Customer Requirements

Content

General Requirement

This requirement describes the ISO14229 (UDS) requirements, which shall be fulfilled by the Transmission Control Unit (TCU).

In this document, the UDS requirements are refined.

CAN IDs

TCU Address	
0x7e1	TCU physical addressing
TCU Response	
0x7e9	TCU response

Note: In case of usage of incorrect CAN ID no response from TCU will be received.

Session availability in other session

	Default Diagnostic Session	Extended Diagnsotic session
Default Diagnostic session	x	x
Extended Diagnostic session	x	x

Service availability in default/extended session

Service		defaultSession	non-defaultSession
0x10	**DiagnosticSessionControl**	x	x
0x11	**ECUReset**	x	x
0x22	**ReadDataByIdentifier**	x	x
0x27	**SecurityAccess**	not applicable	x
0x28	**CommunicationControl**	not applicable	x
0x3E	**TesterPresent**	x	x

Supported Data Identifiers for Read Data By Identifier (0x22) service

DID [hexa]	Purpose	Data length (bytes)
0x0100	Warning Summary	16
0x0108	Sensor Failure Type	4
0x010C	Pressure Sensor #1	2
0x010D	Pressure Sensor #2	2
0x0120	Input Speed Sensor	16
0x0155	Primary Fault Storage	40
0xF180	Output Speed Sensor	16
0xF190	Freeze Frame Storage	17
0xF197	Extended Freeze Frame Storage	10

Security Access – key generation requirement

To generate appropriate key from the given seed, the following method shall be applied:

```
Pseudo code

secret_key = 0x02 54 10 87;

function seca_key_calculation(seed[], secret_key)
{
        key = (secret_key xor (seed[0] shift to left with 16)) + (secret_key xor seed[1]);
        return key;
}
```