

SMATV & IRS Networks – Design & Build

Suitability

This programme is for the experienced participant with a good basic knowledge of all aspects of terrestrial and satellite reception. This programme has been designed to support the practical assessment required for the SMATV & IRS Networks Distance Learning Course. To help decide if this course is suitable for your skill level check with the 'Should I attend' section at the bottom of this page.

Aims

This 2 day programme will equip the participants to design and build an IRS.

Objectives

On completing this programme the participants will be able to design, build and troubleshoot an IRS.

Content

- Revision of the Electromagnetic Spectrum.
- Revision of acceptable minimum and maximum signal parameters.
- Avoiding interference.
- Use of filters.
- Channel planning.
- Calculating losses and gains in a system.
- Different types of IRS.
- Power requirements.
- System design.
- System build.
- The importance of maintenance.
- Fault finding methods.
- Rectifying faults.

Learning Outcomes

By completing this programme each participant will be able to;

- Calculate signal losses and gains.
- Design and build an IRS.
- Diagnose and rectify faults in an IRS.

Learning Style

This programme is classroom based and contains theoretical and practical exercises. Each participant will design and build an IRS and find faults on pre-built systems. There will be written exercises on calculating signal losses in a system.

Assessment Method

The assessment method for this programme is by means of practical worksheets and multiple choice open book assessment paper with a pass mark of 65%.

Programme Duration

This programme is run over 2 days.

Costs

Member Rate £270

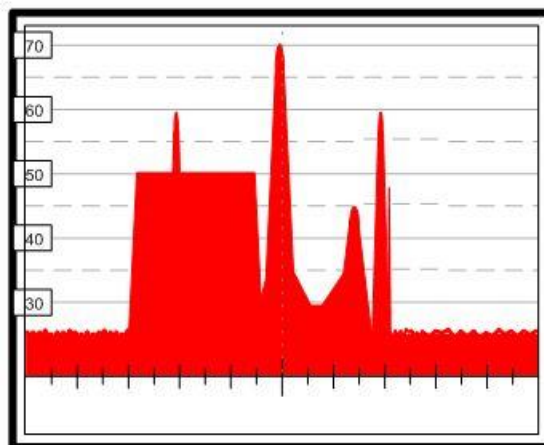
Non Member Rate £395

Free of charge for those on the CAI SMATV & IRS Networks Distance Learning Course.

Should I attend?

Please note that this programme does not cover aerial and dish selection, bracketry, cable routing, electrical safety and the use of meters as it is assumed that you will already have this knowledge, to have attended the other courses where these are covered. If you are not sure if this programme is suitable for you, truthfully attempt to answer the following questions.

1. Do you know how to calculate the intermediate frequency from the output of an LNB knowing the incoming frequency?
2. What are the local oscillator frequencies in a universal LNB?
3. What is the difference between a Quad and a Quattro LNB?
4. What does IRS stand for?
5. Do you know which transmitting platforms use COFDM and DQPSK?
6. Can you use a spectrum analyser?
7. What would you suspect to be the problem if a distributed SKY signal (in analogue) was grainy even though the level was OK?
8. What is TETRA and at what rough frequency is it transmitted?
9. In which polarisation is DAB transmitted?
10. If a DTT signal was breaking up and you saw the following picture on your spectrum display, what would you suspect?



If you could truthfully answer these questions you should be competent to attend this course. If not, then you may wish to attend an Introduction to IRS or the basic aerial and satellite courses. However, if you are studying the distance learning course you must complete this course in order to obtain your final certificate.