Job Number:	Project Number:	Date of issue:
93.11.30	150 000	December 1993

Description:	Part numbers:
Micro-MaTch. SMC Connector. (Qualification test)	2-100411-0

Scope:

To investigate the behaviour of the Micro-MaTch Miniature Connector system, when tested in accordance with the AMP PRODUCT SPECIFICATION 108-19052, revision A.
Tested were SMC connections. (Surface Mount Compatible)

Conclusions:

All tested connector assemblies meet the requirements of the AMP PRODUCT SPECIFICATION.

Test Specification:	AMP PRODUCT SPECIFICATION: 108-19052, rev.A. IEC 512 series. IEC 68 series.
Test Carried Out:	1 See page 4 and 5. 2 3
Distribution:	1 Mr.H vd Steen. (P.E.) 2 Doc.Centre. 3 File Lab.

Test Engineer:	C.Mayers / J.Geven.	**Requested by:**	Product Engineering.
Laboratory Manager:	W.M. de Cock	**Classification:**	U N R E S T R I C T E D.
Disposal of Samples:	Returned.	**Report Number:**	R 041 - 1666.
Appendices:		**Page 1 of 27 Pages**	

EQUIPMENT USED:

Oven	Heraeus	T 5042
Oven	Heraeus	UT 6060
Climatic chamber	Heraeus/Vötsch	VMS2-08-20-64
Climatic chamber	Heraeus/Vötsch	VLK 08-300
Push pull tester	AMP	MkII
Tensile tester	Karl Frank	81560
Current source	Philips	PE 1516
Current source	Hewlett Packard	6114A
Microscope	Wild	M-7
Desk top computer	Hewlett Packard	Series 300
Digital voltmeter	Hewlett Packard	3478A
Scanner	Hewlett Packard	3497A
Digital multimeter	Keithley	195T
Micro-Ohmmeter	Keithley	580

DESCRIPTION of TESTSAMPLES:

Tested connectors are 20 position female Surface Mount Compatible Micro-MaTch connectors, partnumber 2-100411-0.

Testgroup 1 to 3: These female SMC connectors were tested in combination with a 20 position Male on Wire Micro-MaTch connector, partnumber 2-215083-0. (MOW) At a distance of approximately 15 mm's of the SMC connector a wire was soldered on the printed circuit board for measurement purposes.
The female SMC connector was mated with a 20 position male on wire connector. This connector was terminated with a 20 position solid AWG 28 ribbon cable. At both sides of this ribbon cable a Micro-Match paddle board connector was terminated for measurement purposes. In this way automatic termination resistance measurements were made possible.

Testgroup 4: To determine the push-in and push-out forces of the SMC-connector into a PCB, five 6-position SMC connectors at each PCB, partnumber 0-100411-6 were pushed-in and pushed-out of this PCB's.

Testgroup 5: One SMC connector, partnumber 2-100411-0, was inserted into a PCB.
One MOW connector, partnumber 2-215083-0, was terminated on 145 mm of ribboncable and connected with the SMC connector.
20-position connectors were used.
5 Of these connetor assemblies were tested.

Testgroup 6: Five of these SMC connectors were used to determine the contact retention in housing.

For the climatic tests the female SMC connector were mounted on an glass filled epoxy PCB with drilled holes of 1.04 mm and a thickness of 1.6 mm. This is the worst case situation concerning push-out forces.

Ribboncable :Kabel Metall, 28 AWG-7 strands-2,07 mΩ/cm.(approx).
All wire terminations were made with the Bench Press, partnumber 733280-1.

TESTPROCEDURES:

TERMINATION RESISTANCE:

For testgroup: 1 to 3

In accordance with IEC 512-2, test 2a. Under dry circuit conditions. Maximum open voltage 20 mV, maximum current 100 mA.
See figure 1 for measuring points. Termination resistance includes 1 ID contact, 1 female-male contact, 1 connector-PCB contact, contact bulk and bulk 15 mm of the PCB-traces. The bulkresistances of the PCB traces are different due to differences in thickness of copper layer and tin layer. This causes differences in the resulting termination resistances. Bulkresistance of PCB traces is approx. 3-10 mΩ.
However, stability of contactresistance can be concluded from delta R of individual contacts.

For testgroup 5:

Bulk resistance of wire	:30 mΩ.
Bulk resistance of PCB	: 8 mΩ.
Totally	:38 mΩ. (approx.)

Requirement: 10 mΩ maximum excluding bulk of wire and PCB traces.

PUSH-IN and PUSH-OUT FORCES in a PCB:

Speed 5 mm/min.
At push-in forces connectors must be supported by a part of the application tooling.
Push-out force to be determined by pushing onto the posts.

CONTACT RETENTION in HOUSING:

In accordance with IEC 512-8, test 16f.
10 Newton per individual contact.

Requirement: No dislodge from housing.
(after contact retention in housing the contacts were pushed out of the housing)

DRY HEAT:

In accordance with IEC 512-6-test 11i.
Temperature 105°C, duration 16 hours.
Samples unmated.

DAMP HEAT CYCLIC:

In accordance with IEC 512-6-test m. Upper temperature 55°C.
1 cycle = 24 hours.
Samples unmated.

COLD:

In accordance with IEC 512-6, tests 11j.
Temperature -40°C, duration 2 hours.
Samples unmated.

MECHANICAL OPERATION:

In accordance with IEC 512-5, tests 9a.
Number of operations: 20.
Frequency 10 times/minute.
Minimum time between 2 operations: 1 second.

RAPID CHANGE of TEMPERATURE:

In accordance with IEC 512-6, test 11d.
Upper temperature: 105°C, lower temperature -40°C.
Duration at each temperature 15 minutes.
Number of cycles: 10.

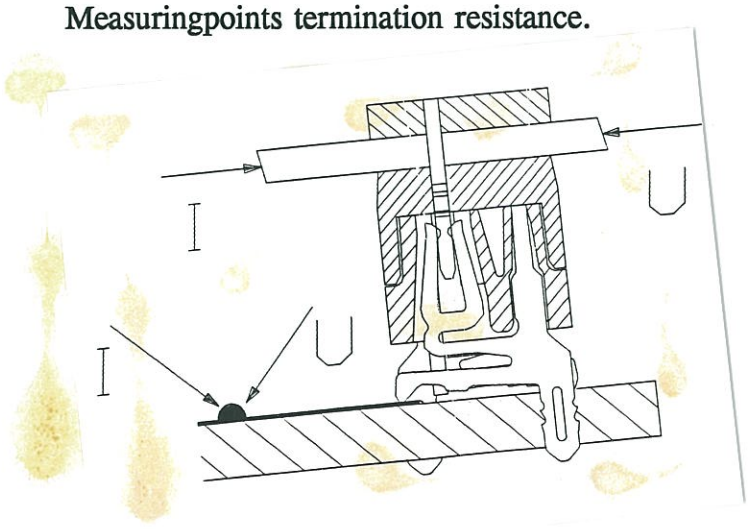
DRY HEAT under CYCLIC CURRENT LOADING:

In accordance with IEC 512-5-9e.

The testsamples were placed in an oven.
Ambient temperature :70°C.
The samples were, all in series, connected to a current source with a current of 125% of the specified current. That means 1,4 A. (curve A of Prod.Spec.)

One cycle consists of :45 minutes on ON.
:15 minutes on OFF.
500 Of these were cycles done.

Measuringpoints termination resistance.



TESTSEQUENCE:

Testgroup 1: 5 20-position SMC / MOW.

1. Visual examination,
2. Termination resistance,
3. Climatic sequence,
   a. Dry heat,
   b. Damp heat cyclic, first cycle,
   c. Cold,
   d. Damp heat cyclic, remaining 5 cycles,
4. Termination resistance,
5. Visual examination.

Testgroup 2: 5 20-position SMC / MOW.

1. Visual examination,
2. Termination resistance,
3. Mechanical operation,
4. Termination resistance,
5. Damp heat cyclic, 6 cycles,
6. Termination resistance,
7. Visual examination.

Testgroup 3: 5 20-position SMC / MOW.

1. Visual examination,
2. Termination resistance,
3. Rapid change of temperature,
4. Termination resistance,
5. Visual examination.

Testgroup 4: 5 6-position SMC connectors.

1. Visual examination.
2. Push-in and push-out forces in a PCB.
3. Visual examination.

Testgroup 5: 5 20-position SMC / MOW.

1. Visual examination.
2. Dry heat under cyclic current loading.
3. Visual examination.

Testgroup 6: 5 20-position SMC connectors.

1. Visual examination.
2. Contact retention in housing.
3. Visual examination.

MEASUREMENT RESULTS:

PUSH-IN and PUSH-OUT FORCES:

		Min	Max	
Testgroup 4:	Push-in force	275N	300N	On 6-position connectors.
	Push-out force	110N	125N	

CONTACT RETENTION in HOUSING:

Testgroup 6:

No dislodge of the contacts from housing was observed at 10 Newtons.

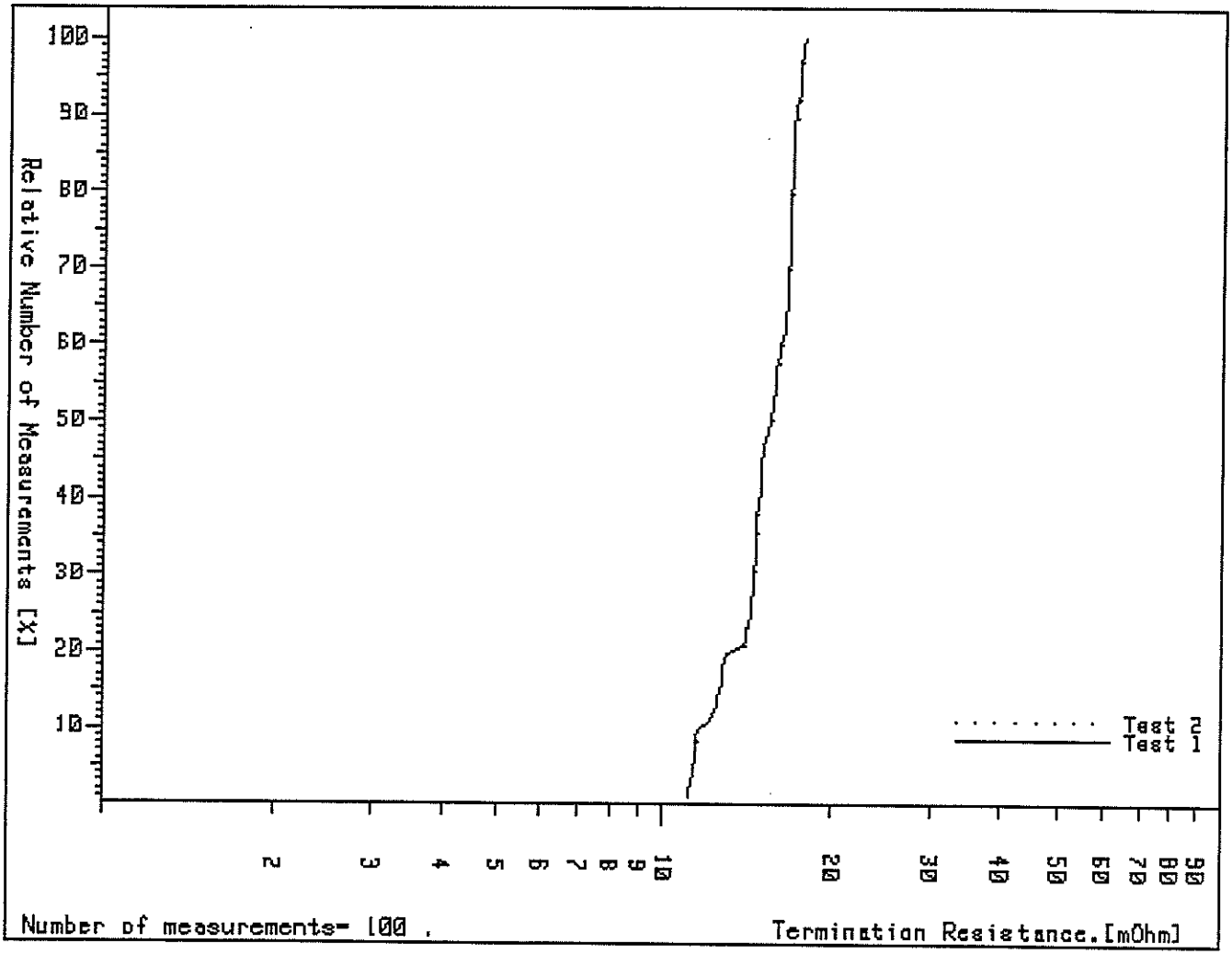
Maximum measured push-out force out of housing : 40 N,
Minimum measured push-out force out of housing : 16 N.

Product: Micro-MaTch SMC.

Test 1 : Initial.
Test 2 : Climatic sequence.
Group : 1
Lot : 1 - 5

All values in milliOhms

	Test 1	Test 2	delta R
Max. :	17,65	17,70	0,48
Min. :	11,09	11,13	-0,09
Mean :	15,10	15,15	0,04
StDv :	1,89	1,90	0,08



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All values represented in milliOhms.
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Product Tested: Micro-MaTch SMC.

Col.	Group	Lot	Test
- 1-:	1	1	Initial.
- 2-:	1	2	Initial.
- 3-:	1	3	Initial.
- 4-:	1	4	Initial.
- 5-:	1	5	Initial.

	- 1-	- 2-	- 3-	- 4-	- 5-
001	16,11	16,73	15,44	14,86	11,41
002	17,39	14,47	14,61	17,05	12,57
003	16,65	16,77	15,82	14,34	11,30
004	17,65	14,48	14,82	16,89	12,51
005	16,52	16,85	15,76	14,58	11,49
006	17,55	14,60	14,97	16,82	12,69
007	16,52	16,75	15,99	14,54	11,40
008	17,36	14,78	14,81	16,94	12,73
009	16,46	16,43	15,79	14,35	11,44
010	17,50	14,56	14,94	16,83	12,94
011	16,71	16,76	16,25	13,92	11,44
012	16,85	14,55	15,17	16,73	12,84
013	16,85	16,60	15,58	14,07	11,32
014	17,24	14,71	14,85	16,75	12,68
015	16,53	16,44	16,05	14,51	11,15
016	17,43	14,24	15,05	17,11	12,52
017	16,54	16,66	15,83	14,07	11,09
018	17,35	14,37	15,30	16,81	12,23
019	16,47	16,79	15,64	14,37	11,12
020	17,38	14,22	15,51	16,82	12,15
Max.:	17,65	16,85	16,25	17,11	12,94
Min.:	16,11	14,22	14,61	13,92	11,09
Mean:	16,95	15,59	15,41	15,62	11,95

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All values represented in milliOhms.
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Product Tested: Micro-MaTch SMC.

Col.	Group	Lot	Test
- 1-:	1	1	Climatic sequence.
- 2-:	1	2	Climatic sequence.
- 3-:	1	3	Climatic sequence.
- 4-:	1	4	Climatic sequence.
- 5-:	1	5	Climatic sequence.

	- 1-	- 2-	- 3-	- 4-	- 5-
001	16,41	17,00	15,65	14,98	11,49
002	17,40	14,65	14,61	17,19	12,56
003	16,82	16,77	15,84	14,40	11,28
004	17,70	14,62	14,86	16,90	12,53
005	16,64	16,81	15,73	14,63	11,49
006	17,56	14,69	14,90	16,92	12,70
007	16,60	16,65	16,02	14,66	11,40
008	17,39	14,83	14,82	16,90	12,71
009	16,45	16,37	15,83	14,39	11,47
010	17,56	14,59	14,90	16,78	12,94
011	16,74	17,24	16,18	13,99	11,48
012	16,89	14,56	15,13	16,73	12,91
013	16,84	16,55	15,66	14,18	11,29
014	17,30	14,72	14,86	16,75	12,66
015	16,59	16,43	16,14	14,56	11,15
016	17,45	14,21	15,07	17,14	12,51
017	16,64	16,69	15,90	14,07	11,14
018	17,40	14,36	15,33	16,85	12,25
019	16,59	16,77	15,67	14,37	11,13
020	17,52	14,36	15,65	16,92	12,22
Max.:	17,70	17,24	16,18	17,19	12,94
Min.:	16,41	14,21	14,61	13,99	11,13
Mean:	17,02	15,64	15,44	15,67	11,97

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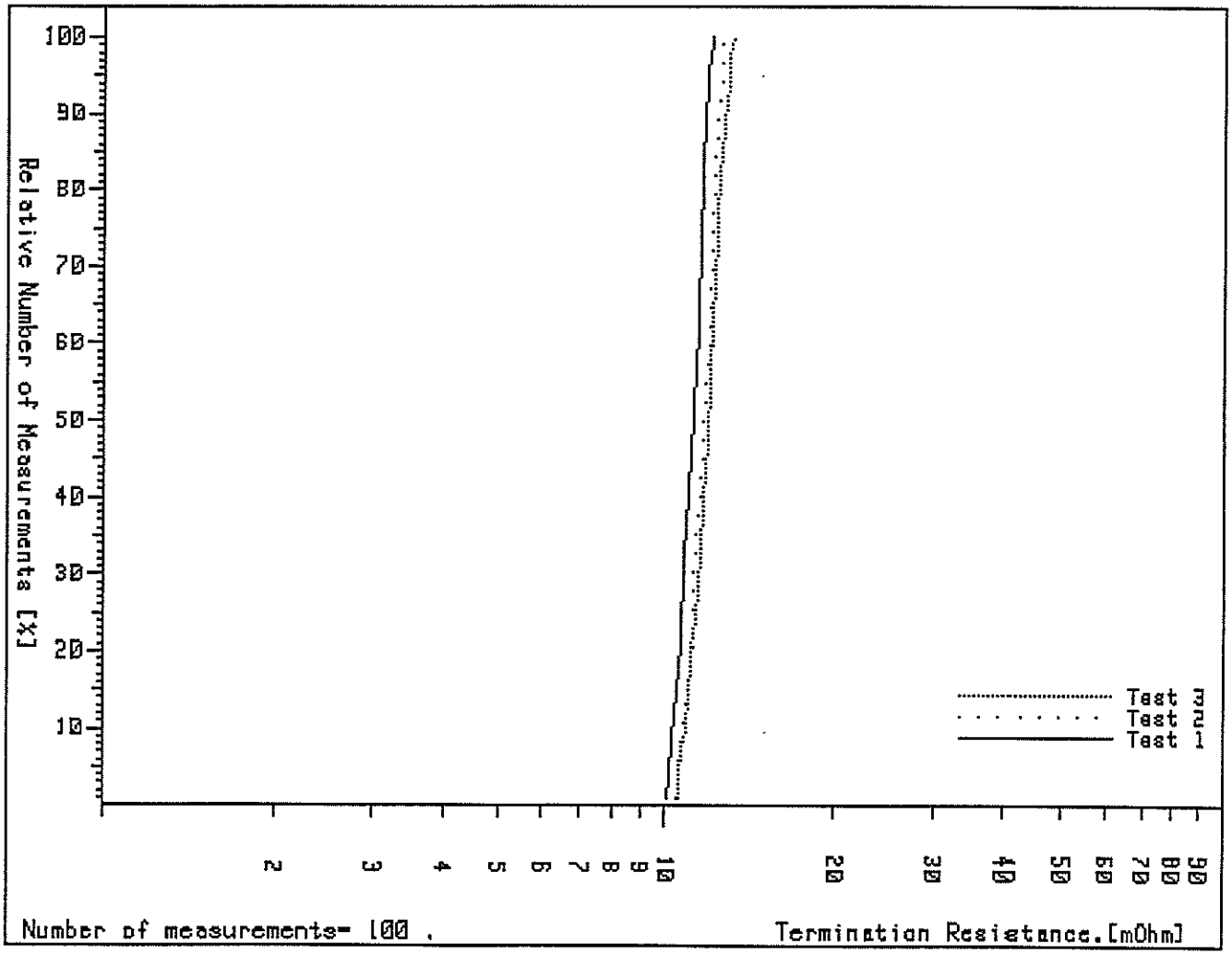
Product: Micro-MaTch SMC.

Test 1 : Initial.
Test 2 : 20 Matings/unmatings.
Test 3 : Damp heat cyclic. (6 cycles)
Group : 2
Lot : 1 - 5

All values in milliOhms

	Test 1	Test 2	delta R	Test 3	delta R
Max. :	12,13	12,69	1,38	13,30	1,68
Min. :	10,03	10,42	0,30	10,53	0,26
Mean :	11,12	11,66	0,54	11,84	0,72
StDv :	0,54	0,59	0,16	0,70	0,31



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All values represented in milliOhms.
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Product Tested: Micro-MaTch SMC.

Col.	Group	Lot	Test
- 1-:	2	1	Initial.
- 2-:	2	2	Initial.
- 3-:	2	3	Initial.
- 4-:	2	4	Initial.
- 5-:	2	5	Initial.

	- 1-	- 2-	- 3-	- 4-	- 5-
001	10,03	11,04	11,19	10,67	11,60
002	11,09	10,69	10,44	11,21	11,34
003	10,14	11,03	11,22	10,81	11,79
004	11,37	10,69	10,83	11,66	11,60
005	10,14	11,39	11,52	10,86	11,78
006	11,40	11,04	10,49	11,68	11,56
007	10,31	11,27	11,34	10,72	12,13
008	11,61	11,10	10,46	11,43	11,59
009	10,30	11,24	11,41	10,84	11,88
010	11,29	11,14	10,73	11,63	11,69
011	10,51	11,14	11,43	10,73	11,98
012	11,54	10,93	10,76	11,54	11,93
013	10,11	11,13	11,36	10,76	12,06
014	11,43	10,81	10,65	11,87	11,73
015	10,14	10,93	11,54	10,60	11,92
016	11,61	10,70	10,55	11,55	11,93
017	10,21	10,91	10,99	10,75	11,89
018	11,37	10,67	10,37	11,58	11,73
019	10,09	10,67	11,02	10,26	11,81
020	11,32	10,40	10,28	11,51	11,56
Max.:	11,61	11,39	11,54	11,87	12,13
Min.:	10,03	10,40	10,28	10,26	11,34
Mean:	10,80	10,95	10,93	11,13	11,77

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All values represented in milliOhms.
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Product Tested: Micro-MaTch SMC.

Col.	Group	Lot	Test
- 1-:	2	1	20 Matings/unmatings.
- 2-:	2	2	20 Matings/unmatings.
- 3-:	2	3	20 Matings/unmatings.
- 4-:	2	4	20 Matings/unmatings.
- 5-:	2	5	20 Matings/unmatings.

	- 1-	- 2-	- 3-	- 4-	- 5-
001	10,42	11,44	11,62	11,09	12,05
002	11,76	11,21	11,13	11,93	12,07
003	10,67	11,59	11,79	11,33	12,30
004	11,77	11,24	11,42	12,22	12,00
005	10,62	11,96	11,98	11,36	12,13
006	11,97	11,62	11,18	12,54	12,08
007	10,61	11,79	11,88	11,10	12,56
008	12,08	11,55	10,86	12,11	11,97
009	10,94	12,62	11,95	11,18	12,24
010	11,96	11,65	11,21	12,13	12,24
011	10,87	11,65	11,80	11,20	12,48
012	12,27	11,49	11,11	12,23	12,62
013	10,59	11,58	11,93	11,21	12,58
014	11,88	11,38	11,16	12,69	12,14
015	10,58	11,61	11,88	11,15	12,55
016	12,15	11,18	10,96	12,05	12,41
017	10,74	11,41	11,57	11,28	12,37
018	12,24	11,20	10,89	12,17	12,34
019	10,67	11,27	11,66	10,74	12,35
020	12,47	10,82	10,73	12,07	12,31
Max.:	12,47	12,62	11,98	12,69	12,62
Min.:	10,42	10,82	10,73	10,74	11,97
Mean:	11,36	11,51	11,44	11,69	12,29

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All values represented in milliOhms.
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Product Tested: Micro-MaTch SMC.

Col.	Group	Lot	Test
- 1-:	2	1	Damp heat cyclic. (6 cycles)
- 2-:	2	2	Damp heat cyclic. (6 cycles)
- 3-:	2	3	Damp heat cyclic. (6 cycles)
- 4-:	2	4	Damp heat cyclic. (6 cycles)
- 5-:	2	5	Damp heat cyclic. (6 cycles)

	- 1-	- 2-	- 3-	- 4-	- 5-
001	10,53	11,64	11,79	11,23	12,06
002	11,86	11,64	11,49	11,87	13,01
003	10,69	12,37	12,28	11,42	12,68
004	11,96	11,50	11,78	12,34	12,06
005	10,57	12,43	12,27	11,33	12,54
006	12,26	11,58	11,89	12,91	12,09
007	10,57	11,69	12,33	11,50	13,10
008	12,32	11,53	11,03	12,04	12,03
009	10,74	12,21	12,04	11,17	12,72
010	12,43	11,42	11,43	12,89	12,14
011	10,93	11,95	12,05	11,11	12,95
012	11,96	12,21	11,13	12,58	12,39
013	10,59	12,00	11,75	11,12	13,30
014	11,91	11,63	11,03	13,02	12,67
015	10,63	12,42	11,97	11,11	13,01
016	12,07	11,28	10,88	12,24	12,91
017	10,60	11,71	11,39	11,31	12,46
018	11,91	11,69	11,10	12,71	12,78
019	10,59	12,33	11,55	10,90	12,38
020	11,85	10,84	10,94	12,34	12,56
Max.:	12,43	12,43	12,33	13,02	13,30
Min.:	10,53	10,84	10,88	10,90	12,03
Mean:	11,35	11,80	11,61	11,86	12,59

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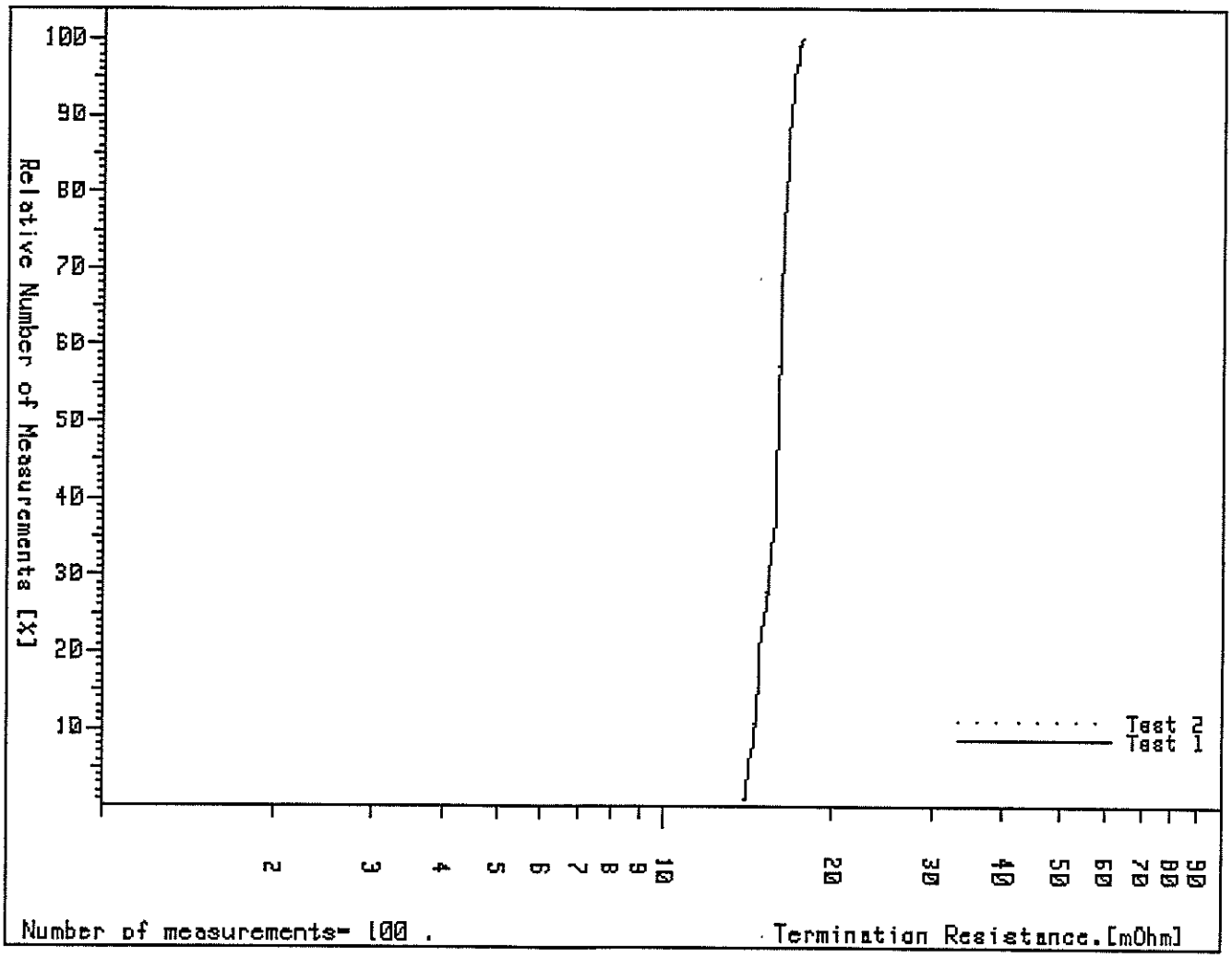
Product: Micro-MaTch SMC.

Test 1 : Initial.
Test 2 : Rapid change of temperature. (10x -40/105°C)
Group : 3
Lot : 1 - 5

All values in milliOhms

	Test 1	Test 2	delta R
Max. :	17,56	17,51	0,11
Min. :	13,99	13,94	-0,12
Mean :	15,74	15,72	-0,01
StDv :	0,84	0,85	0,04



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All values represented in milliOhms.
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Product Tested: Micro-MaTch SMC.

Col.	Group	Lot	Test
- 1-:	3	1	Initial.
- 2-:	3	2	Initial.
- 3-:	3	3	Initial.
- 4-:	3	4	Initial.
- 5-:	3	5	Initial.

	- 1-	- 2-	- 3-	- 4-	- 5-
001	17,29	15,06	16,03	16,37	15,18
002	16,01	15,43	15,37	16,12	15,97
003	17,06	14,78	16,12	16,94	15,47
004	15,88	15,89	14,80	16,13	15,86
005	17,56	14,75	16,10	15,26	15,85
006	16,21	15,37	14,76	15,73	16,01
007	17,19	14,28	15,99	16,04	15,98
008	16,04	15,74	14,70	15,82	16,25
009	17,14	14,00	15,76	16,18	15,80
010	16,23	15,65	14,19	16,33	16,22
011	16,85	14,21	14,78	16,49	15,79
012	15,87	15,79	14,56	16,59	16,15
013	16,92	14,70	14,54	16,70	15,99
014	16,29	15,31	14,40	16,54	16,31
015	16,66	14,18	14,43	16,34	15,78
016	15,83	14,95	14,60	16,61	15,83
017	16,55	13,99	14,78	16,62	15,89
018	16,41	15,55	14,38	16,70	16,22
019	16,87	14,08	15,20	16,02	15,38
020	16,00	14,85	14,55	16,53	16,14
Max.:	17,56	15,89	16,12	16,94	16,31
Min.:	15,83	13,99	14,19	15,26	15,18
Mean:	16,54	14,93	15,00	16,30	15,90

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All values represented in milliOhms.
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Product Tested: Micro-MaTch SMC.

Col.	Group	Lot	Test
- 1-:	3	1	Rapid change of temperature. (10x -40/105°C)
- 2-:	3	2	Rapid change of temperature. (10x -40/105°C)
- 3-:	3	3	Rapid change of temperature. (10x -40/105°C)
- 4-:	3	4	Rapid change of temperature. (10x -40/105°C)
- 5-:	3	5	Rapid change of temperature. (10x -40/105°C)

	- 1-	- 2-	- 3-	- 4-	- 5-
001	17,39	15,06	16,07	16,42	15,21
002	16,01	15,46	15,35	16,09	15,98
003	17,05	14,75	16,09	16,90	15,42
004	15,86	15,82	14,76	16,05	15,87
005	17,51	14,72	16,13	15,23	15,83
006	16,23	15,32	14,73	15,73	15,99
007	17,16	14,29	15,96	16,04	15,98
008	16,04	15,72	14,67	15,79	16,24
009	17,11	13,95	15,71	16,13	15,82
010	16,25	15,59	14,17	16,29	16,19
011	16,85	14,18	14,80	16,51	15,78
012	15,87	15,80	14,54	16,54	16,03
013	16,88	14,66	14,48	16,69	15,98
014	16,28	15,29	14,38	16,58	16,31
015	16,69	14,17	14,43	16,34	15,86
016	15,76	14,94	14,53	16,57	15,83
017	16,54	13,94	14,73	16,63	15,88
018	16,44	15,61	14,37	16,71	16,18
019	16,90	14,05	15,16	16,03	15,45
020	16,04	14,88	14,59	16,51	16,16
Max.:	17,51	15,82	16,13	16,90	16,31
Min.:	15,76	13,94	14,17	15,23	15,21
Mean:	16,54	14,91	14,98	16,29	15,90

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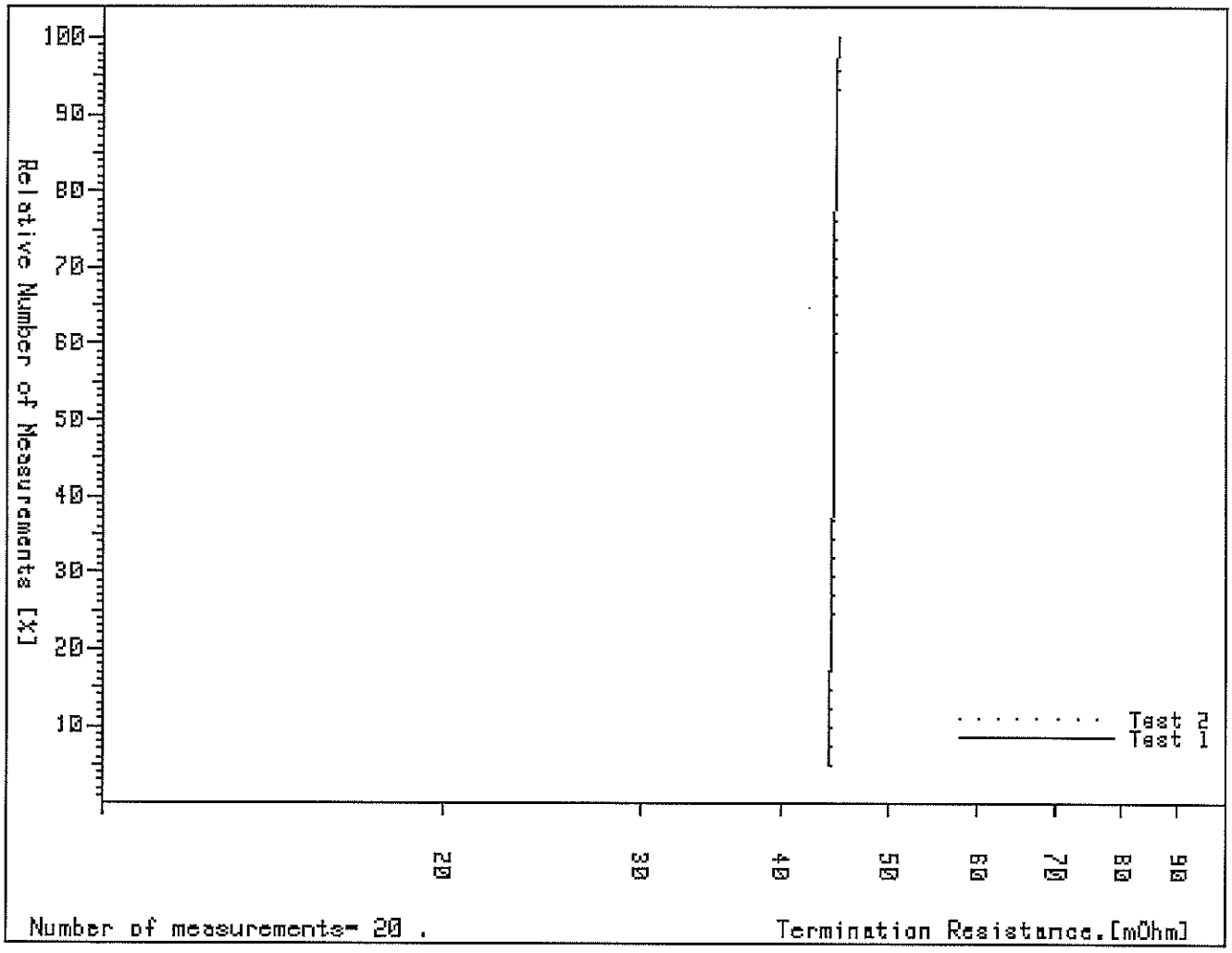
Product: MicroMaTch. SMC-MOW. (93.07.10).

Test 1 : Termination Resistance Initial.
Test 2 : 500 Hours Heat Age and Current cycling.
Group : 5
Lot : 1

All values in milliOhms

	Test 1	Test 2	delta R
Max. :	44,99	45,04	0,30
Min. :	44,19	44,35	-0,03
Mean :	44,61	44,70	0,09
StDv :	0,23	0,20	0,08



****
Termination Resistances in milliOhms.
****
Product Tested: MicroMaTch. SMC-MOW. (93.07.10).

Col. Group	Lot	Test
-1-: 5	1	Termination Resistance Initial.
-2-: 5	1	500 Hours Heat Age and Current cycling.

	-1-	-2-
01	44,72	44,82
02	44,79	44,84
03	44,55	44,55
04	44,86	44,89
05	44,69	44,78
06	44,66	44,64
07	44,94	45,03
08	44,73	44,71
09	44,99	45,04
10	44,68	44,74
11	44,19	44,35
12	44,44	44,74
13	44,72	44,77
14	44,37	44,56
15	44,31	44,41
16	44,62	44,76
17	44,53	44,62
18	44,21	44,36
19	44,43	44,53
20	44,75	44,93
Max.:	44,99	45,04
Min.:	44,19	44,35
Mean:	44,61	44,70

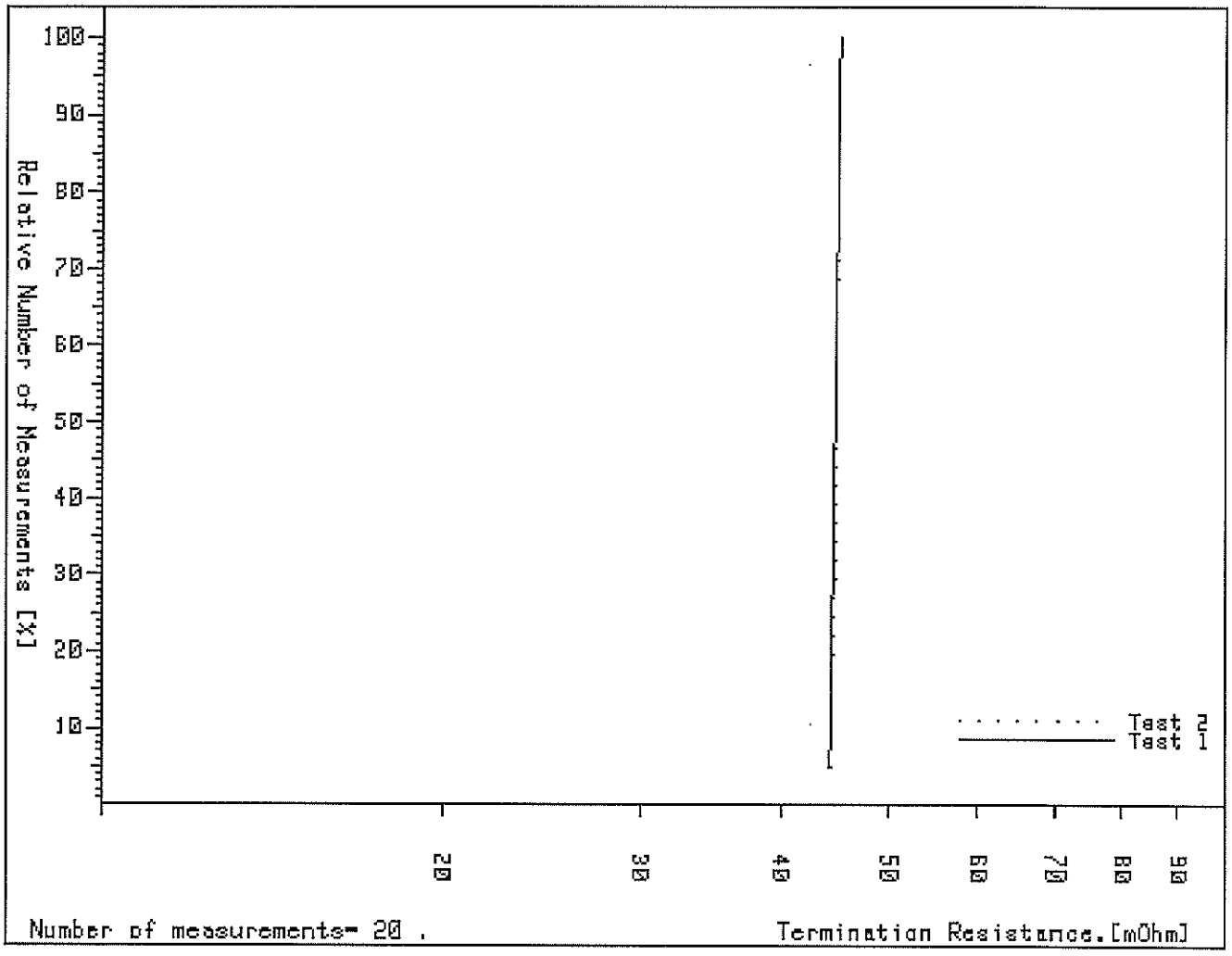
****

Product: MicroMaTch. SMC-MOW. (93.07.10).

Test 1 : Termination Resistance Initial.
Test 2 : 500 Hours Heat Age and Current cycling.
Group : 5
Lot : 2

All values in milliOhms

	Test 1	Test 2	delta R
Max. :	45,27	45,59	0,32
Min. :	44,21	44,34	-0,09
Mean :	44,78	44,88	0,10
StDv :	0,26	0,29	0,08



****
Termination Resistances in milliOhms.
****
Product Tested: MicroMaTch. SMC-MOW. (93.07.10).

Col. Group	Lot	Test
-1-: 5	2	Termination Resistance Initial.
-2-: 5	2	500 Hours Heat Age and Current cycling.

	-1-	-2-
01	44,95	45,08
02	44,99	45,14
03	44,73	44,89
04	44,99	45,10
05	44,82	44,98
06	44,81	44,87
07	45,03	45,15
08	44,87	44,90
09	45,03	45,13
10	44,75	44,76
11	44,21	44,34
12	45,27	45,59
13	44,75	44,82
14	44,51	44,64
15	45,02	44,93
16	44,71	44,80
17	44,53	44,63
18	44,39	44,47
19	44,53	44,52
20	44,70	44,79
Max.:	45,27	45,59
Min.:	44,21	44,34
Mean:	44,78	44,88

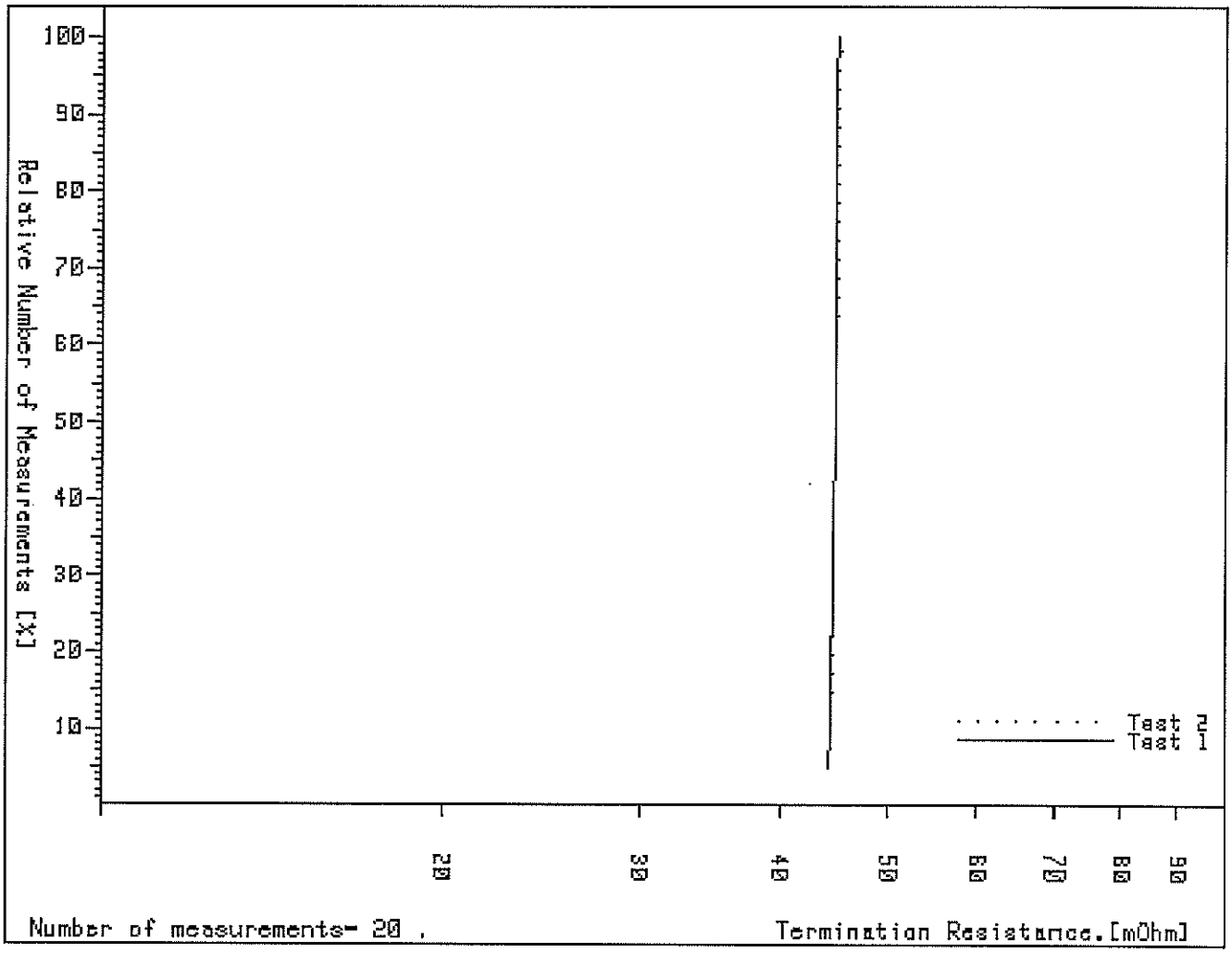
****

Product: MicroMaTch. SMC-MOW. (93.07.10).

Test 1 : Termination Resistance Initial.
Test 2 : 500 Hours Heat Age and Current cycling.
Group : 5
Lot : 3

All values in milliOhms

	Test 1	Test 2	delta R
Max. :	45,14	45,24	0,18
Min. :	44,15	44,20	0,04
Mean :	44,73	44,84	0,11
StDv :	0,25	0,26	0,04



****
Termination Resistances in milliOhms.
****
Product Tested: MicroMaTch. SMC-MOW. (93.07.10).

Col.	Group	Lot	Test
-1-:	5	3	Termination Resistance Initial.
-2-:	5	3	500 Hours Heat Age and Current cycling.

	-1-	-2-
01	44,84	44,99
02	44,96	45,08
03	44,64	44,73
04	45,14	45,24
05	44,76	44,92
06	44,86	44,90
07	44,97	45,10
08	44,91	44,97
09	44,91	45,08
10	44,90	44,99
11	44,15	44,20
12	44,60	44,70
13	44,87	44,96
14	44,56	44,73
15	44,46	44,54
16	44,85	44,98
17	44,54	44,67
18	44,34	44,46
19	44,52	44,61
20	44,79	44,95
Max.:	45,14	45,24
Min.:	44,15	44,20
Mean:	44,73	44,84

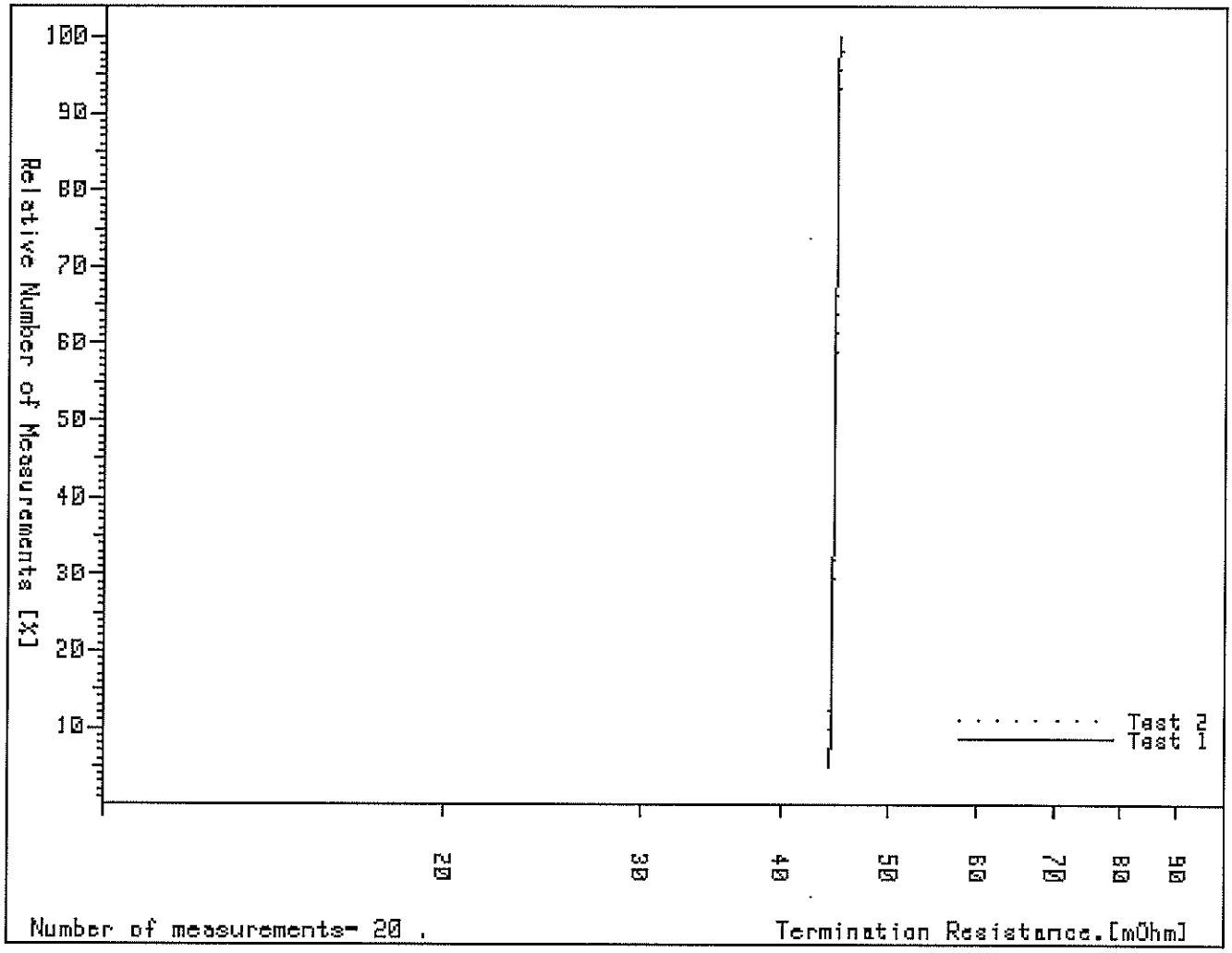
****

Product: MicroMaTch. SMC-MOW. (93.07.10).

Test 1 : Termination Resistance Initial.
Test 2 : 500 Hours Heat Age and Current cycling.
Group : 5
Lot : 4

All values in milliOhms

	Test 1	Test 2	delta R
Max. :	45,17	45,25	0,12
Min. :	44,26	44,17	-0,40
Mean :	44,68	44,69	0,01
StDv :	0,23	0,26	0,11



****
Termination Resistances in milliOhms.
****
Product Tested: MicroMaTch. SMC-MOW. (93.07.10).

Col.	Group	Lot	Test
-1-:	5	4	Termination Resistance Initial.
-2-:	5	4	500 Hours Heat Age and Current cycling.

	-1-	-2-
01	44,97	45,07
02	44,73	44,80
03	44,67	44,78
04	44,82	44,91
05	44,90	44,90
06	44,74	44,71
07	45,17	45,25
08	44,76	44,78
09	44,96	44,90
10	44,67	44,64
11	44,57	44,17
12	44,68	44,55
13	44,63	44,66
14	44,52	44,64
15	44,26	44,27
16	44,49	44,50
17	44,32	44,40
18	44,53	44,59
19	44,40	44,39
20	44,83	44,86
Max.:	45,17	45,25
Min.:	44,26	44,17
Mean:	44,68	44,69

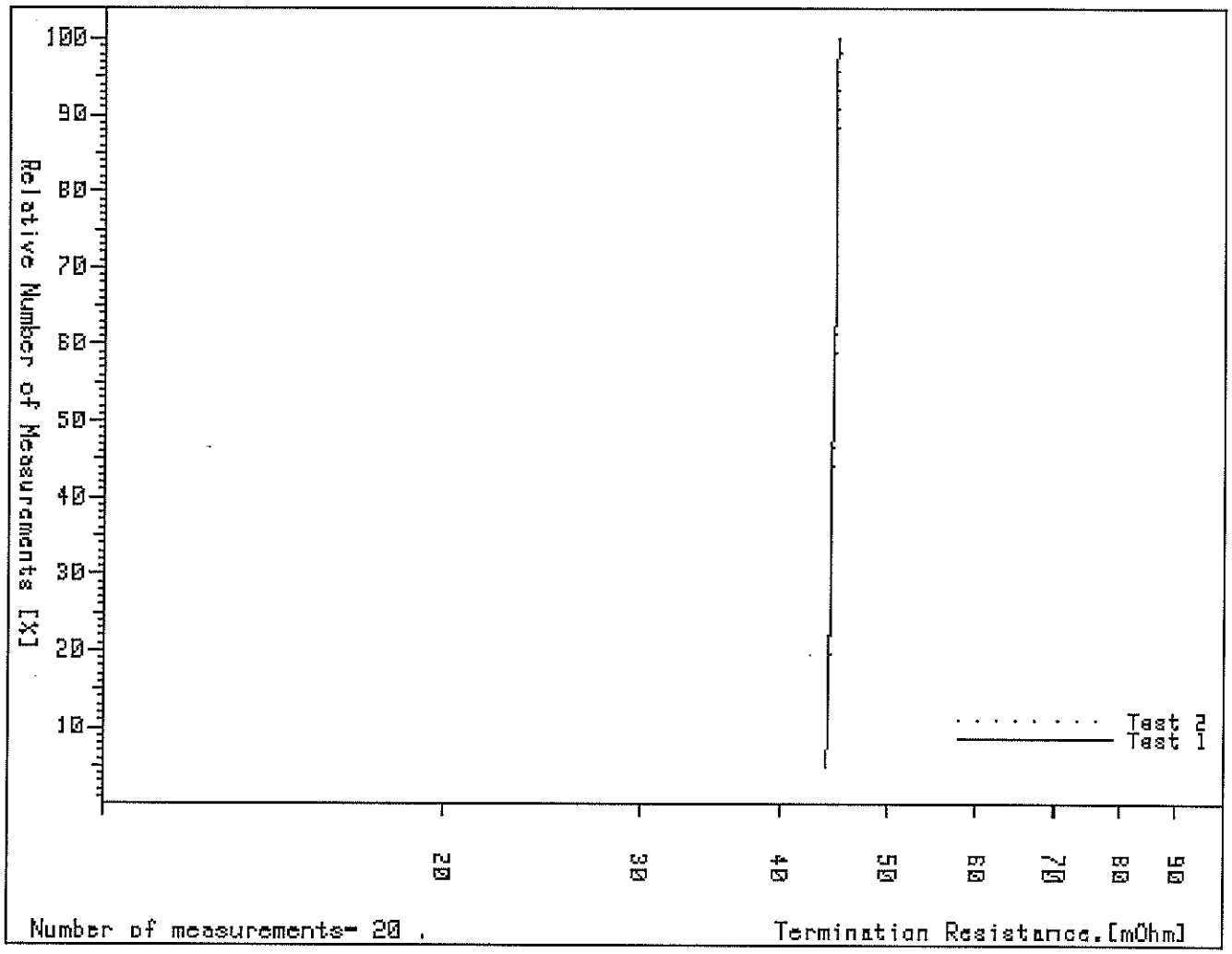
****

Product: MicroMaTch. SMC-MOW. (93.07.10).

Test 1 : Termination Resistance Initial.
Test 2 : 500 Hours Heat Age and Current cycling.
Group : 5
Lot : 5

All values in milliOhms

	Test 1	Test 2	delta R
Max. :	45,14	45,27	0,14
Min. :	44,03	44,07	0,01
Mean :	44,58	44,66	0,08
StDv :	0,29	0,31	0,04



****
Termination Resistances in milliOhms.
****
Product Tested: MicroMaTch. SMC-MOW. (93.07.10).

Col.	Group	Lot	Test
-1-:	5	5	Termination Resistance Initial.
-2-:	5	5	500 Hours Heat Age and Current cycling.

	-1-	-2-
01	44,81	44,93
02	44,67	44,74
03	44,44	44,53
04	44,85	44,94
05	44,89	45,00
06	44,77	44,83
07	44,88	44,99
08	44,76	44,81
09	45,14	45,27
10	44,83	44,86
11	44,18	44,23
12	44,57	44,68
13	44,37	44,41
14	44,33	44,47
15	44,03	44,07
16	44,51	44,61
17	44,30	44,38
18	44,20	44,29
19	44,37	44,38
20	44,65	44,76
Max.:	45,14	45,27
Min.:	44,03	44,07
Mean:	44,58	44,66

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