CERN - Lab. CMS Cables - B15S-012

Software version	4.14-00
Unit under test	FULL_TEST_su_cavo_ps_pp1_V3
Filename	C:\Users\Public\Documents\CEETIS\Projects\FULL_TEST_su_cavo_ps_pp1_V3.project
Date/Time	07/05/2024 14:41:04
Serial number	Cable02

Test result	
Continuity test	*1 error*
LV isolation test	No commands
HV isolation test	*10 errors*
Test of electrical components	No commands
Voltage and Current	No commands
Other tests	Pass
FAILED	

Ambient Temperature:°C
Ambient Rel.Humidity:%
CONTINUITY AND RESISTANCE MEASUREMENTS
-->LV channels

Parameters for continuity test
Current=500mA; Threshold=40Ohm; Trise=2ms; Twait=2s; Tmeas=1ms; Auto ranging=On; Voltage limit=48V

Parameters for continuity test
Threshold=1Ohm

✓	**Passed**	LV1	LV1 S	LV1 Sr	586mOhm
✓	**Passed**	LVreturn1	LVR1 S	LVR1 Sr	580,3mOhm
✓	**Passed**	LV2	LV2 S	LV2 Sr	585,7mOhm
✓	**Passed**	LVreturn2	LVR2 S	LVR2 Sr	581,6mOhm
✓	**Passed**	LV3	LV3 S	LV3 Sr	589,7mOhm
✓	**Passed**	LVreturn3	LVR3 S	LVR3 Sr	581,9mOhm
✓	**Passed**	LV4	LV4 S	LV4 Sr	584,3mOhm
✓	**Passed**	LVreturn4	LVR4 S	LVR4 Sr	578,6mOhm
✓	**Passed**	LV5	LV5 S	LV5 Sr	581,7mOhm
✓	**Passed**	LVreturn5	LVR5 S	LVR5 Sr	581,7mOhm
✓	**Passed**	LV6	LV6 S	LV6 Sr	572,8mOhm
✓	**Passed**	LVreturn6	LVR6 S	LVR6 Sr	574,9mOhm
✓	**Passed**	LV7	LV7 S	LV7 Sr	588mOhm
✓	**Passed**	LVreturn7	LVR7 S	LVR7 Sr	581,7mOhm
✓	**Passed**	LV8	LV8 S	LV8 Sr	572,4mOhm
✓	**Passed**	LVreturn8	LVR8 S	LVR8 Sr	571,9mOhm
✓	**Passed**	LV9	LV9 S	LV9 Sr	588,8mOhm
✓	**Passed**	LVreturn9	LVR9 S	LVR9 Sr	579,7mOhm
✓	**Passed**	LV10	LV10 S	LV10 Sr	592,4mOhm
✓	**Passed**	LVreturn10	LVR10 S	LVR10 Sr	584,8mOhm
✓	**Passed**	LV11	LV11 S	LV11 Sr	587,7mOhm
✓	**Passed**	LVreturn11	LVR11 S	LVR11 Sr	588,2mOhm
✓	**Passed**	LV12	LV12 S	LV12 Sr	588,3mOhm
	Passed	LVreturn12	LVR12 S	LVR12 Sr	588,3mOhm

Passed	PH	PH S	PH Sr	591,9mOhm
Passed	PHreturn	PHR S	PHR Sr	581,9mOhm

--> Drains

Open	*Drain*	*Drain S*	*Drain r*	*9,106MOhm*

HV channels and Tsensor

Parameters for continuity test

Threshold=15Ohm

Passed	Tsensor1	TS1 S	TS1 Sr	12,34Ohm
Passed	Tsensor2	TS2 S	TS2 Sr	12,4Ohm
Passed	Tsensor3	TS3 S	TS3 Sr	12,14Ohm
Passed	Tsensor4	TS4 S	TS4 Sr	12,23Ohm
Passed	H1	H1 S	H1 Sr	12,08Ohm
Passed	H2	H2 S	H2 Sr	12,41Ohm
Passed	H3	H3 S	H3 Sr	12,08Ohm
Passed	H4	H4 S	H4 Sr	12,22Ohm
Passed	HR1	HR1 S	HR1 Sr	12,18Ohm
Passed	H5	H5 S	H5 Sr	12,16Ohm
Passed	H6	H6 S	H6 Sr	12,03Ohm
Passed	H7	H7 S	H7 Sr	12,4Ohm
Passed	H8	H8 S	H8 Sr	12,27Ohm
Passed	HR2	HR2 S	HR2 Sr	12,43Ohm
Passed	H9	H9 S	H9 Sr	12,24Ohm
Passed	H10	H10 S	H10 Sr	12,21Ohm
Passed	H11	H11 S	H11 Sr	12,05Ohm
Passed	H12	H12 S	H12 Sr	12,07Ohm
Passed	HR3	HR3 S	HR3 Sr	12,22Ohm

INSULATION TEST 1 VS all

--> LV channels

Parameters for HV isolation test

Voltage=50V; Threshold=100MOhm; Trise=10s; Twait=3s; Tmeas=1s; Auto ranging=On; Current limit=1,95mA; Tmeas red.=Off; Tmeas fact.=1; Voltage ramp=120V/s

Parameters for HV isolation test

Trise=1s; Twait=8s; Tmeas=8s

Fail; LV1; 32377884.4589516; Ohm; 32,38MOhm
Fail; LVR1; 61289358.479785; Ohm; 61,29MOhm
Passed; LV2; 267504967.063156; Ohm; 267,5MOhm
Fail; LVR2; 25529.4182087329; Ohm; 25,53kOhm
Passed; LV3; 286461014.239827; Ohm; 286,5MOhm
Passed; LVR3; 300929332.624888; Ohm; 300,9MOhm
Passed; LV4; 413897600.722271; Ohm; 413,9MOhm
Passed; LVR4; 108841576.70327; Ohm; 108,8MOhm
Fail; LV5; 25531.2015617364; Ohm; 25,53kOhm
Passed; LVR5; 143036670.186912; Ohm; 143MOhm
Passed; LV6; 850363362.56814; Ohm; 850,4MOhm
Fail; LVR6; 25532.4706613457; Ohm; 25,53kOhm
Fail; LV7; 25534.1283748609; Ohm; 25,53kOhm
Fail; LVR7; 25536.4073589503; Ohm; 25,54kOhm
Passed; LV8; 1465009518.84416; Ohm; 1,465GOhm
Passed; LVR8; 352704681.573518; Ohm; 352,7MOhm
Passed; LV9; 1687771623.04385; Ohm; 1,688GOhm
Passed; LVR9; 1006573196.4292; Ohm; 1,007GOhm
Passed; LV10; 577774396.7323; Ohm; 577,8MOhm
Passed; LVR10; 304687996.861879; Ohm; 304,7MOhm
Passed; LV11; 648473339.066655; Ohm; 648,5MOhm
Passed; LVR11; 548756550.213375; Ohm; 548,8MOhm
Passed; LV12; 679304044.53954; Ohm; 679,3MOhm
Fail; LVR12; 25537.6909763037; Ohm; 25,54kOhm

Fail; PH; 25537.1971228005; Ohm; 25,54kOhm
Passed; PHR; 185971203.546636; Ohm; 186MOhm
--> HV channels
Parameters for HV isolation test
Voltage=1,2kV; Threshold=1GOhm; Trise=10s; Tmeas=1s

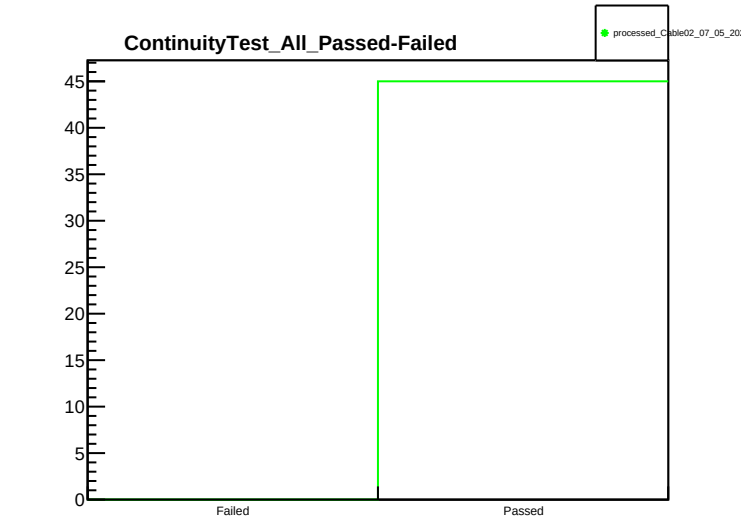
Passed	HV1	H1 F		41,14GOhm
Passed	HV2	H2 F		47,3GOhm
Passed	HV3	H3 F		6,461GOhm
Passed	HV4	H4 F		>98,2GOhm
Passed	HV5	H5 F		6,659GOhm
Passed	HV6	H6 F		25,78GOhm
Passed	HV7	H7 F		>98,2GOhm
Passed	HV8	H8 F		12,43GOhm
Passed	HV9	H9 F		>98,2GOhm
Passed	HV10	H10 F		50,78GOhm
Passed	HV11	H11 F		14,12GOhm
Passed	HV12	H12 F		32,89GOhm
Passed	HVreturn1	HR1 F		91,81GOhm
Passed	HVreturn2	HR2 F		>98,2GOhm
Passed	HVreturn3	HR3 F		>98,2GOhm

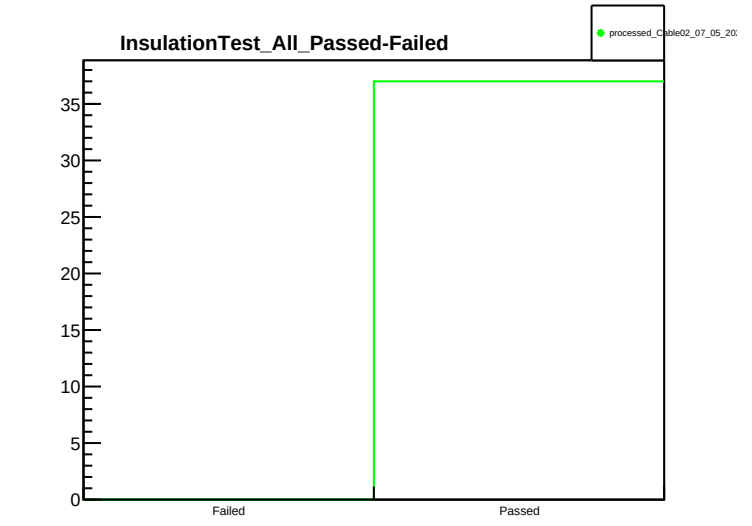
Parameters for HV isolation test
Voltage=50V; Threshold=100MOhm; Trise=1s; Tmeas=2s

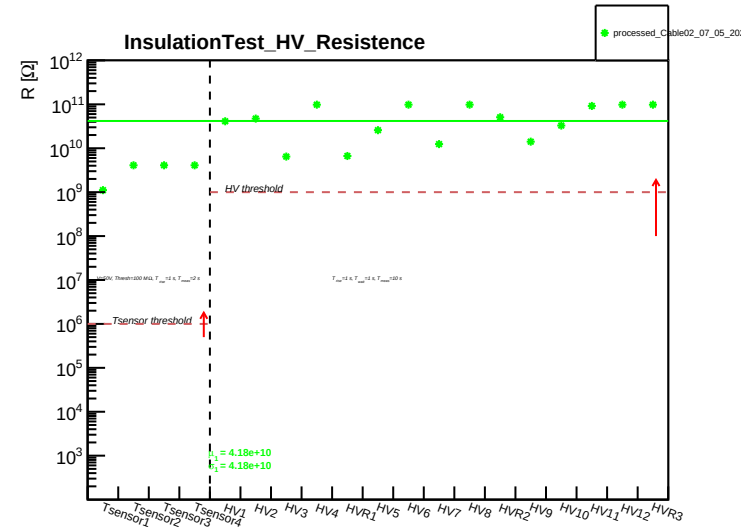
Passed	Tsensor1	TS1 F		1,112GOhm
Passed	Tsensor2	TS2 F		>4,092GOhm
Passed	Tsensor3	TS3 F		>4,092GOhm
Passed	Tsensor4	TS4 F		>4,092GOhm

INSULATION GROUP TEST
--> LV channels
Parameters for HV isolation test
Threshold=10MOhm
Fail; LV_group; 25539.5418901506; Ohm; 25,54kOhm
--> HV channels
Parameters for HV isolation test
Voltage=1,2kV; Threshold=100MOhm; Trise=10s

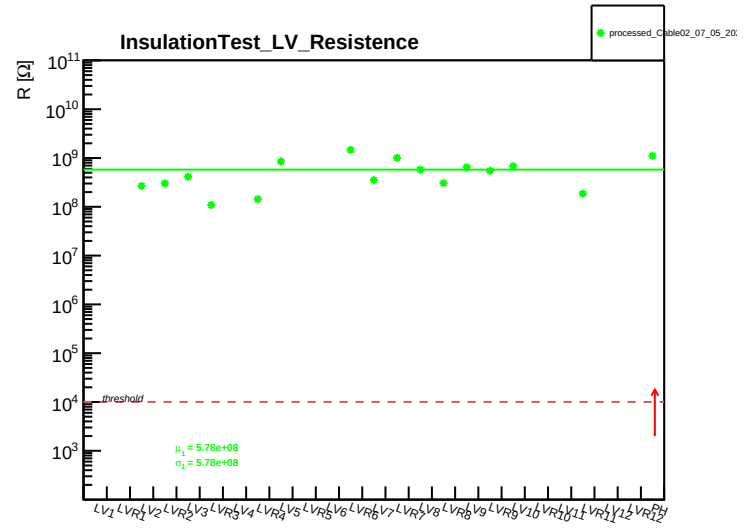
Passed	HV_group	HV	Low group	1,92GOhm



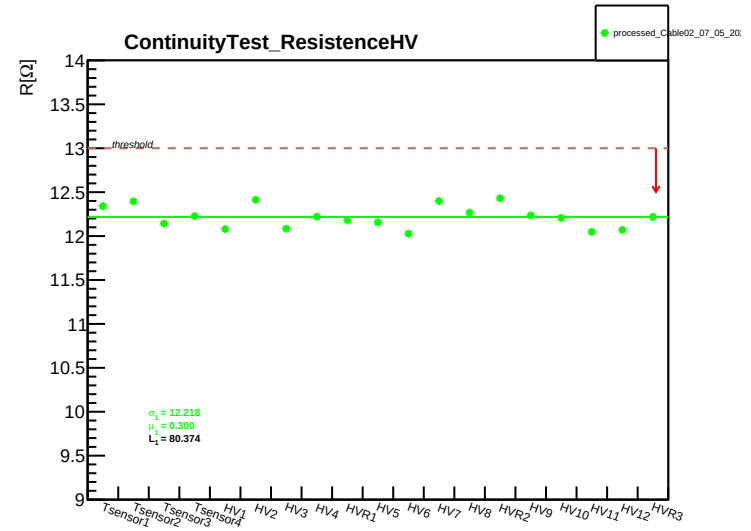




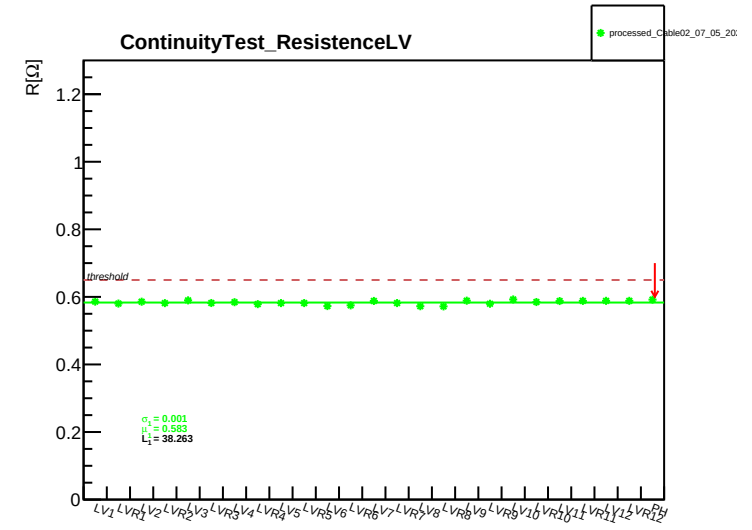
Initial Parameters : V=50 kV, Thresh.= 100 GΩ, T_{rise} = 10 s, T_{wait} = 3 s, T_{meas} = 1 s, AR = On, i_{lim}= 1.95 mA, T_{meas} red.=Off, T_{meas} fact.=1, V_{ramp}= 120 V/s



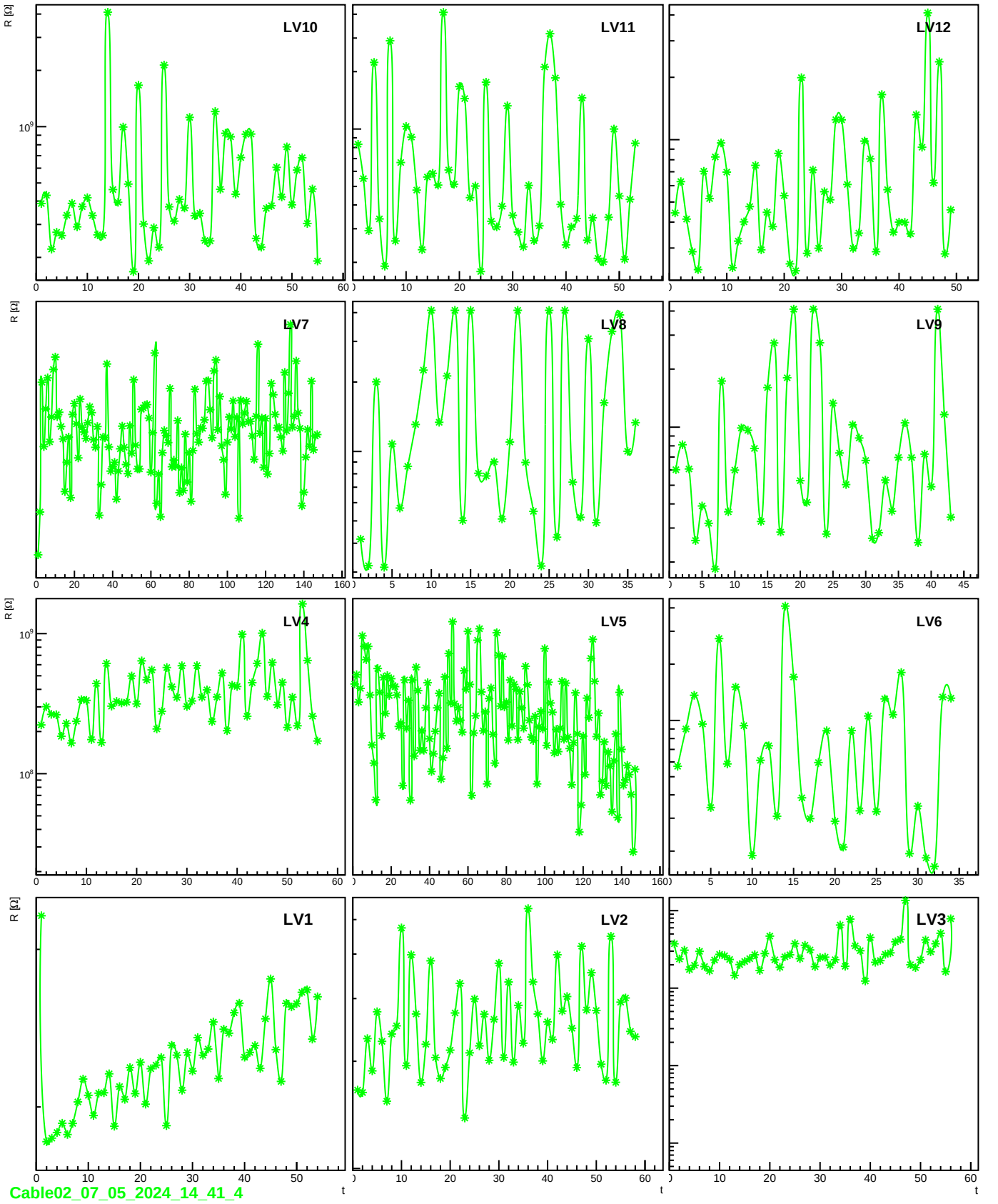
Initial Parameters : V=50 kV, Thresh.= 100 GΩ, T_{rise} = 10 s, T_{wait} = 3 s, T_{meas} = 1 s, AR = On, i_{lim}= 1.95 mA, T_{meas} red.=Off, T_{meas} fact.=1, V_{ramp}= 120 V/s



Parameters : i=500, Thresh.= 40, T_{rise} = 2 s, T_{wait} = 2 s, T_{meas} = 1 s, AR=On, V_{lim}= 48



Parameters : i=500, Thresh.= 40, T_{rise} = 2 s, T_{wait} = 2 s, T_{meas} = 1 s, AR=On, V_{lim}= 48


LV10
LV11
LV12
LV7
LV8
LV9
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LV5
LV6
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LV2
LV3
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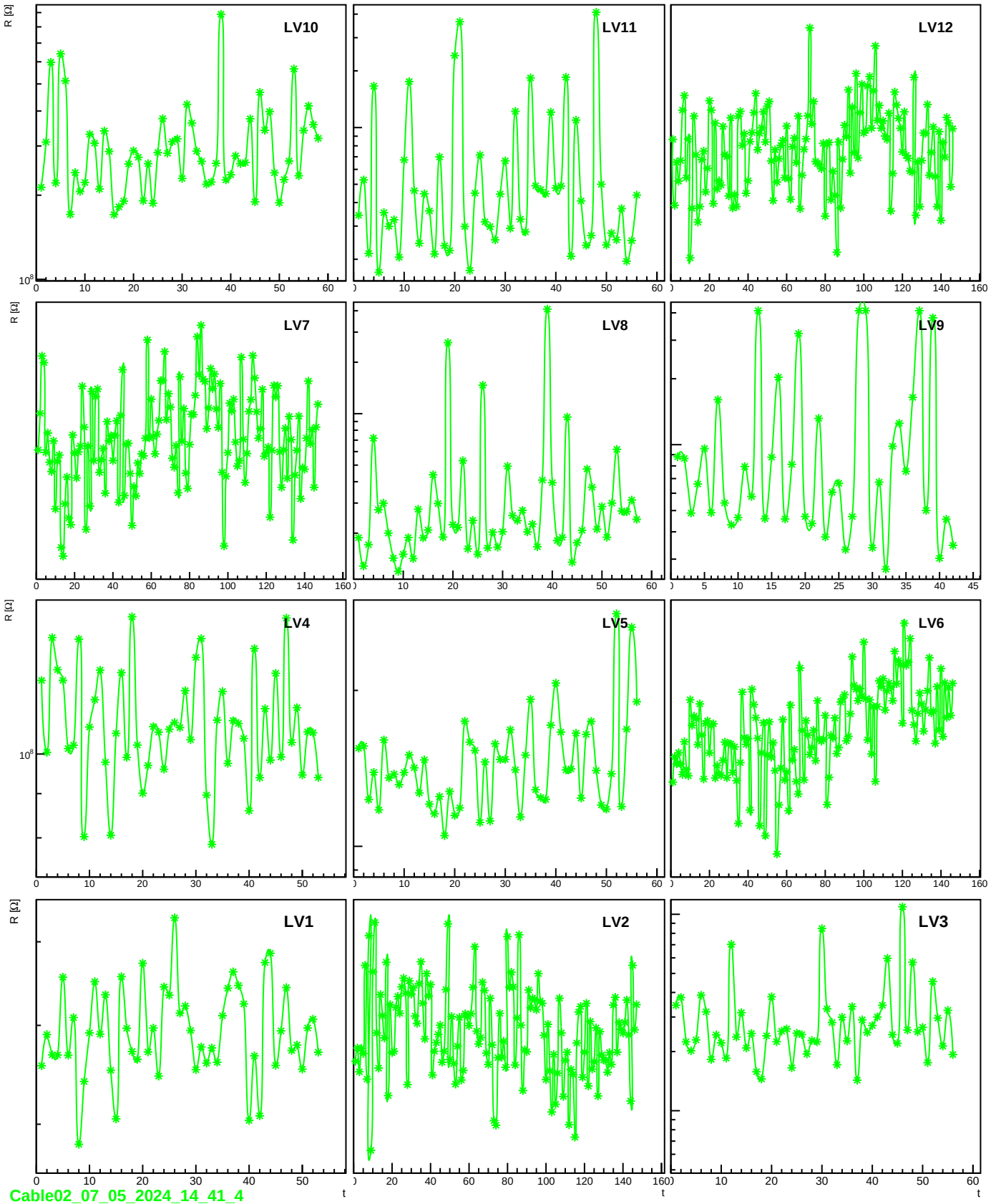
LV10
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LV6
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LV3
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