

## Introduction

As a result of the end-of-life of the Gemalto modules EGS3 and EGS5, CEP AG will introduce in Q1-2016 the next generation CT63 GSM/GPRS Terminal called CT63 NG which is based on the Gemalto module BGS5 and which is due to succeed the CT63 & CT63 Java Terminals. With this document, we would like to highlight new features introduced with the CT63 NG, as well as key differences.

## New Features

The following new features are available with this terminal:

- Standard support for the Java programming language (we now longer have a differentiation like between CT63 & CT63 Java)
- 5 MB RAM / 10 MB Flash memory for Java Applications
- FOTA (Firmware upgrade Over The Air)
- Assembly option for RS485 interface on Sub-D9 connector (Minimum Order Quantity: 100 units)

## Differences

The key differences are also summarized in the table on page 2:

- CT63 NG is based on the BGS5 module from Gemalto, whereas CT63 / CT63 Java are based on the modules EGS3 / EGS5, respectively.
- The BGS5 module is based on an Intel chipset, whereas the EGS3 / EGS5 modules use chips from Mediatek.
- As a result, there are differences in the AT commands to use between both module families. These differences may appear in the following ways:
  - Different AT commands may need to be used for identical functionality.
  - While AT commands may be identical, responses provided by the modules may differ.
  - In some cases, equivalent AT commands may not be available at all, for which then eventually work-arounds may need to be developed.

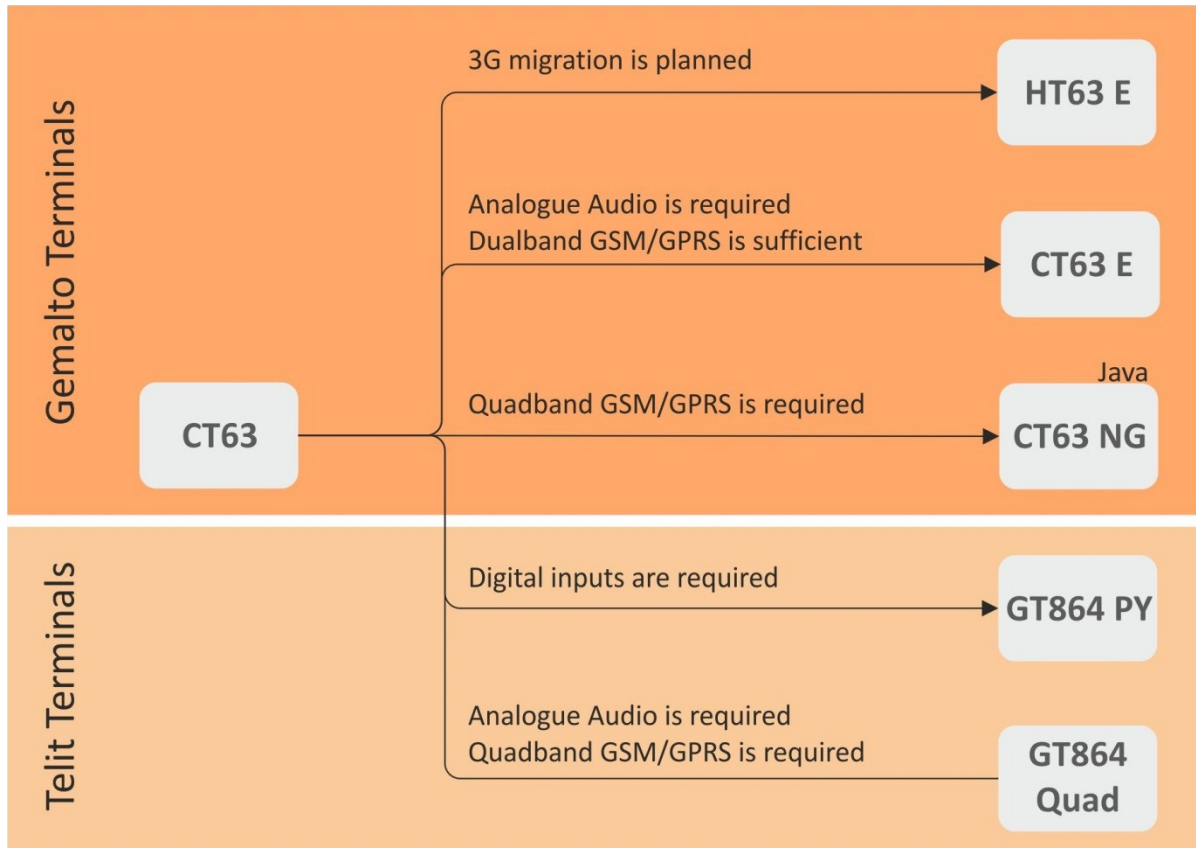
The CT63 NG User Manual provides a basic set of AT commands required to access terminal specific functions, such as activating / deactivating the low-power mode or accessing the I/Os. Otherwise, we recommend consulting the AT command manuals for the different modules deployed in the CT63 (EGS3 / EGS5) and CT63 NG (BGS5) terminals. These manuals are available for download from the password-protected area of the CEP website.

- The BGS5 module currently doesn't support analogue audio. If you require such functionality, we recommend either using the CT63 E (dual band only) or using a Telit based terminal, such as the GT864 Quad.
- The CT63 NG supports 1 analog input and 1 output. The 4 digital inputs that were available with the CT63 Java are no longer available with this new product. You may consider the Telit-based GT864 PY terminal if you require a product with such capability.
- The RS232 interface requires full RTS / CTS Flow Control support by the remote station connecting to the terminal.

## Product Differences CT63 and CT63 NG

- The CT63 NG currently has a CE declaration only, and is thus not intended for automotive applications which require e1 or E1. Please contact our sales team if you require automotive certification.

The recommended migration options are summarized in the following figure:



Please see also the following table for an overview of commonalities and differences:

## Product Differences CT63 and CT63 NG

Category	Features	CT63	CT63 Java	CT63 NG
<b>Air Interface</b>	2G Frequency Band	850 / 900 / 1800 / 1900 MHz	850 / 900 / 1800 / 1900 MHz	850 / 900 / 1800 / 1900 MHz
	GPRS Class	Class 12	Class 12	Class 12
<b>Hardware Features</b>	Wireless Module	EGS3	EGS5	Gemalto BGS5
	Memory	--	1,7 MB RAM / 8 MB Flash	5 MB RAM / 10 MB Flash
	SIM Card Holder	1x (1,8/3 Volt)	1x (1,8/3 Volt)	1x (1,8/3 Volt)
	SIM Chip Option	Optional	Optional	Optional
	LEDs	1 GSM	1 GSM + 2 Configurable	1 GSM + 2 Configurable
	Type Approvals	CE; e1	CE	CE
<b>Interfaces / Connectors</b>	Antenna	1x (FME Male)	1x (FME Male)	1x (FME Male)
	RS232	1x (Sub-D9 Female)	1x (Sub-D9 Female)	1x (Sub-D9 Female)
	RS485	--	--	Optional (Sub-D9 Female, replaces RS232)
	USB 2.0	1x (Mini-USB)	--	1x (Mini-USB)
	Analog Inputs	--	1x (via RJ11)	1x (RJ11 connector)
	Digital Inputs	--	4x (via Mini-USB)	--
	Outputs	--	1x (via RJ11)	1x (RJ11 connector)
	AT Command Set	Cinterion	Cinterion	Gemalto standardized and extended AT commands (Hayes, TS 27.007 and 27.005)
<b>Software</b>	Programming Language	--	Java profile IMP-NG & CLDC 1.1 HI	Java profile IMP-NG & CLDC 1.1 HI
	TCP/IP Stack	Access via AT commands and transparent TCP services	Access via AT commands and transparent TCP services	Access via AT commands and transparent TCP services
	SW Update	Serial / USB	Serial / USB	Serial / USB / FOTA
	<b>Power Management</b>	Voltage Range	5V - 32V	5V - 32V
	USB Host Powered	Optional	Optional	Optional
<b>Hardware Characteristics</b>	Operating Temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
	Dimensions	77x66x26 mm	77x66x26 mm	77x66x26 mm
	Weight	80g	80g	80g