

# X'TRAPOLIS MEGA

## SUMMARY REPORT

Photo-not-contractual

### CONFIDENTIAL INFORMATION

This document and its contents is the exclusive property of ALSTOM Transport SA or Affiliates.  
The reproduction, distribution and utilization of this document as well as the communication of its contents to others without express written authorisation is prohibited. Offenders will be held liable for the payment of damages.  
All right reserved in the event of the grant of a patent, utility model or design.

RELEASED

**X'TRAPOLIS MEGA**

Application: **PRASA**

Technical Modifications

Geometric tolerances

A4

N

A1

Closure of High Speed Testing  
and UHF radio functional tests

A0

Creation

Index

Revision Notification no.

Prepared

23/03/2024

K. NKOANA

Checked

23/03/2024

N. NDOVELA

Approved

23/03/2024

M. SIBIYA

Date

Name

en

Summary Report of open items from  
TS211 Routine and Acceptance  
Testing

**GIBELA**


GIB0000006246

Rev.:  
A1

1/10




## Table of Modifications


Rev	Date	Modifications Content	Writer
A0	11/03/2024	Creation	Kgomotso NKOANA
A1	23/03/2024	Closure of High Speed 120km/h Acceptance Test on the Customer Mainline (DeWildt) and Closure of UHF Radio functional test	Kgomotso NKOANA

	Reference: GIB0000006246	Rev.: A1	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
				2/11

This document and its contents is the exclusive property of ALSTOM Transport SA or Affiliates. The reproduction, distribution and utilization of this document as well as the communication of its contents to others without express written authorisation is prohibited. Offenders will be held liable for the payment of damages. All right reserved in the event of the grant of a patent, utility model or design.


## Internal Validation

	Name	Function	Date	Signature
Writer	Kgomotso NKOANA	Test Expert	23/03/2024	X  Kgomotso NKOANA Test Expert
Checker	Nkululeko NDOVELA	Test Engineering Manager	23/03/2024	X  Nkululeko NDOVELA Test Engineering Manager
Approver	Mongezi SIBIYA	T&C HoD	23/03/2024	X  Mongezi SIBIYA T&C HoD

	Reference:	Rev.:	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
	GIB0000006246	A1		3/11

# TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>5</b>
<b>2</b>	<b>SCOPE .....</b>	<b>5</b>
<b>3</b>	<b>TEST CONDITIONS .....</b>	<b>5</b>
	VEHICLES TESTED .....	5
	TEST SCHEDULE .....	5
	GENERAL TEST CONDITIONS .....	5
	STATIC AND DYNAMIC TEST LOCATION .....	6
	TEST PARTICIPANTS .....	7
	ROUTINE TEST PERIOD .....	7
	ACCEPTANCE TEST PERIOD .....	8
<b>4</b>	<b>TEST RESULTS.....</b>	<b>9</b>
	VEHICLE PRE-TESTING .....	9
	VEHICLE FUNCTIONAL TESTING .....	9
	TRAIN FUNCTIONAL STATIC TESTING .....	10
	TRAIN FUNCTIONAL DYNAMIC TESTING.....	10
	ACCEPTANCE TEST ON CUSTOMER TRACK .....	10
<b>5</b>	<b>CONCLUSION AND RECOMMENDATION .....</b>	<b>11</b>

	Reference:  GIB0000006246	Rev.:  A1	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
				4/11

## 1 INTRODUCTION

For the PRASA project Gibela has implemented an exhaustive test program to perform the static routine testing at vehicle and train level including the dynamic routine test schedules. After the handover of each car from production to testing, the train is progressively coupled to formulate a six-car trainset. In parallel to the coupling activities Vehicle Functional Stating Testing is performed individually on the six cars. Static testing is continued to Train Functional Level.

After the static tests have been performed, the Dynamic Test is done on a 1.2 km test track in the Dunnottar Dynamic Test Track to verify all the safety functions of the train up to 60 km/h. The train is then transported to Wolmerton Depot for the final high speed acceptance test and handover to the customer.

## 2 SCOPE

The purpose of this document is to summarize the test results of the different test schedules.

The complete test report for each test schedule including all the test steps with respect to the pass/fail criteria will be submitted.

## 3 TEST CONDITIONS

### Vehicles Tested

TS211 is composed of vehicles:


- TC1# 01 20 211 1
- M4 # 01 20 211 2
- M1 # 01 20 211 3
- M2 # 01 20 211 4
- M3 # 01 20 211 5
- TC2 # 01 20 211 6

### Test Schedule

The tests were performed following the Routine Test Schedules

- |   |                      |
|---|----------------------|
| ➤ Vehicle Pre- Testing TC1 (VPT)                | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing TC2 (VPT)                | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing M1 (VPT)                 | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing M2 (VPT)                 | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing M3 (VPT)                 | GIB0000001465 rev D2 |
| ➤ Vehicle Pre- Testing M4 (VPT)                 | GIB0000001465 rev D2 |
| ➤ Vehicle Functional Testing TC1 (VFT)          | GIB0000001462 rev D2 |
| ➤ Vehicle Functional Testing TC2 (VFT)          | GIB0000001463 rev D1 |
| ➤ Vehicle Functional Testing M1 (VFT)           | GIB0000001464 rev D2 |
| ➤ Vehicle Functional Testing M2 (VFT)           | GIB0000001465 rev D2 |
| ➤ Vehicle Functional Testing M3 (VFT)           | GIB0000001466 rev D1 |
| ➤ Vehicle Functional Testing M4 (VFT)           | GIB0000001467 rev D1 |
| ➤ Train Functional Routine Static Testing (TFS) | GIB0000001241 rev D0 |
| ➤ Train Functional Dynamic Testing (TFD)        | GIB0000001029 rev D2 |
| ➤ Acceptance Test on Customer Track (ACT)       | GIB0000000293 rev D0 |


### General test conditions

	Reference:	Rev.:	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
	GIB0000006246	A1		5/11

No specific ambient conditions were mandatory during testing.

Static and Dynamic Test location

The tests were conducted at the Gibela Dunnottar factory in South Africa


	Reference:	Rev.:	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
	GIB0000006246	A1		6/11

## Test participants

Last Name	First Name	Company	Occupation
MABUNDA	Neliswa	Gibela	EPU Manager
LUKHELE	Sifiso	Gibela	Serial Test Manager
NKOANA	Kgomotso	Gibela	Test Expert
NGUBANE	Lindani	Gibela	EPU Manager
MOCWAGOLE	Kealeboga	Gibela	EPU Manager
MERAPE	Mavis	Gibela	EPU Manager
ZULU	Vusumuzi	Gibela	EPU Manager
MAKOLA	Hilda	Gibela	Test Technician
ZULU	Nokukhanya	Gibela	Test Technician
XULU	Sithembile	Gibela	Test Technician
MATSHAVA	Junior	Gibela	Test Technician
SHINGA	Sthabile	Gibela	Test Technician
MABUNDZANE	Nick	Gibela	Test Technician
GUMEDE	Carol	Gibela	Test Technician
MTHEMBU	Mvelo	Gibela	Test Technician
MILANI	Philemon	Gibela	Test Technician
KHOSA	Tshembhani	Gibela	Test Technician
TSELA	Impi	Gibela	Test Technician
MAKAYA	Linda	Gibela	Test Technician
FUNYUFUNYU	Mbavhalelo	Gibela	Test Technician
CHIRWA	NQOBILE	Gibela	Test Technician
SIBANYONI	Sizwe	Gibela	Test Technician
MAKHANYA	Thandanani	Gibela	Test Technician
SEKGOLOLO	Alleta	Gibela	Test Technician
MKHONTO	Simphiwe	Gibela	Test Technician
MASONDO	Nhlakanipho	Gibela	Test Technician
MLABA	Vuma	Gibela	Test Technician
SIGUDLA	Walter	Gibela	Test Technician

## Routine test Period

The routine test was performed from the 3<sup>rd</sup> March 2024 until the 10<sup>th</sup> of March 2024 in Dunnottar.

	Reference:	Rev.:	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
	GIB0000006246	A1		7/11

Acceptance Test location


High-Speed Acceptance Test on the Customer Main Line (De-Wildt),The dynamic performance to be validated to a maximum speed of 120km/h inclusive, ensuring compliance to service, emergency and degraded mode braking performance.

Acceptance Test participants

Last Name	First Name	Company	Position
VEZI	Khehla	PRASA	Quality Technician
RAMONYAI	SEKWATI	Gibela - TSSSA	Maintenance Technician

Acceptance Test period

The routine test was performed on the 22<sup>th</sup> March 2024 in Wolmerton, Customer Main Line (De-Wildt).

	Reference:	Rev.:	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
	GIB0000006246	A1		8/11




## 4 TEST RESULTS

### Vehicle Pre-Testing

RTR Vehicle Pre-Testing TS211 TC1 Report	GIB0000006241 rev A0
RTR Vehicle Pre-Testing TS211 TC2 Report	GIB0000006242 rev A0
RTR Vehicle Pre-Testing TS211 M1 Report	GIB0000006237 rev A0
RTR Vehicle Pre-Testing TS211 M2 Report	GIB0000006238 rev A0
RTR Vehicle Pre-Testing TS211 M3 Report	GIB0000006239 rev A0
RTR Vehicle Pre-Testing TS211 M4 Report	GIB0000006240 rev A0
All test steps were performed and passed successfully	

### Vehicle Functional Testing

RTR Vehicle Functional Static Testing TS211 TC1 Report	GIB0000006235rev A0
RTR Vehicle Functional Static Testing TS211 TC2 Report	GIB0000006236 rev A0
RTR Vehicle Functional Static Testing TS211 M1 Report	GIB0000006231 rev A0
RTR Vehicle Functional Static Testing TS211 M2 Report	GIB0000006232 rev A0
RTR Vehicle Functional Static Testing TS211 M3 Report	GIB0000006233 rev A0
RTR Vehicle Functional Static Testing TS211 M4 Report	GIB0000006234 rev A0
All test steps were performed and passed successfully	

	Reference:	Rev.:	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
	GIB0000006246	A1		9/11

## Train Functional Static Testing

RTR Train Functional Static Testing TS211 Report GIB0000006243 rev A0

All test steps were performed and passed successfully with an exception of Train ground communication, the confirmation of train connectivity to Train tracer CFM. The Netbox sim card is not issued.

## Train Functional Dynamic Testing


RTR Train Functional Dynamic Testing TS211 Report GIB0000006244 rev A0

All test steps were performed and passed successfully

## Acceptance Test on Customer Track

RTR TS211 Acceptance Test on Customer Track test report GIB0000006245 rev A0

All routine (works) tests have been performed and completed successfully.


	Reference:	Rev.:	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
	GIB0000006246	A1		10/11

## 5 CONCLUSION AND RECOMMENDATION

All routine (works) tests have been performed and completed successfully except for

1. GSMR – Not commissioned due to damaged PRASA infrastructure.

The Acceptance Test on customer track that covers the high speed 120km/h and UHF radio functional tests have been performed in Wolmerton.

	Reference: GIB0000006246	Rev.: A1	Summary Report of open items from TS211 Routine and Acceptance Testing	Date:23/03/2024
				11/11