

Product:	ETKT1.0	Rev :	04	Page 1 of 8
Title :	Change Information			

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TTNR :	ETKT1.0-A F-00K-103-742 ETKT1.0-B F-00K-103-748			
Comments :	Currently shipped: <b>20A012</b> FPGA version: V2.0 Hardware-state: A012			
Created:	Name Mai	Department PMC/EPM-22	Signature Mai	Date 2005-03-15
Released:	Name Müller / Maier	Department PMC/EPM-22	Signature Müller / Maier	Date 2005-03-16

### C h a n g e s

Revision	Description	Date	Name	Signature
01	20A010 - initial Version	2004-08-03	Müller	Müller
02	20A011 - population difference because of possible power up problems	2004-10-07	Müller	Müller
03	20A011 - Product version of ETK Configuration Tool updated	2004-12-01	Müller	Müller
04	20A012 – Change of an Analog Switch – because of crosstalk problems " [chapter 4.3.1]	2005-03-15	Mai	Mai

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## 1 General remarks to this document

This document consists of three main parts.

Chapter 2 contains general information about the required tool-chain to use this ETK.

Two different items are described.

- Explanation of the version-system of the ETKT1.0
- The required versions of software (INCA / ASCET) , HSP (calibration hardware firmware of e.g. ES690, ES1232, ..) and ETK - hardware.  
Additionally other requirements for running the ETK.

Chapter 3 contains information about PLD-Code changes concerning this ETK

Chapter 4 contains information about hardware changes concerning this ETK

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## 2 Tool-Chain Information

### 2.1 Version-Syntax of the ETKT1.0

The ETKT1.0 version information is located on the sticker of the ETK or can be read out of the ETK using the ETK-Configuration Tool.

The version information has the following syntax: **aacddd/ee**

PLD-Code Information:

**aa:** FPGA-Code version (10, 11, 12,...) see chapter 3

Hardware-Information:

**c** : PCB version (A, B, C, ...)

**ddd:** Hardware state of the PCB (010, 011, 012, ...) see chapter 4

**ee:** Assembly variant of the PCB (00, 01, 02, ...)

The first delivered hardware state of the ETKT1.0 was **20A010**.

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## 2.2 Version information of the Tool-Chain components

To get this ETK running with the other components of the Tool-Chain please make sure that the version mentioned below or a newer one is used. If your software-, firmware- or hardware version is older, please update it.

If you have any problems to get this ETK running please contact our local customer support or sales representative.

Name	Needed version	Remarks
HSP	V 3.1.2	Includes MAC2, ES690, and ES1000.2 system files
ES690	V 8.1.5	Supported
ES1000.2/3 - system	V 8.1.6	ES1232 supported with ES1120
ES1000.1	Not supported	
MAC2	Not supported	
<b>Software</b>		
ETK Configuration Tool	V 4.0.0	
INCA	V 5.1.0/5	INCA5.1.0 hotfix5
INCA	V 5.2.0	Recommended for future ETK-HDC update procedures
ASCET	V 5.0.1	INCA in parallel
ASCET-RP	V 5.1.0	
INTECRIO	V 1.0	INTECRIO standalone or in parallel to INCA5.x (or higher)

The registered user will automatically receive the newest INCA-version (CD-ROM)  
Updates or refreshes can be downloaded from the ETAS homepage:

<http://de.etasgroup.com>

<http://en.etasgroup.com>

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### 3 PLD-Code Changes

#### 3.1 General remarks to this chapter

The programmable logic code within the ETKT1.0 is stored onto programmable logic devices (FPGA). The FPGA-code starts with version 2.0. For the version syntax please refer to chapter 2.1.

#### 3.2 FPGA-Code version 2.0 was the first delivered version

##### 3.2.1 Details of change

**Version :** none  
Cause:  
Remedy:

**Attention:** For updating the ETK - HDC with a later version by using the ETK - configuration tool, all ETK - FPGA - packages will be updated one after another and will last a few minutes.

##### 3.2.2 Delivery condition

The FPGA version **2.0** will be programmed into all shipments.

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## 4 Hardware Changes

### 4.1 General remarks to this chapter

Hardware problems or obsolete parts can make it necessary to change the manufacturing of this ETK. Information about the changes are listed underneath. The hardware-state starts with version A010. For the version syntax please refer to chapter 2.1.

### 4.2 Changes from hardware-state A010 to version A011

#### 4.2.1 Details of Change

Changes:

Modified resistor values in power supply, R801 / R802 changed to 3K75 / 2K0.  
Because ETK power up at supply voltages above 16V sporadically failed.

### 4.3 Changes from hardware-state A011 to version A012

#### 4.3.1 Details of Change

Cause: Under certain temperature conditions and the special micro-controller "cache mode" wrong measurement data could be read from the ETK. The reason is a crosstalk of an analog switch which activated the ETK memory at the wrong time.

Remedy: The Analog switch IC103 had been changed against a new one with a better undershot protection.

#### 4.3.2 Delivery Condition

The hardware-state **A012** will be delivered with all shipments.  
ETKs with 'old' hardware-states can be modified

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## 5 Abbreviations

ETK	Emulator test probe
ES1000	VME - system, successor of INCA-VME
INCA-VME	Old VME - system for MC and RP
ES690	MC hardware, successor of MAC2
MAC2	Old MC hardware
INCA	MC software, successor of VS100
ETK Configuration Tool	Configuration Software, in order to configure an ETK, successor of the old DOS tool
HSP	<b>H</b> ardware <b>S</b> ervice <b>P</b> ack; ETAS product which includes the firmware for the complete ETAS hardware, shipped together with INCA but also available as standalone product, download at ETAS homepage possible
Firmware	Software for MC hardware; necessary for implementation of new features or bugfixes
Hotfix	Software bugfix for a refresh version
Tool-chain	MC hardware (e.g. ES690) and software (e.g. INCA)
MC	<b>M</b> easurement & <b>C</b> alibration
RP	<b>R</b> apid <b>P</b> rototyping
PLD	<b>P</b> rogrammable <b>L</b> ogic <b>D</b> evice
FPGA	<b>F</b> ield <b>P</b> rogrammable <b>G</b> ate <b>A</b> rray; interface component to the application hardware
PCB	<b>P</b> rinted <b>C</b> ircuit <b>B</b> oard
DPR	Dual Ported RAM; special RAM onto the ETK which allows an access from ECU and application hardware at the same time
/CS	Chip select