



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

R.51 *bis*

TELEGRAPHY

TELEGRAPH TRANSMISSION

**STANDARDIZED TEXT FOR TESTING THE
ELEMENTS OF A COMPLETE CIRCUIT**

ITU-T Recommendation R.51 *bis*

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation R.51 *bis* was published in Fascicle VII.1 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Recommendation R.51 bis

STANDARDIZED TEXT FOR TESTING THE ELEMENTS OF A COMPLETE CIRCUIT

(Geneva, 1980 and Malaga-Torremolinos, 1984, amended at Melbourne, 1988)

The CCITT,

considering

(a) that, for testing telegraph transmission equipment it is advisable to standardize the wording of the text that should be transmitted for the test;

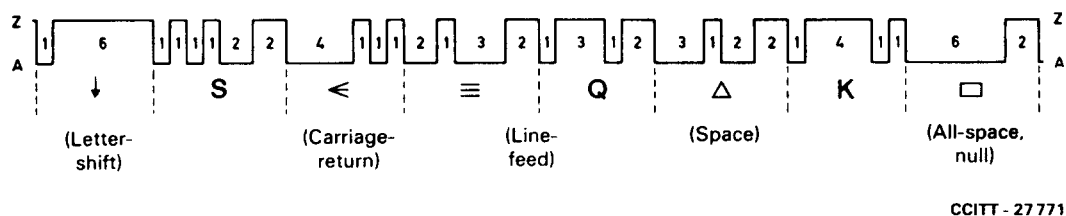
(b) that the text should form a short repetitive test message suitable for conducting routine tests on circuits that include code-dependent channels (International Telegraph Alphabet No. 2) and/or code-independent channels;

(c) that it is best to choose a text that can be received directly by start-stop equipment and that also presents a sequence of the combinations recognized as those that generally cause the maximum distortion;

(d) that the text should contain an equal number of unit elements of each binary condition and that it should be suitable for start-stop or isochronous measurement of distortion when used with code-independent transmission equipment,

unanimously declares the view

(1) that the text to transmit in the course of tests on telegraph transmission equipment should be as shown in Figure 1/R.51 bis;



Note – The stop element length alternates between 1 unit interval and 2 unit intervals on successive characters.

FIGURE 1/R.51 bis
QKS test message

(2) that when equipment capable of generating the foregoing text is not available, it is acceptable to use the text given in Recommendation R.51 for testing code-independent systems only.

Note 1 – Test equipment capable of generating the text in Figure 1/R.51 bis should also be capable of generating 1:1, 2:2, 1:6 and 6:1 patterns for testing code-independent systems only (see § 2 in Recommendation R.51).

Note 2 – Start-stop predistortion may be introduced (on an optional basis) to QKS signals by shortening or lengthening the start elements of alternate characters. The first character of each cycle (combination No. 29, letter-shift) will have a shortened start element. After predistortion is applied, the nominal duration of each character will be maintained as shown in Figure 1/R.51 bis by means of complementary changes in the stop element lengths.