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=10hm

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

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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 for continuity test					
Threshold=15	•					
√ Passed	Tsensor1	TS1 S	TS1 Sr	12,34Ohm		
√ Passed	Tsensor2	TS2 S	TS2 Sr	12,40hm		
√ Passed	Tsensor3	TS3 S	TS3 Sr	12,14Ohm		
√ Passed	Tsensor4	TS4 S	TS4 Sr	12,230hm		
√ Passed	H1	H1 S	H1 Sr	12,08Ohm		
√ Passed	H2	H2 S	H2 Sr	12,410hm		
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	12,40hm		
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	12,210hm		
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 channe	els					

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

--> HV channels Parameters for HV isolation test Voltage=1,2kV; Threshold=1GOhm; Trise=10s; Tmeas=1s **Passed** H1 F 41,14GOhm HV1 **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; PH; 25537.1971228005; Ohm; 25,54kOhm Passed; PHR; 185971203.546636; Ohm; 186MOhm

Fail; LV_group; 25539.5418901506; Ohm; 25,54kOhm

HV

Low group

1,92GOhm

Voltage=1,2kV; Threshold=100MOhm; Trise=10s

HV_group

--> HV channels

Passed

Parameters for HV isolation test