

# Television in communal buildings: a focus on innovative TV distribution via fibre optics



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<https://uk.ses-astra.com/firs>



## The challenge of digital

The transition to digital terrestrial television requires those in charge of communal buildings to find new equipment that ensures access to digital services. Protecting the collective interest while providing a future-proof solution is, therefore, a priority.

There is now a new solution for TV reception in communal housing based on two successful technologies: **fibre optics** and **satellite**. Indeed, satellite TV is available to every home in the UK and fibre enables fast and reliable signal transmission in multiple dwelling situations. This new solution is called a fibre integrated reception system (Fibre IRS).

This innovative system was developed by Global Invacom, has been tested and certified, and is designed to enhance buildings by removing the need for individual aerials and heavy cables. It was developed as a result of an SES Astra competition for manufacturers, schools and universities, and is now used extensively throughout Europe.

## Fibre IRS: a technical innovation

An IRS distributes the signals from communal antennas (usually hidden from view on the roof of a block or a central building on an estate) to every home in the system, providing each with access to digital satellite TV and radio, digital terrestrial TV, and FM and DAB radio.

The recent introduction of fibre-based integrated reception systems has allowed the use of a wider variety of configurations. In particular, fibre can carry signals over much longer distances than conventional copper cables. This means that large housing developments can utilize a single IRS, with substantial cost savings in the initial outlay, installation and maintenance.

The idea of creating an Optical Integrated Reception System was originally conceived by Global Invacom back in 2003. After several years of development in conjunction with SES Astra and BSkyB the Fibre IRS system was launched in June 2009.

The system is under constant review and in 2012 smaller components with significantly less power requirements are being introduced, allowing Global Invacom to lay claim to much "greener" credentials than similar systems. The new generation of equipment can feed up to 64 properties with satellite signals using the power of a single solar panel.

### Fibre IRS reception in communal housing:

- discreet installation: prevents the proliferation of satellite dishes
- means tenants don't depend on any operator
- is compatible with advanced technologies (HD, 3D) and is price competitive.

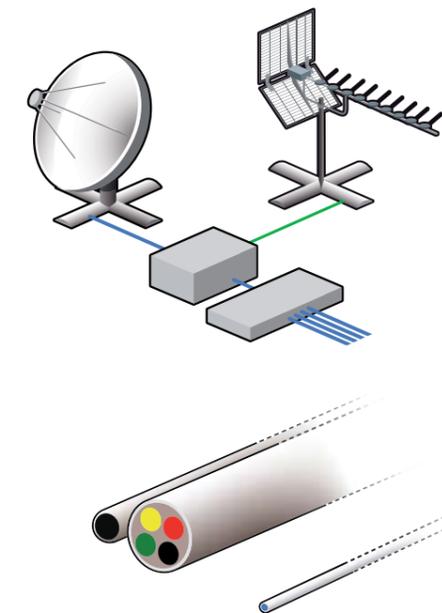


If they don't have access to an IRS, residents are likely to install their own antennas.

## Fibre-distributed television signals: a faster, more convenient, more economical and future-proof solution

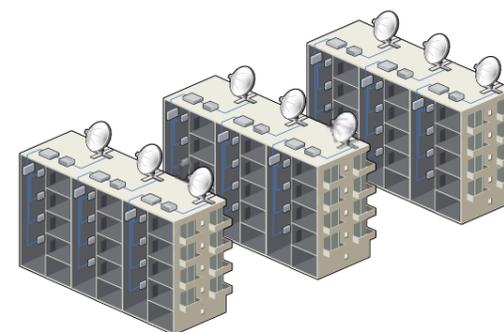
The assessment made by professionals is very positive:

1. Time saving: rapid deployment, less cable
2. Space saving in ducts
3. One single checkpoint for maintenance
4. Quality: signal carried further than copper, no costly installation of amplifiers
5. Cost effective: saves up to 30% compared to conventional copper installation
6. Diversity: fibre carries hundreds of digital channels, and terrestrial TV can be added on the same fibre
7. Latest technologies: access to HD and 3D for households with the right equipment
8. Progressive technology: dual-satellite solutions on a single fibre now available



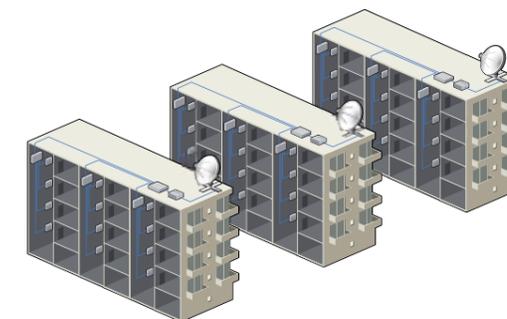
## An example of Fibre IRS installation

Global Invacom, the company that invented the concept of Fibre IRS, has installed this new fibre distribution system in a complex of three buildings in Paris, to demonstrate the robustness and benefits of the solution. The three buildings, within the same complex comprising 252 homes, were considered ideally suited for this new system. In fact, a conventional IRS would have resulted in costly works to accommodate additional cable entries and ducts as the existing duct network would have been too narrow for the passage of copper cables. The fibre optic installation required no changes to the roof sealing work and achieved the installation of digital TV via the ASTRA satellite in all 252 homes resulting in a saving of 30% compared to the costs associated with traditional systems.



Conventional IRS

- 3 buildings
- 252 flats
- 9 dishes
- 850 metres of cables
- 1100 connectors
- 232 labour hours
- 9 roof penetrations



Fibre IRS

- 3 buildings
- 252 flats
- 3 dishes
- 500 metres of cables
- 600 connectors
- 168 labour hours
- no additional roof penetration

# A few words from the expert

Ivan Horrocks, Sales & Marketing Director at Global Invacom Ltd - the company that invented the concept and has patents on the technology - explains why Fibre IRS is so successful:

"With the cost of copper on an ever increasing spiral and the seemingly unquenchable thirst for greater bandwidth piped into the home, Global Invacom Ltd believes there is considerable market potential for satellite and terrestrial distribution via fibre optics. Our expectations for Fibre IRS deployment are similar to those of the telecoms industry. It is not a case of if the existing copper networks should be replaced, it is just a matter of when."

"Gone are the days when a few analogue channels would suffice, today's technologically savvy families constantly demand more, and technologically advanced broadcasters, such as Sky, constantly strive to provide them with more. The challenge is the delivery method for community developments, of which one in five within the UK are currently connected."

"The problems lie within the distribution networks currently installed in communal dwellings; they simply cannot cope with the bandwidth that will be required

in the future. Global Invacom along with SES Astra, supported by Sky, Freesat, Digital UK and the CAI, have simply combined resources in an attempt to facilitate this necessary change."

How do end users and those in charge of communal housing feel about this product?

"Built environment professionals worldwide think alike, they embrace change with eager caution. Although renowned for staying at the cutting edge of technology, they do so with vigilance and consideration. So when we say that those who have tried the equipment are not only still using it, but are also designing it into their future developments, we know we have a real winner."

"Once the Fibre IRS equipment is installed, the end users are blissfully unaware of the advanced technology providing them with their satellite and terrestrial television. From their perspective they might as well be connected directly to their own antennas sitting outside on the balcony. They simply connect their set-top box to the optical converter and start receiving all the programming the broadcaster provides."

## Fibre IRS – Right for the residents

- same service/equipment/subscription choices as individual homes
- freedom to choose broadcast supplier and services
- multi-room possibilities
- homes are 'plug and play' for new residents
- wide range of TV and radio channels, free and pay
- access to HDTV, 3DTV and interactive services
- continuity of service through digital switchover
- choice of international and non-english channels

## Fibre IRS – Right for you

- no individual aerials and dishes on the property
- cost-effective solution
- time saving and easy to install
- residents' demands for digital services are fully satisfied
- future-proof, adds value for potential new residents
- no waterproofing necessary
- fewer cables than conventional copper installation
- one single checkpoint for maintenance
- energy saving: passive optical network



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