

(b) For frequencies above 4 MHz, a 75-ohm non-inductive resistor.

(2) A Class A2 test signal shall, unless otherwise specified, be modulated 30 percent at 1000Hz.

(3) The level of the open circuit voltage of the signal generator shall be regarded as the signal applied to the receiver under test.

6. Selectivity—(1) The selectivity preceding the final detector shall satisfy the following requirements and the "WIDE" and "NARROW" conditions shall be selected by a switch:

Bandwidth Condition	Wide	Narrow
Not more than 6 dB discrimination to be obtained at frequencies removed from tune by	4 kHz (Does not apply below 1,605 kHz)	1 kHz
At least 6 dB discrimination to be obtained at frequencies removed from tune by	—	2 kHz
At least 30 dB discrimination to be obtained at frequencies removed from tune by	10 kHz	7 kHz
At least 60 dB discrimination to be obtained at frequencies removed from tune by	20 kHz	20 kHz

(2) The image discrimination and intermediate frequency (i.f.) response ratios of superheterodyne receivers shall be not less than the following values:

Frequency of Wanted Signal	Image Discrimination
405–3,800 kHz	50 dB
4, 6, 8, and 12 MHz bands	30 dB
16 and 22 MHz bands	20 dB

Intermediate Frequency	Minimum i.f. Response Ratio
140–1,600 kHz	70 dB
Outside the above limits	50 dB

7. Sensitivity—The standard output levels shall be obtainable, at both bandwidth settings and with automatic gain control both on and off with inputs at the under-mentioned levels:

Frequency	Input for Class A1 Emissions	Input for Class A2 Emissions
405–535 kHz	30 dB above 1µV	40 dB above 1µV
1,605–3,800 kHz	20 dB above 1µV	30 dB above 1µV
4, 6, and 8 MHz bands	20 dB above 1µV	30 dB above 1µV
12, 16, and 22 MHz bands	30 dB above 1µV	40 dB above 1µV

8. Signal/Noise Ratio—With an input signal, either of Class A1 or A2, of the level specified in clause 7 of this Part of this Schedule and the receiver gain adjusted to give standard output, the signal/noise ratio shall not be less than the under-mentioned values, irrespective of the bandwidth setting:

Frequency Range	Minimum Signal/Noise Ratio
405–535 kHz	10 dB
1,605–3,800 kHz	20 dB
4, 6, and 8 MHz bands	20 dB
12, 16, and 22 MHz bands	25 dB

9. Automatic Gain Control—(1) The receiver shall be fitted with an automatic gain control capable of efficient operation on signals of Classes A2 and A3 at all frequencies in the ranges between 1605 kHz and 23 MHz.

(2) With an input signal of Class A2, at the appropriate level specified in section 7 and of any frequency within the ranges between 1605 kHz and 23 MHz, then—

(a) With the receiver adjusted to give standard output, an increase in input of 20 dB shall result in an improvement in the signal/noise ratio to a value at least 15 dB above the appropriate minimum signal/noise ratio specified in clause 8 of this Part of this Schedule; and

(b) With the receiver adjusted to give an output 10 dB below standard output, an increase in input of 50 dB shall not increase the output by more than 10 dB.

(3) Means shall be provided for switching off the automatic gain control. Such means may be combined with the functions of a service switch.

10. Blocking—(1) With the bandwidth set to "WIDE" and the automatic gain control switched on wherever available, the receiver shall be adjusted to give standard output with an input wanted signal of Class A2 at a level of 60 dB above 1µV and of any frequency in the ranges between 405 kHz and 23 MHz.

(2) The simultaneous application of a Class A1 input signal at a level of 90 dB above 1 µV, and at a frequency 20 kHz above or below that of the wanted signal, shall not cause a change in output exceeding 3 dB.

11. Cross Modulation—(1) The receiver shall be adjusted as described in clause 10 (1) of this Part of this Schedule and the modulation only of the signal then switched off.

(2) The simultaneous application of a Class A2 input signal at a level of 90 dB above 1µV, and at a frequency of 20 kHz above or below that of the wanted signal, shall not produce an output level higher than 20 dB below standard output.

12. Intermodulation—(1) The receiver shall be operated with the bandwidth set "WIDE" with an input wanted Class A2 signal at a level of 40 dB above 1µV at any frequency between 405 and 535 kHz, with the automatic gain control operating and with the audio gain control set for standard output. The automatic volume control 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.

(2) The simultaneous application of any two "Interfering" signal, one of Class A1 and the other of Class A2, shall not produce an output exceeding standard output. Both the interfering signals shall be at a level of 100 dB above 1µV, and neither shall be of such frequency as to give an appreciable output when modulated and applied alone.

13. Fidelity—At all frequencies of tune above 1605 kHz, the modulation-frequency response characteristic of the receiver, with the bandwidth set to "WIDE", shall be within a range of 8 dB for modulation frequencies between 300 and 3000 Hz.

14. Radiation—The receiver shall not, in normal service, produce a field exceeding 0.1µV/metre at a distance of 1 nautical mile. This will 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 unscreened four-turn rectangular search coil (of dimensions 30 cm square) and an unscreened lead, to a resistive measuring instrument mounted outside the enclosure and having its other terminal earthed.

The receiver shall be energised and the headphones connected. The power measured by the measuring instrument shall not exceed 4×10^{-7} watts no matter what the resistance of the measuring 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