

| PROJECT | CUSTOMER | VEHICLE |
|-----------------|----------|-----------------|
| Xtrapolis-PRASA | PRASA | 226 – TC1 – VPT |

RTR Vehicle Pre-Testing TS226 TC1 Report
GIB0000006540




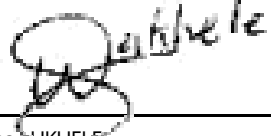

| | CREATED | VERIFIED | APPROVED | DISTRIBUTION |
|-----------|-----------------------|----------------|-----------------|---|
| Name | Tshegofatso SETSHOGWE | Sifiso LUKHELE | Kgomotso NKOANA | Confidentiality Category <i>Restricted</i> <i>Project</i> <i>Normal</i> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> |
| Date | 06/06/2024 | 06/06/2024 | 06/06/2024 | Control Category <i>Controlled</i> <i>Not Controlled</i> <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Signature | | | | Language EN |

This report has been automatically generated from TES version 1

Table of modifications

| Rev | Date | Modifications Content | Writer |
|-----|------------|-----------------------|-----------------------|
| A0 | 06/06/2024 | Creation | Tshegofatso SETSHOGWE |

Internal validations

| | Name | Function | Date | Signature |
|-----------------|-----------------------|---------------------|------------|--|
| Creator | Tshegofatso SETSHOGWE | EPU Manager | 06/06/2024 | X  Tshegofatso SETSHOGWE EPU Manager |
| Verifier | Sifiso LUKHELE | Serial Test Manager | 06/06/2024 | X  Sifiso LUKHELE Serial Test Manager |
| Approver | Kgomotso NKOANA | Test Expert | 06/06/2024 | X  Kgomotso NKOANA Test Expert |

Execution Plan

| | |
|-------------------|------------|
| Start Date | 23/05/2024 |
| End Date | 23/05/2024 |



| | | |
|--|--|-----------------------------|
| Serial Tests Report TS226 – TC1 – VPT RTR Vehicle Pre-Testing Report | Document Reference GIB0000006540 Version: A0 | Emission date 06/06/2024 |
|--|--|-----------------------------|

Contents

Section 1 - Purpose / Objectives

Section 2 - Protective Bonding

2.3 Instructions list

Section 3 - Reflectometry

3.3 Instructions list

Section 4 - Config

4.3 Instructions list

Section 5 - Report summaries

5.2 Results status

5.3 Tools used



Serial Tests Report
TS226 – TC1 – VPT
RTR Vehicle Pre-Testing Report

Document Reference
GIB0000006540
Version: A0

Emission date
06/06/2024

Section 1 – Purpose / Objectives



| | | |
|--|--|-----------------------------|
| Serial Tests Report TS226 – TC1 – VPT RTR Vehicle Pre-Testing Report | Document Reference GIB0000006540 Version: A0 | Emission date 06/06/2024 |
|--|--|-----------------------------|




| | | |
|--|--|-----------------------------|
| Serial Tests Report TS226 – TC1 – VPT RTR Vehicle Pre-Testing Report | Document Reference GIB0000006540 Version: A0 | Emission date 06/06/2024 |
|--|--|-----------------------------|

Section 2 – Protective Bonding

2.3 Instructions list

2.3.1 012-Protective Bonding and Return Current

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|------------------------|---------|
| 10001 | I | Return Circuit: car body to Ground | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10002 | I | The purpose of this test is to confirm that the car body of each car in the train is connected to ground via the earthing brush which will ensure that current from the overhead wire is returned to the substation without damage to equipment or risk of electric shock | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10003 | A | The Ohmmeter shall be off | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10004 | A | Use the Tool List to record the serial number of the Ohmmeter that will be used for this test | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10005 | A | Ensure that the current setpoint is 50A and voltage <50V (applicable for all impedance measurement) on the Ohmmeter device to be used for the test. | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10006 | I | For all impedance measurements of the car body to ground the positive terminal shall be connected to the car body and the negative terminal to the rail | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10007 | I | For all other impedance measurements, the positive terminal shall be connected to the tested subject and the negative terminal to the car body shell. | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10008 | A | Visually identify and inspect that the earthing cables of the 1st axle of 1st bogie frame and the 2nd axle of 2nd bogie frame are properly connected to the axle brushes. |  | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10009 | A | Disconnect from the axle box the earthing cable of the 2nd axle of 2nd bogie frame | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10010 | R | Only the earthing cable of the 1st axle of the 1st bogie frame is connected | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10011 | A | Measure the car body to ground impedance | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10012 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00083 | Mvelo Mthembu - 425564 | TC1 |

| | | | | | | | |
|-------|---|--|--|----|---------|------------------------|-----|
| 10013 | A | Disconnect the earthing cable of 1st axle of 1st bogie frame | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10014 | A | Connect the earthing cable of the 2nd axle of 2nd bogie frame | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10015 | R | Only the earthing cable of the 2nd axle of the 2nd bogie frame of TC1 car is connected | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10016 | A | Measure the car body to ground impedance | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10017 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00453 | Mvelo Mthembu - 425564 | TC1 |
| 10018 | A | Connect the earthing cable of the 1st axle of 1st bogie frame | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10019 | I | Earthing of Equipment on the Underframe | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10020 | A | Visually inspect that the earthing cable connecting the Auxiliary Converter Case to TC1 car body is properly connected and related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10021 | R | Auxiliary Converter visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10022 | A | Measure the impedance between the Auxiliary Converter Case and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10023 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00035 | Mvelo Mthembu - 425564 | TC1 |
| 10024 | A | Visually inspect that the earthing cable connecting the Battery Box to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10025 | R | Battery Box visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10026 | A | Measure the impedance between the Battery Box Case and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10027 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00027 | Mvelo Mthembu - 425564 | TC1 |
| 10028 | A | Visually inspect that the earthing cable connecting the Eurobalise Antenna to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10029 | R | Eurobalise Antenna visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |

| | | | | | | | |
|-------|---|--|--|----|----------|------------------------|-----|
| 10030 | A | Measure the impedance between the Eurobalise Antenna and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10031 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00064 | Mvelo Mthembu - 425564 | TC1 |
| 10032 | A | Visually inspect that the earthing cable connecting the LVB/Brake Module to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10033 | R | LVB/Brake Module visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10034 | A | Measure the impedance between the LVB/Brake and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10035 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.000531 | Mvelo Mthembu - 425564 | TC1 |
| 10036 | I | Earthing of Equipment on the Exterior | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10037 | I | Exterior Front | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10038 | A | Visually inspect that the earthing cable connecting the Front Coupler to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10039 | R | Front Coupler visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10040 | A | Measure the impedance between the Front Coupler and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10041 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00078 | Mvelo Mthembu - 425564 | TC1 |
| 10042 | I | Earthing of Equipment on the Roof | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10043 | A | Visually inspect that the earthing cable connecting the Saloon HVAC to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10044 | R | Saloon HVAC visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10045 | A | Measure the impedance between the Saloon HVAC and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10046 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00921 | Mvelo Mthembu - 425564 | TC1 |
| 10047 | A | Visually inspect that the earthing cable connecting the Cab HVAC to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |

| | | | | | | | |
|-------|---|---|--|----|----------|------------------------|-----|
| 10048 | R | Cab HVAC visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10049 | A | Measure the impedance between the Cab HVAC and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10050 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00053 | Mvelo Mthembu - 425564 | TC1 |
| 10051 | I | Earthing of interior equipment | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10052 | I | Cabin | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10053 | A | Visually inspect that the earthing cable connecting LV1 cubicle to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10054 | R | LV1 visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10055 | A | Measure the impedance between the LV1 cubicle and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10056 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00078 | Mvelo Mthembu - 425564 | TC1 |
| 10057 | A | Visually inspect that the earthing cable connecting LV2 cubicle to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10058 | R | LV2 visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10059 | A | Measure the impedance between the LV2 cubicle and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10060 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.000437 | Mvelo Mthembu - 425564 | TC1 |
| 10061 | A | Visually inspect that the earthing cable connecting Under Desk Left cubicle to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10062 | R | Under Desk Left cabinet visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10063 | A | Measure the impedance between the Under Desk Left cabinet and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10064 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00029 | Mvelo Mthembu - 425564 | TC1 |
| 10065 | A | Visually inspect that the earthing cable connecting Under Desk Middle cabinet to the car body is properly connected and the | | OK | | Mvelo Mthembu - 425564 | TC1 |

| | | | | | | | |
|-------|---|---|--|----|----------|------------------------|-----|
| | | related bolts are correctly torqued | | | | | |
| 10066 | R | Under Desk Middle cabinet visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10067 | A | Measure the impedance between the Under Desk Middle cabinet and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10068 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.000648 | Mvelo Mthembu - 425564 | TC1 |
| 10069 | A | Measure the impedance between the Master Controller and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10070 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.00037 | Mvelo Mthembu - 425564 | TC1 |
| 10071 | A | Measure the impedance between the Foot Heater and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10072 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.000276 | Mvelo Mthembu - 425564 | TC1 |
| 10073 | I | Saloon | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10074 | A | Visually inspect that the earthing cable connecting LV7 cubicle to the car body is properly connected and the related bolts are correctly torqued | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10075 | R | LV7 visually grounded and torque is correctly marked | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10076 | A | Measure the impedance between the LV7 cubicle and the car body | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10077 | R | Impedance Result Max : $x \leq 0.05$ (Ohm) | | OK | 0.0094 | Mvelo Mthembu - 425564 | TC1 |




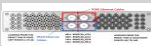

| | | |
|--|--|-----------------------------|
| Serial Tests Report TS226 – TC1 – VPT RTR Vehicle Pre-Testing Report | Document Reference GIB0000006540 Version: A0 | Emission date 06/06/2024 |
|--|--|-----------------------------|

Section 3 – Reflectometry

3.3 Instructions list

3.3.1 025_NET_054_PIS-Network Cabling Integrity Test

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|----------------------------|---------|
| 10001 | I | Network Cabling Integrity Test | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10002 | I | It is necessary to check the network cables to ensure that they have been installed correctly to improve the overall operation of the system. | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10003 | I | The Cable Analyzer Module DSX-5000 will be used to validate cabling | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10004 | I | Register as a new Operator on the DSX-5000. Check on the manual below on how to register as a new Operator. |  | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10005 | I | When saving the tests results for each line, it should be named by its trainset number (X) and the test code (Indicated in the test step). i.e. TS021_TC1_P01 for PACIS and TS021_TC1_T01 for TCMS. | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10006 | I | Use the pictures below for coupler test | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10007 | I | Front Coupler |  | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10008 | I | DB9 pin out |  | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10009 | I | TCMS cabling | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10010 | A | From: [25A15 Train Router Switch (Local: +LV1; Connector: 25XP15_ETH7)] to: [54A13 Train Router Switch (Local: +LV1; Connector: 54XP13_ETHCPU)] NOTE: Cable is crossed TSX_TC1_T01 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10011 | A | From: [25A15 Train Router Switch (Local: +LV1; Connector: 25XP15_ETH4)] to: [25A11 Ethernet Switch (CRS2) (Local: | | OK | | Siphesihle Mchunu - 491465 | TC1 |

| | | | | | | | |
|-------|---|---|--|----|--|-------------------------------|-----|
| | | +LV1; Connector: 25XP11_X4]] NOTE: Cable is crossed TSX_TC1_T02 | | | | | |
| 10012 | A | From: [25A11 Ethernet Switch (CRS2) (Local: +LV1; Connector: 25XP11_X3)] to: [25A12 Switch Ethernet (CRS3) (Local: +LV1; Connector: 25XP12_X4)] NOTE: Cable is crossed TSX_TC1_T03 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10013 | A | From: [25A12 Ethernet Switch (Local: +LV1; Connector: 25XP12_X8)] to: [25A18 MAINTENANCE INTERFACE (Local: +LV1; Connector: 25XP18_ETH)] NOTE: Cable is crossed TSX_TC1_T04 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10014 | A | From: [25A15 Train Router Switch (Local: +LV1; Connector: 25XP15_ETH1)] to: [25A14 Ethernet Repeater (TBR) (Local: +LV7; Connector: 25XP14_ETH0)] NOTE: Cable is crossed TSX_TC1_T05 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10015 | A | From: [25A15 Train Router Switch (Local: +LV1; Connector: 25XP15_ETH5)] to: [25A10 Ethernet Switch (CRS1) (Local: +LV7; Connector: 25XP10_X3)] NOTE: Cable is crossed TSX_TC1_T06 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10016 | A | From: [25A12 Switch Ethernet (CRS3) (Local: +LV1; Connector: 25XP12_X3)] to: [25A13 Switch Ethernet (CRS4) (Local: +LV7; Connector: 25XP13_X4)] NOTE: Cable is crossed TSX_TC1_T07 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10017 | A | From: [25A15 Train Router Switch (Local: +LV1; Connector: 25XP15_ETH3)] to: [Inter-car (Local: +END2; 90XP11.all)] NOTE: Cable is Straight TSX_TC1_T08 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10018 | A | From: [25A10 Ethernet Switch (CRS1) (Local: +LV7; Connector: 25XP10_X4)] to: [Inter-car (Local: +END2; 90XP11.al)] NOTE: Cable is Straight | | OK | | Siphesihle Mchunu - 491465 | TC1 |

| | | | | | | | |
|-------|---|--|--|----|--|----------------------------|-----|
| | | TSX_TC1_T09 | | | | | |
| 10019 | A | From: [25A13 Ethernet Switch (Local: +LV7; Connector: 25XP13_X3)] to: [Inter-car (Local: +END2; 90XP12.al)] NOTE: Cable is crossed TSX_TC1_T10 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10020 | A | From: [25A14 TBR (Local: +LV7; Connector: 25XP14_ETH1)] to: [Inter-car (Local: +END2; 90XP12.al)] NOTE: Cable is Straight TSX_TC1_T11 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10021 | A | From: [25A15 Train Router Switch (Local: +LV1; Connector: 25XP15_ETH0)] to: [Coupler 041 (Local: CLP; Connector: 90XR120_LC14)] TSX_TC1_T12 NOTE: Cable is crossed NOTE: For this test, use the male coupler connector provided. Please refer to the picture above for the correct location of connector. | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10022 | A | From: [25A15 Train Router Switch (Local: +LV1; Connector: 25XP15_ETH2)] to: [Coupler 141 (Local: +CLP; Connector: 90XR120_RC14)] TSX_TC1_T13 NOTE: Cable is Straight NOTE: For this test use the female coupler connector provided. Please refer to the above picture for correct location for the connector. | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10023 | I | Pacis cabling | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10024 | A | From: [TRS 54A13 (Local: +LV1; Connector: 54XP13_ETH7)] to: [Inter-car (Local: +END2; 90XP12.el)] NOTE: Cable is straight TSX_TC1_P01 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10025 | A | From: [CRS1 54A10 (Local: +LV7; Connector: 54XP10_X7)] to: [Inter-car (Local: +END2; 90XP11.el)] NOTE: Cable is crossed TSX_TC1_P02 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10026 | A | From: [54A13 TRS (Local: +LV1; Connector: 54XP13_ETH6)] to: [54A10 | | OK | | Siphesihle Mchunu - 491465 | TC1 |

| | | | | | | | |
|-------|---|---|--|----|--|----------------------------|-----|
| | | CRS1 (Local: +LV7; Connector: 54XP10_X8)] NOTE: Cable is crossed TSX_TC1_P03 | | | | | |
| 10027 | A | From: [54A42 RACK UMC (EBM) (Local: +LV1;Connector: 54XP42_X2) to: [Coupler 042 (Local: +CLP; Connector: 90XR120_LE12)] TSX_TC1_P04 NOTE: Cable is crossed NOTE: For this test, use the male coupler connector and the DB9 connector provided. Refer to the picture above for the correct location of the connector. | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10028 | A | From: [54A42 RACK UMC (EBM) (Local: +LV1;Connector: 54XP42_X8) to: [Coupler 142 (Local: +CLP; Connector: 90XR120_RE12)] TSX_TC1_P05 NOTE: Cable is straight NOTE: For this test use the female coupler connector and the DB9 connector provided. Refer to the picture above for the correct location of the connector. | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10029 | A | All cables have been validated on TC1 | | OK | | Siphesihle Mchunu - 491465 | TC1 |
| 10030 | R | Download all the results from Fluke and save them on PC with folder name "TC1_TSxx" | | OK | | Ntobeko Ndlovu - 421595 | TC1 |

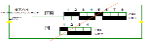
Section 4 – Config

4.3 Instructions list

4.3.1 CONF-Car Configuration

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|---|---------------|--------------|------------------------|---------|
| 10001 | I | Configuration Checks | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10002 | A | Check continuity between 93XT104_1 pin 50 and Ground point | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10003 | R | There is no continuity | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10004 | I | If there is continuity above, the wire 19203LE is pinched on the compressor isolation cock. | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10005 | A | Check continuity on all pins of connector 90XP15 & 90XP14 to ground | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10006 | R | There is no continuity except pin 62 of connector 90XP15 | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10007 | A | Check continuity on all pins of the coupler to ground. | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10008 | R | There is no continuity | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10009 | I | Smoke Detector Address Configuration | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10010 | A | Remove and configure the Smoke Detector 67A4 in the cabin, according to the figure attached. |  | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10011 | A | Reconnect Smoke Detector 67A4 | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10012 | A | Remove and configure the Smoke Detector 67A2 (+PA1) according to the figure attached. |  | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10013 | A | Reconnect Smoke Detector 67A2 | | OK | | Mvelo Mthembu - 425564 | TC1 |

| | | | | | | | |
|-------|---|---|---|----|-----|------------------------|-----|
| 10014 | A | Remove and configure the Smoke Detector 67A3 (+PA3) according to the figure attached. |  | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10015 | R | Measure the resistance (LHD- Line Heat Detection from Static Converter Box) between point 1 and point 4 of the connector 67XP3_11. Result Min/Max : 550<= x<= 700 (Ohms) | | OK | 599 | Mvelo Mthembu - 425564 | TC1 |
| 10016 | A | Reconnect Smoke Detector 67A3 | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10017 | I | Speed Sensor Continuity | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10018 | A | Check continuity between Speed Sensor 1 (connector -41XP5) and MCE (connector -40XP1_X314): | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10019 | R | There is continuity between (Pin A and Pin z4), (Pin B and b4), (Pin D and Pin d4) | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10020 | A | Check continuity between Speed Sensor 2 (connector -41XP2_D2) and MCE (connector -40XP1_X314): | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10021 | R | There is continuity between (Pin A and Pin z8), (Pin B and b8), (Pin D and Pin d8) | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10022 | A | Check continuity between Speed Sensor 3 (connector -41XP3_D2) and MCE (connector -40XP1_X314): | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10023 | R | There is continuity between (Pin A and Pin z6), (Pin B and b6), (Pin D and Pin d6) | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10024 | A | Check continuity between Speed Sensor 4 (connector -41XP4_D2) and MCE (connector -40XP1_X314): | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10025 | R | There is continuity between (Pin A and Pin z10), (Pin B and b10), (Pin D and Pin d10) | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10026 | I | OTDR LOOP | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10027 | I | Check the continuity between the following points: | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10028 | A | From: [61A2 Speed Indicator IN+ (local: +DD4)] to: [Local(+END2) Connector: -90XP13.b pin1] | | OK | | Mvelo Mthembu - 425564 | TC1 |
| 10029 | A | From: [61A2 Speed Indicator OUT- (local: +DD4)] to: [Local(+END2) Connector: -90XP13.b pin 2] | | OK | | Mvelo Mthembu - 425564 | TC1 |



| | | |
|--|--|-----------------------------|
| Serial Tests Report TS226 – TC1 – VPT RTR Vehicle Pre-Testing Report | Document Reference GIB0000006540 Version: A0 | Emission date 06/06/2024 |
|--|--|-----------------------------|

Section 5 – Report summaries

5.2 Results status

| Test Instruction Sheet | Compliant | Incomplete | Non-compliant |
|------------------------|-----------|------------|---------------|
| Reflectometry | X | | |
| Protective Bonding | X | | |
| Config | X | | |

5.3 Tools used

| Function | Tool name | Tool number | Next Calibration date |
|-----------------|------------------------|----------------------|-----------------------|
| 012 | Megger | Megger | 8/25/2025 |
| 025_NET_054_PIS | Cable Analyser DSX5000 | Fluke machine_Ubunye | 6/23/2024 |
| CONF | Multimeter | Meter 1 | 8/25/2024 |

| Vehicle | Equipment | Expected version | Version loaded |
|---------|-----------|------------------|----------------|
| TC1 | | | |