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 12:20:26

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	585,2mOhm
1	Passed	LVreturn1	LVR1 S	LVR1 Sr	580,2mOhm
V	Passed	LV2	LV2 S	LV2 Sr	585,3mOhm
V	Passed	LVreturn2	LVR2 S	LVR2 Sr	581,6mOhm
V	Passed	LV3	LV3 S	LV3 Sr	588,7mOhm
V	Passed	LVreturn3	LVR3 S	LVR3 Sr	581,4mOhm
V	Passed	LV4	LV4 S	LV4 Sr	583,7mOhm
V	Passed	LVreturn4	LVR4 S	LVR4 Sr	578mOhm
V	Passed	LV5	LV5 S	LV5 Sr	580,5mOhm
V	Passed	LVreturn5	LVR5 S	LVR5 Sr	581,4mOhm
V	Passed	LV6	LV6 S	LV6 Sr	572mOhm
V	Passed	LVreturn6	LVR6 S	LVR6 Sr	574,1mOhm
V	Passed	LV7	LV7 S	LV7 Sr	587,2mOhm
V	Passed	LVreturn7	LVR7 S	LVR7 Sr	581mOhm
V	Passed	LV8	LV8 S	LV8 Sr	571,8mOhm
V	Passed	LVreturn8	LVR8 S	LVR8 Sr	571,1mOhm
V	Passed	LV9	LV9 S	LV9 Sr	587,4mOhm
V	Passed	LVreturn9	LVR9 S	LVR9 Sr	578,8mOhm
V	Passed	LV10	LV10 S	LV10 Sr	585,8mOhm
V	Passed	LVreturn10	LVR10 S	LVR10 Sr	584mOhm
V	Passed	LV11	LV11 S	LV11 Sr	586,6mOhm
V	Passed	LVreturn11	LVR11 S	LVR11 Sr	591,7mOhm
V	Passed	LV12	LV12 S	LV12 Sr	587,2mOhm
	Passed	LVreturn12	LVR12 S	LVR12 Sr	587,4mOhm

V									
√ Passed	PH	PH S	PH Sr	591mOhm					
Passed	PHreturn	PHR S	PHR Sr	581,5mOhm					
> Drains									
💢 Open	Drain	Drain S	Drain r	14,85MOhm					
	HV channels and Tsensor Parameters for continuity test								
Threshold=15	•								
√ Passed	Tsensor1	TS1 S	TS1 Sr	12,32Ohm					
√ Passed	Tsensor2	TS2 S	TS2 Sr	12,37Ohm					
Passed	Tsensor3	TS3 S	TS3 Sr	12,12Ohm					
Passed	Tsensor4	TS4 S	TS4 Sr	12,20hm					
Passed	H1	H1 S	H1 Sr	12,05Ohm					
Passed	H2	H2 S	H2 Sr	12,390hm					
Passed	H3	H3 S	H3 Sr	12,06Ohm					
Passed	H4	H4 S	H4 Sr	12,20hm					
√ Passed	HR1	HR1 S	HR1 Sr	12,15Ohm					
√ Passed	H5	H5 S	H5 Sr	12,13Ohm					
√ Passed	H6	H6 S	H6 Sr	12,010hm					
√ Passed	H7	H7 S	H7 Sr	12,37Ohm					
Passed	H8	H8 S	H8 Sr	12,24Ohm					
Passed	HR2	HR2 S	HR2 Sr	12,410hm					
Passed	H9	H9 S	H9 Sr	12,210hm					
Passed	H10	H10 S	H10 Sr	12,18Ohm					
Passed	H11	H11 S	H11 Sr	12,03Ohm					
Passed	H12	H12 S	H12 Sr	12,05Ohm					
√ Passed	HR3	HR3 S	HR3 Sr	12,19Ohm					
	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; 331577325.87747; Ohm; 331,6MOhm Passed; LVR1; 1162225584.20414; Ohm; 1,162GOhm Passed; LV2; 1006330287.66697; Ohm; 1,006GOhm Fail; LVR2; 25568.6886448314; Ohm; 25,57kOhm Passed; LV3; 1914008496.39068; Ohm; 1,914GOhm Passed; LVR3; 1035708763.86799; Ohm; 1,036GOhm Passed; LV4; 2096255701.83383; Ohm; 2,096GOhm Passed; LVR4; 1256384524.73537; Ohm; 1,256GOhm Fail; LV5; 25571.1376869431; Ohm; 25,57kOhm Passed; LVR5; 1626123813.88525; Ohm; 1,626GOhm Passed; LV6; 1176016584.15394; Ohm; 1,176GOhm Fail; LVR6; 25572.026972651; Ohm; 25,57kOhm Fail; LV7; 25573.0088355254; Ohm; 25,57kOhm Fail; LVR7; 25573.8551381618; Ohm; 25,57kOhm Passed; LV8; 1340961377.13453; Ohm; 1,341GOhm Passed; LVR8; 841155409.94705; Ohm; 841,2MOhm Passed; LV9; 967096987.72358; Ohm; 967,1MOhm Passed; LVR9; 1805584530.04577; Ohm; 1,806GOhm Passed; LV10; 905843768.569105; Ohm; 905,8MOhm Passed; LVR10; 1873555495.47213; Ohm; 1,874GOhm Passed; LV11; 863537523.97793; Ohm; 863,5MOhm Passed; LVR11; 969690296.009655; Ohm; 969,7MOhm Passed; LV12; 1667218839.72905; Ohm; 1,667GOhm Fail; LVR12; 25576.6533936949; Ohm; 25,58kOhm

Passed; PHR; 535833429.248935; Ohm; 535,8MOhm --> HV channels Parameters for HV isolation test Voltage=1,2kV; Threshold=1GOhm; Trise=10s; Tmeas=1s Passed 8,754GOhm HV1 H₁F **Passed** HV2 H2 F >98,19GOhm **Passed** HV3 H₃ F 13,79GOhm Passed HV4 H4 F >98,19GOhm **Passed** HV5 H5 F 7,675GOhm **Passed** HV6 H6 F 26,3GOhm **Passed** HV7 H7 F >98,19GOhm **Passed** HV8 H8 F 14,51GOhm **Passed** HV9 H9 F 33,88GOhm **Passed** HV10 H10 F 72,75GOhm **Passed** HV11 H11 F >98,19GOhm **Passed** HV12 H12 F >98,19GOhm Passed HVreturn1 HR1 F >98,19GOhm Passed HVreturn2 HR2 F 33,35GOhm Passed HVreturn3 HR3 F 5,123GOhm Parameters for HV isolation test Voltage=50V; Threshold=100MOhm; Trise=1s; Tmeas=2s Passed Tsensor1 TS1 F >4,091GOhm **Passed** Tsensor2 TS2 F 3,413GOhm Passed Tsensor3 TS3 F >4,091GOhm Passed Tsensor4 TS4 F 1,673GOhm

INSULATION GROUP TEST

--> LV channels

Parameters for HV isolation test

Threshold=10MOhm

Fail; LV_group; 25579.4942096601; Ohm; 25,58kOhm

--> HV channels

Parameters for HV isolation test

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

Fail; PH; 25575.9577246287; Ohm; 25,58kOhm

Passed HV_group HV Low group 2,078GOhm