

8. Revisions proposed to Recommendation 0.162

Change the existing title to:

"EQUIPMENT TO PERFORM IN SERVICE MONITORING ON 2048 KBIT/S SIGNALS"

Change § 1.1 to read:

"1.1 This specification describes an instrument for performing in-service error tests on 2 Mbit/s signals having frame structures that are in accordance with Recommendation G.704 [1]."

Introduce new §§ 1.4 and 1.5 as follows:

"1.4 The instrument is required to monitor any Cyclic Redundancy Check (CRC) Procedure signals, in accordance with Recommendation G.704 [1], conveyed within the frame alignment signal, and time slot 0 (TSO) of frames not containing the frame alignment signal.

1.5 As an option the instrument may provide access to the information bits conveyed in any selected time slot."

Renumber existing § 1.4 to "1.6 HDB3 Decoding Strategy".

Change the references to Recommendation G.732 in §§ 3.3.3.1 and 3.3.3.2 to Recommendation G.706".

Add the following note after § 3.3.3.2:

"Note - The instrument shall be able to synchronize to frames with or without CRC bits."

Change the term "error rate" to: "binary error rates" in § 3.3.4.1 (three times) and in Table 1/0.62 (two times).

Introduce the following new section 3.4 in the Recommendation:

"3.4 Cyclic redundancy check procedure

3.4.1 Where a Cyclic Redundancy Check (CRC) procedure in accordance with Recommendation G.704 [1] is implemented within the 2 Mbit/s signal the instrument shall provide the features detailed in §§ 3.4.2, 3.4.3 and 3.4.4.

3.4.2 The instrument shall indicate the presence of CRC framing bits.

3.4.3 The instrument shall have a means of indicating binary error ratios of 1×10^{-5} , 1×10^{-6} and 1×10^{-7} and shall cause the appropriate indicator to be illuminated under the conditions defined.

The indication of binary error ratios occurring in the received decoded signal and detected by means of the CRC procedure information shall comply with the limits given in Table 2/0.162.

TABLE 2/0.162

Binary error ratio indication	Average binary error ratio in decoded signal	Probability of indication illuminating or extinguishing within the periods stated below	
		Illuminate	Extinguish

	1×10^{-5}	50% within 1s	5% within 1s		1×10^{-5}	5×10^{-6}
		1×10^{-6}	-	95% within 1s		
	1×10^{-6}	50% within 10s	5% within 10s			
	5×10^{-7}	5% within 10s	-			
	1×10^{-7}	-	95% within 10s			
	1×10^{-7}	50% within 100s	5% within 100s		1×10^{-7}	5×10^{-8}
	1×10^{-8}	-	95% within 100s			

3.4.4 It shall also be possible to count the sum of the errors indicated. The count capacity shall be 99 999. A separate indication shall be given if the count exceeds this figure."

Renumber the existing § 3.4 to "3.5 Code violation detection"

Introduce a new § 3.6 as follows:

"3.6 Performance indications

As an option the instrument shall be capable of providing performance information in accordance with G.821 - Under Study".

Renumber the existing § 3.5 to "3.7 Lamp look - Lamp auto reset".

Introduce a new § 3.8 as follows:

"3.8 Time slot access

As an option it shall be possible to access, at an external interface, the contents of any selected time slot, including TS16. An external interface meeting the requirements of a co-directional interface, as defined in Recommendation G.703 [2], is preferred."

Introduce a new § 4.2 as follows and renumber the existing § 4.2 to "§ 4.3":

"4.2 References to counters and displays being illuminated and extinguished does not imply that "light emitting" displays are essential".

Replace the existing sections 6 and 7 by the following ones:

"6. Alarm output signal

As an option, an interface shall be provided to enable an external device, e.g. printer, to be connected to the instrument to allow recording of the status of the digital signal input to the instrument.

An interface in accordance with Recommendation V.24/V.28, carrying suitably abbreviated, plain text messages in ASCII/T.50 coded format according to the requirements of Recommendation V.4 is preferred.

7. Operating environment

The electrical performance requirements shall be met when operating within the climatic conditions specified in Recommendation 0.3."

Delete the existing Tables 2/0.162 and 3/0.162 from the Recommendation.
