

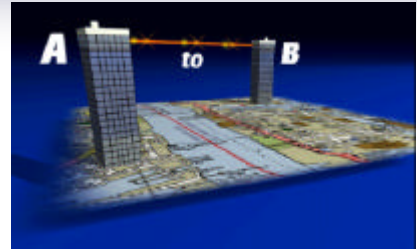
Cablefree Solutions Limited

Leaders in Free Space Optics

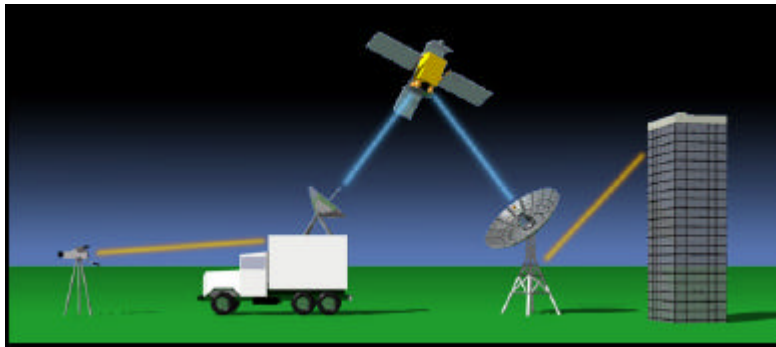
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Application Note No. 3 Cablefree connects to Satellite Uplinks



The Scenario:

Satellite uplinks and downlinks are frequently used for telecommunications and broadcast television applications where temporary connection has to be made – such as television news reporting and coverage of live sporting events.

In such applications the uplink may be a suitably equipped vehicle with line-of-sight coverage of the satellite orbit, or a permanently installed antenna which cannot be moved. The terrestrial problem is then connecting the source to the uplink terminal, and the downlink terminal to the recipient – this is traditionally performed with leased-line, fibre-optic, copper cable or microwave links – all of which have associated penalties.

Cablefree offers a new, high-performance alternative for the terrestrial links:

- **Cablefree** offers 622Mbps, compared with Microwave links typically 34Mbps
- Copper 270Mbps SDI connections limited to 300m, **Cablefree** offers 2,000m
- No site or frequency licenses required
- No leased-line rental or connection charges
- Deployment time is reduced compared to running long fibre or copper cables
- Wide range of data interfaces allows 'plug-in-and-go' for any format
- No risk of interference, signal reflections or airport radar systems
- No ignition hazard in flammable environments
- Mains or +12V battery power options
- Suited for permanent or temporary use
- Cost-effective solution

CableFree links to Satellite Television feeds

A classic television newsgathering operation requires live or near-real-time relay of events from around the world to a news desk often the opposite side of the planet. Whether from a disaster area, terrorist siege or war zone, time is of the essence. High-quality television signals need to be relayed from a camera to the satellite up-link, often when high-bandwidth network connections are unavailable locally or will take too long to organise.

Cablefree offers an ideal solution which carries high-quality analogue or uncompressed digital pictures with a system that can be rapidly deployed on tripods and powered from 12-volt batteries. With no need for frequency allocation or licensing, **Cablefree** can be deployed anywhere in the world and even used in war zones with no risk of interference with military communication systems.

Systems available:

Cablefree 622 for Composite or SDI connection up to 622Mbps, range up to 2km

Cablefree Access for SDH or PDH connectivity up to 155Mbps, range up to 4km

Cablefree Gigabit for 1.485Gbps HDTV up to 1000m

All systems can be tripod-mounted for mobile use, or permanently installed on buildings

Broadcast standards supported:

- SMPTE259 Serial Digital (SDI) D1 & D2 at 143, 177, 270, 360, 540Mbps
- Analogue Composite Video at 67dB SNR, 9MHz bandwidth
- E3/G703 34Mbps for compressed digital video relay
- ATM-155 / STM-1 at 155Mbps for networked video feeds
- Multi-channel composite and component video solutions available
- All industry-standard data networking and telecommunications formats

For more information, please contact CableFree:

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