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 11:25:21

Serial number Cable02

	Test result			
Continuity test	1 error			
LV isolation test	No commands			
HV isolation test	8 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

V	Passed	LV1	LV1 S	LV1 Sr	585,3mOhm
V	Passed	LVreturn1	LVR1 S	LVR1 Sr	579,9mOhm
V	Passed	LV2	LV2 S	LV2 Sr	584,9mOhm
V	Passed	LVreturn2	LVR2 S	LVR2 Sr	581,2mOhm
V	Passed	LV3	LV3 S	LV3 Sr	588,7mOhm
V	Passed	LVreturn3	LVR3 S	LVR3 Sr	581,2mOhm
V	Passed	LV4	LV4 S	LV4 Sr	583mOhm
V	Passed	LVreturn4	LVR4 S	LVR4 Sr	578,2mOhm
V	Passed	LV5	LV5 S	LV5 Sr	580,6mOhm
V	Passed	LVreturn5	LVR5 S	LVR5 Sr	581,2mOhm
V	Passed	LV6	LV6 S	LV6 Sr	571,7mOhm
V	Passed	LVreturn6	LVR6 S	LVR6 Sr	574,4mOhm
V	Passed	LV7	LV7 S	LV7 Sr	587,1mOhm
V	Passed	LVreturn7	LVR7 S	LVR7 Sr	580,6mOhm
V	Passed	LV8	LV8 S	LV8 Sr	571,7mOhm
V	Passed	LVreturn8	LVR8 S	LVR8 Sr	571,2mOhm
V	Passed	LV9	LV9 S	LV9 Sr	588,3mOhm
V	Passed	LVreturn9	LVR9 S	LVR9 Sr	579,2mOhm
V	Passed	LV10	LV10 S	LV10 Sr	586mOhm
V	Passed	LVreturn10	LVR10 S	LVR10 Sr	583,9mOhm
V	Passed	LV11	LV11 S	LV11 Sr	586,7mOhm
V	Passed	LVreturn11	LVR11 S	LVR11 Sr	589,6mOhm
V	Passed	LV12	LV12 S	LV12 Sr	587,1mOhm
	Passed	LVreturn12	LVR12 S	LVR12 Sr	587,3mOhm

V									
√ Passed	PH	PH S	PH Sr	591mOhm					
Passed	PHreturn	PHR S	PHR Sr	581,5mOhm					
> Drains									
💢 Open	Drain	Drain S	Drain r	19,04MOhm					
	HV channels and Tsensor Parameters for continuity test								
Threshold=15	•								
√ Passed	Tsensor1	TS1 S	TS1 Sr	12,3Ohm					
√ Passed	Tsensor2	TS2 S	TS2 Sr	12,36Ohm					
Passed	Tsensor3	TS3 S	TS3 Sr	12,10hm					
Passed	Tsensor4	TS4 S	TS4 Sr	12,19Ohm					
Passed	H1	H1 S	H1 Sr	12,04Ohm					
Passed	H2	H2 S	H2 Sr	12,370hm					
Passed	H3	H3 S	H3 Sr	12,04Ohm					
Passed	H4	H4 S	H4 Sr	12,18Ohm					
√ Passed	HR1	HR1 S	HR1 Sr	12,14Ohm					
Passed	H5	H5 S	H5 Sr	12,12Ohm					
√ Passed	H6	H6 S	H6 Sr	11,99Ohm					
√ Passed	H7	H7 S	H7 Sr	12,36Ohm					
Passed	H8	H8 S	H8 Sr	12,23Ohm					
Passed	HR2	HR2 S	HR2 Sr	12,39Ohm					
Passed	H9	H9 S	H9 Sr	12,20hm					
Passed	H10	H10 S	H10 Sr	12,170hm					
Passed	H11	H11 S	H11 Sr	12,01Ohm					
√ Passed	H12	H12 S	H12 Sr	12,03Ohm					
Passed	HR3	HR3 S	HR3 Sr	12,18Ohm					
	INSULATION TEST 1 VS all								
> LV chann	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

Passed; LV1; 1252241004.0799; Ohm; 1,252GOhm Passed; LVR1; 2192308831.14732; Ohm; 2,192GOhm Passed; LV2; 2508580069.02557; Ohm; 2,509GOhm Fail; LVR2; 25551.6697713726; Ohm; 25,55kOhm Passed; LV3; 1610587282.39065; Ohm; 1,611GOhm Passed; LVR3; 1618501947.00858; Ohm; 1,619GOhm Passed; LV4; 2339573941.96409; Ohm; 2,34GOhm Passed; LVR4; 1317873157.37227; Ohm; 1,318GOhm Fail; LV5; 25558.1781291917; Ohm; 25,56kOhm Passed; LVR5; 1137832221.22771; Ohm; 1,138GOhm Passed; LV6; 1164992456.37965; Ohm; 1,165GOhm Fail; LVR6; 25563.4157188378; Ohm; 25,56kOhm Fail; LV7; 25565.4172995207; Ohm; 25,57kOhm Fail; LVR7; 25565.9971252864; Ohm; 25,57kOhm Passed; LV8; 1529930205.96775; Ohm; 1,53GOhm Passed; LVR8; 1421023758.17187; Ohm; 1,421GOhm Passed; LV9; 1446819888.44993; Ohm; 1,447GOhm Passed; LVR9; 2124842318.36735; Ohm; 2,125GOhm Passed; LV10; 725740278.78194; Ohm; 725,7MOhm Passed; LVR10; 2693873362.11391; Ohm; 2,694GOhm Passed; LV11; 1289488925.93217; Ohm; 1,289GOhm Passed; LVR11; 1373403043.44106; Ohm; 1,373GOhm Passed; LV12; 2064861764.1313; Ohm; 2,065GOhm Fail; LVR12; 25569.1785570487; Ohm; 25,57kOhm

Passed; PHR; 1735256522.9838; Ohm; 1,735GOhm --> HV channels Parameters for HV isolation test Voltage=1,2kV; Threshold=1GOhm; Trise=10s; Tmeas=1s Passed 26,17GOhm HV1 H₁F **Passed** HV2 H2 F 40,94GOhm **Passed** HV3 H₃ F 25,58GOhm Passed HV4 H4 F >98,11GOhm Passed HV5 H5 F >98,11GOhm **Passed** HV6 H6 F 63,36GOhm **Passed** HV7 H7 F >98,11GOhm **Passed** HV8 H8 F >98,11GOhm Passed HV9 H9 F 59,03GOhm **Passed** HV10 H10 F >98,11GOhm **Passed** HV11 H11 F >98,11GOhm **Passed** HV12 H12 F >98,11GOhm Passed HVreturn1 HR1 F >98,11GOhm Passed HVreturn2 HR2 F 92,8GOhm Passed HVreturn3 HR3 F >98,11GOhm Parameters for HV isolation test Voltage=50V; Threshold=100MOhm; Trise=1s; Tmeas=2s Passed Tsensor1 TS1 F 2,484GOhm **Passed** Tsensor2 TS2 F >4,088GOhm Passed Tsensor3 TS3 F >4,088GOhm Passed Tsensor4 TS4 F >4,088GOhm **INSULATION GROUP TEST** --> LV channels Parameters for HV isolation test Threshold=10MOhm

Fail; PH; 25572.1294818159; Ohm; 25,57kOhm

Fail; LV_group; 25576.7680364949; Ohm; 25,58kOhm

HV

Low group

>4,918GOhm

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

HV_group

--> HV channels

Passed

Parameters for HV isolation test