

International Telecommunication Union

**ITU-R**  
Radiocommunication Sector of ITU

**Recommendation ITU-R SM.1135**  
(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.

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### Series of ITU-R Recommendations

(Also available online at <http://www.itu.int/publ/R-REC/en>)

Series	Title
<b>BO</b>	Satellite delivery
<b>BR</b>	Recording for production, archival and play-out; film for television
<b>BS</b>	Broadcasting service (sound)
<b>BT</b>	Broadcasting service (television)
<b>F</b>	Fixed service
<b>M</b>	Mobile, radiodetermination, amateur and related satellite services
<b>P</b>	Radiowave propagation
<b>RA</b>	Radio astronomy
<b>RS</b>	Remote sensing systems
<b>S</b>	Fixed-satellite service
<b>SA</b>	Space applications and meteorology
<b>SF</b>	Frequency sharing and coordination between fixed-satellite and fixed service systems
<b>SM</b>	<b>Spectrum management</b>
<b>SNG</b>	Satellite news gathering
<b>TF</b>	Time signals and frequency standards emissions
<b>V</b>	Vocabulary and related subjects

*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\*

**SINPO and SINPFEMO codes**

(1995)

**Scope**

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

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**

Rating scale	S	I	N	P	O
	Signal strength	Degrading effect of			Overall rating
		Interference	Noise	Propagation disturbance	
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

\* Radiocommunication Study Group 1 made editorial amendments to this Recommendation in 2011 in accordance with Resolution ITU-R 1-5.

## SINPFEMO signal reporting code

Rating scale	S	I	N	P	F	E	M	O
	Signal strength	Degrading effect of			Frequency of fading	Modulation		Overall rating
		Interference	Noise	Propagation disturbance		Quality	Depth	
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

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