



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**G.8040/Y.1340**

**Amendment 1**  
(01/2005)

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GFP frame mapping into Plesiochronous Digital  
Hierarchy (PDH)

**Amendment 1**

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# **ITU-T Recommendation G.8040/Y.1340**

## **GFP frame mapping into Plesiochronous Digital Hierarchy (PDH)**

### **Amendment 1**

#### **Summary**

This amendment changes the specification of frame formats from nibbles to octets.

#### **Source**

Amendment 1 to ITU-T Recommendation G.8040/Y.1340 (2004) was approved on 13 January 2005 by ITU-T Study Group 15 (2005-2008) under the ITU-T Recommendation A.8 procedure.

## FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

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GFP frame mapping into Plesiochronous Digital Hierarchy (PDH)

Amendment 1

Modify clause 6.3 as follows:

6.3 Mapping into  $N \times 44\ 736$  kbit/s

6.3.1 Frame format

The multiframe format at 44 736 kbit/s, as described in ITU-T Rec. G.704, shall be used. As illustrated in Figure 6-3, each 44 736 kbit/s subframe (M-subframe) contains 672 bits, which may be regarded as ~~168 nibbles, with 21 nibbles between each frame overhead bit position.~~ 84 octets, with octets #11, #32, #53 and #74 straddling the F1, F2, F3, and F4 bits, respectively. The first octet (two nibbles) following the first framing bit (X1) of the multiframe is used to carry the concatenation overhead, as defined in ITU-T Rec. G.7043/Y.1343 and illustrated in Figure 6-4. This octet is reserved for all values of  $N$ , ( $N = 1 \dots 168$ ).

~~GFP octets are mapped into the nibbles of the subframe with the GFP octet boundaries corresponding to a nibble boundary. At the receiver, the GFP frame delineation must be performed for each of the two possible nibble alignments of the octets in order to identify the proper alignment. Individual GFP frames can cross subframe boundaries, as illustrated in Figure 6-4. This mapping is similar to the HEC based mapping of ATM into 44 736 kbit/s signals described in ITU-T Rec. G.804, which also uses an octet to nibble mapping.~~

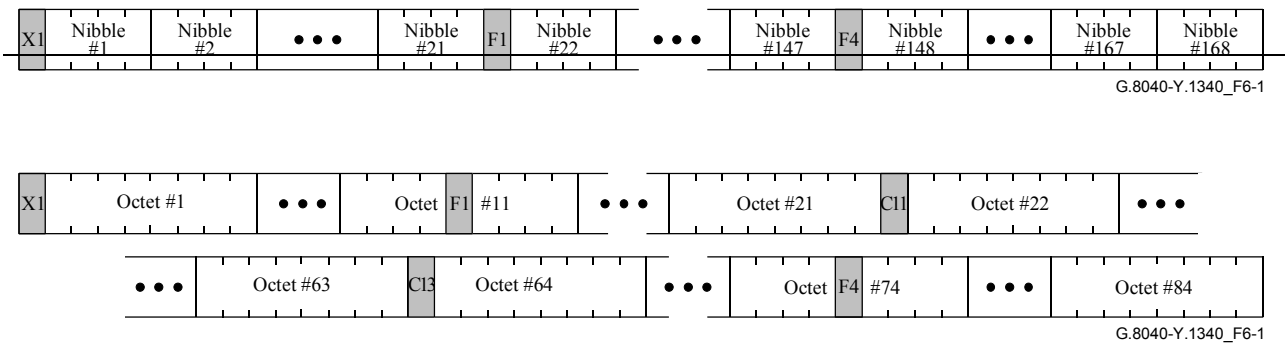


Figure 6-3/G.8040/Y.1340 — ~~Nibble~~ Octet structure for the 44 736 kbit/s signal subframe



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