

ISO 22642 :2005-07 (E)

Space data and information transfer systems_ - TC (telecommand) synchronization and channel coding

CONTENTS

<u>Section</u>	<u>Page</u>
1 INTRODUCTION	1-1
1.1 PURPOSE.....	1-1
1.2 SCOPE.....	1-1
1.3 APPLICABILITY.....	1-1
1.4 RATIONALE.....	1-1
1.5 DOCUMENT STRUCTURE.....	1-2
1.6 CONVENTIONS AND DEFINITIONS.....	1-2
1.7 REFERENCES.....	1-4
2 OVERVIEW	2-1
2.1 ARCHITECTURE.....	2-1
2.2 SUMMARY OF FUNCTIONS.....	2-1
2.3 INTERNAL ORGANIZATION OF SUBLAYER.....	2-3
3 BCH CODING	3-1
3.1 INTRODUCTION.....	3-1
3.2 CODEBLOCK FORMAT.....	3-1
3.3 ENCODING PROCEDURE.....	3-1
3.4 FILL BITS.....	3-2
3.5 DECODING PROCEDURE.....	3-3
4 COMMUNICATIONS LINK TRANSMISSION UNIT	4-1
4.1 INTRODUCTION.....	4-1
4.2 CLTU UNIT FORMAT.....	4-1
4.3 CLTU RECEPTION LOGIC.....	4-2
5 RANDOMIZER	5-1
5.1 INTRODUCTION.....	5-1
5.2 RANDOMIZER DESCRIPTION.....	5-1
5.3 APPLICATION OF THE RANDOMIZER.....	5-2
6 PHYSICAL LAYER OPERATIONS PROCEDURES	6-1
6.1 INTRODUCTION.....	6-1
6.2 DATA FORMATS.....	6-1
6.3 CARRIER MODULATION MODES.....	6-2
6.4 PLOP-1.....	6-2

CONTENTS (continued)

<u>Section</u>	<u>Page</u>
6.5 PLOP-2	6-3
7 MANAGED PARAMETERS	7-1
7.1 OVERVIEW OF MANAGED PARAMETERS	7-1
7.2 MANAGED PARAMETERS FOR BCH CODING	7-1
7.3 MANAGED PARAMETERS FOR CLTU	7-1
7.4 MANAGED PARAMETERS FOR THE RANDOMIZER	7-2
7.5 MANAGED PARAMETERS FOR PLOPS	7-2
ANNEX A ACRONYMS AND TERMS	A-1
ANNEX B INFORMATIVE REFERENCES	B-1
ANNEX C SERVICE DEFINITION	C-1
ANNEX D CHANGES FROM REFERENCE [B2]	D-1

Figure

1-1 Bit Numbering Convention.....	1-4
2-1 Relationship with OSI Layers.....	2-1
2-2 Internal Organization of the Sublayer at the Sending End	2-3
3-1 BCH Codeblock Format	3-1
3-2 (63,56) Modified BCH Code Generator	3-2
4-1 Components of the CLTU.....	4-1
4-2 CLTU Reception State Diagram (Receiving End)	4-2
5-1 Bit Transition Generator Logic Diagram.....	5-2
6-1 Sequence of CMMs Composing PLOP-1	6-3
6-2 Sequence of CMMs Composing PLOP-2	6-4

Table

4-1 CLTU Reception States (Receiving End).....	4-3
4-2 CLTU Reception Events (Receiving End)	4-4
6-1 Carrier Modulation Modes	6-2
7-1 Managed Parameters for BCH Coding	7-1
7-2 Managed Parameters for CLTU.....	7-1
7-3 Managed Parameters for Randomizer.....	7-2
7-4 Managed Parameters for PLOPs.....	7-2
D-1 Terms That Have Been Changed from Reference [B2].....	D-2