



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

G.334

INTERNATIONAL ANALOGUE CARRIER SYSTEMS INDIVIDUAL CHARACTERISTICS OF INTERNATIONAL CARRIER TELEPHONE SYSTEMS ON METALLIC LINES

18 MHz SYSTEMS ON STANDARDIZED 2.6/9.5 mm COAXIAL CABLE PAIRS

ITU-T Recommendation G.334

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation G.334 was published in Fascicle III.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.

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18 MHz SYSTEMS ON STANDARDIZED 2.6/9.5 mm COAXIAL CABLE PAIRS

(Geneva, 1980)

Introduction

Amplifier design technique has made it possible to provide a usable band of about 18 MHz while still keeping the repeater spacing of about 4.5 km as defined in Recommendation G.332; the CCITT has therefore defined an 18 MHz system which offers a transmitting capacity of 3600 telephone channels in the case of pure telephone application. Alternatively, the system may be used for the transmission of up to two TV channels or one TV signal plus 1800 telephone channels. Another possibility is that the bandwidth above 12 435 kHz could be used for the provision of an 8448 kbit/s digital path.

1 Arrangement of line frequencies for telephony

The arrangement of line frequencies most suitable for the network of a particular Administration depends to a high degree on the organization of this network with respect to the interconnection with and through connection to the other systems existing in this network. On the other hand, it is very desirable to limit the number of different frequency plans for the 18 MHz system.

The CCITT therefore recommends that in any case one of the following three plans should be applied. However, in international connections between countries which use different modulation procedures (see Recommendation G.211) and in the absence of any special arrangements between the interested Administrations including, if necessary, the Administrations of transit countries, Plan 1 is to be preferred.

1.1 Frequency arrangement of Plan 1

Plan 1 uses the first modulation procedure described in Recommendation G.211.

The telephone channels should first be assembled into basic supermastergroups. The four supermastergroups are transmitted to line in accordance with the frequency arrangement of Figure 1/G.334.

Note - The arrangement of the supermastergroups No. 1, 2 and 3 is the same as in Plan 1A of the 12-MHz system (Recommendation G.332) and supermastergroup No. 4 corresponds to its arrangement in Plan 1 of the 60-MHz system (Recommendation G.333).

1.2 Frequency arrangement of Plan 2

This Plan uses the second modulation procedure described in Recommendation G.211.

The telephone channels should first be assembled into basic (No. 1) 15-supergroup assemblies. Four 15-supergroup assemblies are transmitted to line in accordance with the frequency arrangement shown in Figure 2/G.334.

Note - The arrangement of the 15-supergroup assemblies Nos. 1, 2 and 3 is the same as in Plan 2 of the 12 -MHz system (Recommendation G.332).

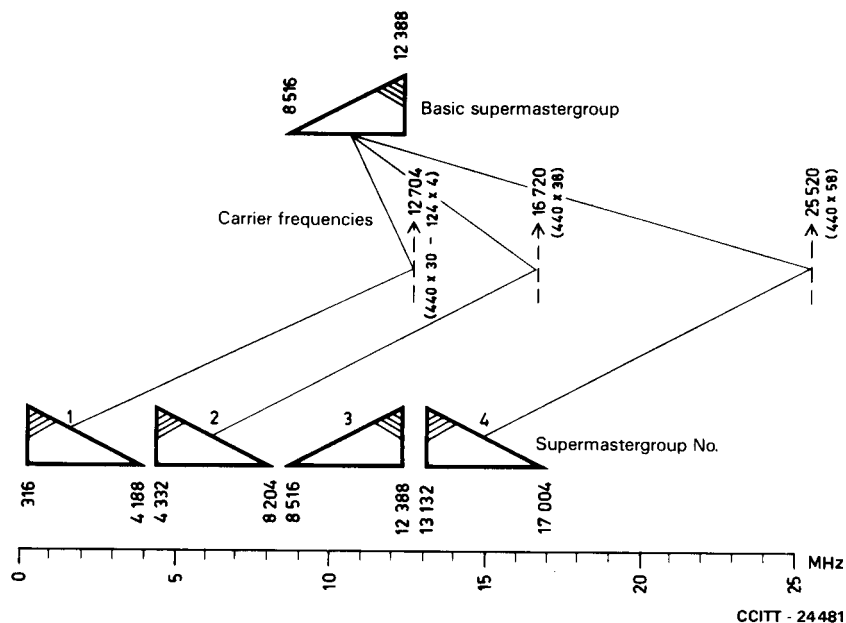


FIGURE 1/G.334

Plan 1 frequency arrangement for 18 MHz systems

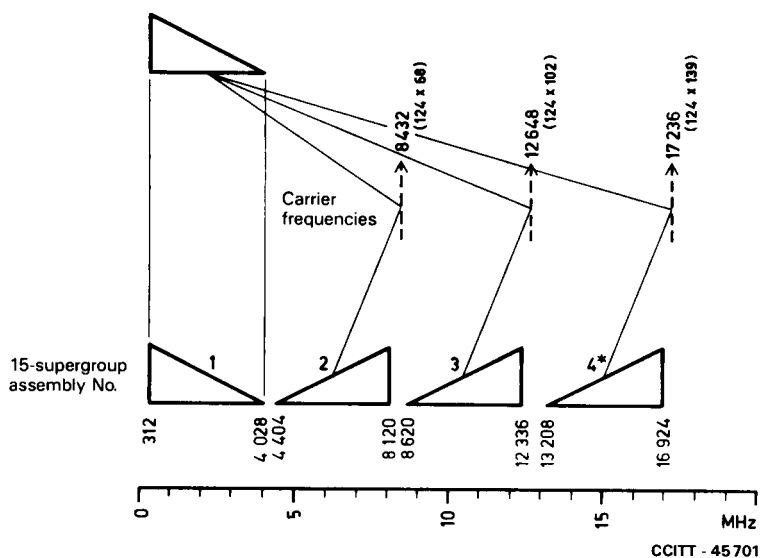


FIGURE 2/G.334

Plan 2 frequency arrangement for 18 MHz systems

1.3 Frequency arrangement of Plan 3

This Plan uses the first modulation procedure described in Recommendation G.211, but adds a further intermediate frequency position.

The telephone channels should first be assembled into basic supermastergroups. The four supermastergroups are then translated into the position of the supermastergroups Nos. 6-9 as in Plan 1 of the 60-MHz system (Recommendation G.333).