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1 Introduction

This document specifies the IQRF DALI standard. The ID of this standard is 0x4A. The standard is implemented using one DPA peripheral with two [DPA commands](#) and one [FRC command](#).

All values wider than one byte are encoded using little-endian style unless otherwise specified.

2 DPA Commands

The standard uses peripheral PNUM = 0x4A (stands for DALI where D is the 4th letter of the alphabet).

2.1 Send DALI Commands - 0x00

PCMD = 0x00

Sends specified DALI command(s) to the DALI-bus and returns respective answer(s) of the DALI commands.

Request

NADR	PNUM	PCMD	HWPID	0 ... 1	...	n × 2 ... n × 2 + 1
NADR	0x4A	0x00	0xXXXX	DALI #0		DALI #n

DALI #n The nth DALI command to send to the DALI-bus. The command is 2 bytes wide and it has the standard [DALI](#) format YAAAAAAS + DDDDDDDD (big endian).

Response

NADR	PNUM	PCMD	HWPID	ErrN	DpaValue	0 ... 1	...	n × 2 ... n × 2 + 1
NADR	0x4A	0x80	0xXXXX	0	?	Answer #0		Answer #n

Answer #n 2 bytes wide answer to the nth DALI command. 1st byte contains DALI answer status, 2nd byte contains the answer value, if applicable:

1 st byte = Answer status								2 nd byte = Value	
bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0	Status	
1	x	x	x	x	x	0	0	No DALI answer received	0
1	x	x	x	x	x	0	1	DALI answer received	DALI answer value
1	x	x	x	x	x	1	0	<i>unused status combination</i>	n/a
1	x	x	x	x	x	1	1	Error receiving DALI answer	0

^x reserved, equals 0.

2.2 Send DALI Commands Asynchronously - 0x01

PCMD = 0x01

Same as [Send DALI Commands](#) but does not return DALI answers in the DPA response as this DPA command returns DPA response immediately and the provided DALI commands are sent to the DALI-bus afterward. During sending DALI commands to the DALI-bus the device is blocked from the IQRF network point of view. The DALI answers are received but ignored. The command provides a quick response in the terms of the short IQRF latency at the cost of not returning a DALI answer(s).

3 FRC Commands

3.1 Send DALI - 0xE0

Returns 2 bytes wide DALI answer to the provided DALI command.

FRC user-data has the following format:

UserData[0]	0x4A (equals to the PNUM).
UserData[1...2]	DALI command to send to the DALI-bus and to return the DALI answer of. See DALI #n parameter at the DPA request of Send DALI Commands for the DALI command format.
UserData[3]	Reserved. Must equal to 0.

Returned 2 bytes wide FRC value having the same format as the Answer #n parameter at the DPA response of [Send DALI Commands](#).

The FRC response time reported by [FRC Response Time](#) is 40 ms.

4 Examples

ToDo