AESA Cortaillod

Test Report

Designation	: Bobine reference 120 OHM on helios frame	Length	: 300 m	Temp	: 20°C
Testorder	: L120 helios	Test Date/Time	: 02.10.2015 12:21:56	Sample-ID-No.	: 000008TM1A

Customer	: .	Drum no.	: .
Cable type	: .	Order no.	: .
Specification	: .	Operator	:

Test Result: **PASS**

Final inspection

Worst Case Summary

LF RCKE 800 Hz

No	From	To	Ra Ohm /1000m	Rb Ohm /1000m	Rc Ohm /1000m	Rd Ohm /1000m	R1 Ohm /1000m	R2 Ohm /1000m		
1		1-	85.63	85.53	85.64	86.48	171.15	172.12	ü	»
2		2-	84.37	85.03	84.39	84.43	169.39	168.82	ü	»
3		3-	82.66	86.48	82.61	82.79	169.14	165.40	ü	»
4		4-	83.56	83.71	83.41	84.28	167.27	167.69	ü	»

to be continued

Continuation from #LRCKE

«	No	From	To	RD%1 % /1000m	RD%2 % /1000m	C1 nF /1000m	C2 nF /1000m	L1 µH /1000m	L2 µH /1000m	K1 pF /1000m		
«	1		1-	0.058	-0.484	43.56	43.48	610.11	611.05	3	ü	»
«	2		2-	-0.389	-0.020	42.51	42.56	622.70	622.13	-8	ü	»
«	3		3-	-2.257	-0.111	41.54	41.61	634.93	634.08	-13	ü	»
«	4		4-	-0.090	-0.517	42.05	41.96	628.44	629.59	4	ü	»

to be continued

Continuation from #LRCKE

«	No	From	To	E1 pF /1000m	E2 pF /1000m	E3 pF /1000m	
«	1		1-	127	216	466	ü
«	2		2-	-30	211	-119	ü
«	3		3-	-79	101	-287	ü
«	4		4-	351	269	524	ü

LF L/R ratio

No	From	To	L/R1 µH/Ohm /1000m	L/R2 µH/Ohm /1000m	No	From	To	L/R1 µH/Ohm /1000m	L/R2 µH/Ohm /1000m	No	From	To	L/R1 µH/Ohm /1000m	L/R2 µH/Ohm /1000m	
1		1-	3.56	3.55	2		2-	3.68	3.69	3		3-	3.75	3.83	ü
4		4-	3.76	3.75			-					-			ü

LF K triangle 800 Hz

#LK cap-unbalance s/s K pairs 800 Hz

	2	3	4	5	6	7	8		
1	10	-29	25	0	4	-5	-13	1	ü
2		-19	-28	7	4	19	-6	2	ü
3			-3	-19	4	14	0	3	ü
4				0	-16	0	13	4	ü
5					-13	0	11	5	ü
6						-6	-5	6	ü
7							9	7	ü
	2	3	4	5	6	7	8		

Worst Case Summary

{ *v* = Value *l* = Limit *m* = Margin *f* = Frequency (MHz) *p* = Pair / Combo < = Lower Limit > = Upper Limit }

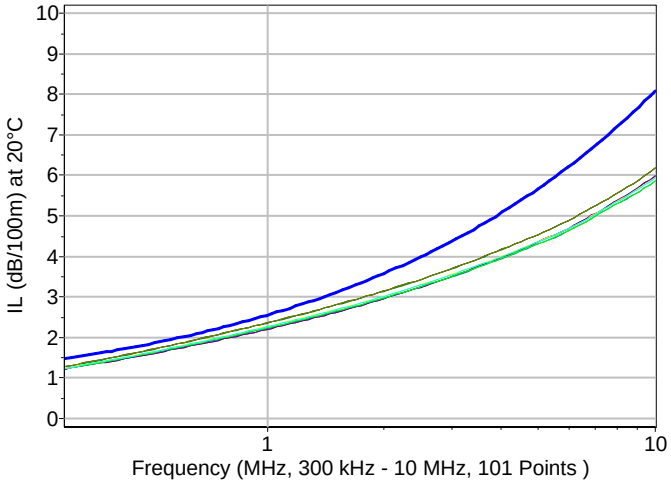
Parameter	Frequency	Points	Minimum { *v [f] p* }	Maximum { *v [f] p* }	Min. Margin { *m (v l) [f] p* }	Result
IL (dB/100m) at 20°C	0.3-10	101	1.28 [0.3] 2	6.19 [10] 1	0.14 (1.81 > 1.95) [0.5639] 2	ü
NEXT (dB)	0.3-10	101	48.9 [9.388] 4-7	76.2 [0.3] 2-8	19.9 (48.9 < 29.0) [9.388] 4-7	ü
ZIN (Ohm)	0.3-10	101	116.1 [3.746] 1	137.3 [0.3121] 6	12.7 (137.3 > 150.0) [0.3121] 6	ü
RL (dB)	0.3-10	101	20.8 [0.3243] 6	38.8 [7.071] 6	0.8 (20.8 < 20.0) [0.3243] 6	ü

Legend

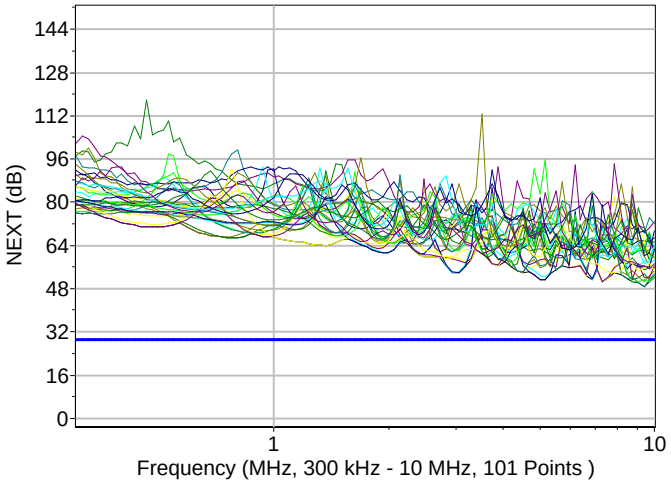
IL = Insertion loss NEXT = Near End Crosstalk ZIN = Input Impedance

RL = Return Loss

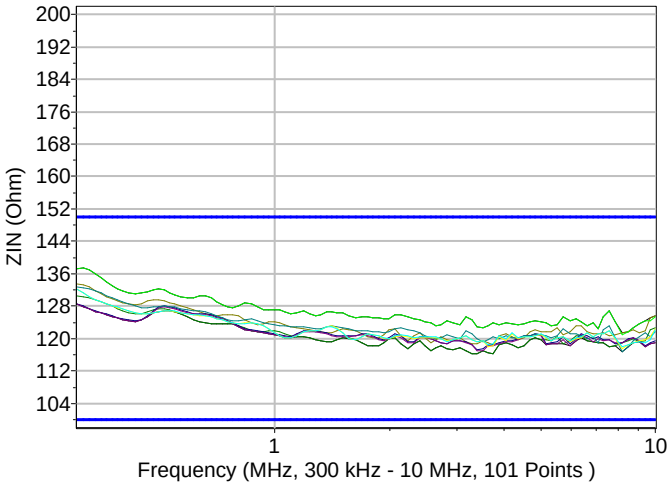
Pass



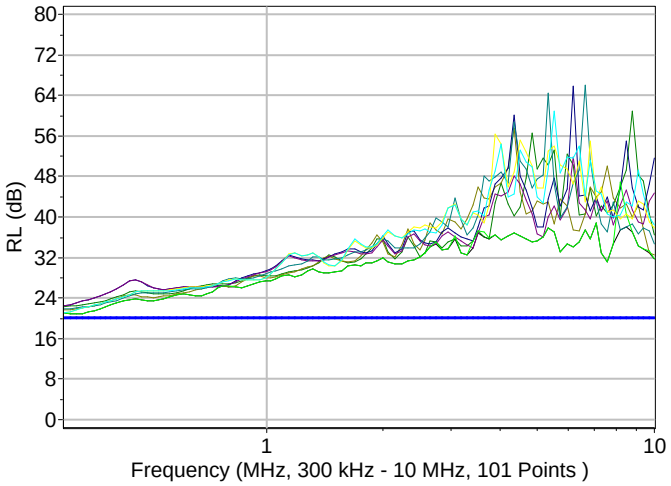
Pass



Pass



Pass



(1 kHz)

CHI (imag. part) (near) 1 kHz

Stranded element	1	2	3	4	5	6	7	8	
ZIN (X) CHIX	790.9	793.8	796.4	794.7	805.1	795.5	795.8	797.6	ü

insertion loss (near) 1 kHz

Stranded element	1	2	3	4	5	6	7	8	
IL IL(f)	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	ü

INext 1 kHz

INEXT inext 1 kHz

	1	2	3	4	5	6	7	8		
1		114.6	105.3	106.6	164.1	122.2	120.6	112.6	1	ü
2	114.6		108.9	105.8	118.0	122.2	108.9	119.2	2	ü
3	105.3	108.9		124.1	108.8	122.1	111.5	164.1	3	ü
4	106.6	105.8	124.1		164.0	110.6	164.1	112.6	4	ü
5	164.1	118.0	108.8	164.0		112.5	164.0	113.8	5	ü
6	122.2	122.2	122.1	110.6	112.5		119.2	120.5	6	ü
7	120.6	108.9	111.5	164.1	164.0	119.2		115.3	7	ü
8	112.6	119.2	164.1	112.6	113.8	120.5	115.3		8	ü
	1	2	3	4	5	6	7	8		

Fext (near) 1 kHz

FEXT fext 1 kHz

	1	2	3	4	5	6	7	8		
1		119.3	110.0	111.4	168.8	126.9	125.4	117.4	1	ü
2	119.3		113.7	110.5	122.8	126.9	113.7	124.0	2	ü
3	110.0	113.7		128.9	113.6	126.9	116.3	168.8	3	ü
4	111.4	110.5	128.9		168.8	115.3	168.9	117.4	4	ü
5	168.8	122.8	113.6	168.8		117.3	168.8	118.6	5	ü
6	126.9	126.9	126.9	115.3	117.3		124.0	125.3	6	ü
7	125.4	113.7	116.3	168.9	168.8	124.0		120.1	7	ü
8	117.4	124.0	168.8	117.4	118.6	125.3	120.1		8	ü
	1	2	3	4	5	6	7	8		

(10 kHz)

CHI (imag. part) (near) 10 kHz

Stranded element	1	2	3	4	5	6	7	8	
ZIN (X) CHIX	253.5	254.5	255.4	254.9	258.2	255.3	255.3	255.9	ü

insertion loss (near) 10 kHz

Stranded element	1	2	3	4	5	6	7	8	
IL IL(f)	0.37	0.37	0.37	0.37	0.36	0.36	0.36	0.36	ü

INext 10 kHz

INEXT inext 10 kHz

	1	2	3	4	5	6	7	8		
1		104.5	95.1	96.5	153.9	112.0	110.5	102.5	1	ü
2	104.5		98.8	95.6	107.9	112.0	98.8	109.1	2	ü
3	95.1	98.8		114.0	98.7	112.0	101.4	153.9	3	ü
4	96.5	95.6	114.0		153.9	100.4	154.0	102.5	4	ü
5	153.9	107.9	98.7	153.9		102.4	153.9	103.7	5	ü
6	112.0	112.0	112.0	100.4	102.4		109.1	110.4	6	ü
7	110.5	98.8	101.4	154.0	153.9	109.1		105.2	7	ü
8	102.5	109.1	153.9	102.5	103.7	110.4	105.2		8	ü
	1	2	3	4	5	6	7	8		

Fext (near) 10 kHz

FEXT fext 10 kHz

	1	2	3	4	5	6	7	8		
1		109.2	99.9	101.3	158.7	116.8	115.2	107.3	1	ü
2	109.2		103.5	100.4	112.7	116.8	103.5	113.9	2	ü
3	99.9	103.5		118.7	103.5	116.8	106.2	158.7	3	ü
4	101.3	100.4	118.7		158.7	105.2	158.7	107.2	4	ü
5	158.7	112.7	103.5	158.7		107.2	158.7	108.4	5	ü
6	116.8	116.8	116.8	105.2	107.2		113.9	115.2	6	ü
7	115.2	103.5	106.2	158.7	158.7	113.9		109.9	7	ü
8	107.3	113.9	158.7	107.2	108.4	115.2	109.9		8	ü
	1	2	3	4	5	6	7	8		

(30 kHz)

CHI (imag. part) (near) 30 kHz

Stranded element	1	2	3	4	5	6	7	8	
ZIN (X) CHIX	160.1	160.6	161.5	161.2	163.3	162.0	161.7	162.0	ü

insertion loss (near) 30 kHz

Stranded element	1	2	3	4	5	6	7	8	
IL IL(f)	0.52	0.52	0.51	0.51	0.50	0.50	0.50	0.50	ü

INext 30 kHz

INEXT inext 30 kHz

	1	2	3	4	5	6	7	8		
1		98.9	89.6	90.9	148.4	106.5	104.9	96.9	1	ü
2	98.9		93.2	90.1	102.3	106.5	93.2	103.5	2	ü
3	89.6	93.2		108.4	93.1	106.4	95.8	148.4	3	ü
4	90.9	90.1	108.4		148.4	94.8	148.4	96.9	4	ü
5	148.4	102.3	93.1	148.4		96.8	148.3	98.1	5	ü
6	106.5	106.5	106.4	94.8	96.8		103.5	104.8	6	ü
7	104.9	93.2	95.8	148.4	148.3	103.5		99.6	7	ü
8	96.9	103.5	148.4	96.9	98.1	104.8	99.6		8	ü
	1	2	3	4	5	6	7	8		

Fext (near) 30 kHz

FEXT fext 30 kHz

	1	2	3	4	5	6	7	8		
1		103.7	94.4	95.7	153.2	111.2	109.7	101.7	1	ü
2	103.7		98.0	94.9	107.1	111.2	98.0	108.3	2	ü
3	94.4	98.0		113.2	97.9	111.2	100.6	153.1	3	ü
4	95.7	94.9	113.2		153.1	99.6	153.2	101.7	4	ü
5	153.2	107.1	97.9	153.1		101.6	153.1	102.9	5	ü
6	111.2	111.2	111.2	99.6	101.6		108.3	109.6	6	ü
7	109.7	98.0	100.6	153.2	153.1	108.3		104.4	7	ü
8	101.7	108.3	153.1	101.7	102.9	109.6	104.4		8	ü
	1	2	3	4	5	6	7	8		

Final control authorized signature: .....