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| **Recommendation ITU-R SM.1135-0**  **(10/1995)** |
| **SINPO and SINPFEMO codes** |
| **SM Series**  **Spectrum management** |

Foreword

The role of the Radiocommunication Sector is to ensure the rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services, including satellite services, and carry out studies without limit of frequency range on the basis of which Recommendations are adopted.

The regulatory and policy functions of the Radiocommunication Sector are performed by World and Regional Radiocommunication Conferences and Radiocommunication Assemblies supported by Study Groups.

# Policy on Intellectual Property Right (IPR)

ITU-R policy on IPR is described in the Common Patent Policy for ITU-T/ITU-R/ISO/IEC referenced in Resolution ITU-R 1. Forms to be used for the submission of patent statements and licensing declarations by patent holders are available from <http://www.itu.int/ITU-R/go/patents/en> where the Guidelines for Implementation of the Common Patent Policy for ITU‑T/ITU‑R/ISO/IEC and the ITU-R patent information database can also be found.

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| Series of ITU-R Recommendations  (Also available online at <http://www.itu.int/publ/R-REC/en>) | |
| **Series** | Title |
| **BO** | Satellite delivery |
| **BR** | Recording for production, archival and play-out; film for television |
| **BS** | Broadcasting service (sound) |
| **BT** | Broadcasting service (television) |
| **F** | Fixed service |
| **M** | Mobile, radiodetermination, amateur and related satellite services |
| **P** | Radiowave propagation |
| **RA** | Radio astronomy |
| **RS** | Remote sensing systems |
| **S** | Fixed-satellite service |
| **SA** | Space applications and meteorology |
| **SF** | Frequency sharing and coordination between fixed-satellite and fixed service systems |
| **SM** | **Spectrum management** |
| **SNG** | Satellite news gathering |
| **TF** | Time signals and frequency standards emissions |
| **V** | Vocabulary and related subjects |

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| ***Note***: *This ITU-R Recommendation was approved in English under the procedure detailed in Resolution ITU-R 1.* |

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RECOMMENDATION ITU-R SM.1135-0[[1]](#footnote-1)\*

SINPO and SINPFEMO codes

(1995)

Rec. ITU-R SM.1135

Scope

This Recommendation provides classification of reception quality according to SINPO and SINPFEMO coding.

Keywords

Reception quality, SINPO, SINPFEMO

The ITU Radiocommunication Assembly,

considering

a) that it would be advisable for all administrations to use the same signal reporting codes, and that the number of officially recognized codes must consequently be as restricted as possible;

b) that the abbreviations in the Q code are in general inadequate for obtaining a clear idea of the quality of a transmission;

c) that the SINPO code has been used for years by some administrations;

d) that the SINPO code gives a more accurate description of the transmission quality and is easy to use;

e) that the SINPFEMO code is derived from the SINPO code by adding three letters relating to special features of telephone transmissions and is easy to use;

f) that the information which is not included in the SINPO or SINPFEMO code may be transmitted satisfactorily by service message,

recommends

**1** that the SINPO and SINPFEMO codes given in Annex 1 shall be used by administrations.

ANNEX 1

SINPO and SINPFEMO codes

SINPO signal reporting code

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | S | I | N | P | O |
| Rating | Signal | Degrading effect of | | | Overall |
| scale | strength | Interference | Noise | Propagation disturbance | rating |
| 5 | Excellent | Nil | Nil | Nil | Excellent |
| 4 | Good | Slight | Slight | Slight | Good |
| 3 | Fair | Moderate | Moderate | Moderate | Fair |
| 2 | Poor | Severe | Severe | Severe | Poor |
| 1 | Barely audible | Extreme | Extreme | Extreme | Unusable |

SINPFEMO signal reporting code

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | S | I | N | P | F | E | M | O |
| Rating | Signal | Degrading effect of | | | Frequency | Modulation | | Overall |
| scale | strength | Interference | Noise | Propagation disturbance | of fading | Quality | Depth | rating |
| 5 | Excellent | Nil | Nil | Nil | Nil | Excellent | Maximum | Excellent |
| 4 | Good | Slight | Slight | Slight | Slow | Good | Good | Good |
| 3 | Fair | Moderate | Moderate | Moderate | Moderate | Fair | Fair | Fair |
| 2 | Poor | Severe | Severe | Severe | Fast | Poor | Poor or Nil | Poor |
| 1 | Barely audible | Extreme | Extreme | Extreme | Very fast | Very poor | Continuously over- modulated | Unusable |

*Special remarks:*

*a)* A signal report shall consist of the code word SINPO or SINPFEMO followed by a group of five or eight numerals, rating, respectively, the five or eight characteristics of the particular signal code.

*b)* The letter X shall be used instead of a numeral for characteristics not rated.

*c)* Although the code word SINPFEMO is intended for radiotelephony, it may be used for radiotelegraphy.

*d)* The overall rating for radiotelegraphy shall be as indicated in Tables 1 and 2.

TABLE 1

|  |  |
| --- | --- |
| Overall rating | Mechanized Operations |
| 5. Excellent | 4-channel time-division multiplex |
| 4. Good | 2-channel time-division multiplex |
| 3. Fair | Marginal single start-stop printer |
| 2. Poor | BKs, XQs and call signs readable |
| 1. Unusable | Unreadable |

TABLE 2

|  |  |
| --- | --- |
| Overall rating | Morse Operation |
| 5. Excellent | High speed |
| 4. Good | 100 wpm |
| 3. Fair | 50 wpm |
| 2. Poor | BKs, XQs and call signs readable |
| 1. Unusable | Unreadable |

*e)* The overall rating for telephony shall be as indicated in Table 3.

TABLE 3

|  |  |  |
| --- | --- | --- |
| Overall rating | Operating Condition | Quality |
| 5. Excellent  4. Good | Signal quality unaffected Signal quality slightly affected | Commercial |
| 3. Fair | Signal quality seriously affected; channel usable by operators or by experienced subscribers | Marginally commercial |
| 2. Poor  1. Unusable | Channel just usable by operators Channel unusable by operators | Not commercial |

1. \* Radiocommunication Study Group 1 made editorial amendments to this Recommendation in the years 2011 and 2019 in accordance with Resolution ITU-R 1. [↑](#footnote-ref-1)