

RECOMMENDATION ITU-R F.392*,**

**HYPOTHETICAL REFERENCE CIRCUIT FOR RADIO-RELAY SYSTEMS
FOR TELEPHONY USING FREQUENCY-DIVISION MULTIPLEX
WITH A CAPACITY OF MORE THAN 60 TELEPHONE CHANNELS**

(1956-1959-1963)

The ITU Radiocommunication Assembly,

considering

- (a) that it is desired to establish hypothetical reference circuits for radio-relay systems, to afford guidance to the designers of equipment and systems for use in international telecommunication networks;
- (b) that hypothetical reference circuits for radio-relay systems should, as far as possible, be in agreement with the hypothetical reference circuits specified by the ITU-T for cable systems,

recommends

1. that a hypothetical reference circuit for frequency-division multiplex radio-relay systems, with a capacity of more than 60 telephone channels per radio-frequency channel, should be 2500 km long;

2. that this circuit should include, for each direction of transmission:
 - 3 sets of channel modulators,
 - 6 sets of group modulators,
 - 9 sets of supergroup modulators,it being understood that a “set of modulators” comprises a modulator and a demodulator;

3. that this circuit should include nine sets of radio modulators and demodulators respectively, for each direction of transmission, and that these should divide the circuit into nine homogeneous sections of equal length.

* This Recommendation applies only to line-of-sight and near line-of-sight radio-relay systems.

** Radiocommunication Study Group 9 made editorial amendments to this Recommendation in 2000 in accordance with Resolution ITU-R 44.

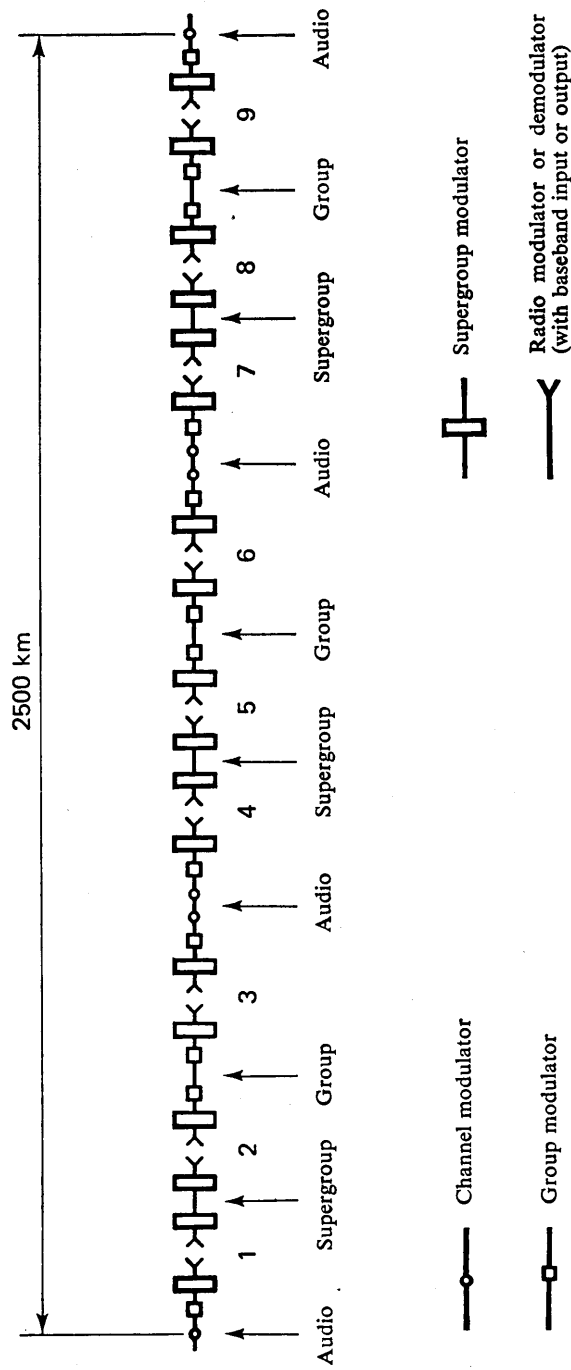


FIGURE 1

Hypothetical reference circuit for radio-relay systems using frequency-division multiplex with a capacity of more than 60 telephone channels per radio-frequency channel