telefication bv
The Netherlands
Chamber of Commerce
09076358
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telefication

Test report

Programmable Waveform Generator
Sine Qua Non
PMG1

Contents

This report comprises of three modules. The total number of pages is 10.

Main module

1 Introduction

This report contains the result of tests performed by:

Telefication bv
Edisonstraat 12a
6902 PK Zevenaar
The Netherlands

Telefication complies with the accreditation criteria for test laboratories as laid down in ISO/IEC 17025:1999. The accreditation covers the quality system of the laboratory as well as the specific activities as described in the authorized annex bearing the accreditation number L021 and is granted on 30 November 1990 by the Dutch Council For Accreditation (RvA: Raad voor Accreditatie).

Ordering party:

Company name	:	Sine Qua Non Technology Holdings (Pty) Ltd.
Address	:	28 Mustang Ave, Pierre van Ryneveld
Zip code	:	0157
City/town	:	Centurion
Country	:	South Africa
Date of order	:	30 October 2003

2 Product

A sample of the following product was submitted for testing:

Product category	:
Product name	: Programmable Waveform Generator
Manufacturer	: Sine Qua Non Technology Holdings (Pty) Ltd.
Trade mark	: Sine Qua Non
Type designation	: PMG1
Hardware version	: --
Serial number	: 010101-0016
Software release	: 2.53.1

3 Test schedule

Tests were carried out in accordance with the specification detailed in chapter 7 "Summary" of this report.

Tests were carried out at the following location:

- Telefication bv, Zevenaar

The sample of the product was received on:

- 27 October 2003

Tests were carried out between the following dates:

- 2 November 2003 and 3 November 2003

4 Product documentation

For production of this report the following product documentation was used:

Description:	**Date:**	**Identification:**
PMG1 operational and technical manual	14 October 2003	PMG1

5 Observations and comments

Several minor software modifications were made for performance improvement. The final software version was 2.53.1.
The PMG1 Supply voltage was 13.8 Volt DC.

6 Hardware modifications to the sample

None

7 Summary

The product is intended for use in the following application area(s):

UAIS TEST EQUIPMENT

The sample was tested according to the following specification(s):

VERIFICATION OF THE PRODUCT ACCORDING OPERATIONAL AND TECHNICAL DOCUMENTATION SUPPLIED BY THE MANUFACTURER

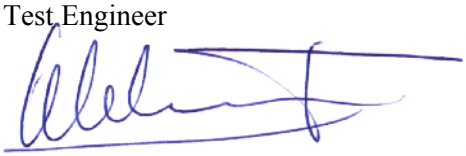
8 Conclusions

The results of the tests as stated in this report, are exclusively applicable to the product item as identified in this report. Telefication does not accept any responsibility for the results stated in this report, with respect to the properties of product items not involved in these tests.

All tests are performed by:

name : H.H. Lodewijk

function : Test Engineer

signature : 

The above conclusions have been verified by the following signatory:

date : 17 November 2003

name : J.P. van de Poll

function : Test Group Co-ordinator

signature : 

Test results module

1 Verification results

Verifications Generator A

Functionality	Setting	Verfication performed	Comment
GMSK BT factor	BT = 0.5	√	Amplitude verified
	BT = 0.4	√	Amplitude verified
	BT = 0.3	√	Amplitude verified
DSC Pre-emphasis	Pre-emphasis Off	√	Amplitude verified
	Pre-emphasis On	√	Amplitude verified
Multiple DSC packets	Test signal Number 1	√	100 packets
Multiple Msg 8 TDMA	Test signal Number 2	√	As specified in 61993-2 chapter 10.4.2, note.
Multiple Msg 8 TDMA	Test signal Number 3	√	As specified in 61993-2 chapter 10.4.3, note.
Multiple Msg 8 TDMA	Test signal Number 4	√	Msg 8 containing pseudo random data into the data field.
Multiple Msg 8 TDMA	Test signal Number 5	√	As specified in 61993-2 chapter 15.3.1, note. 1000 packets send.
Manual VDL TDMA Msg. single message + VDO	VDL Msg type 1	√	--
	VDL Msg type 2	√	--
	VDL Msg type 3	√	--
	VDL Msg type 4	√	--
	VDL Msg type 5	√	--
	VDL Msg type 9	√	--
	VDL Msg type 11	√	--
	VDL Msg type 18	√	--
	VDL Msg type 19	√	--
	VDL Msg type 21	√	--

Verifications Generator B

Functionality	Setting	Verfication performed	Comment
GMSK BT factor	BT = 0.5	√	Amplitude verified
	BT = 0.4	√	Amplitude verified
	BT = 0.3	√	Amplitude verified
Bit pattern	0101010101....	√	Infinite stream
Bit pattern	001100110011	√	Infinite stream

Verifications Supporting PC Software

Functionality	Program name	Verfication performed	Comment
PMG1 Flash programming software	FlashSta.exe	√	Dated: 29 May 2002 Dongle needed
Programmable waveform generator utility	pmgUtility.exe version 2.53	√	Dated: 30 October 2003 Verification of remote control included
AIS presentation port utility	Presentationutility.exe version 1.2	√	Dated: 21 September 2003

Verifications RS232 GPS interface

Functionality	Port	Verfication performed	Comment
Display GPGGA information	GPS	√	1PPS puls used

Photographs module

Overview: