8.3.5.19 OUT

OUT EasyDMA channel

8.3.5.19.1 OUT.PTR

Address offset: 0x538

Output pointer

Bit number					31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0		
ID					A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A A		
Reset 0x00000000					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
ID	R/W	Field	Value ID	Value	Description		
A	RW	PTR			Output pointer		

8.3.5.19.2 OUT.AMOUNT

Address offset: 0x53C

Number of bytes transferred in the last transaction

Bit number					31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0		
ID					A A A A A A A A		
Reset 0x00000000					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
ID	R/W	Field	Value ID	Value	Description		
A	R	AMOUNT		[1..255]	Number of bytes written to memory after triggering the START task. Each resolved IRK index uses two bytes.		

8.4 CCM — AES CCM mode encryption

Counter with cipher block chaining - message authentication code (CCM) mode is an authenticated encryption algorithm designed to provide both authentication and confidentiality (encryption/decryption) during data transfer.

The main features of CCM are:

- Memory-to-memory packet encryption and decryption operations using Scatter/Gather DMA
- Support for Bluetooth requirements and algorithm as defined in IETF RFC3610
- Support for IEEE 802.15.4
- Concurrent operation with RADIO

AES CCM combines counter (CTR) mode encryption and cipher block chaining - message authentication code (CBC-MAC) authentication. The CCM terminology message authentication code (MAC) is called message integrity check (MIC) in *Bluetooth* terminology, and also in this document.

Figure 44: CCM Overview

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