



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**Q.122**

**SPECIFICATIONS OF SIGNALLING SYSTEM No. 4**

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**SIGNAL SENDER**

**ITU-T Recommendation Q.122**

(Extract from the *Blue Book*)

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## NOTES

1 ITU-T Recommendation Q.122 was published in Fascicle VI.2 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 Q.122

### 3.1 SIGNAL SENDER<sup>1)</sup>

#### 3.1.1 *Signalling frequencies*

The signalling frequencies shall be:

$2040 \pm 6$  Hz ("x" frequency); and

$2400 \pm 6$  Hz ("y" frequency),

these frequencies being applied separately or in combination.

#### 3.1.2 *Absolute power level transmitted*

The absolute power level of the unmodulated signal frequencies at a zero relative level point shall be -9 dBm with a tolerance of  $\pm 1$  dB.

These levels also apply to each signal frequency in a signal element made up of a combination of the two frequencies (compound signal element) but the two signalling frequencies making up such a signal must not differ in level by more than 0.5 dB.

*Note 1* - The noise as measured at the output of the line signal sender shall be as low as practicable, but in any event, at least 40 dB below signal level. This noise includes all extraneous power in the frequency band between 300 Hz and 3400 Hz including power resulting from non-linear distortion of the signal.

*Note 2* - The level of the leak current which might be transmitted to line, for example when static modulators are used for signal transmission, should be at least 50 dB below signal level per frequency.

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<sup>1)</sup> See also Recommendation Q.112.