



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.450

**SPECIFICATIONS OF SIGNALLING SYSTEM R2
INTERREGISTER SIGNALLING
MULTIFREQUENCY SIGNALLING EQUIPMENT**

GENERAL

ITU-T Recommendation Q.450

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation Q.450 was published in Fascicle VI.4 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.

4.4.1 GENERAL

Since System R2 can provide, in international working, end-to-end signalling from the outgoing international R2 register to an incoming R2 register at the called subscriber's local exchange (see Recommendation Q.440), the specifications for multifrequency signalling equipment take account of transmission conditions in both the international and national networks. The incoming national network may include both 4-wire and 2-wire links.

However, it is assumed in the following specifications for multifrequency signalling equipment for outgoing international R2 registers and incoming R2 registers in international exchanges including the incoming international exchange that the registers are directly connected by four wires to the virtual switching points of the links. The registers thus contain a multifrequency signalling equipment with a transmitting part and a receiving part, each separately connected to the GO and RETURN path of the 4-wire circuit respectively (see Figure 16/Q.451).

When the outgoing international R2 register is situated in a national exchange preceding the outgoing international exchange, or when the incoming R2 register is situated in a national exchange following the incoming international exchange, special conditions apply (see Recommendation Q.457).

The upper and lower limits specified for the sending level and for the national extension attenuation leave a degree of freedom, thus simplifying the problem of interworking among different networks. The outgoing international R2 register relays the interregister signals by the method described in Recommendation Q.478. The present specification ensures that the system has an adequate range.