

Product:	FETK-T1.0A	Rev :	21	Page 1 of 15
Title :	Release-Notes			

DRIVING EMBEDDED EXCELLENCE



Product :	FETK-T1.0A			
Title :	Release Notes			
File :	FETK-T1.0A_Release-Notes_V21.docx			
TTNR :	F-00K-109-977			
Comments :	<p>Currently shipped: <b>11111637B011/01</b></p> <p>FPGA-Boot version: V1.1.1  FPGA-A version: V1.16.37  Hardware-state: B011/01</p>			
Created:	Name R. Mai	Department PGA/PRM-M	Signature R. Mai	Date 2021-03-10
Released:	Name A. Sprenger	Department EAL-AR	Signature A. Sprenger	Date 2021-03-10

## Changes

Revision	Description	Date	Name	Signature
01	102103B010/01 - for FETK-T1.0A - Initial version	2016-03-18	Mai	Mai
02	102104B011/01 - SBB V2.1 support added and Heat Spreader exchanged	2016-04-12	Mai	Mai
03	102105B011/01 - FPGA Update for MCE V2 and SW debugger arbitration	2016-06-08	Mai	Mai
04	102107B011/01 - FPGA Update for several Features and Bug fixes [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2016-09-14	Mai	Mai
05	102108B011/01 - FPGA Update for several Features and Bug fixes [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2016-10-17	Mai	Mai
06	1021011B011/01 - FPGA Update for Bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2016-11-23	Spr	Spr
07	102111B011/01 - FPGA Update for Bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2016-12-02	Spr	Spr
08	102137B011/01 - FPGA Update for DAP2 and Bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2017-05-08	Mai	Mai

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09	111146B011/01 - FPGA Update for monitor variables and bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2017-09-11	Spr	Spr
10	111155B011/01 - FPGA Update for monitor variables and bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2017-11-20	Mai	Mai
11	1111610B011/01 - FPGA Update for monitor variables and bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2018-01-30	Mai	Mai
12	1111733B011/01 - FPGA Update [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2018-06-22	Mai	Mai
13	1111824B011/01 - FPGA Update for bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2018-09-17	Mai	Mai
14	1111934B011/01 - FPGA Update and bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2018-11-21	Mai	Mai
15	11111017B011/01 - FPGA Update and bug fix [chapter <a href="#">3.1</a> and <a href="#">5.3</a> ]	2019-03-05	Mai	Mai
16	11111017B011/01 - New or Enhanced Functions [ <a href="#">3.1</a> ]	2019-05-29	Mai	Mai
17	11111017B011/01 - New or Enhanced Functions [ <a href="#">3.1</a> ]	2019-09-05	Mai	Mai
18	11111026B011/01 - New or Enhanced Functions [ <a href="#">3.1</a> ]	2019-09-05	Sprenger	Sprenger
19	11111310A010/01 - New or Enhanced Functions [ <a href="#">3.1</a> ] and Firmware Modification [ <a href="#">5.3</a> ]	2020-06-10	Mai	Mai
20	11111419A010/01 - New or Enhanced Functions [ <a href="#">3.1</a> ] and Firmware Modification [ <a href="#">5.3</a> ]	2020-09-17	Mai	Mai
21	11111637A010/01 - New or Enhanced Functions [ <a href="#">3.1</a> ] and Firmware Modification [ <a href="#">5.3</a> ]	2021-03-10	Mai	Mai

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# 1 General Information

## 1.1 Safety Notice

Calibration activities influence the behavior of the ECU and the systems controlled by the ECU. This may result in unexpected behavior of the vehicle and thus can lead to safety critical situations. Only well trained personnel should be allowed to perform calibration activities.

## 1.2 System Requirements

The following minimum system prerequisites have to be met:

### Required Hardware

- GHz Processor
- GB RAM
- DVD-ROM drive (for installation)
- Network adapter
- Graphics with a resolution of at least 1024x768, 256 MB RAM, 16bit color and DirectX9

### Required Operating System

- Windows® 7 SP1 (32 or 64bit\*) or higher.
- Windows® 8 (32 / 64 bit\*) and Windows® 8.1 (32 / 64 bit\*)
- Windows® 10

\*) INCA uses the 32bit compatibility mode on a 64-bit operating system.

### Required Free Disk Space

- 1 GB (not including the size for user data; absolute min. required, but not recommended)

The following system prerequisites are recommended:

### Recommended Hardware

- GHz Quad-Core Processor or equivalent
- 16 GB RAM
- DVD-ROM drive (for installation)
- Network adapter
- Graphics with a resolution of at least 1280 x 1024, 1GB RAM, 32bit color and DirectX9

### Recommended Operating System

- Windows® 7 SP1 64bit (INCA uses the 32bit compatibility mode on a 64-bit operating system)

### Recommended Free Disk Space

- >10 GB

### Recommendation on Performance

- Investigation on performance showed:
  - More Memory improves execution time of repetitive operations
  - SSD hard disks improve the file access times

## 1.3 Restrictions

WINDOWS® 95b, WINDOWS® NT, WINDOWS® 2000, WINDOWS® 98SE, and WINDOWS® XP are not supported

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## 1.4 Miscellaneous

To ensure the highest data throughput from the FETK device up to the PC system the following recommendations should be considered:

- Set power save mode to the highest level
- Disable virus scan
- Use network adapter for ETAS application only
- Update network adapter drivers

## 2 Version Syntax and Tool-Chain Information

### 2.1 Version-Syntax of the FETK-T1.0A

The **FETK-T1.0A hardware version** information is located on the product sticker and can be read out of the FETK using the firmware update tool HSP or XETK Configuration Tool.

Overall Hardware Version Syntax: **aaabbbccddd/ee**

Description of PLD-Code Information (modification details refer chapter 3)

**aaa** FPGA-Boot-Code version (1.0.0, 1.0.1, 1.0.2, ...)  
**bbb** FPGA-Code version (1.0.0, 1.0.1, 1.0.2, ...)

The hardware version of the PCB is also located on the label attached to the PCBs. These version is subordinate to the Overall hardware state cannot be read out by software.

PCB Hardware State Syntax: **deee/ff**

Description of Hardware-Information (modification details refer chapter 4)

**c** PCB Version (A=V1.0, B=V1.1, C=V1.2, ...)  
**ddd** PCB Hardware State (010, 011, 012, ...)  
**ee** PCB Population Variant (00, 01, 02, ...)

The first delivered hardware state of the FETK-T1.0A is the following:

FETK-T1.0A: **102103B010/01**

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## 2.2 Version information of the tool-chain components

To get this FETK 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 FETK running please contact our local customer support or sales representative.

Updates or refreshes can be downloaded from the ETAS homepage:

<http://de.etasgroup.com>

<http://en.etasgroup.com>

## 2.3 Hardware support

The FETK-T1.0A is supported by ES891.

## 2.4 Software and microcontroller support

Microcontroller	HSP	INCA	ETK Tools	ASCET-RP	INTECRIO
			-	-	-
TC27x-ED C-Step <sup>1)</sup>	V11.0.0	V7.2.0	V4.1.0	V6.4.1	V4.6.1
TC29x-ED	V11.0.0	V7.2.0	V4.1.0	V6.4.1	V4.6.1

<sup>1)</sup> and higher versions (microcontroller steps) if they support the C-step specifications

### 3 What's New - Release Notes

This chapter lists the main improvements compared to a previous shipped FETK product. Additionally, a detailed list of already known issues can be found here.

#### 3.1 New or Enhanced Functions

##### 3.1.1 In INCA 7.3.4 and HSP V12.4.0

Issue Identifier	Description
ETKF-1264	MAXWAIT - implement chosen solution
ETKF-1289	Disallow illegal DAP settings in hwcfg.lua (160MHz + 2-Pin-DAP)

##### 3.1.2 In INCA 7.3.2 and HSP V12.2.0

Issue Identifier	Description
ETKF-1206; 627542	Support CPLD Update for all FETK-T1.x
ETKF-1027	Implement Concurrent XCP debugging and flashing for FETK-T1.1B
ETKF-1187	Performance Improvement overflows/bottlenecks for all FETK-T1.x
ETKF-1025; 623845	TEA MGR - Implementation of Handling host port disconnections in stacked ES8xx for all FETK-T1.x
ETKF-1016	Improve startup behavior of DAP for all FETK-T1.x

##### 3.1.3 In INCA 7.3.1 and HSP V12.1.0

Issue Identifier	Description
ETKF-1104	Prevent issues when switching between DAP modes
ETKF-1022	Added monitor variables for EDE ingress profiling
ETKF-1064	Increased data size of Trace-FIFO to 4 KByte

##### 3.1.4 In INCA 7.2.15 and HSP V11.15.2

Issue Identifier	Description
627542	ECU reset with FETK in Sleep Mode
630645	ECU reset after FETK in Deep Standby

##### 3.1.5 In INCA 7.2.14 and HSP V11.14.0

Issue Identifier	Description
ETKPRG-387	Support of standard XCP debugging

##### 3.1.6 In INCA 7.2.13 and HSP V11.13.0

Issue Identifier	Description
------------------	-------------



n/a	Support of XCP Time Correlation
-----	---------------------------------

### 3.1.7 In INCA 7.2.12 and HSP V11.12.0

Issue Identifier	Description
603293	Higher current consumption
604175	High jitter of DAQ packets

### 3.1.8 In INCA 7.2.11 and HSP V11.11.0

Issue Identifier	Description
n/a	Support of FETK Alias name
n/a	Improve round trip time for FETK in combination with ES830 (Rapid prototyping)
601278	FETK-T1 reports Aurora link error and repeats AGBT initialization after ECU reset
603463	FETK sporadically generates wrong measurement values for trace raster

### 3.1.9 In INCA 7.2.10 and HSP V11.10.0

Issue Identifier	Description
585919	3 pin DAP setting is inconsistent for FETK-T1.0A
593091	Access to ED RAM could fail while concurrently using a debugger by debug api

### 3.1.10 In INCA 7.2.7 and HSP V11.7.0

Issue Identifier	Description
581275	Bugfix: FETK-T1.0 XCP Connection interruption in climate test during trace mirror collision test

### 3.1.11 In INCA 7.2.7 and HSP V11.7.0

Issue Identifier	Description
578494	Bugfix: FETK ECU Access error when debugger is connected
n/a	support of Fine Grained Trace Windows (Infineon Errata MCDS_TC.059 to be considered for TC2xx ECU Software)

### 3.1.12 In INCA 7.2.6 and HSP V11.6.0

Issue Identifier	Description
n/a	Added monitoring variable for Trace Mirror Valid

n/a	Extended the XCP debug commands DBG_HWIO_AVAILABLE and DBG_HWIO_SET_GET in order to support to monitor the target power supply and the WGDIS pin
572086	bug fix for debug arbitration with Lauterbach Trace32
578016	FETK-T1.0 asserts ECUPOR when going into sleep mode
576178	FETK, XCP debugging: Behavior of WGDIS pin does not match with HW arbitration

### 3.1.13 In INCA 7.2.5 and HSP V11.5.0

Issue Identifier	Description
n/a	Support of DAP2 (3-Pin) with max 100Mhz
562626	Overflows are always handles as fatal errors
562628	No HSP update it possible if lots of EV_DAQ_OVERLOAD events occur

### 3.1.14 In INCA 7.2.4 and HSP V11.4.0

Issue Identifier	Description
560302	Improved management of non-recoverable trace errors

### 3.1.15 In INCA 7.2.3 and HSP V11.3.1

Issue Identifier	Description
551165	Measure with FETK-T results in incorrect measured values (64bit values)
557638	Measurement Data Overflow with FETK-T
n/a	Added firmware monitoring variables

### 3.1.16 In INCA 7.2.3 and HSP V11.3.0

Issue Identifier	Description
n/a	Trace measurement improvement
n/a	Support of reconfigurable size, moveable EMU RAM (LERT V3)
n/a	XCP Debug API: responsive behavior in case of non-existing memory access improved
n/a	Support of IEEE 1588 time synchronization
553146, 551481	Improved stability of FETK Update

### 3.1.17 In INCA 7.2.2 HF2 and HSP V11.2.3

Issue Identifier	Description
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550301	Invalid measurement data in case of unaligned writing to 32 bit data
--------	--

### 3.1.18 In INCA 7.2.2 HF2 and HSP V11.2.1

Issue Identifier	Description
n/a	increased performance for debugging over XCP
502023	Support of fast raster use cases
534258	Performance optimization of ETK on ES891. 100µs raster beside other raster is now possible

### 3.1.19 In INCA 7.2.2 and HSP V11.2.0

Issue Identifier	Description
n/a	Accerlate Trace Mirror initialization, decrease measurement gap in case of measurement overflow
n/a	enhancement of monitor to log lost measurement data
523060	Confusing WP checksum displayed in INCA after power cycle of ES891
539446	FETK-T stays in boot mode after HSP update from HSP11.0.1 to HSP11.1.0

### 3.1.20 In INCA 7.2.1 and HSP V11.1.0

Issue Identifier	Description
n/a	FETK-T Start of Measurement Improvements (Configuration DISTAB and Trace Interface)
n/a	SW debugger arbitration for FETK (Debug API)
n/a	MCEv2.0 support for FETK-T1
520596	RP_Wait and MC_Wait are not cleared when Ethernet connection to ES891 is lost

### 3.1.21 In INCA 7.2.0 and HSP V11.0.1

Issue Identifier	Description
n/a	support of SBB V2.1 added (SBB V3.1 was already available with initial version)

### 3.1.22 In INCA 7.2.0 and HSP V11.0.0

Issue Identifier	Description
n/a	Initial version, support of FETK-T1.0A

## 3.2 Known issues

### 3.2.1 In INCA 7.2.7 and HSP V11.7.0

Issue Identifier	Description
#581311 & #581332	For Fine Grained Trace, Infineon Errata MCDS_TC.059 has to be considered for TC2xx ECU Software

### 3.2.2 In HSP V11.3.0

Issue Identifier	Description
# 566456	Incompatibility between ES891 with HSP 11.3.0 and FETK-T with HSP 11.4.0

### 3.2.3 In INCA 7.2.3 and HSP V11.3.0

Issue Identifier	Description
# 551165	Invalid measurement data in case of unaligned writing to 64 bit data.

### 3.2.4 In INCA 7.2.2 HF2 and HSP V11.2.3

Issue Identifier	Description
# 551165	Invalid measurement data in case of unaligned writing to 64 bit data.

### 3.2.5 In INCA 7.2.0 and HSP V11.0.0

Issue Identifier	Description
# 518120	Sporadically the handshake between ECU and FETK-T fails. Remedy is to acknowledge the reset in INCA dialog box.

## 4 Product Variants

In general the FETK-T1.0A can be purchased in one variant.

### 4.1 FETK-T1.0A

Item number	F-00K-109-977																																				
Description	FETK-T1.0A Emulator Probe for the Infineon AURIX microprocessor family																																				
For details refer the datasheet	<table border="1"> <thead> <tr> <th>DIM</th> <th>MILLIMETERS</th> <th>INCHES</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>56.50<sup>+0.2</sup><sub>-0.2</sub></td> <td>2.224<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>B</td> <td>53.00<sup>+0.2</sup><sub>-0.2</sub></td> <td>2.087<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>C</td> <td>43.70<sup>+0.2</sup><sub>-0.2</sub></td> <td>1.720<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>D</td> <td>15.50<sup>+0.2</sup><sub>-0.2</sub></td> <td>0.610<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>E</td> <td>20.90<sup>+0.2</sup><sub>-0.2</sub></td> <td>0.823<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>F</td> <td>3.00<sup>+0.2</sup><sub>-0.2</sub></td> <td>0.118<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>G</td> <td>3.50<sup>+0.1</sup><sub>-0.1</sub></td> <td>0.138<sup>+0.004</sup><sub>-0.004</sub></td> </tr> <tr> <td>H</td> <td>33.25<sup>+0.2</sup><sub>-0.2</sub></td> <td>1.309<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>I</td> <td>30.00<sup>+0.2</sup><sub>-0.2</sub></td> <td>1.181<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>J</td> <td>9.00<sup>+0.2</sup><sub>-0.2</sub></td> <td>0.354<sup>+0.008</sup><sub>-0.008</sub></td> </tr> <tr> <td>K</td> <td>12.00<sup>+0.2</sup><sub>-0.2</sub></td> <td>0.472<sup>+0.004</sup><sub>-0.004</sub></td> </tr> </tbody> </table>	DIM	MILLIMETERS	INCHES	A	56.50 <sup>+0.2</sup> <sub>-0.2</sub>	2.224 <sup>+0.008</sup> <sub>-0.008</sub>	B	53.00 <sup>+0.2</sup> <sub>-0.2</sub>	2.087 <sup>+0.008</sup> <sub>-0.008</sub>	C	43.70 <sup>+0.2</sup> <sub>-0.2</sub>	1.720 <sup>+0.008</sup> <sub>-0.008</sub>	D	15.50 <sup>+0.2</sup> <sub>-0.2</sub>	0.610 <sup>+0.008</sup> <sub>-0.008</sub>	E	20.90 <sup>+0.2</sup> <sub>-0.2</sub>	0.823 <sup>+0.008</sup> <sub>-0.008</sub>	F	3.00 <sup>+0.2</sup> <sub>-0.2</sub>	0.118 <sup>+0.008</sup> <sub>-0.008</sub>	G	3.50 <sup>+0.1</sup> <sub>-0.1</sub>	0.138 <sup>+0.004</sup> <sub>-0.004</sub>	H	33.25 <sup>+0.2</sup> <sub>-0.2</sub>	1.309 <sup>+0.008</sup> <sub>-0.008</sub>	I	30.00 <sup>+0.2</sup> <sub>-0.2</sub>	1.181 <sup>+0.008</sup> <sub>-0.008</sub>	J	9.00 <sup>+0.2</sup> <sub>-0.2</sub>	0.354 <sup>+0.008</sup> <sub>-0.008</sub>	K	12.00 <sup>+0.2</sup> <sub>-0.2</sub>	0.472 <sup>+0.004</sup> <sub>-0.004</sub>
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## 5 Firmware Modifications

### 5.1 General remarks to this chapter

The programmable logic code within the FETK-T1.0A is stored onto programmable logic devices (FPGA). For the version syntax please refer to chapter 2.1.

#### Attention:

For updating the FETK - firmware with a later version by using HSP, all FETK firmware packages will be updated one after another. This will last a few minutes and must not be cancelled by the user. In case the firmware update had been finished unsuccessfully due to some reason, the update will have to be repeated. HSP will program the rescue packages onto the FETK. This procedure makes the firmware update fail-safe.

### 5.2 FPGA-Boot-Code

Revision	Description
Version 1.0.2	Initial Version
Version 1.1.1	FETK-T1.0 asserts ECUPOR when going into sleep mode (bug fix #578016)

Delivery condition:

The FPGA-Boot version 1.1.1 will be programmed into all shipments

### 5.3 FPGA-Code

Revision	Description
Version 1.0.3	Initial Version
Version 1.0.4	Service Based Bypass Version 2.1 support added (SBB V3.1 was already available with initial version)
Version 1.0.5	Start of Measurement improvements, SW debugger arbitration and MCE V2 support added
Version 1.0.7	File system update
Version 1.0.8	- Support for fast raster use cases - Increased performance for debugging over XCP
Version 1.0.11	Invalid measurement data in case of unaligned writing to 32 bit data
Version 1.1.1	- Trace measurement improvement - Improved stability of FETK Update (#553146, 551481)
Version 1.2.3	- Added firmware monitoring variables - Bug fixes (#551165, 557638)
Version 1.2.4	- Bug fix (#560302)
Version 1.3.7	- Added DAP2 (3-Pin) support with 100Mhz - Bug fixes (#562626, 562628)
Version 1.4.6	- Added monitoring variable for Trace Mirror Valid

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	<ul style="list-style-type: none"> <li>- Extended the XCP debug commands DBG_HWIO_AVAILABLE and DBG_HWIO_SET_GET in order to support to monitor the target power supply and the WGDIS pin</li> <li>- Bug fixes (#572086, 578016 and 576178)</li> </ul>
Version 1.5.5	Bug fix: - 578494 FETK ECU Access error when debugger is connected
Version 1.6.10	Bugfix: FETK-T1.0 XCP Connection interruption in climate test during trace mirror collision test
Version 1.8.24	Bugfix: - 585919: 3 pin DAP setting is inconsitent for FETK-T1.0A - 593091: Access to ED RAM could fail while concurrently using a debugger by debug api
Version 1.9.34	<ul style="list-style-type: none"> <li>- support of FETK Alias name</li> <li>- RP improvements for Roundtrip time with ES830</li> </ul> Bugfix: (601278 and 603463)
Version 1.10.17	Bugfix: - 603293: Higher current consumption - 604175: High jitter of DAQ packets
Version 1.10.26	Bugfix: - 627542: ECU reset with FETK in Sleep Mode - 630645 ECU reset after FETK in Deep Standby
Version 1.13.10	Bugfix - ETKF-1104: Prevent issues when switching between DAP modes - ETKF-1022: Added monitor variables for EDE ingress profiling - ETKF-1064: Increased data size of Trace-FIFO to 4 Kbyte
Version 1.14.19	Bugfix - ETKF-1206: Support CPLD Update FETK - ETKF-1016: Improve startup behavior of DAP
Version 1.16.37	ETKF-1264: DapIncreasedMaxwait ETKF-1250: Optimize job format of TEA device ETKF-1289: Disallow illegal DAP settings in hwcfg.lua ETKF-1367: Improve error handling in hwcfg.lua plugins

Delivery condition:

The FPGA version 1.16.37 will be programmed into all shipments

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## 6 Hardware Modifications

### 6.1 General remarks to this chapter

Hardware issues or obsolete parts can make it necessary to modify the population of the FETK. Information about the modifications is listed underneath. The hardware state starts with version **B010/01**. For the version syntax please refer to chapter 2.1.

### 6.2 Details of Change

#### *6.2.1 Change from hardware state B010 to hardware state B011*

Issue Identifier	Description
n/a	Milled Head Spreader was exchanged by die cast Heat Spreader

### 6.3 Hardware delivery condition

The hardware state **B011/01** will be delivered with all new shipments.



## 7 Abbreviations

ASCET-RP	Rapid Prototyping Software of ETAS
CPLD	<b>C</b> omplex <b>P</b> rogrammable <b>L</b> ogic <b>D</b> evice
ES891	MC hardware
FETK	Product (emulator test probe)
firmware	Software for MC hardware; necessary for implementation of new features or bug fixes
FPGA	<b>F</b> ield <b>P</b> rogrammable <b>G</b> ate <b>A</b> rray; interface component to the application hardware
Hot-fix	Software bug-fix for a refresh version
HS	<b>H</b> eat <b>S</b> preader
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
INCA	Measurement and Calibration Software of ETAS
INTECRIO	Rapid Prototyping Software of ETAS
MC	<b>M</b> easurement & <b>C</b> alibration
PCB	<b>P</b> rinted <b>C</b> ircuit <b>B</b> oard
RP	<b>R</b> apid <b>P</b> rototyping
SBB	<b>S</b> ervice <b>B</b> ased <b>B</b> ypass
tool-chain	MC hardware (e.g. ES690) and software (e.g. INCA)
XETK Configuration Tool	Configuration Software, in order to configure a (X)ETK / FETK