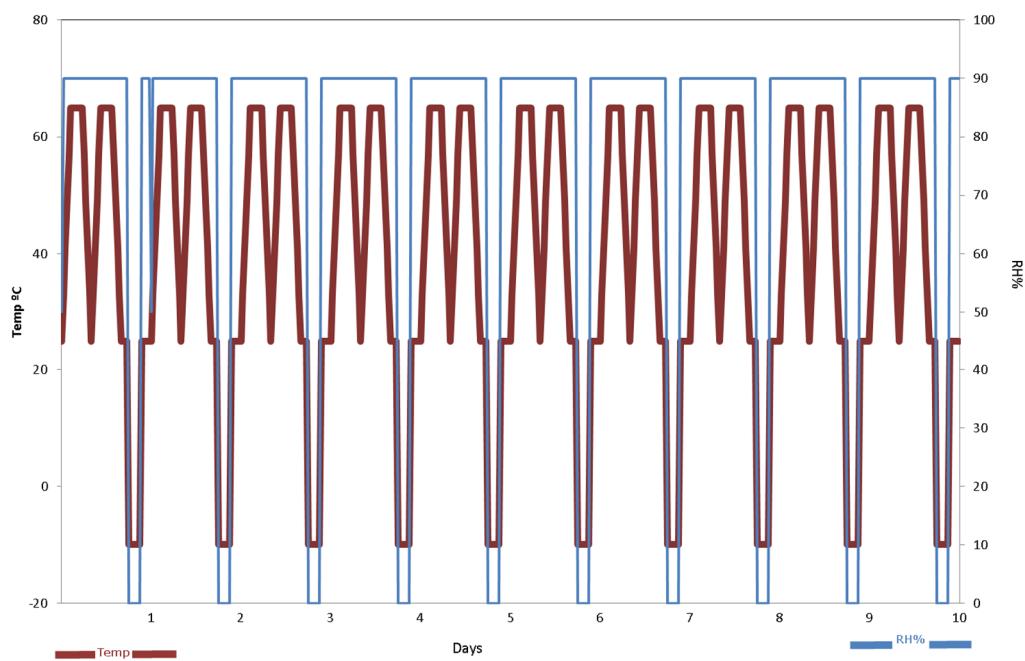
Below is an extract from the picolog. Full data is available at Flux



8.3.2 One cycle

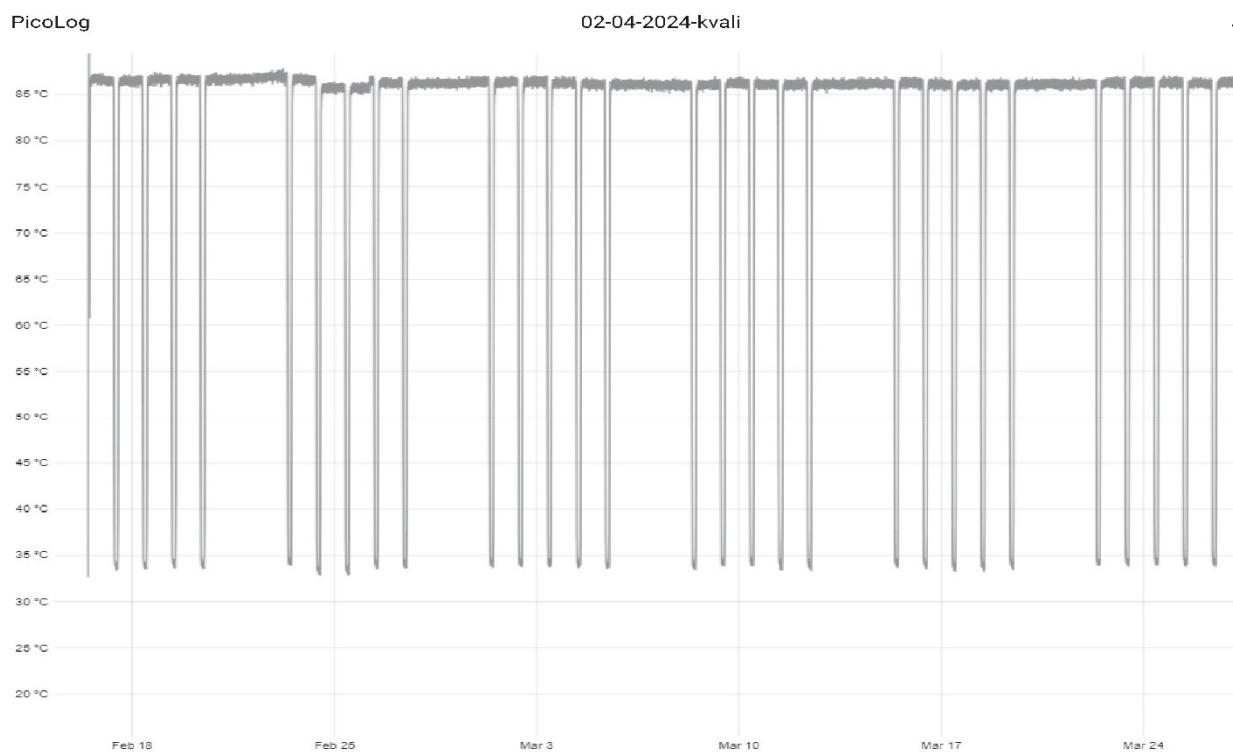


8.3.3 Full Test



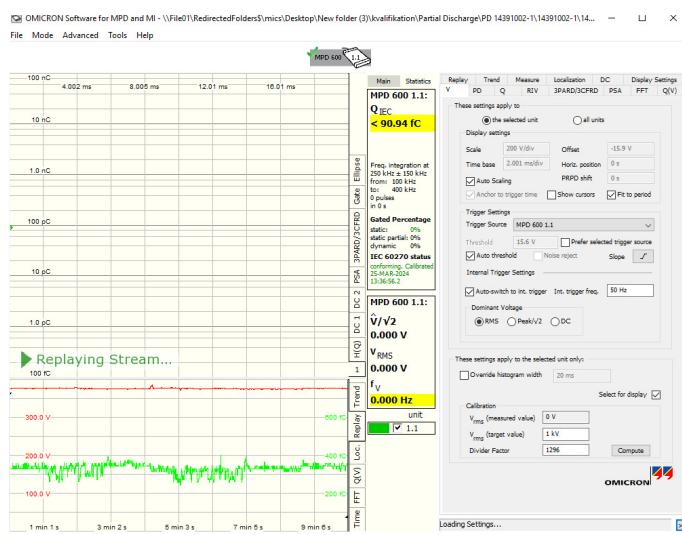
8.4 Operating life

Below is an example output of the operating life test performed at 85°C. Outputs for other tests are available at Flux.



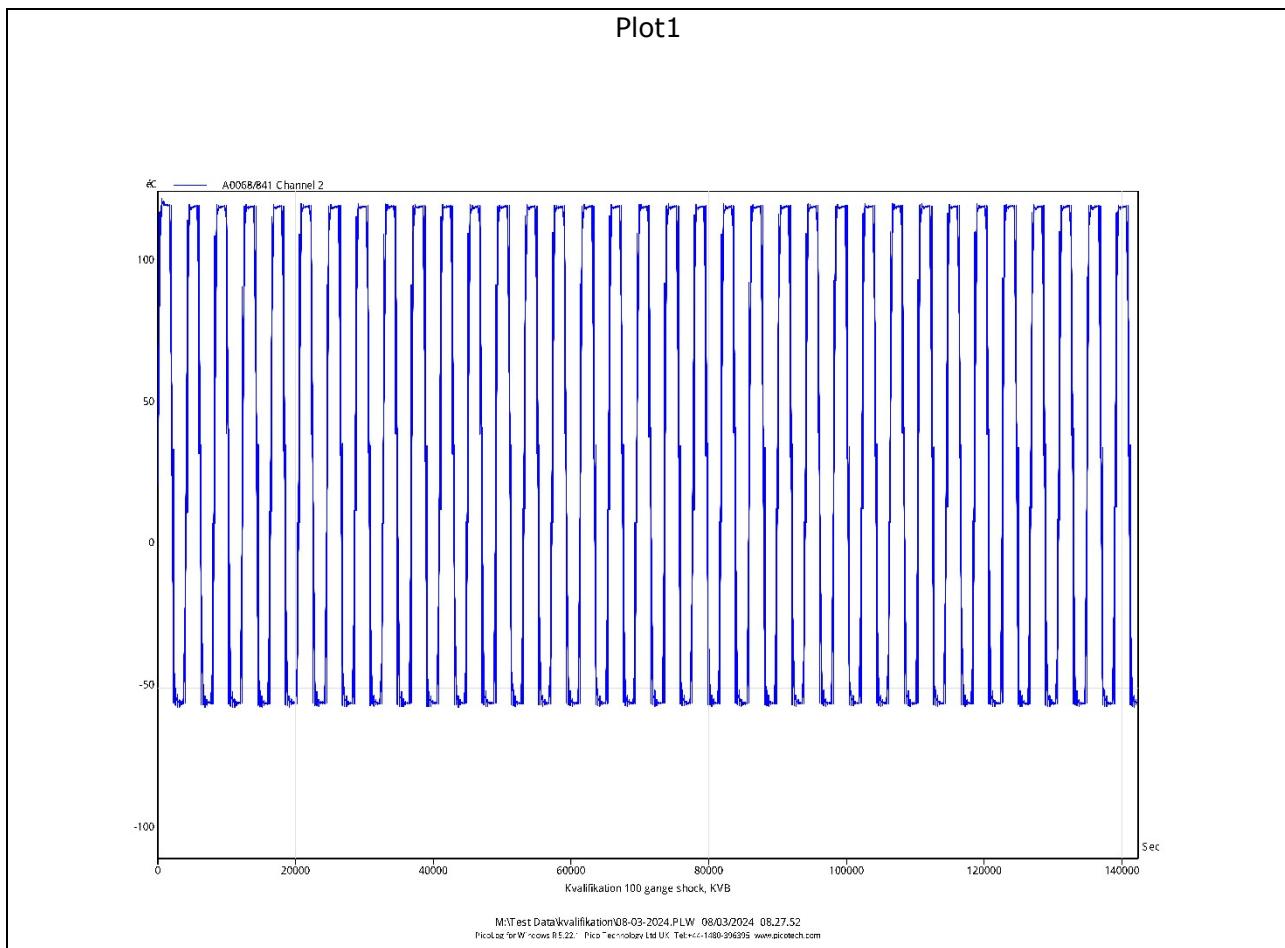
8.5 Partial discharge

Below is an example output of the PD test for 14391002-1-C S/N 358. The data for other test are available at Flux.

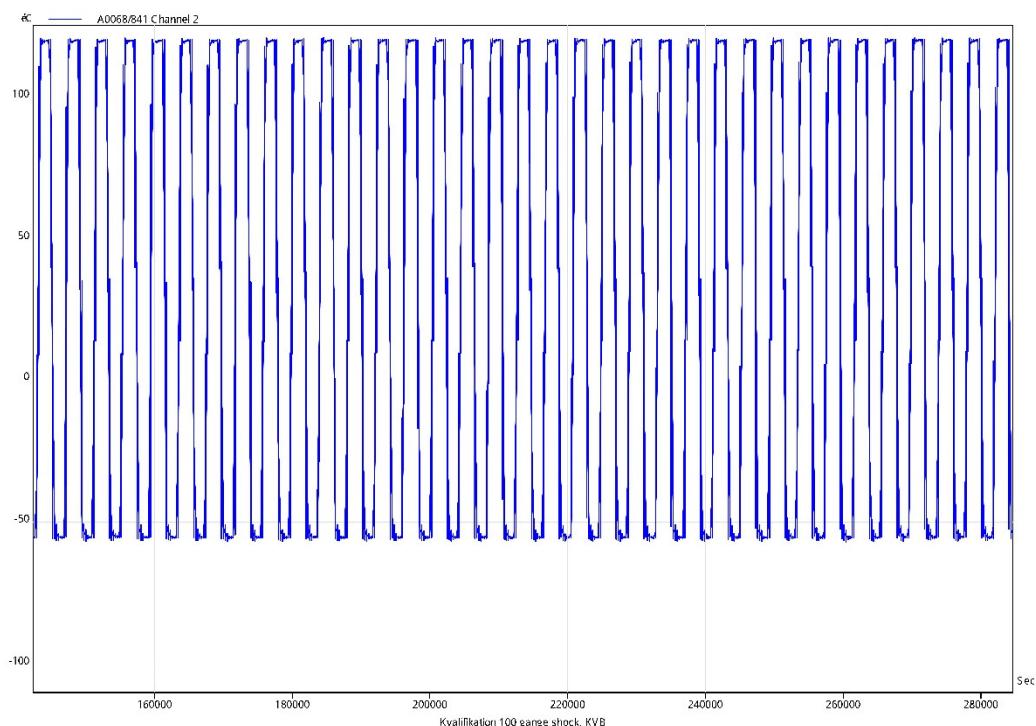


8.6 Thermal shock method

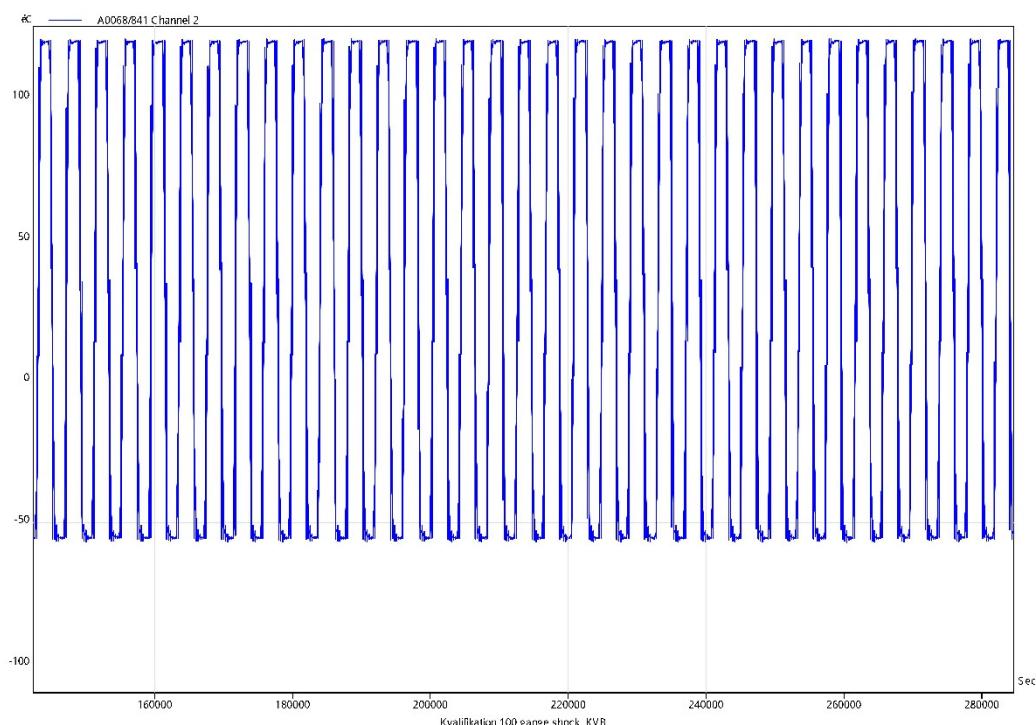
The total length of the test was 40800 seconds(6800 minutes), with the length of each cycle being approx. 4080 seconds(68 minutes). Due to the length of the x-axis, the data has been split into 3 plots. Plot 4 shows a close up of the final 2 cycles. The data is available at Flux in.plw format.



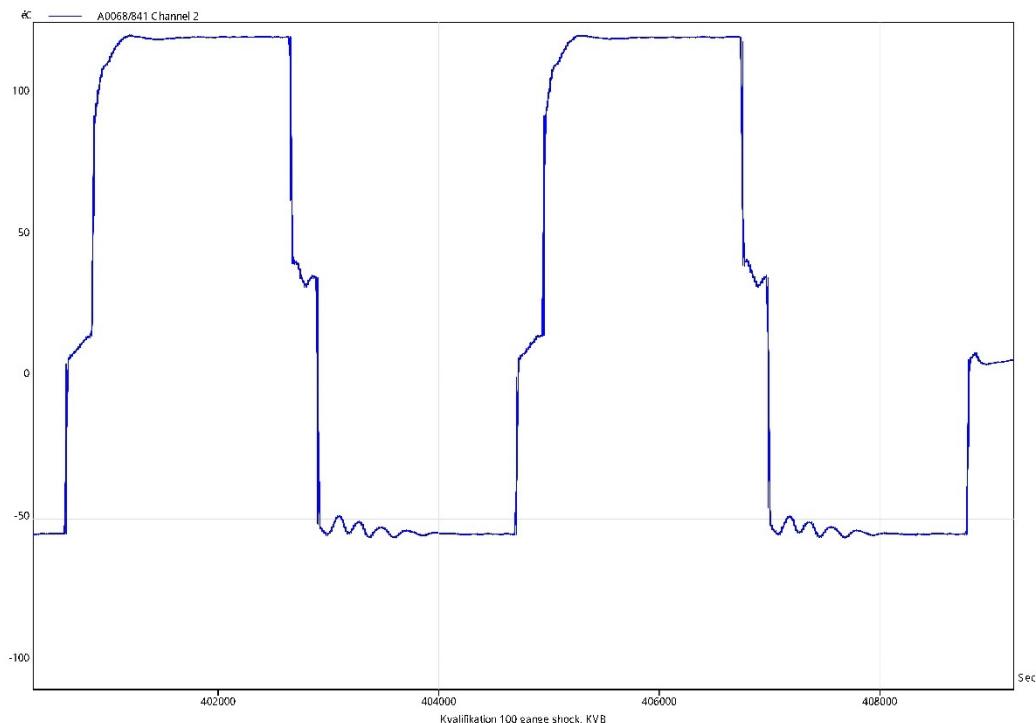
Plot 2

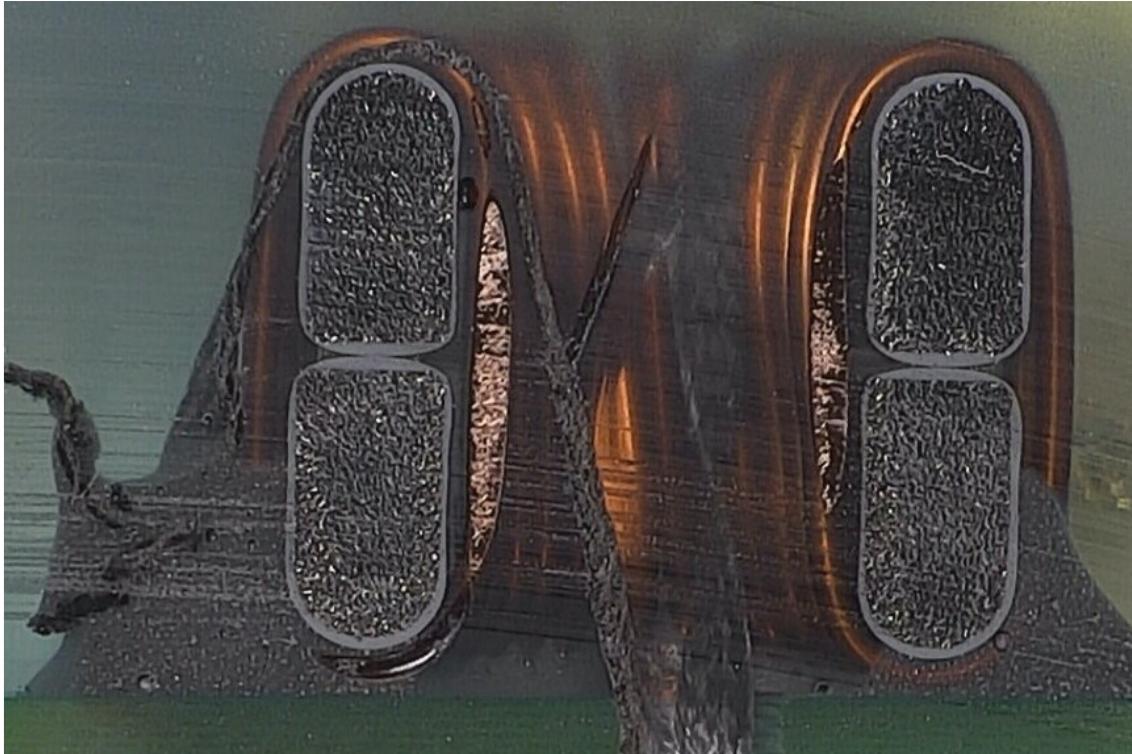


Plot 3

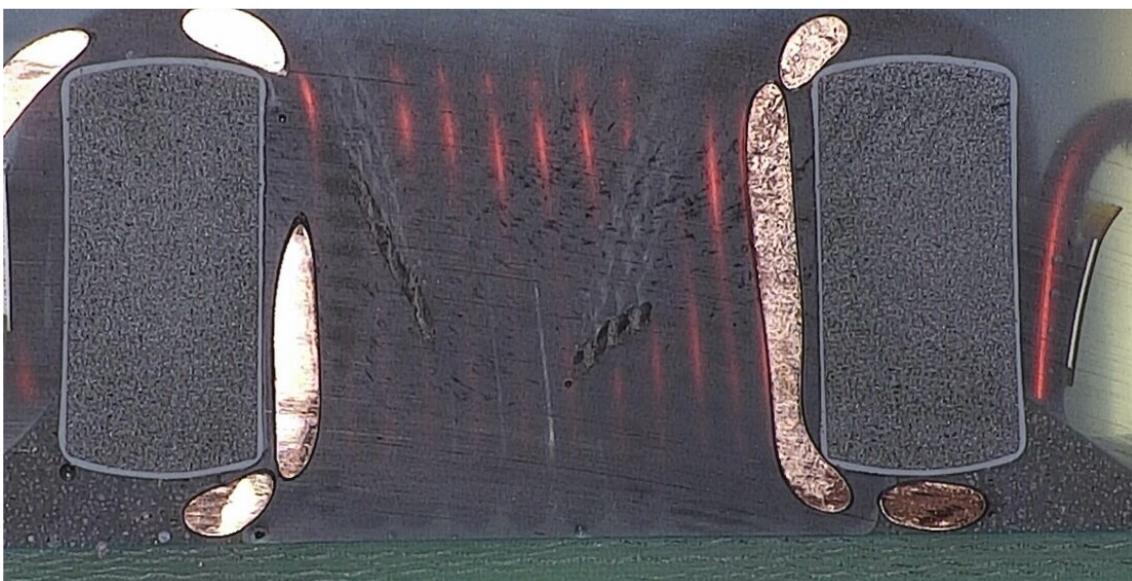


Plot 4



8.7 Internal Examination (DPA)**8.7.1 Q1 – ESCC320101301F12181014-1**

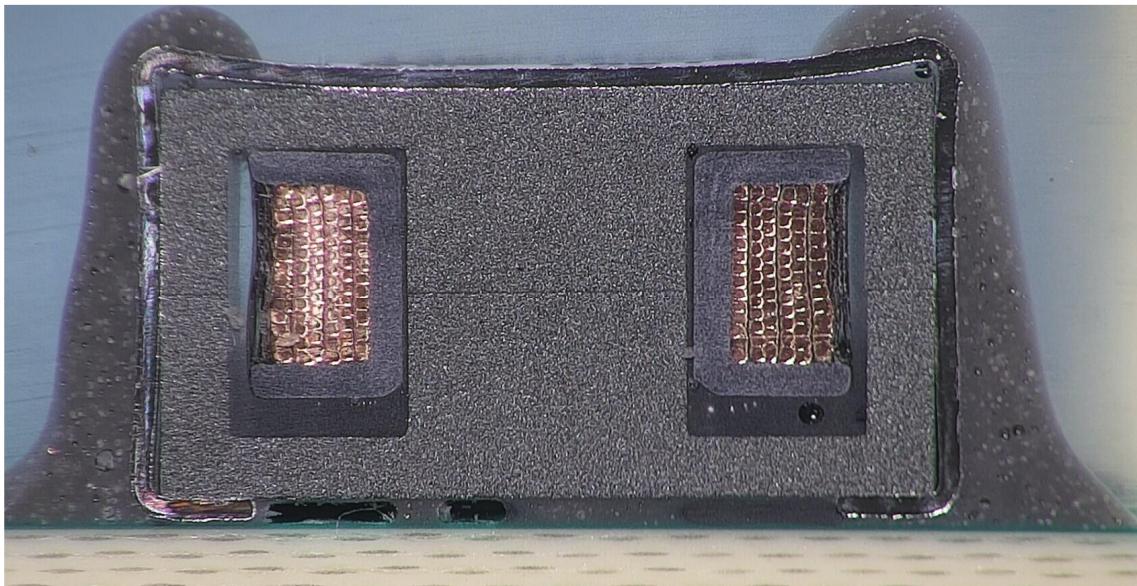
Comments: None

8.7.2 Q2 – ESCC320101301F12900107-1

Comments:

8.7.3 Q3 – ESCC320101301F12251047-1

Comments: None

8.7.4 Q4 – 14890203-1-B

Comments: None

8.7.5 Q5 – ESCC320101301F12311058-1

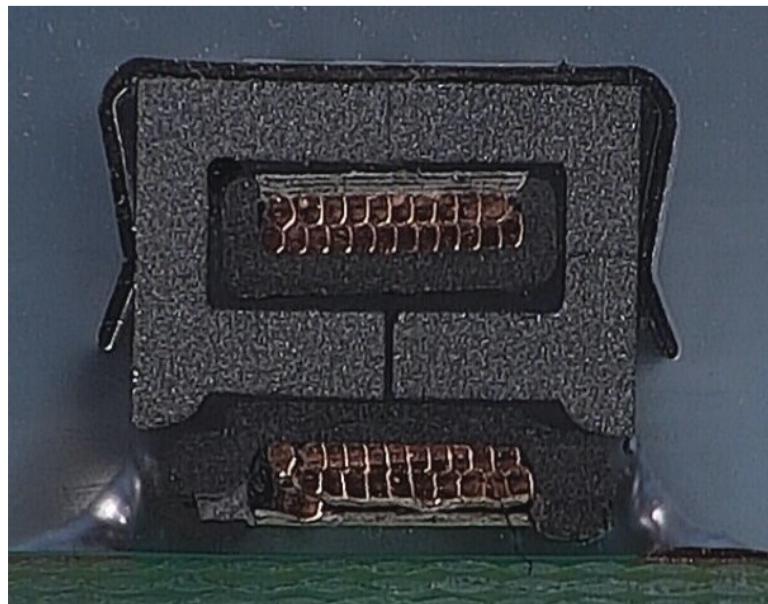
Comments: None

8.7.6 Q6 – ESCC320101399F14230080-2

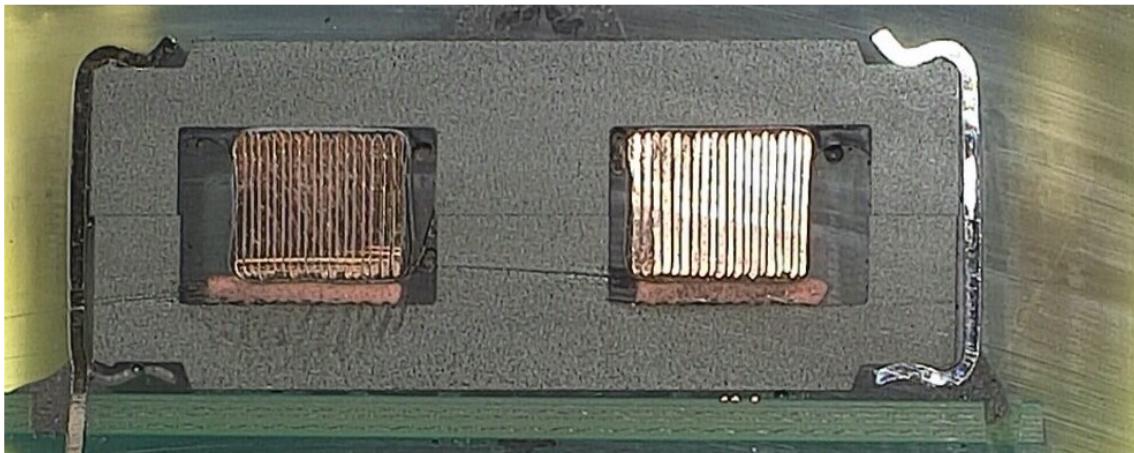
Comments: None.

8.7.7 Q7 – ESCC320101301F14280078-1

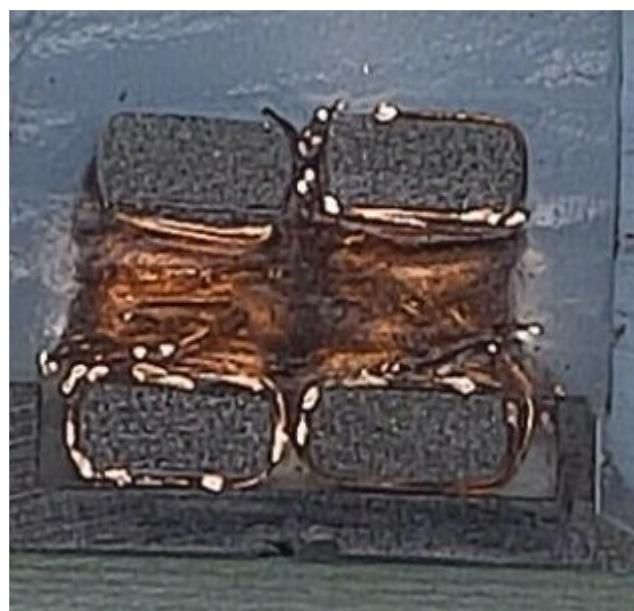
Comments: None

8.7.8 Q8 – ESCC320101301F12800484-1

Comments:

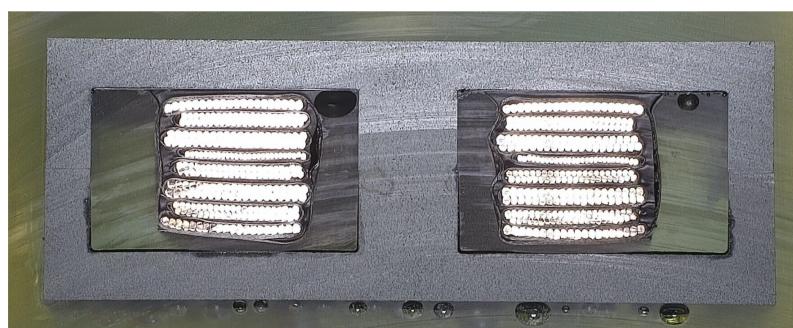
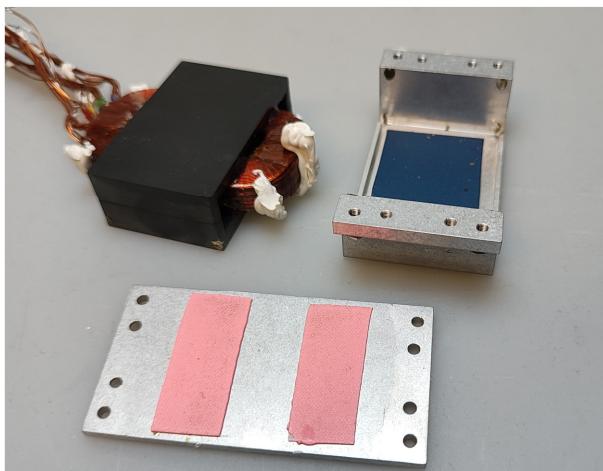
8.7.9 Q9 – ESCC320101301F14270167-1

Comments: None

8.7.10 Q10 – ESCC320101301F15530201-1

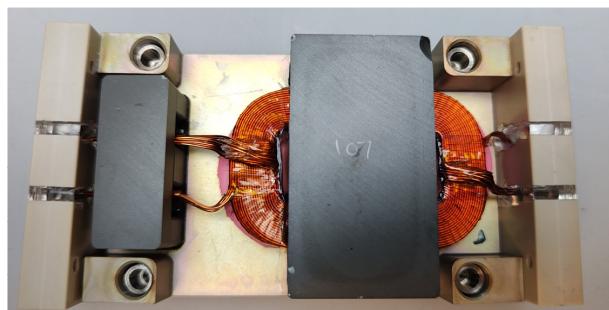
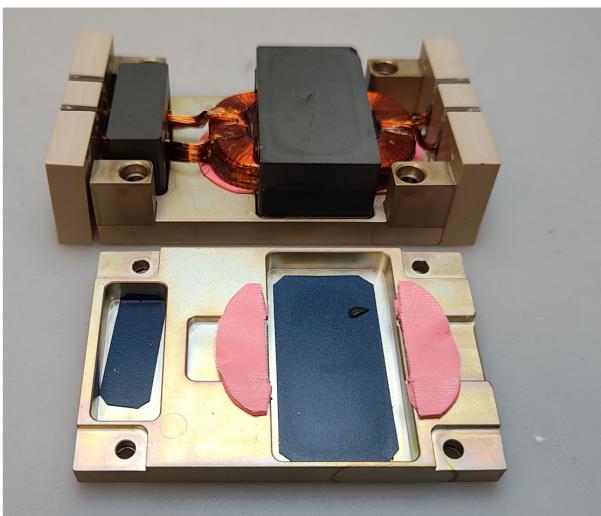
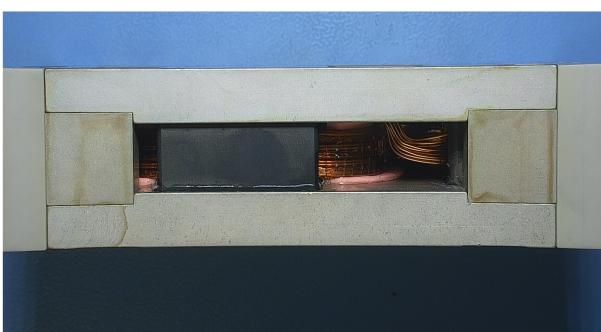
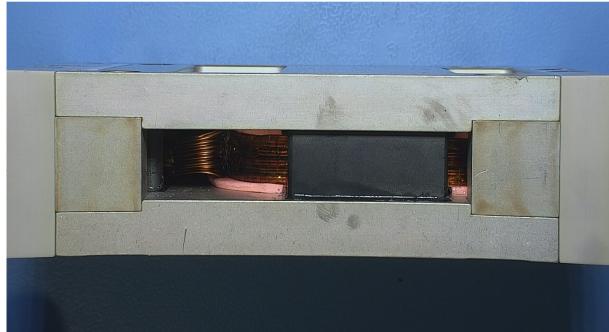
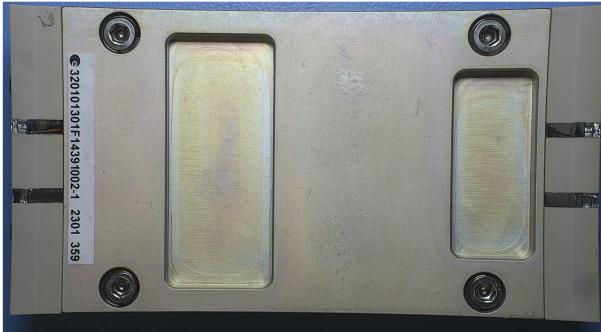
Comments: None

8.7.11Q11 – 14381003-1-PFM



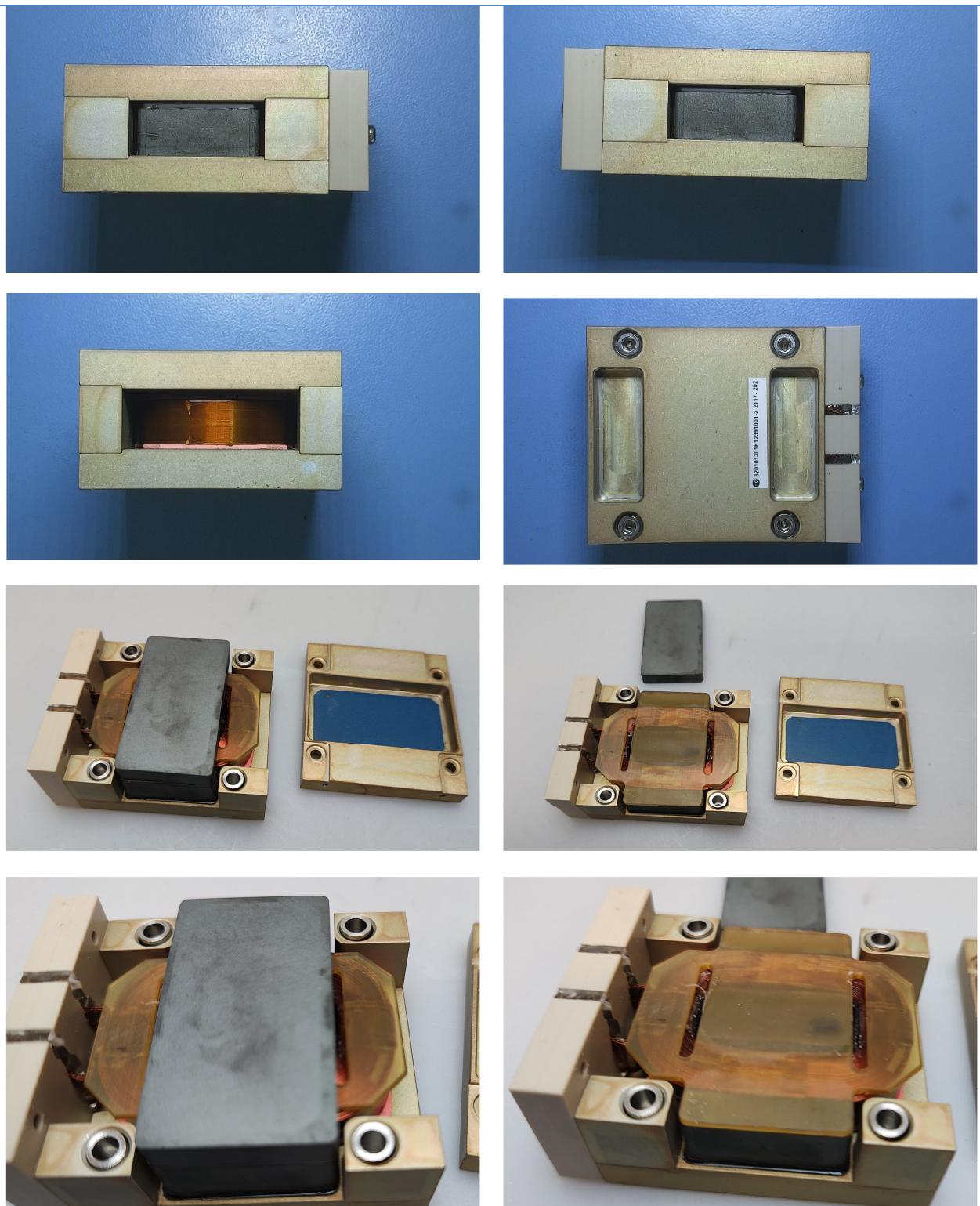
The part was deconstructed and then sectioned

8.7.12Q12 – ESCC320101301F14391002-1

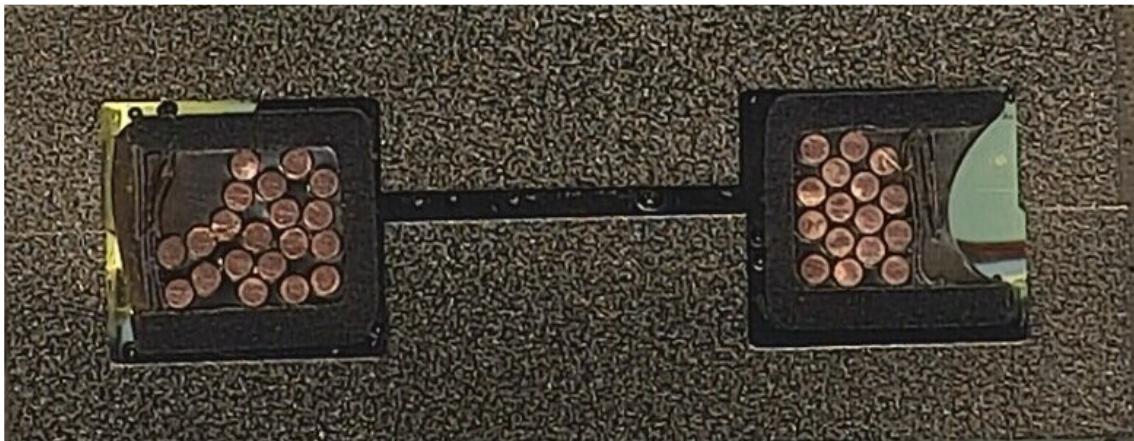


Due to the size of the unit it was not possible to microsection the transformer. All parts were examined externally and then 1 unit deconstructed.

1. There is a chipout on the core of the main ferrite, this is within the allowable limits($49,0\text{mm}^2$) for E58 cores as per 60424-5. This was present during production and accepted at that time.

8.7.13Q13 – ESCC320101301F12391001-2

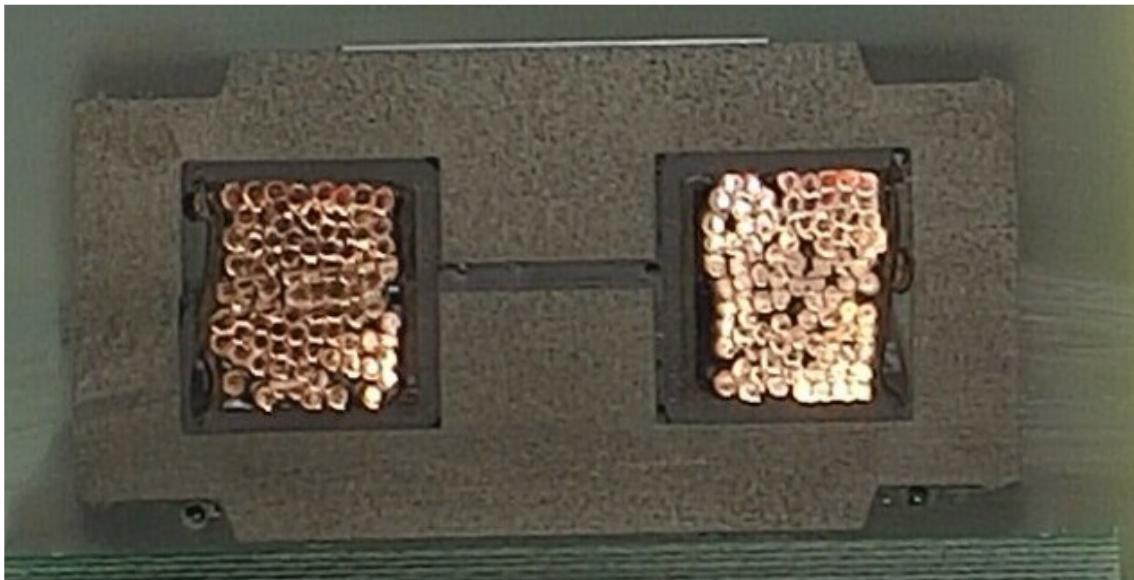
Due to the size of the unit it was not possible to microsection the inductor. . All parts was examined externally and then 1 unit deconstructed.

8.7.14Q14 – ESCC320101301F12819002-1

Comments: None

8.7.15Q15 – ESCC320101301F12829003-1

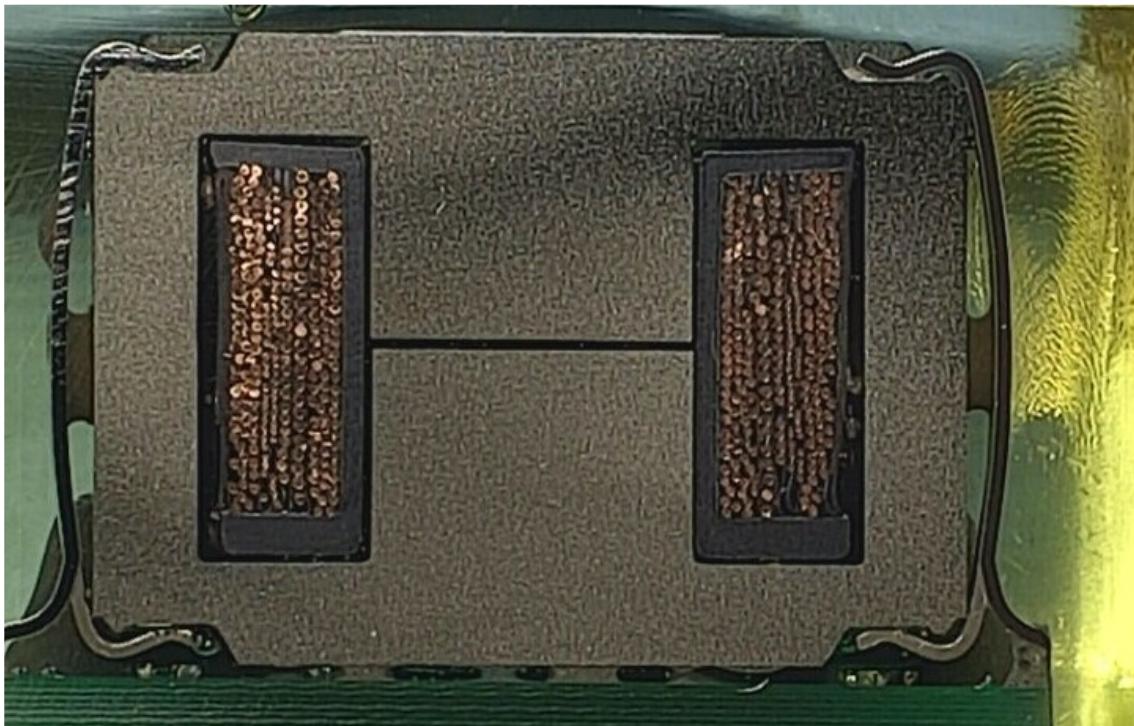
Comments: None

8.7.16Q16 – ESCC320101301F12839009-1

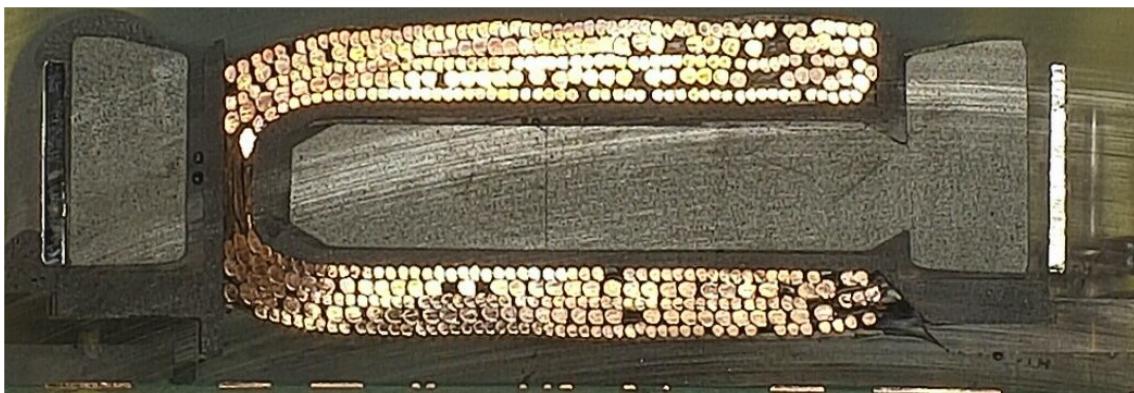
Comments: None

8.7.17Q17 – ESCC320101301F14229007-1

Comments: None

8.7.18Q18 – ESCC320101301F14229006-2

Comments: None

8.7.19Q19 – ESCC320101301F14260119-1

Comments: None

8.8 Observations and Observations on testing

- Manufacturing
 - Q4 was produced as B model, this is none ESCC flight
 - Q11 was produced as PFM, this is identical to ESCC FM
- Life Test
 - Q12 was test with a lower ambient temperature (40°C)as specified in the magnetics sheet.
- Mechanical Shock
 - All units except Q11, Q12 & Q13 were tested with full qualification parameters (Method 213B condition D). This was done to confirm the physical strength of Flux components.
 - Q11 was tested with standard parameters (Method 213B condition I). This device is limited to 100G.
 - Q12 & Q13 were tested with increased parameters (Method 213B condition E modified).
- Microsectioning
 - Q11, due to the size of the units and their metallic mechanical housing, it was not possible to microsection these units without performing deconstruction and removal of the metal housing first and then microsectioning.
 - Q12 & Q13 due to the size of the units and their metallic mechanical housing, it was not possible to microsection these units. The units were subjected to external physical examination and then deconstruction.
 - .

8.9 Minor Nonconformances

None

8.10 Critical Failures

None

9. CONCLUSION

All units that have completed qualification are deemed to have passed as defined in FT 08699016^(RD8).

10. TEST DATA

10.1 Q1 – ESCC320101301F12181014-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance μH	Insul M Ω hm					Inductance μH	Insul M Ω hm	
CONDITIONS	V=0.300V f=100kHz	V=500	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.300V f=100kHz	V=500	§ 5.17
LIMITS	Max: 214,9						Max: 214,9		
	Min: 175,8	Min: 5000					Min: 175,8	Min: 5000	
S/N 448	From screening		✓	✓	✓	✓	178,6	✓	✓
S/N 449			✓	✓	✓	✓	177,9	✓	✓
S/N 450									
S/N 451									
S/N 452									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul M Ω hm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.300V f=100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 214,9				
					Min: 175,8	Min: 5000			
S/N 448	✓	✓	✓	✓	178,6	✓	✓		✓
S/N 449	✓	✓	✓	✓	178,0	✓	✓		
S/N 450									
S/N 451									
S/N 452									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul M Ω hm				
CONDITIONS	§ 5.11	§ 5.8	V=0.300V f=100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 214,9					
			Min: 175,8	Min: 5000				
S/N 448								
S/N 449								
S/N 450	✓	✓	180,1	✓	✓			✓
S/N 451	✓	✓	180,0	✓	✓			✓
S/N 452	✓	✓	180,0	✓	✓			✓

10.2 Q2 – ESCC320101301F12900107-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance	Insul MOhm					Inductance	Insul MOhm	
CONDITIONS	V=0.250V f=100kHz	500V	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.250V f=100kHz	500V	§ 5.17
LIMITS	Max: 1290					Max: 1290			
	Min: 860	5000	Min: 860			5000			
S/N 021	From screening		✓	✓	✓	✓	1168	✓	✓
S/N 022			✓	✓	✓	✓	1133	✓	✓
S/N 023									
S/N 024									
S/N 025									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance	Insul MOhm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.250V f=100kHz	500V	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 1290				
					Min: 860	5000			
S/N 021	✓	✓	✓	✓	1134	✓	✓		✓
S/N 022	✓	✓	✓	✓	1168	✓	✓		
S/N 023									
S/N 024									
S/N 025									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	V=0.250V f=100kHz	500V	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 1290					
			Min: 860	5000				
S/N 021								
S/N 022								
S/N 023	✓	✓	1141	✓	✓			✓
S/N 024	✓	✓	1214	✓	✓			✓
S/N 025	✓	✓	1174	✓	✓			✓

10.3 Q3 – ESCC320101301F12251047-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance μH	Insul M Ω hm					Inductance μH	Insul M Ω hm	
CONDITIONS	V=0.100V f=10kHz	V=500	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.100V f=10kHz	V=500	§ 5.17
LIMITS							Max: 621		
							Min: 310	Min: 5000	
S/N 052	From screening		✓	✓	✓	✓	324,86	✓	✓
S/N 053			✓	✓	✓	✓	304,96	✓	✓
S/N 054									
S/N 055									
S/N 056									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul M Ω hm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.100V f=10kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 621				
					Min: 310	Min: 5000			
S/N 052	✓	✓	✓	✓	325,51	✓	✓		✓
S/N 053	✓	✓	✓	✓	316,09	✓	✓		
S/N 054									
S/N 055									
S/N 056									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	V=0.100V f=10kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 621					
			Min: 310	Min: 5000				
S/N 052								
S/N 053								
S/N 054	✓	✓	322,70	✓	✓			✓
S/N 055	✓	✓	347,83	✓	✓			✓
S/N 056	✓	✓	333,24	✓	✓			✓

10.4 Q4 – 14890203-1-B

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock	
	Inductance µH	Insul MOhm					Inductance µH	Insul MOhm		
CONDITIONS	V=0.250V f=100kHz	V=500	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.250V f=100kHz	V=500	§ 5.17	
LIMITS							Max: 242,9			
							Min: 145,8	Min: 5000		
S/N 054	From screening			✓	✓	✓	✓	167,3	✓	✓
S/N 055				✓	✓	✓	✓	173,4	✓	✓
S/N 056										
S/N 057										
S/N 058										

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance µH	Insul MOhm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.250V f=100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 242,9				
					Min: 145,8	Min: 5000			
S/N 054	✓	✓	✓	✓	166,3	✓	✓		✓
S/N 055	✓	✓	✓	✓	172,5	✓	✓		
S/N 056									
S/N 057									
S/N 058									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul MΩhm				
CONDITIONS	§ 5.11	§ 5.8	V=0.250V f=100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 242,9					
			Min: 145,8	Min: 5000				
S/N 054								
S/N 055								
S/N 056	✓	✓	166,5	✓	✓	✓	✓	✓
S/N 057	✓	✓	166,0	✓	✓	✓	✓	✓
S/N 058	✓	✓	170,4	✓	✓	✓	✓	✓

10.5 Q5 – ESCC320101301F12311058-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance μH	Insul M Ω hm					Inductance μH	Insul M Ω hm	
CONDITIONS	V=0.100V f=100kHz	V=500	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.100V f=100kHz	V=500	§ 5.17
LIMITS							Max: 5,29		
							Min: 4,79	Min: 5000	
S/N 037	From screening		✓	✓	✓	✓	4,88	✓	✓
S/N 038			✓	✓	✓	✓	4,94	✓	✓
S/N 033									
S/N 034									
S/N 035									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul M Ω hm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.100V f=100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 5,29				
					Min: 4,79	Min: 5000			
S/N 037	✓	✓	✓	✓	4,89	✓	✓		✓
S/N 038	✓	✓	✓	✓	4,96	✓	✓		
S/N 033									
S/N 034									
S/N 035									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul MΩhm				
CONDITIONS	§ 5.11	§ 5.8	V=0.100V f=100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 5,29					
			Min: 4,79	Min: 5000				
S/N 037								
S/N 038								
S/N 033	✓	✓	4,92	✓	✓	✓	✓	✓
S/N 034	✓	✓	4,87	✓	✓	✓	✓	✓
S/N 035	✓	✓	4,91	✓	✓	✓	✓	✓

10.6 Q6 – ESCC320101399F14230080-2

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock	
	Inductance μH	Insul M Ω hm					Inductance μH	Insul M Ω hm		
CONDITIONS	V=0.100V f=125kHz	V=500	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.100V f=125kHz	V=500	§ 5.17	
LIMITS							Max: 10,56			
							Min: 8,64	Min: 5000		
S/N 0272	From screening			✓	✓	✓	✓	9,71	✓	✓
S/N 0273				✓	✓	✓	✓	9,81	✓	✓
S/N 0275										
S/N 0276										
S/N 0277										

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul M Ω hm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.100V f=125kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 10,56				
					Min: 8,64	Min: 5000			
S/N 0272	✓	✓	✓	✓	9,68	✓	✓		✓
S/N 0273	✓	✓	✓	✓	9,83	✓	✓		
S/N 0275									
S/N 0276									
S/N 0277									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul M Ω hm				
CONDITIONS	§ 5.11	§ 5.8	V=0.100V f=100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 10,56					
			Min: 8,64	Min: 5000				
S/N 0272								
S/N 0273								
S/N 0275	✓	✓	9,89	✓	✓	✓	✓	✓
S/N 0276	✓	✓	9,77	✓	✓	✓	✓	✓
S/N 0277	✓	✓	9,83	✓	✓	✓	✓	✓

10.7 Q7 – ESCC320101301F14280078-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock
	Inductance	Insul MOhm			
CONDITIONS			ECSS-Q-ST-70-08	External Test	
LIMITS					
S/N 038	From screening	✓	✓	✓	
S/N 040		✓	✓	✓	
S/N 036					
S/N 037					
S/N 039					

TEST	Moisture Resistance	Electrical Characteristics				Thermal Shock	Temperature Rise	Overload	Induced Voltage	DWV
		Inductance LA1 - μ H	Inductance LB1 - μ H	Inductance LC1 - μ H	Insul MOhm					
CONDITIONS	§ 5.15	50mV 100kHz	50mV 100kHz	50mV 100kHz	V=500	§ 5.17	§ 5.18	§ 5.16	§ 5.5	V=500 AC 60 s
LIMITS		Max: 25,3	Max: 48,6	Max: 25,3						
		Min: 20,7	Min: 38,0	Min: 20,7	5000					
S/N 038	✓	24,2	40,8	24,1	✓	✓	✓	✓	✓	✓
S/N 040	✓	23,8	40,1	23,9	✓	✓	✓	✓	✓	✓
S/N 036										
S/N 037										
S/N 039										

TEST	Insulation Resistance	Electrical Characteristics				Visual Inspection	Resistance to soldering heat	DPA
		Inductance LA1 - μ H	Inductance LB1 - μ H	Inductance LC1 - μ H	Insul MOhm			
CONDITIONS	Surge Test	50mV 100kHz	50mV 100kHz	50mV 100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS		Max: 25,3	Max: 48,6	Max: 25,3				
		Min: 20,7	Min: 38,0	Min: 20,7	5000			
S/N 038	✓	24,4	40,8	24,2	✓	✓	✓	✓
S/N 040	✓	23,9	40,3	24,1	✓	✓		
S/N 036								
S/N 037								
S/N 039								

TEST	Life Test	Permanence of Marking	Electrical Characteristics				Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance LA1 - μ H	Inductance LB1 - μ H	Inductance LC1 - μ H	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	50mV 100kHz	50mV 100kHz	50mV 100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS		Max: 25,3	Max: 48,6	Max: 25,3		5000				
		Min: 20,7	Min: 38,0	Min: 20,7						
S/N 038										
S/N 040										
S/N 036	✓	✓	24,0	40,6	23,7	✓	✓	✓	✓	✓
S/N 037	✓	✓	23,8	40,1	23,6	✓	✓	✓	✓	✓
S/N 039	✓	✓	24,0	40,4	23,8	✓	✓	✓	✓	✓

10.8 Q8 – ESCC320101301F12800484-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock		
	Inductance μH	Insul M Ω hm					Inductance μH	Insul M Ω hm			
CONDITIONS			V=500	ECSS-Q-ST-70-08		External Test		§ 5.15	0,075V 300kHz	V=500	§ 5.17
LIMITS							Max: 5,32				
							Min: 4,36		Min:		
S/N 050	From screening			✓	✓	✓	✓	4,79	✓	✓	
S/N 051				✓	✓	✓	✓	4,12	✓	✓	
S/N 047											
S/N 048											
S/N 049											

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul M Ω hm			
CONDITIONS	§ 5.16	§ 5.5	V=300 AC 60 s	Surge Test	0,075V 300kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 5,32				
					Min: 4,36	Min: 5000			
S/N 050	✓	✓	✓	✓	4,78	✓	✓		✓
S/N 051	✓	✓	✓	✓	4,71	✓	✓		
S/N 047									
S/N 048									
S/N 049									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance µH	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	0,075V 300kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max:	5,32				
			Min:	4,36	Min: 5000			
S/N 050								
S/N 051								
S/N 047	✓	✓	4,78	✓	✓	✓	✓	✓
S/N 048	✓	✓	4,80	✓	✓	✓	✓	✓
S/N 049	✓	✓	4,84	✓	✓	✓	✓	✓

10.9 Q9 – ESCC320101301F14270167-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance μH	Insul M Ω hm					Inductance μH	Insul M Ω hm	
CONDITIONS	V=0.250V f=100kHz	V=500	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.250V f=100kHz	V=500	§ 5.17
LIMITS							Max: 1406		
							Min: 808	Min: 5000	
S/N 019	From screening		✓	✓	✓	✓	1215	✓	✓
S/N 020			✓	✓	✓	✓	1220	✓	✓
S/N 017									
S/N 015									
S/N 013									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul M Ω hm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.250V f=100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 1406				
					Min: 808	Min: 5000			
S/N 019	✓	✓	✓	✓	1209	✓	✓		✓
S/N 020	✓	✓	✓	✓	1218	✓	✓		
S/N 017									
S/N 015									
S/N 013									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul M Ω hm				
CONDITIONS	§ 5.11	§ 5.8	V=0.250V f=100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 1406					
			Min: 808	Min: 5000				
S/N 019								
S/N 020								
S/N 017	✓	✓	1166	✓	✓			✓
S/N 015	✓	✓	1212	✓	✓			✓
S/N 013	✓	✓	868	✓	✓			✓

10.10 Q10 – ESCC320101301F15530201-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock
	Inductance	Insul MOhm			
CONDITIONS			ECSS-Q-ST-70-08	External Test	
LIMITS					
S/N 001	From screening		✓	✓	✓
S/N 002			✓	✓	✓
S/N 003					
S/N 004					
S/N 005					

TEST	Moisture Resistance	Electrical Characteristics				Thermal Shock	Temperature Rise	Overload	Induced Voltage	DWV
		Inductance N2 -mH		Inductance N12 -mH	Insul MOhm					
CONDITIONS	§ 5.15	0.100V 10kHz		0.100V 10kHz	V=500	§ 5.17	§ 5.18	§ 5.16	§ 5.5	V=500 AC 60 s
LIMITS		Max: 30,67		Max: 30,67						
		Min: 15,80		Min: 15,80	5000					
S/N 001	✓	22,36		24,29	✓	✓	✓	✓	✓	✓
S/N 002	✓	22,68		21,56	✓	✓	✓	✓	✓	✓
S/N 003										
S/N 004										
S/N 005										

TEST	Insulation Resistance	Electrical Characteristics				Visual Inspection	Resistance to soldering heat	DPA
		Inductance N2 -mH		Inductance N12 -mH	Insul MOhm			
CONDITIONS	Surge Test	0.100V 10kHz		0.100V 10kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS		Max: 30,67		Max: 30,67				
		Min: 15,80		Min: 15,80	5000			
S/N 001	✓	22,17		24,09	✓	✓	✓	✓
S/N 002	✓	22,23		21,42	✓	✓		
S/N 003								
S/N 004								
S/N 005								

TEST	Life Test	Permanence of Marking	Electrical Characteristics				Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance N2 -mH		Inductance N12 -mH	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	0.100V 10kHz		0.100V 10kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 30,67		Max: 30,67					
			Min: 15,80		Min: 15,80	5000				
S/N 001										
S/N 002										
S/N 003	✓	✓	16,25	✓	19,26	✓	✓	✓	✓	✓
S/N 004	✓	✓	22,28	✓	17,51	✓	✓	✓	✓	✓
S/N 005	✓	✓	23,98	✓	21,84	✓	✓	✓	✓	✓

10.11 Q11 – 14381003-1-PFM

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock
	Inductance	Insul MOhm			
CONDITIONS			ECSS-Q-ST-70-08	External Test	
LIMITS					
	S/N 004	From screening		✓	✓
S/N 003				✓	✓
S/N 006					
S/N 007					
S/N 008					

TEST	Moisture Resistance	Electrical Characteristics		Thermal Shock	Temperature Rise	Overload	Induced Voltage	DWV
		Inductance N1 - μ H	Insul MOhm					
CONDITIONS	§ 5.15	1.000V 100kHz	V=500	§ 5.17	§ 5.18	§ 5.16	§ 5.5	V=500 AC 60 s
LIMITS		Max: 5248						
		Min: 3016	5000					
S/N 004	✓	3823	✓	✓	✓	✓	✓	✓
S/N 003	✓	4340	✓	✓	✓	✓	✓	✓
S/N 006								
S/N 007								
S/N 008								

TEST	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
		Inductance N1 - μ H	Insul MOhm			
CONDITIONS	Surge Test	1.000V 100kHz				§ 5.14
LIMITS			Max: 5248			
			Min: 3016			
S/N 004	✓	3779		✓	✓	
S/N 003	✓	4293		✓	✓	
S/N 006						
S/N 007						
S/N 008						

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance N1 - μ H	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	1.000V 100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 5248	5000				
			Min: 3016					
S/N 004								
S/N 003								
S/N 006	✓	✓	3987	✓	✓			✓
S/N 007	✓	✓	4012	✓	✓			✓
S/N 008	✓	✓	3831	✓	✓			✓

10.12 Q12 – ESCC320101301F14391002-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock	Partial Discharge
	Inductance	Insul MΩ					Inductance	Insul MΩ		
CONDITIONS			ECSS-Q-ST-70-08	External Test		§ 5.15	0.250V 100kHz	V=500	§ 5.17	
LIMITS							Max: 378,0			
							Min: 180,0	Min 10000		
S/N 358	From screening		✓	✓	✓	✓	257,5	✓	✓	✓
S/N 359			✓	✓	✓	✓	249,6	✓	✓	✓
S/N 369										
S/N 386										
S/N 427										

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance µH	Insul MΩ			
CONDITIONS	§ 5.16	§ 5.5	V=1000 AC 60 s	Surge Test	0.250V 100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 378,0				
					Min: 180,0	Min: 10000			
S/N 358	✓	✓	✓	✓	262,2	✓	✓		✓
S/N 359	✓	✓	✓	✓	252,9	✓	✓		
S/N 369									
S/N 386									
S/N 427									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Partial Discharge	Visual Inspection
			Inductance μ H	Insul MΩhm					
CONDITIONS	§ 5.11	§ 5.8	0.250V 100kHz	V=500	§ 5.2	§ 5.3	§ 5.4		§ 5.2
LIMITS			Max: 378,0						
			Min: 180,0	Min: 10000					
S/N 358									
S/N 359									
S/N 369	✓	✓	248,0	✓	✓			✓	✓
S/N 386	✓	✓	232,0	✓	✓			✓	✓
S/N 427	✓	✓	233,0	✓	✓			✓	✓

10.13 Q13 – ESCC320101301F12391001-2

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance	Insul MOhm					Inductance	Insul MOhm	
CONDITIONS			ECSS-Q-ST-70-08	External Test		§ 5.15	0.250V 100kHz	V=500	§ 5.17
LIMITS						:	Max: 47,25		
							Min 42,75	Min 5000	
S/N 177	From screening		✓	✓	✓	✓	44,90	✓	✓
S/N 202			✓	✓	✓	✓	44,95	✓	✓
S/N 211									
S/N 261									
S/N 268									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance µH	Insul MOhm			
CONDITIONS	§ 5.16	§ 5.5	V=1250 DC 60 s	Surge Test	0.250V 100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 47,25				
					Min 42,75	Min: 5000			
S/N 177	✓	✓	✓	✓	45,04	✓	✓		✓
S/N 202	✓	✓	✓	✓	44,96	✓	✓		
S/N 211									
S/N 261									
S/N 268									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance µH	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	0.250V 100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max:	47,25				
			Min	42,75	Min: 5000			
S/N 177								
S/N 202								
S/N 211	✓	44,71	✓	✓	✓			✓
S/N 261	✓	45,31	✓	✓	✓			✓
S/N 268	✓	45,21	✓	✓	✓			✓

10.14 Q14 – ESCC320101301F12819002-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance	Insul MΩ					Inductance μH	Insul MΩ	
CONDITIONS			ECSS-Q-ST-70-08	External Test		§ 5.15	0.050V 100kHz	V=500	§ 5.17
LIMITS							Max: 2,600		
							Min: 1,400	Min: 5000	
S/N 001	From screening		✓	✓	✓	✓	2,101	✓	✓
S/N 002			✓	✓	✓	✓	2,045	✓	✓
S/N 003									
S/N 004									
S/N 005									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul MΩ			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	0.050V 100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 2,600				
					Min: 1,400	Min: 5000			
S/N 001	✓	✓	✓	✓	2,036	✓	✓		✓
S/N 002	✓	✓	✓	✓	2,070	✓	✓		
S/N 003									
S/N 004									
S/N 005									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance µH	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	0.050V 100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max:	2,600				
			Min:	1,400	Min: 5000			
S/N 001								
S/N 002								
S/N 003	✓	✓	1,889	✓	✓	✓	✓	✓
S/N 004	✓	✓	2,144	✓	✓	✓	✓	✓
S/N 005	✓	✓	2,245	✓	✓	✓	✓	✓

10.15 Q15- ESCC320101301F12829003-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance μH	Insul M Ω hm					Inductance μH	Insul M Ω hm	
CONDITIONS	V=0.050V f=30kHz	V=500	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.050V f=30kHz	V=500	§ 5.17
LIMITS							Max: 13,54		
							Min: 9,03	Min: 5000	
S/N 003	From screening		✓	✓	✓	✓	12,22	✓	✓
S/N 004			✓	✓	✓	✓	12,41	✓	✓
S/N 005									
S/N 006									
S/N 007									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul M Ω hm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.050V f=30kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 13,54				
					Min: 9,03	Min: 5000			
S/N 003	✓	✓	✓	✓	12,23	✓	✓		✓
S/N 004	✓	✓	✓	✓	12,41	✓	✓		
S/N 005									
S/N 006									
S/N 007									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul MΩhm				
CONDITIONS	§ 5.11	§ 5.8	V=0.050V f=30kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 13,54					
			Min: 9,03	Min: 5000				
S/N 003								
S/N 004								
S/N 005	✓	✓	12,06	✓	✓	✓	✓	✓
S/N 006	✓	✓	12,12	✓	✓	✓	✓	✓
S/N 007	✓	✓	12,17	✓	✓	✓	✓	✓

10.16 Q16 – ESCC320101301F12839009-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock	
	Inductance μH	Insul MOhm					Inductance μH	Insul MOhm		
CONDITIONS	V=0.250V f=100kHz	V=500	ECSS-Q-ST-70-08	External Test		§ 5.15	V=0.250V f=100kHz	V=500	§ 5.17	
LIMITS	Max: 90,4						Max: 90,4			
	Min: 74,0	Min: 5000					Min: 74,0	Min: 5000		
S/N 001	From screening			✓	✓	✓	✓	85,2	✓	✓
S/N 002				✓	✓	✓	✓	85,6	✓	✓
S/N 003										
S/N 004										
S/N 005										

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance μH	Insul MOhm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	V=0.250V f=100kHz	V=500	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 90,4				
					Min: 74,0	Min: 5000			
S/N 001	✓	✓	✓	✓	85,1	✓	✓		✓
S/N 002	✓	✓	✓	✓	85,5	✓	✓		
S/N 003									
S/N 004									
S/N 005									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance μH	Insul M Ω hm				
CONDITIONS	§ 5.11	§ 5.8	V=0.250V f=100kHz	V=500	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 72,1					
			Min: 5,90	Min: 5000				
S/N 001								
S/N 002								
S/N 003	✓	✓	84,4	✓	✓	✓	✓	✓
S/N 004	✓	✓	84,0	✓	✓	✓	✓	✓
S/N 005	✓	✓	84,6	✓	✓	✓	✓	✓

10.17 Q17 – ESCC320101301F14229007-1

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance	Insul MΩ					Inductance	Insul MΩ	
CONDITIONS	0,250V 100kHz	500V	ECSS-Q-ST-70-08	External Test		§ 5.15	0,250V 100kHz	500V	§ 5.17
LIMITS	Max: 57,7						Max: 57,2		
	Min: 52,2	5000					Min: 52,2	5000	
S/N 001	From screening		✓	✓	✓	✓	53,8	✓	✓
S/N 002			✓	✓	✓	✓	54,3	✓	✓
S/N 004									
S/N 005									
S/N 006									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance	Insul MΩ			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	0,250V 100kHz	500V	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 57,2				
					Min: 52,2	5000			
S/N 001	✓	✓	✓	✓	53,8	✓	✓		✓
S/N 002	✓	✓	✓	✓	54,4	✓	✓		
S/N 004									
S/N 005									
S/N 006									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance µH	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	0,250V 100kHz	500V	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 57,7					
			Min: 52,2	5000				
S/N 001								
S/N 002								
S/N 004	✓	✓	55,7	✓	✓	✓	✓	✓
S/N 005	✓	✓	54,5	✓	✓	✓	✓	✓
S/N 006	✓	✓	54,3	✓	✓	✓	✓	✓

10.18 Q18 – ESCC320101301F14229006-2

TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance	Insul MΩ					Inductance	Insul MΩ	
CONDITIONS	0,250V 100kHz	500V	ECSS-Q-ST-70-08	External Test		§ 5.15	0,250V 100kHz	500V	§ 5.17
LIMITS	Max: 90,4					Max: 57,7			
	Min: 74,0	5000	Min: 52,2			5000			
S/N 003	From screening		✓	✓	✓	✓	54,5	✓	✓
S/N 002			✓	✓	✓	✓	54,7	✓	✓
S/N 007									
S/N 005									
S/N 006									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance	Insul MΩ			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	0,250V 100kHz	500V	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 90,4				
					Min: 74,0				
S/N 003	✓	✓	✓	✓	54,5	✓	✓		✓
S/N 002	✓	✓	✓	✓	54,7	✓	✓		
S/N 007									
S/N 005									
S/N 006									

TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Partial Discharge	Visual Inspection
			Inductance µH	Insul MΩhm					
CONDITIONS	§ 5.11	§ 5.8	0,250V 100kHz	500V	§ 5.2	§ 5.3	§ 5.4		§ 5.2
LIMITS			Max: 90,4						
			Min: 74,0	5000					
S/N 003									
S/N 002									
S/N 007	✓	✓	54,8	✓	✓	✓	✓	✓	✓
S/N 005	✓	✓	54,5	✓	✓	✓	✓	✓	✓
S/N 006	✓	✓	54,3	✓	✓	✓	✓	✓	✓

10.19 Q19 – ESCC320101301F14260119-1

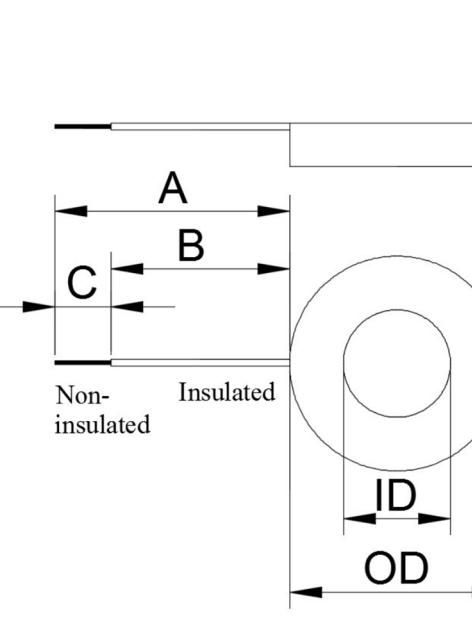
TEST	Electrical Characteristics		Mount on PCB & Fixture	Vibration	Mechanical Shock	Moisture Resistance	Electrical Characteristics		Thermal Shock
	Inductance	Insul MOhm					Inductance	Insul MOhm	
CONDITIONS	0,250V 100kHz	500V	ECSS-Q-ST-70-08	External Test		§ 5.15	0,250V 100kHz	500V	§ 5.17
LIMITS	Max: 279,5						Max: 279,5		
	Min: 150,5	5000					Min: 150,5	5000	
S/N 243	From screening		✓	✓	✓	✓	233		✓
S/N 244			✓	✓	✓	✓	224		✓
S/N 245									
S/N 246									
S/N 247									

TEST	Overload	Induced Voltage	DWV	Insulation Resistance	Electrical Characteristics		Visual Inspection	Resistance to soldering heat	DPA
					Inductance	Insul MOhm			
CONDITIONS	§ 5.16	§ 5.5	V=500 AC 60 s	Surge Test	0,250V 100kHz	500V	ECSS-Q-ST-70-08	§ 5.3	§ 5.14
LIMITS					Max: 279,5				
					Min: 150,5	5000			
S/N 243	✓	✓	✓	✓	233	✓	✓		✓
S/N 244	✓	✓	✓	✓	226	✓	✓		
S/N 245									
S/N 246									
S/N 247									

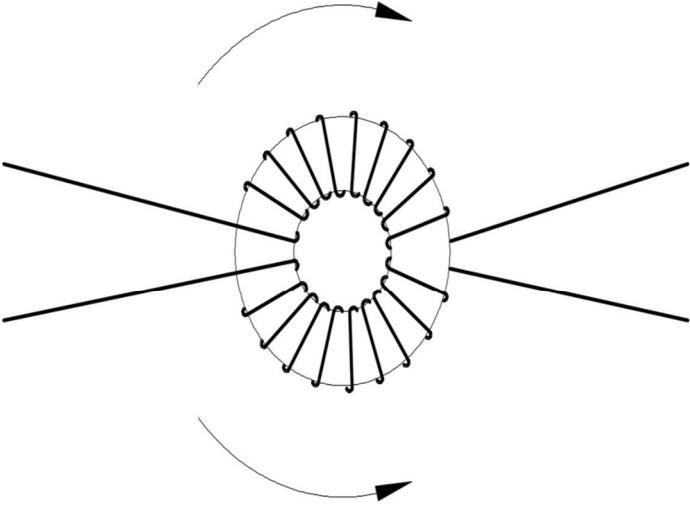
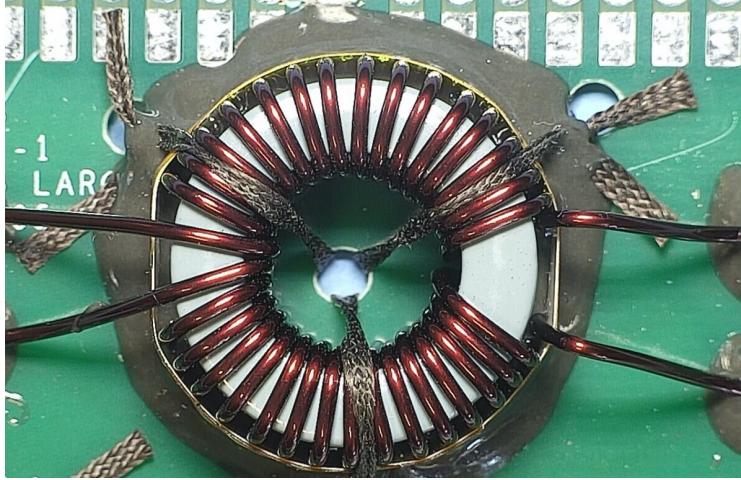
TEST	Life Test	Permanence of Marking	Electrical Characteristics		Visual Inspection	Solderability	Terminal Strength	Visual Inspection
			Inductance µH	Insul MOhm				
CONDITIONS	§ 5.11	§ 5.8	0,250V 100kHz	500V	§ 5.2	§ 5.3	§ 5.4	§ 5.2
LIMITS			Max: 279,5					
			Min: 150,5	5000				
S/N 243								
S/N 244								
S/N 245	✓	✓	228	✓	✓	✓	✓	✓
S/N 246	✓	✓	226	✓	✓	✓	✓	✓
S/N 247	✓	✓	230	✓	✓	✓	✓	✓

11. PARTS AND PART MOUNTING

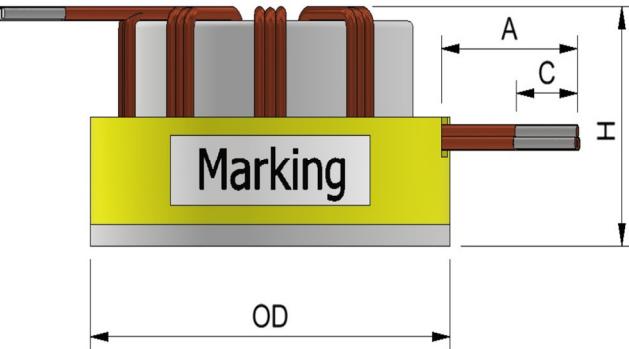
11.1 Q1 - ESCC320101301F12181014-1

Part Outline	Part Mounting	Part Details
 <p>Top View</p>		<ul style="list-style-type: none"> • Magnetics sheet 05000189-1 • ESCC320101301F12181014-1 • Inductor 195µH 1.9A • MPP Core • Flying Leads • Passive Life Test (120°C) • 500G Mechanical Shock • Random Vibration

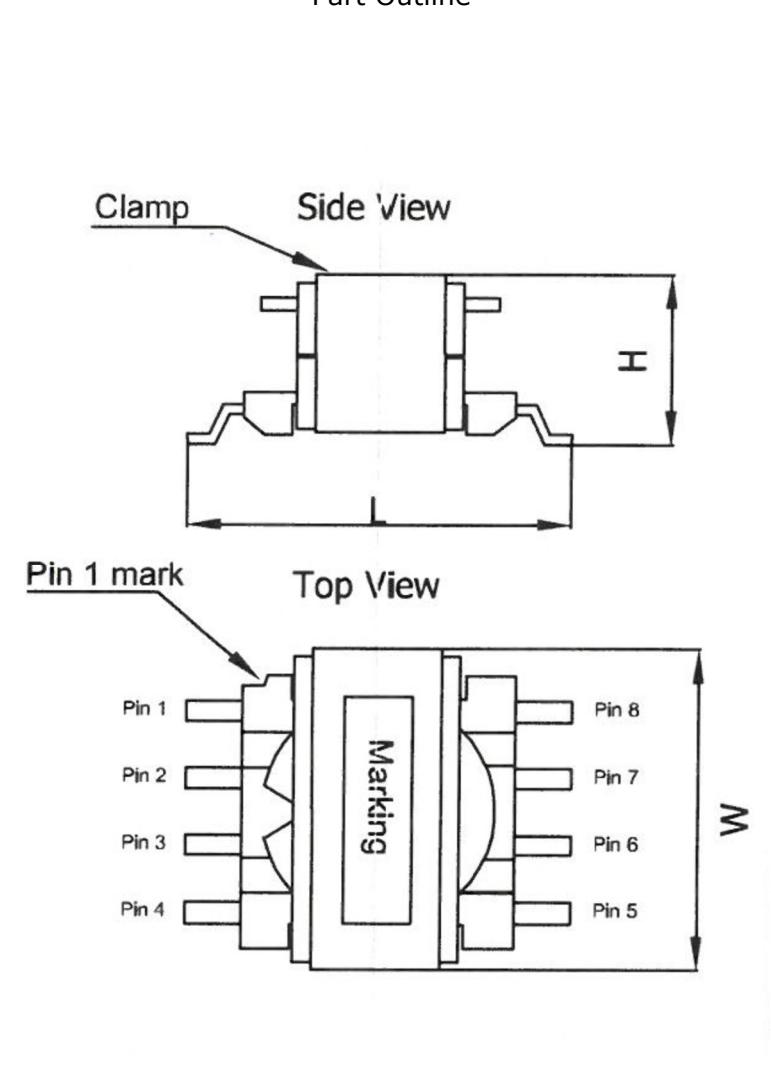
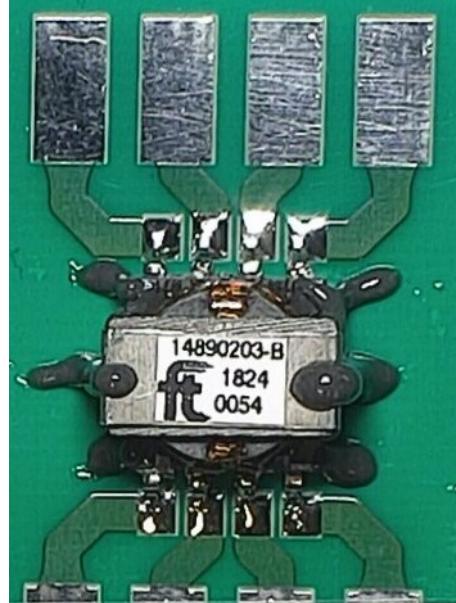
11.2 Q2 - ESCC320101301F12900107-1

Part Outline	Part Mounting	Comments
 TopView		<ul style="list-style-type: none"> • Magnetics sheet 05000070-3 • ESCC320101301F12900107-1 • Flux CM Toroid 1290-01 • Core ZJ42109 • Flying Leads • Passive Life Test (120°C) • 500G Mechanical Shock • Random Vibration

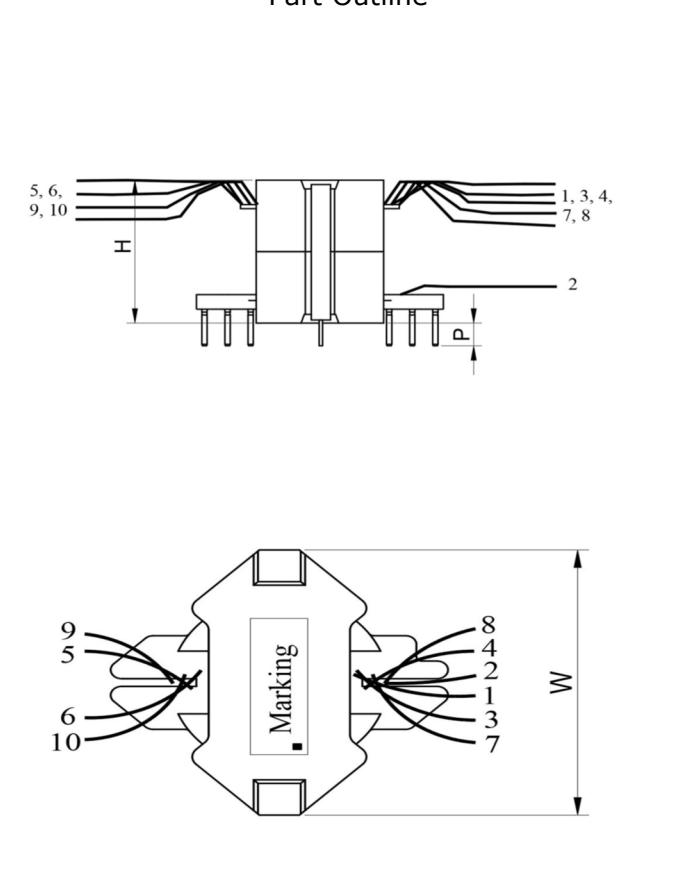
11.3 Q3 - ESCC320101301F12251047-1

Part Outline	Part Mounting	Comments
		<ul style="list-style-type: none"> • Magnetics sheet 05000066-1 • ESCC320101301F12251047-1 • COUPLED INDUCTOR • Core T60004-L2025-W375 • Flying Leads • Passive Life Test (120°C) • 500G Mechanical Shock • Random Vibration

11.4 Q4 - 14890203-1-B

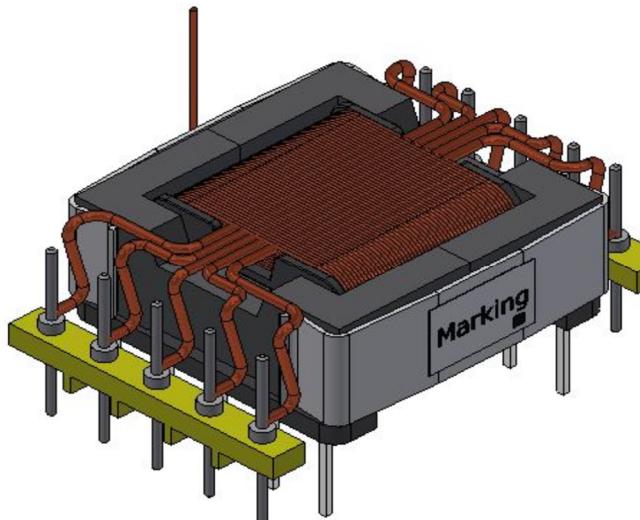
Part Outline	Part Mounting	Comments
 <p>Side View: Shows height H and width L. A callout points to the top edge.</p> <p>Top View: Shows width W. A callout points to the top-left corner. Labels indicate Pin 1, Pin 2, Pin 3, Pin 4, Pin 5, Pin 6, Pin 7, and Pin 8. A central rectangular area is labeled "Marking".</p>		<ul style="list-style-type: none"> • Magnetics sheet 05000039-1 • F14890203-1-B • ER9.5 Gate Transformer • Core ER9,5 3C95 • SMT • Passive Life Test (120°C) • 500G Mechanical Shock • Random Vibration

11.5 Q5 - ESCC320101301F12311058-1

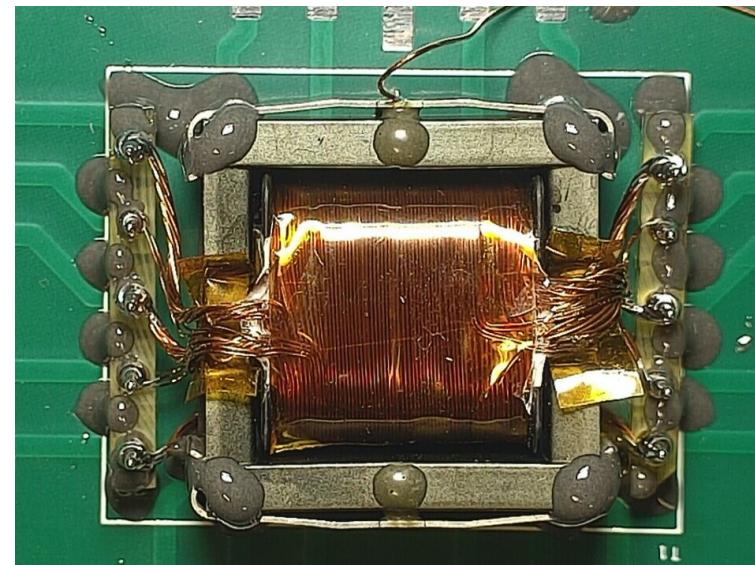
Part Outline	Part Mounting	Comments
 		<ul style="list-style-type: none"> • Magnetics sheet 05000365-1 • ESCC320101301F12311058-1 • Magnetic Inductor • Core RM12 N97 • Through hole • Active Life Test (85°C) • 500G Mechanical Shock • Random Vibration

11.6 Q6 - ESCC320101399F14230080-2

Part Outline



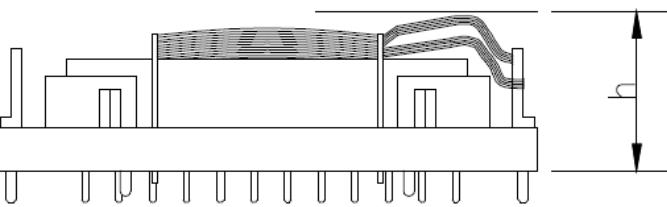
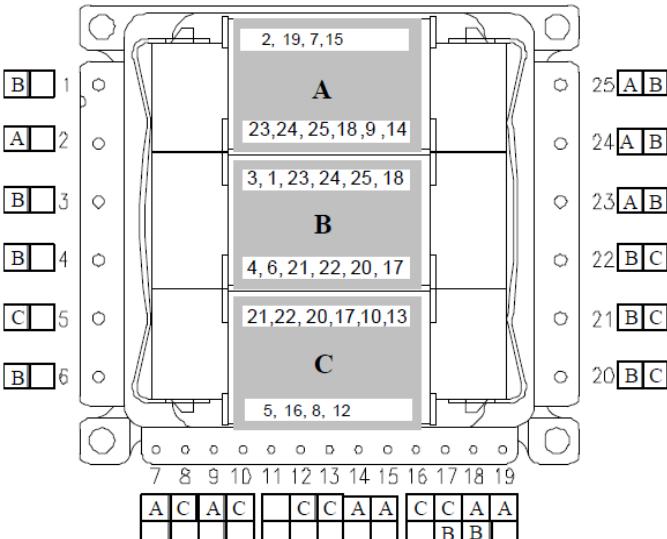
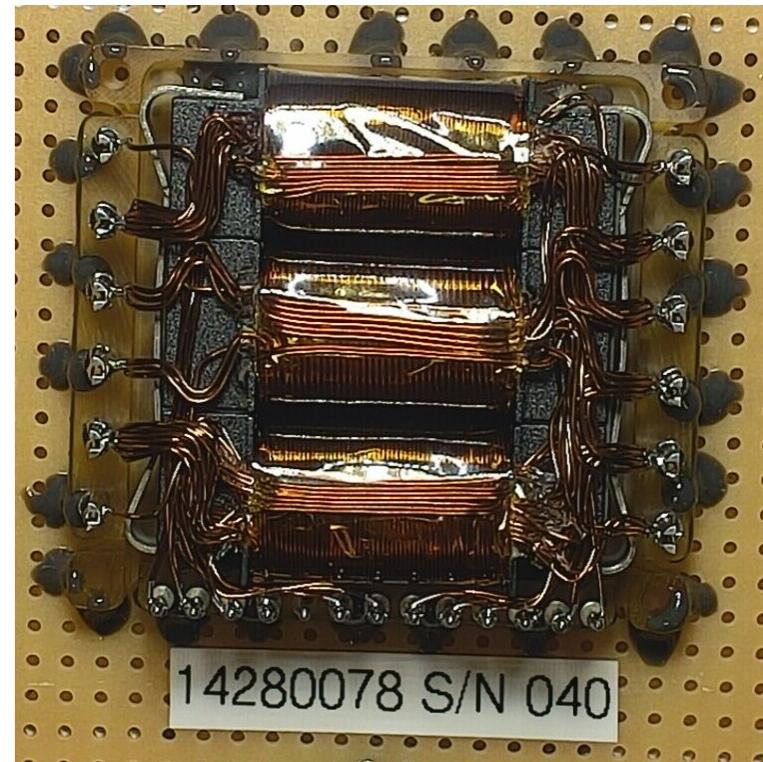
Part Mounting



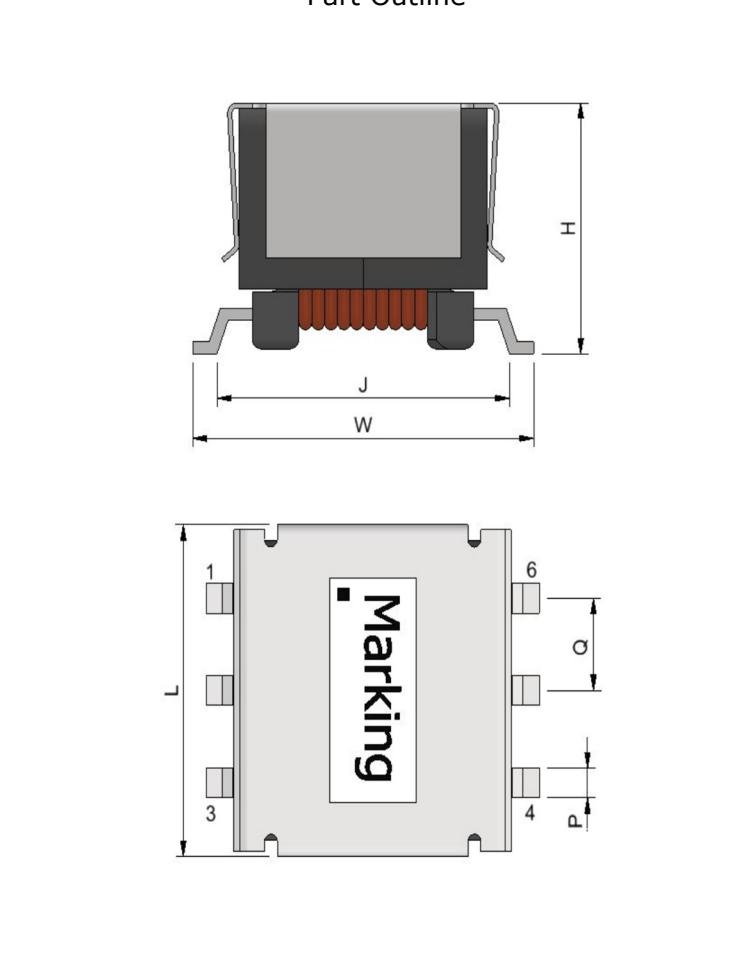
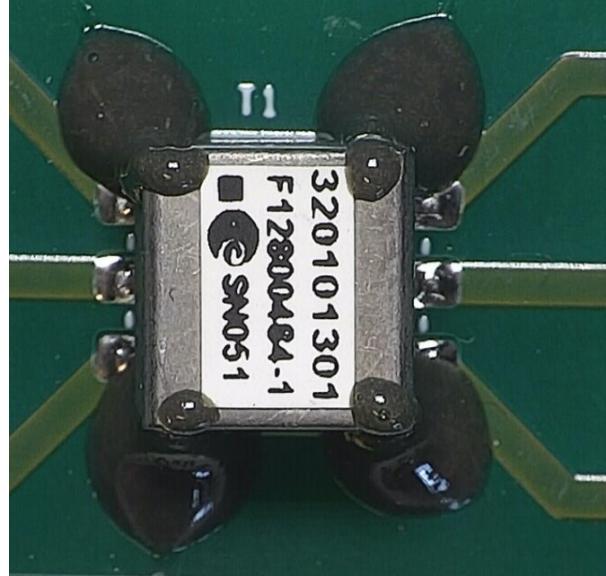
Comments

- Magnetics sheet 05000413-2
- ESCC320101399F14230080-2
- Transformer EFD-3032
- Core EFD25 N87
- Through hole & stripline
- Active Life Test (85°C)
- 500G Mechanical Shock
- Random Vibration

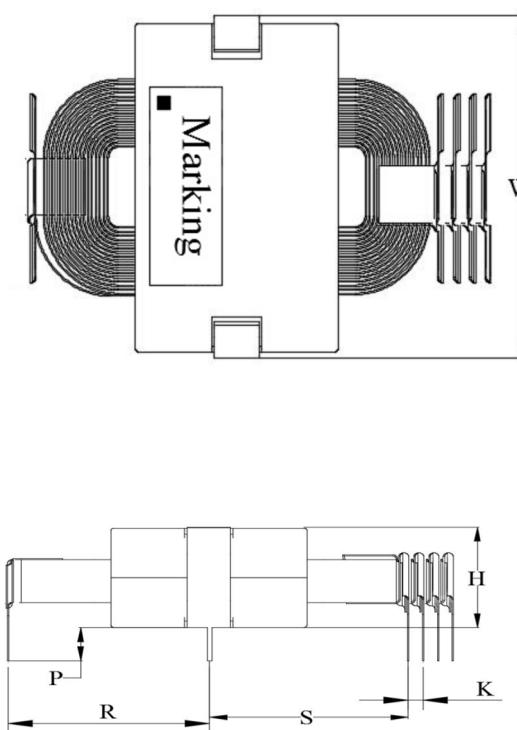
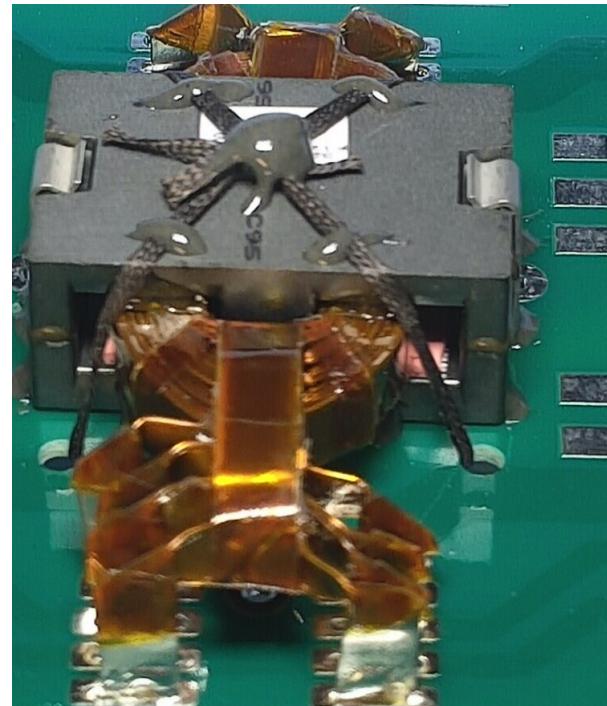
11.7 Q7 - ESCC320101301F14280078-1

Part Outline	Part Mounting	Comments																																								
  <table border="1" data-bbox="224 1182 595 1245"> <tr> <td>A</td><td>C</td><td>A</td><td>C</td><td>C</td><td>C</td><td>A</td><td>A</td><td>C</td><td>C</td><td>A</td><td>A</td><td>C</td><td>C</td><td>A</td><td>A</td><td>B</td><td>B</td><td>B</td><td>B</td> </tr> <tr> <td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> <p>Pins not to be mounted is marked by X. (<i>N/A, none</i>)</p>	A	C	A	C	C	C	A	A	C	C	A	A	C	C	A	A	B	B	B	B	7	8	9	10	11	12	13	14	15	16	17	18	19									<ul style="list-style-type: none"> • Magnetics sheet 05000310-2 • ESCC320101301F14280078-1 • IM2 DCDC UDCA GTS • Core IM2 PC40 • Through hole • Active Life Test (85°C) • 500G Mechanical Shock • Random Vibration
A	C	A	C	C	C	A	A	C	C	A	A	C	C	A	A	B	B	B	B																							
7	8	9	10	11	12	13	14	15	16	17	18	19																														

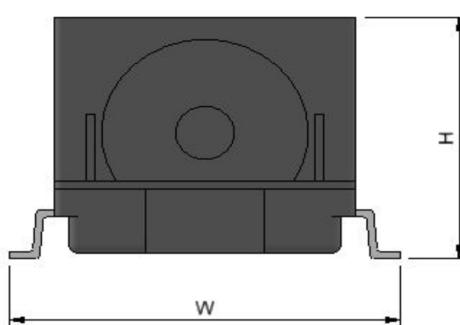
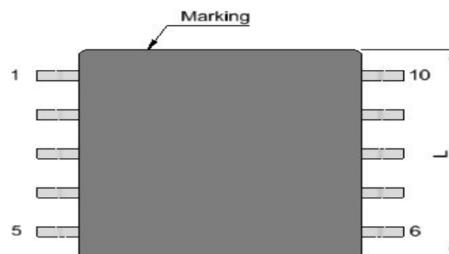
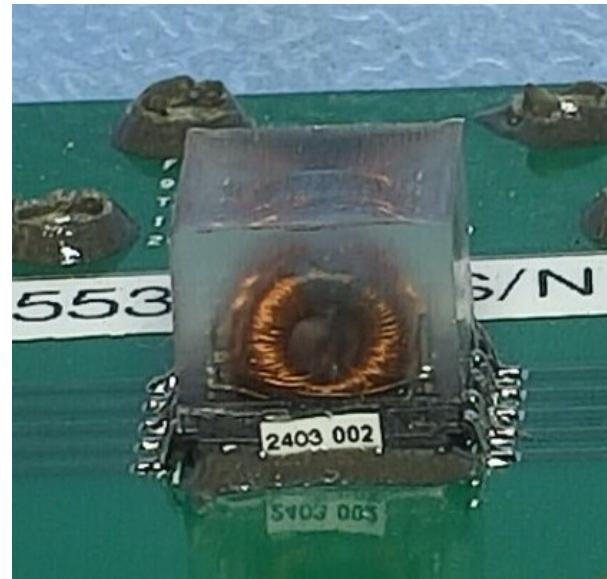
11.8 Q8 - ESCC320101301F12800484-1

Part Outline	Part Mounting	Comments
 <p>The Part Outline section contains two diagrams. The top diagram shows a top-down view of the inductor with dimensions: height H, width W, and center-to-center distance J. The bottom diagram is a marking diagram showing the component's footprint with pins numbered 1 through 6. A callout box labeled "Marking" points to pin 1. Dimensions include L (length), P (pitch), and α (lead clearance).</p>	 <p>The Part Mounting section shows a photograph of the inductor component mounted on a green printed circuit board (PCB). The component is labeled "T1" and has markings "320101301", "F12800484-1", and "SN051". It is held in place by four metal clips.</p>	<ul style="list-style-type: none"> • Magnetics sheet 05000404-2 • ESCC320101301F12800484-1 • SMT EP5 Inductor • Core EP5 3C94 • SMT • Passive Life Test (120°C) • 500G Mechanical Shock • Random Vibration

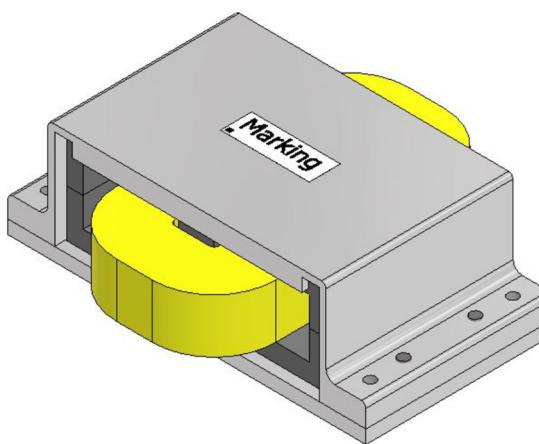
11.9 Q9 - ESCC320101301F14270167-1

Part Outline	Part Mounting	Comments
<p>Part Outline</p> <p>Top View</p> 	<p>Part Mounting</p> 	<ul style="list-style-type: none"> • Magnetics sheet 05000404-2 • ESCC320101301F14270167-1 • EE32 12:Transformer • Core EE32/6/20/R-3C95 • Through hole foils • Active Life Test (85°C) • 500G Mechanical Shock • Random Vibration

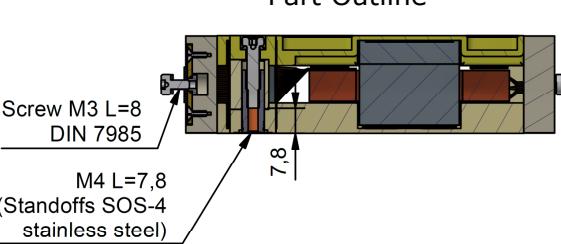
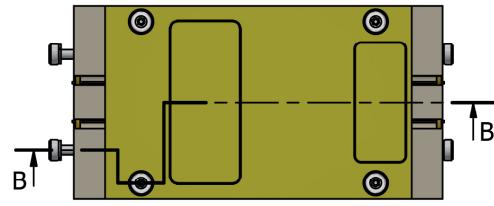
11.10 Q10 - ESCC320101301F15530201-1

Part Outline	Part Mounting	Comments
  <p>Marking:</p>		<ul style="list-style-type: none"> • Magnetics sheet 05000438-1 • ESCC320101301F15530201-1 • Double Bus Trf 1:3.75 • Core TC5.8/3.1/3.2-3E6 • SMT • Active Life Test (85°C) • 500G Mechanical Shock • Random Vibration

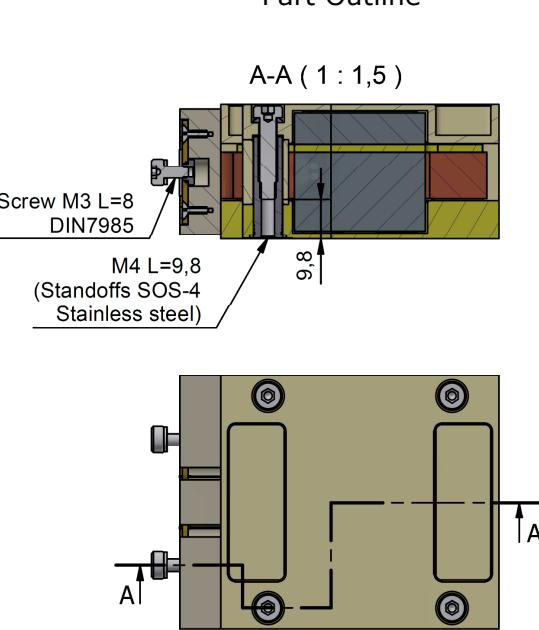
11.11 Q11 - 14381003-1-PFM

Part Outline	Part Mounting	Comments
		<ul style="list-style-type: none"> • Magnetics sheet TBD • 14381003-1-PFM • Magnet Transformer 50k v5 • EE58/11/38 3C95 • Flying Leads • Active Life Test (85°C) • 100G Mechanical Shock • Random Vibration

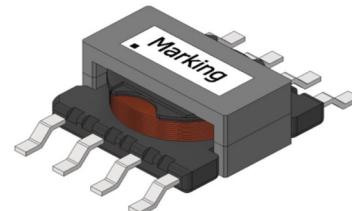
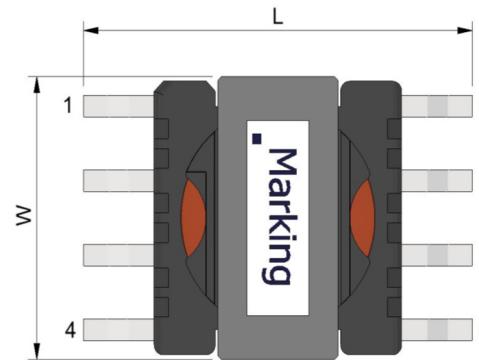
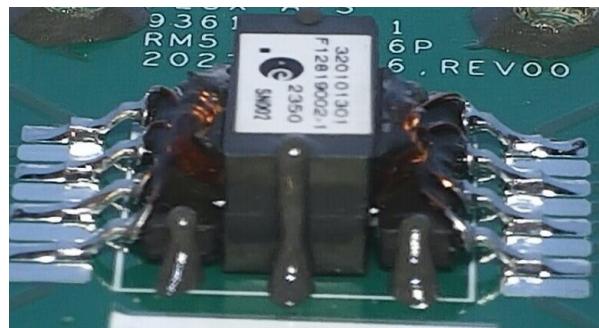
11.12 Q12 - ESCC320101301F14391002-1

Part Outline	Part Mounting	Comments
 	N/A – mounted directly to fixture	<ul style="list-style-type: none"> • Magnetics sheet 05000061-3 • ESCC320101301F14391002-1 • Planar Transformer 450 V 2.5 Kw • E58/19.5/32 MN92 • Active Life Test (40°C) • 800G Mechanical Shock • Random Vibration

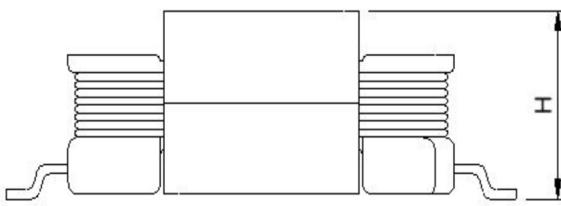
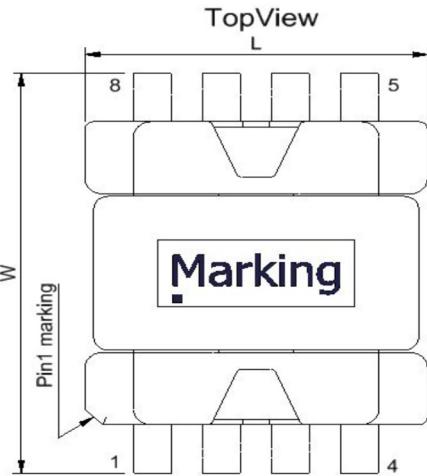
11.13 Q13 - ESCC320101301F12391001-2

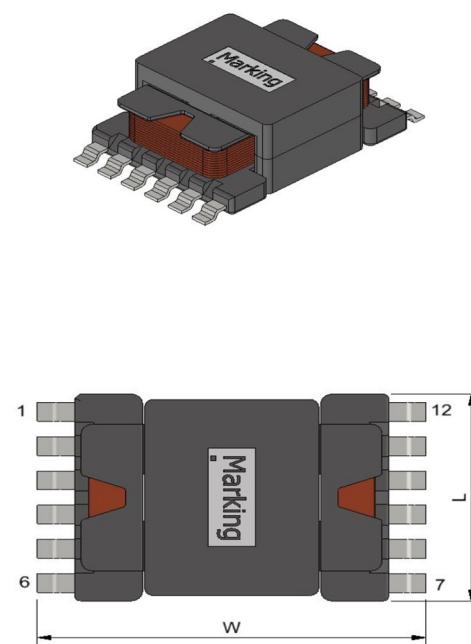
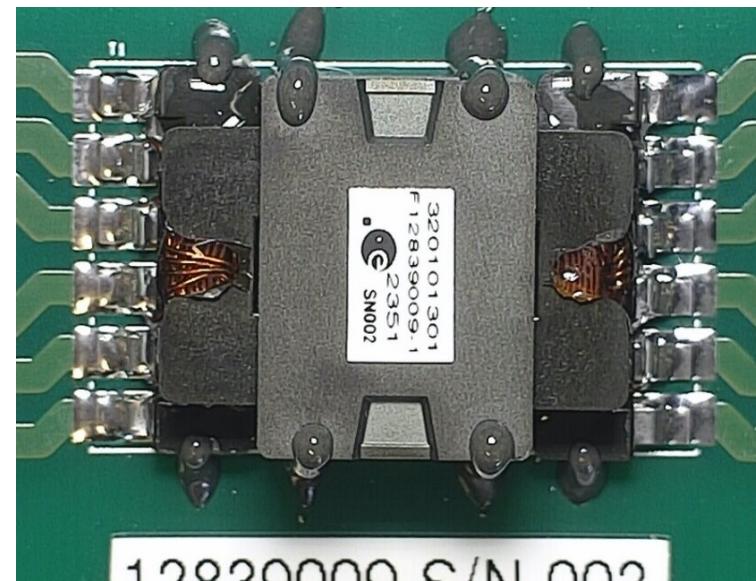
Part Outline	Part Mounting	Comments
 <p>A-A (1 : 1,5)</p> <p>Screw M3 L=8 DIN7985</p> <p>M4 L=9,8 (Standoffs SOS-4 Stainless steel)</p> <p>9,8</p>	<p>N/A – mounted directly to fixture.</p>	<ul style="list-style-type: none"> • Magnetics sheet 05000062-3 • ESCC320101301F12391001-1 • 45µH 26A inductor • E58/19.5/32 MN92 • Passive Life Test (120°C) • 800G Mechanical Shock • Random Vibration

11.14 Q14 - ESCC320101301F12819002-1

Part Outline	Part Mounting	Comments
 		<ul style="list-style-type: none"> • Magnetics sheet 05000433-1 • ESCC320101301F12819002-1 • 2µH 5A Inductor • ER14.5 3C95 • Passive Life Test (120°C) • 500G Mechanical Shock • Random Vibration

11.15 Q15 - ESCC320101301F12829003-1

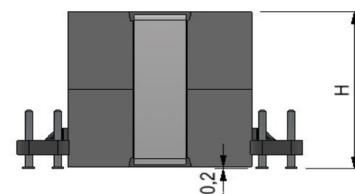
Part Outline	Part Mounting	Comments
<p>Sideview</p>  <p>TopView</p> 		<ul style="list-style-type: none"> • Magnetics sheet 05000257-1 • ESCC320101301F12829003-1 • Flux SMT Inductor 11,2μH • E18/4/10 3F46 • Passive Life Test (120°C) • 500G Mechanical Shock • Random Vibration

11.16 Q16 - ESCC320101301F12839009-1
Part Outline

Part Mounting

Comments

- Magnetics sheet 05000437-1
- ESCC320101301F12839009-1
- Flux SMT Inductor 82µH
- EE22/6/16 3F46
- Passive Life Test (120°C)
- 500G Mechanical Shock
- Random Vibration

11.17 Q17 - ESCC320101301F14229007-1

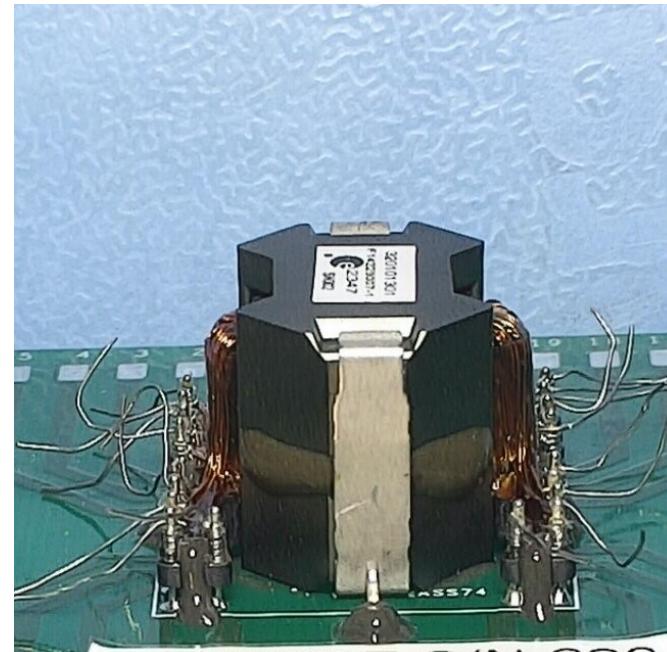
Part Outline



The diagram illustrates a component with several key features labeled:

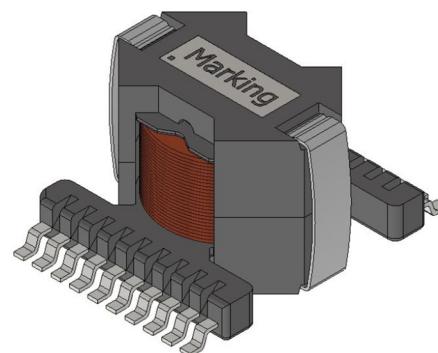
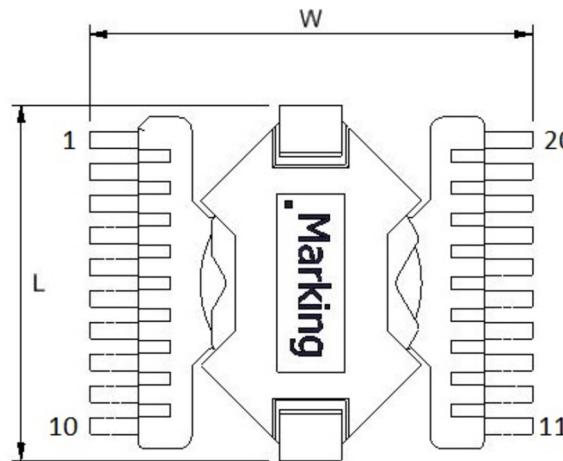
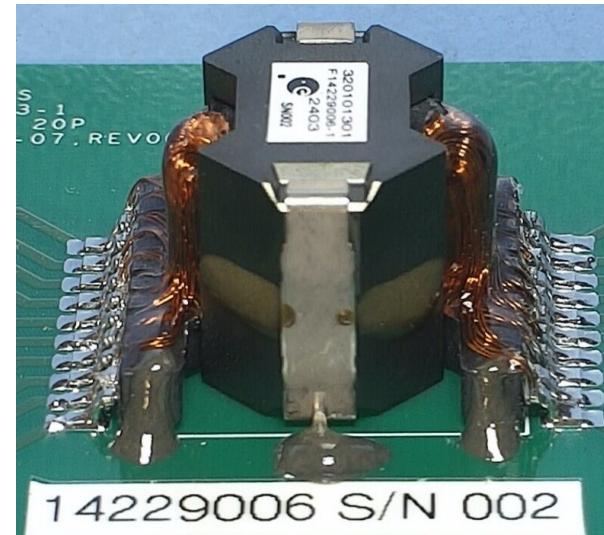
- Pin 1 marking**: Indicated by an arrow pointing to the top edge of the central rectangular area.
- Marking**: A large white rectangular area containing the word "Marking".
- Dimensions**: The width of the central area is labeled **W**. The total length of the component is labeled **L**.
- Pin numbers**: The top-left corner is labeled **2 1**, the top-right corner is labeled **20 19**, the bottom-left corner is labeled **9 10**, and the bottom-right corner is labeled **11 12**.

Part Mounting



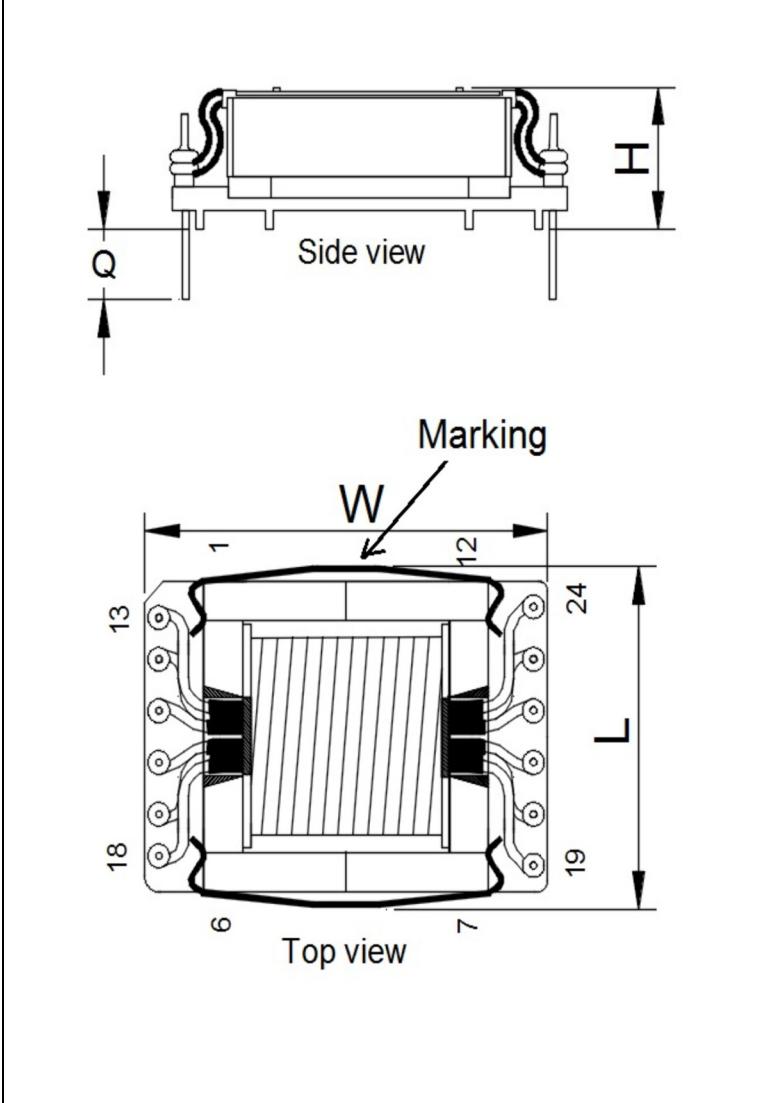
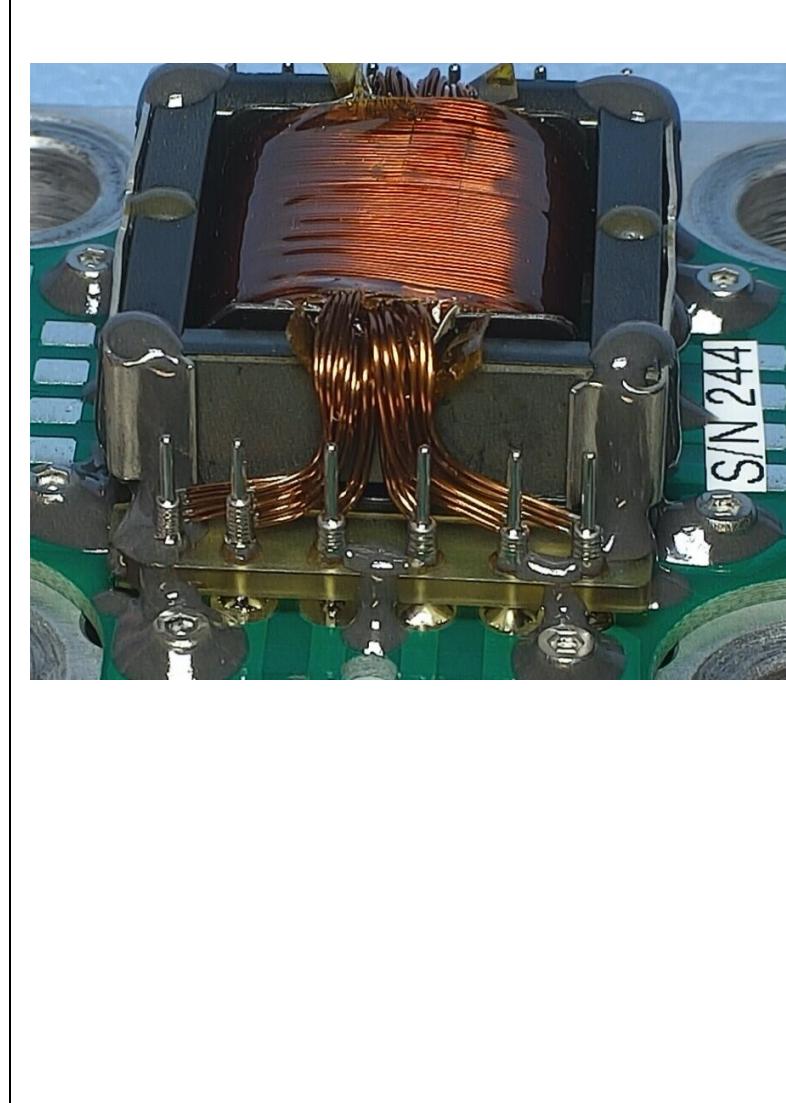
Comments

- Magnetics sheet 05000434-1
 - ESCC320101301F14229007-1
 - Flyback Trf 28V
 - RM8 3C95
 - Active Life Test (85°C)
 - 500G Mechanical Shock
 - Random Vibration

11.18 Q18 - ESCC320101301F14229006-2
Part Outline

Part Mounting

Comments

- Magnetics sheet 05000369-1
- ESCC320101301F14229006-2
- Flyback Trf 28V to ±12V,
- RM8 3C95
- Active Life Test (85°C)
- 500G Mechanical Shock
- Random Vibration

11.19 Q19 - ESCC320101301F14260119-1

Part Outline	Part Mounting	Comments
 <p>Side view</p> <p>Marking</p> <p>Top view</p>		<ul style="list-style-type: none"> • Magnetics sheet 05000156-3 • ESCC320101301F14260119-1 • Transformer 180W • Epcos EFD30/13/9 N97 • Active Life Test (85°C) • 500G Mechanical Shock • Random Vibration