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 09/05/2024 10:36:51

Serial number Cable03

	Test result
Continuity test	Pass
LV isolation test	No commands
HV isolation test	5 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	562mOhm
V	Passed	LVreturn1	LVR1 S	LVR1 Sr	560,1mOhm
V	Passed	LV2	LV2 S	LV2 Sr	565,7mOhm
V	Passed	LVreturn2	LVR2 S	LVR2 Sr	556,9mOhm
V	Passed	LV3	LV3 S	LV3 Sr	563,2mOhm
V	Passed	LVreturn3	LVR3 S	LVR3 Sr	561,4mOhm
V	Passed	LV4	LV4 S	LV4 Sr	558,3mOhm
V	Passed	LVreturn4	LVR4 S	LVR4 Sr	556,4mOhm
V	Passed	LV5	LV5 S	LV5 Sr	558,6mOhm
V	Passed	LVreturn5	LVR5 S	LVR5 Sr	556mOhm
V	Passed	LV6	LV6 S	LV6 Sr	548,9mOhm
V	Passed	LVreturn6	LVR6 S	LVR6 Sr	551,6mOhm
V	Passed	LV7	LV7 S	LV7 Sr	569,9mOhm
V	Passed	LVreturn7	LVR7 S	LVR7 Sr	553,6mOhm
V	Passed	LV8	LV8 S	LV8 Sr	546,6mOhm
V	Passed	LVreturn8	LVR8 S	LVR8 Sr	545,3mOhm
V	Passed	LV9	LV9 S	LV9 Sr	567,8mOhm
V	Passed	LVreturn9	LVR9 S	LVR9 Sr	559mOhm
V	Passed	LV10	LV10 S	LV10 Sr	562,9mOhm
V	Passed	LVreturn10	LVR10 S	LVR10 Sr	559mOhm
V	Passed	LV11	LV11 S	LV11 Sr	568,5mOhm
V	Passed	LVreturn11	LVR11 S	LVR11 Sr	562,3mOhm
V	Passed	LV12	LV12 S	LV12 Sr	561,7mOhm
	Passed	LVreturn12	LVR12 S	LVR12 Sr	564,3mOhm

V									
V	Passed	PH	PH S	PH Sr	572,9mOhm				
V	Passed	PHreturn	PHR S	PHR Sr	558,3mOhm				
	> Drains								
\checkmark	Passed	Drain	Drain S	Drain r	229,6mOhm				
	HV channels and Tsensor Parameters for continuity test Threshold=150hm								
V	Passed	Tsensor1	TS1 S	TS1 Sr	11,720hm				
V	Passed	Tsensor2	TS2 S	TS2 Sr	11,720hm				
V	Passed	Tsensor3	TS3 S	TS3 Sr	11,77Ohm				
V	Passed	Tsensor4	TS4 S	TS4 Sr	11,68Ohm				
V	Passed	H1	H1 S	H1 Sr	11,6Ohm				
V	Passed	H2	H2 S	H2 Sr	11,840hm				
V	Passed	H3	H3 S	H3 Sr	11,56Ohm				
V	Passed	H4	H4 S	H4 Sr	11,72Ohm				
V	Passed	HR1	HR1 S	HR1 Sr	11,62Ohm				
V	Passed	H5	H5 S	H5 Sr	11,720hm				
V	Passed	H6	H6 S	H6 Sr	11,5Ohm				
V	Passed	H7	H7 S	H7 Sr	11,89Ohm				
1	Passed	H8	H8 S	H8 Sr	11,820hm				
1	Passed	HR2	HR2 S	HR2 Sr	11,710hm				
1	Passed	H9	H9 S	H9 Sr	11,90hm				
V	Passed	H10	H10 S	H10 Sr	11,80hm				
1	Passed	H11	H11 S	H11 Sr	11,45Ohm				
1	Passed	H12	H12 S	H12 Sr	11,52Ohm				
1	Passed	HR3	HR3 S	HR3 Sr	11,59Ohm				
	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

Passed; LV1; 2269518058.85569; Ohm; 2,27GOhm Passed; LVR1; 2162895175.72133; Ohm; 2,163GOhm Passed; LV2; 1401226353.60733; Ohm; 1,401GOhm Passed; LVR2; 1669580847.59644; Ohm; 1,67GOhm Fail; LV3; 25520.4300484219; Ohm; 25,52kOhm Passed; LVR3; 1482406868.68294; Ohm; 1,482GOhm Passed; LV4; 1714241515.69537; Ohm; 1,714GOhm Passed; LVR4; 1925573720.57259; Ohm; 1,926GOhm Passed; LV5; 1160933188.79219; Ohm; 1,161GOhm Passed; LVR5; 1026635190.46934; Ohm; 1,027GOhm Passed; LV6; 1412743436.12474; Ohm; 1,413GOhm Passed; LVR6; 724573126.59107; Ohm; 724,6MOhm Passed; LV7; 2421095212.69509; Ohm; 2,421GOhm Passed; LVR7; 1725441362.69633; Ohm; 1,725GOhm Passed; LV8; 1482420796.62638; Ohm; 1,482GOhm Passed; LVR8; 889317386.572085; Ohm; 889,3MOhm Fail; LV9; 25522.9759832091; Ohm; 25,52kOhm Passed; LVR9; 1787064770.19207; Ohm; 1,787GOhm Passed; LV10; 1744350993.1104; Ohm; 1,744GOhm Passed; LVR10; 1592858870.40412; Ohm; 1,593GOhm Passed; LV11; 2221480714.9486; Ohm; 2,221GOhm Passed; LVR11; 1196241230.35542; Ohm; 1,196GOhm Passed; LV12; 1685634146.56307; Ohm; 1,686GOhm

Passed; LVR12; 2027702230.59625; Ohm; 2,028GOhm

--> HV channels Parameters for HV isolation test Voltage=1,2kV; Threshold=1GOhm; Trise=10s; Tmeas=1s Passed HV1 H₁F >98,41GOhm **Passed** HV2 H2 F >98,41GOhm **Passed** HV3 H₃ F >98,41GOhm Passed HV4 H4 F >98,41GOhm Passed HV5 H5 F >98,41GOhm **Passed** HV6 H6 F >98,41GOhm **Passed** HV7 H7 F >98,41GOhm **Passed** HV8 H8 F >98,41GOhm Passed HV9 H9 F >98,41GOhm **Passed** HV10 H10 F 42,23GOhm **Passed** HV11 H11 F 66,62GOhm **Passed** HV12 H12 F >98,41GOhm Passed HVreturn1 HR1 F >98,41GOhm Passed HVreturn2 HR2 F >98,41GOhm Passed HVreturn3 HR3 F >98,41GOhm Parameters for HV isolation test Voltage=50V; Threshold=100MOhm; Trise=1s; Tmeas=2s Passed Tsensor1 TS1 F >4,101GOhm **Passed** Tsensor2 TS2 F >4,101GOhm Passed Tsensor3 TS3 F >4,101GOhm Passed Tsensor4 TS4 F >4,101GOhm **INSULATION GROUP TEST** --> LV channels Parameters for HV isolation test

Fail; PH; 25526.313297904; Ohm; 25,53kOhm Fail; PHR; 25526.6793849381; Ohm; 25,53kOhm

Threshold=10MOhm

Parameters for HV isolation test

--> HV channels

Passed

Fail; LV_group; 25534.3050078553; Ohm; 25,53kOhm

HV

Low group

>4,921GOhm

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

HV_group

