

Icom IC-45E (70cm)

OUR OBSERVATIONS

0.16uV across the entire band

This the basic measure of sensitivity. Both sets are satisfactory when compared against other products in the same category although neither is particularly outstanding

13dB at +1.3kHz

These figures show that the receiver section is happiest operating just over 1kHz off frequency in each case. It's not too important but both sets could do with a slight tweak

0.55mV/0.6mV at 25 and 50kHz spacing

These figures indicate an Intermodulation performance (one measure of dynamic range) of just over 77dB for the IC-25E and 71dB for the IC-45E. Once again they are just about satisfactory although several mobiles operating from the same hilltop would almost certainly cause some problems when trying to copy weak signals. For instance, if you were listening on S20 and other stations within a few hundred yards were transmitting simultaneously on S21 and S22, there would be problems

66 and 68dB noted at 25kHz separation;
74 and 75dB noted at 50kHz separation

Satisfactory

2.3% total harmonic distortion

Satisfactory... perhaps a little more distortion than one might expect

1.6W for 10% distortion measured into 8 ohms

Satisfactory

0.45uV, 2.0uV, 3.0uV, 4.2uV

The S meter characteristic on both the 2m and 70cm sets is very poor. Ideally S meter response should require a 6dB signal increase per division. The meters in the review sets cramp everything into the first few microvolts and, as the testing lab says, are good only for signal detection

440mA, 530mA

OK

No problems were experienced with this set

We think that the problem of speaker rattle in the IC-25E was a one off problem associated with the review sample

Initially 200Hz error (not influenced by supply voltage) which drifted to -600Hz by the end of this test

These frequency errors are insignificant in the FM mode. Overall frequency accuracy excellent

Within 50Hz of repeater shift frequency

Comments as above

11.6W, 11.7W, 11.4W

Completely satisfactory

11.9W, 12.1W, 11.6W

Comments as above

2W

All aspects of TX operation were faultless. The output spectrum is exceptionally clean and the deviation control would meet a PMR specification. Very good

3A

2nd harmonic -63dB, 3rd harmonic -75 dB; no spurs detected at -75dB noise floor

Satisfactory

2nd and 3rd harmonics improved to -70 dB and -75dB respectively

5kHz maximum deviation

Accurate within 1Hz

Satisfactory

OUR CONCLUSIONS

These two sets from Icom certainly fulfil their intended application. Frankly we have not yet put enough sets through our testing procedure to make extended cost performance comparisons. With one or two reservations about receiver performance, we can otherwise say that they meet the manufacturer's specifications and should prove entirely satisfactory in service as a car mounted mobile rig.

They are compact, fairly easy to use and have enough facilities to function as a base station and the slight RX performance criticisms would be mostly un-noticable in practice. Reasonable value for money. G4JST

The review sets were provided by Thanet Electronics Ltd.

Prices are not available at the time of writing due to a downward fluctuation in the value of the pound. Check with Thanet for details.