

below that of the wanted signal shall not produce an output level higher than 30dB below the standard output.

14. Intermodulation—The receiver shall be operated with the bandwidth set to "intermediate", with an input wanted Class A2 signal at a level of 30 dB above 1µV at any frequency between 160 and 550 kHz, with the a.g.c. operating and with the audio gain control set for standard output. The a.g.c. shall then be rendered inoperative and the receiver adjusted for standard output without readjustment of the audio volume control. The wanted signal shall then be removed.

The simultaneous application of any two "interfering" signals, one of Class A1 and the other of Class A2, shall not produce an output exceeding standard output. Both interfering signals shall be at a level of 110dB above 1µV, and neither shall have a carrier frequency within 35 kHz of the wanted signal or, shall give an output greater than minus 20dB relative to the standard output when modulated and applied alone.

(2) The receiver shall be readjusted as in subclause (1) of this clause but with a wanted signal having a frequency between 280 and 550 kHz. The wanted signal shall then be removed.

15. Fidelity—At all frequencies of tune above 1500 kHz, the modulation-frequency response characteristic of the receiver with the bandwidth set to "wide", shall be within a range of 8dB for modulation frequencies between 300 and 3000 Hz. At frequencies above 3000 Hz the output should fall by at least 8 dB per octave.

For this test the level and modulation depth of the input signal shall be kept constant. The input signal may be any level and modulation depth, provided the output of the receiver does not exceed the standard output.

16. Non-linear Distortion—At all frequencies of tune above 1500 kHz with the a.g.c. switched on and the bandwidth set to "wide".

(a) With a Class A2 test signal at any level between 30 and 80 dB above 1µV, the total harmonic content of the audio-frequency output voltage shall not exceed 5 percent at any output not exceeding the standard output; and

(b) Without further adjustment of the receiver and with the test signal modulated to a depth of 80 percent, the total harmonic content of the audio-frequency output shall not exceed 10 percent.

17. Radiation—The receiver shall not, in normal service, produce a field exceeding 0.1µV/metre at a distance of 1 nautical mile. This shall normally, be regarded as satisfied if the following requirements are met:

The receiver shall be placed centrally in a screened earthed enclosure of dimensions at least 1.8 m cube. The earth terminal of the receiver shall be connected to the inside of the screen.

The aerial terminal shall be connected through an unshielded four turn rectangular search coil (of dimensions 30 cm square) and an unshielded lead to a resistive measuring instrument mounted outside the enclosure, having its other terminal earthed.

The headphones shall be connected.

The power measured by the measuring instrument shall not exceed 4×10^{-7} watts, irrespective of the resistance of the instrument or the adjustment of the receiver. At the discretion of the testing officer, the search coil may be moved during the test in any way provided it does not approach within 15 cm of the receiver case; or it may be short-circuited.

18. Tuning stability—After the receiver has been switched on for five minutes, the tune frequency shall not change in any further period of five minutes by more than that shown in column "A" in subclause (3) of this clause.

(2) For any change of ambient temperature of 5°C within

the range of 0°C to 50°C, applied after the receiver has remained switched on for one hour, the tune frequency shall not change by more than that shown in column "B" in subclause (3) of this clause.

(3) For a change of 5 percent in any one of the supply voltages to the receiver, or to a power supply unit associated therewith, the tune frequency shall not change by more than that shown in column "A" below:

Frequency	A	B
15 kHz - 160 kHz	50 Hz	150 Hz
(Greater than 160 kHz) - 1.5 MHz ..	3 parts in 10 ⁴	10 parts in 10 ⁴
(Greater than 1.5 MHz) - 28 MHz ..	1 part in 10 ⁴	3 parts in 10 ⁴

19. Tuning Control and Scale—(1) Means shall be provided to enable the operator to tune to any frequency in the same maritime mobile band within five seconds and to any other frequency in another maritime mobile band within 15 seconds.

(2) A tuning scale calibrated directly in frequency shall be provided.

(3) A logging scale or other approved means for the accurate resetting of tune of the receiver shall be provided. After the receiver has been switched on for 30 minutes, the resetting accuracy shall be within the tolerance specified in the table below:

Frequency Range	Resetting Error Hz
15 kHz - 20 kHz	Less than 40
(Greater than 20 kHz) - 160 kHz	Less than 300
(Greater than 160 kHz) - 1,500 kHz	Less than 2,500
(Greater than 1.5 MHz) - 4 MHz	Less than 4,000
(Greater than 4 MHz) - 28 MHz	Less than 8,000

(4) Unless the frequency is adjustable in steps of 100 Hz or less, a fine control, the knob of which shall be at least 5 cm in diameter, shall be provided. Backlash shall not cause an uncertainty of drive exceeding 1 degree, and a rotation of 1 degree shall not change the frequency of tune by more than the following amounts:

Frequency Range	Changes of Frequency Per Degree, Parts in 10 ⁴
15 kHz - 1,500 kHz	3
(Greater than 1.5 MHz) - 28 MHz	1

20. Heterodyne Note Stability—(1) For an input signal which is varied over the range 20 to 60 dB above the appropriate level specified in clause 8 of this Part of this Schedule, the frequency of a heterodyne note which is initially 1000 Hz shall not vary by more than 100 Hz. The automatic gain control shall be switched on.

(2) For all input levels within this range, it shall be possible to obtain a beat note of 200 Hz when tuning either towards or away from zero beat. The automatic gain control shall be switched on.

21. Listening-through—Means shall be provided for reducing the receiver sensitivity when the telegraph key is depressed, so as to permit listening-through at normal signalling speeds when an associated transmitter is operating in the same frequency band.