

Application Note



UCODE EPC 1.19

IMPLEMENTATION of EPC TAG DATA on UCODE EPC 1.19

Application Note

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Revision 1.2

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IMPLEMENTATION OF EPC TAG DATA ON U•CODE EPC 1.19

1 INTRODUCTION

1.1 Scope

This document describes the Memory organisation and the mapping of EPC numbers into the UCODE EPC 1.19.

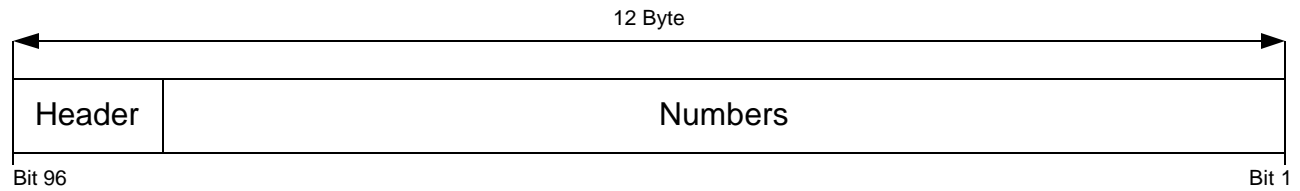
1.2 General Description

The schemes of the EPC number memory mapping are based on the EPCglobal® document '***EPC™ Tag Data Standards Version 1.1 Rev. 1.24***' from April 1st 2004.

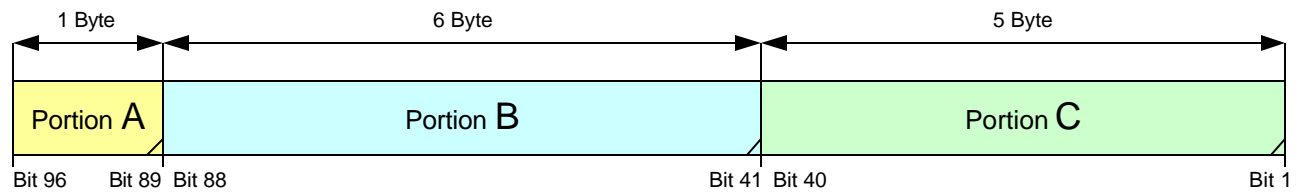
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2 EPC™ TAG DATA MEMORY MAPPING

2.1 General Structure of 96 Bit EPC number



2.1.1 SEPERATION OF 96 BIT EPC DATA STRUCTURE FOR UCODE EPC 1.19



2.1.2 MAPPING OF 96 BIT EPC DATA STRUCTURE INTO UCODE EPC 1.19 MEMORY

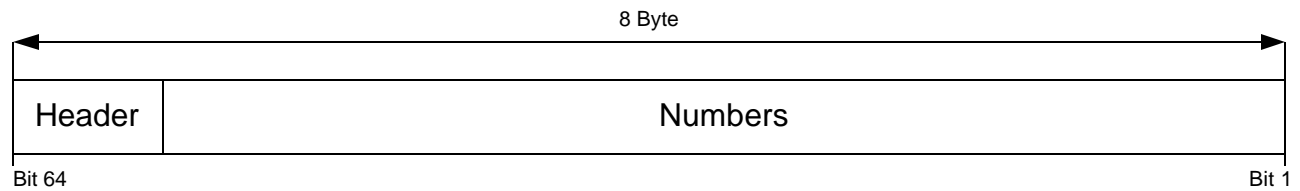
Byte	00 _{hex}	01 _{hex}	02 _{hex}	03 _{hex}	04 _{hex}	05 _{hex}	06 _{hex}	07 _{hex}
memory content	EF _{hex}	04 _{hex}	Portion A	Portion C				
Byte	10 _{hex}	11 _{hex}	12 _{hex}	13 _{hex}	14 _{hex}	15 _{hex}	16 _{hex}	17 _{hex}
memory content	Portion B						Partition value	Filter value
							0000 0ppp _{bin}	0000 0fff _{bin}

ppp ... containing a copy of the 3 Bit Partition value for selection possibility if a partition exists, otherwise ppp shall be 000_{bin}

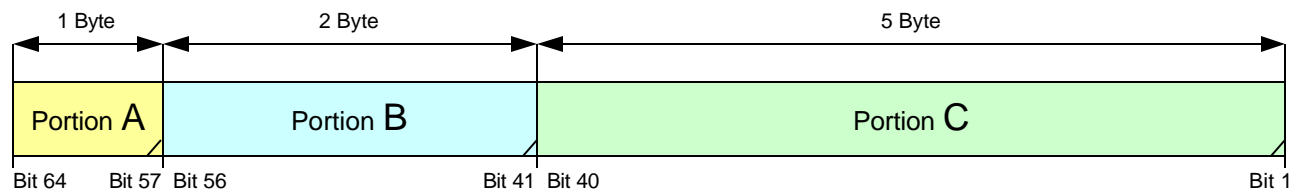
fff ... containing a copy of the 3 Bit Filter value for selection possibility if a filter exists, otherwise fff shall be 000_{bin}

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2.2 General Structure of 64 Bit EPC number



2.2.1 SEPARATION OF 64 BIT EPC DATA STRUCTURE FOR UCODE EPC 1.19



2.2.2 MAPPING OF 64 BIT EPC DATA STRUCTURE INTO UCODE EPC 1.19 MEMORY

Byte	00 _{hex}	01 _{hex}	02 _{hex}	03 _{hex}	04 _{hex}	05 _{hex}	06 _{hex}	07 _{hex}
memory content	EF _{hex}	04 _{hex}	Portion A	Portion C				
Byte	10 _{hex}	11 _{hex}	12 _{hex}	13 _{hex}	14 _{hex}	15 _{hex}	16 _{hex}	17 _{hex}
memory content	Portion B		0000 0000 _{bin}	0000 0000 _{bin}	0000 0000 _{bin}	0000 0000 _{bin}	0000 0000 _{bin}	Filter value
								0000 fff _{bin}

fff ... containing a copy of the 3 Bit Filter value for selection possibility if a filter exists, otherwise **fff** shall be 000_{bin}

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3 PRESELECTION ON FILTER VALUE

The UNSELECT_NE command can be used to make a pre-selection on the 3 Bit filter value if used subsequent to the SELECT command. The following example shows the command sequence for such a pre-selection.

Command sequence:

PREAMBLE	Command	ADDRESS	BYTE_MASK	WORD_DATA	CRC
	05 _{hex}	10 _{hex}	01 _{hex}	00 _{hex} 00 _{hex} 00 _{hex} 00 _{hex} 00 _{hex} 00 _{hex} 00 _{hex} 0000 0fff _{bin}	CRC

Response sequence in case of matching filter value:

RETURN PREAMBLE	SNR	CRC
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4 DEFINITIONS

Data sheet status	
Objective specification	This data sheet contains target or goal specifications for product development.
Preliminary specification	This data sheet contains preliminary data; supplementary data may be published later.
Product specification	This data sheet contains final product specifications.
Limiting values	
Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics section of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.	
Application information	
Where application information is given, it is advisory and does not form part of the specification.	

5 LIFE SUPPORT APPLICATIONS

These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Philips customers using or selling these products for use in such applications do so on their own risk and agree to fully indemnify Philips for any damages resulting from such improper use or sale.

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