Professional equipment

ELEVATION

IP Modulators
IP Demodulators
IP Modems
IP Receivers
Satellite IP Appliances

Newtec

SHAPING THE FUTURE OF SATELLITE COMMUNICATIONS

Elevation Key Features

Elevation is a family of professional equipment specifically designed to optimize the efficiency and performance of IP applications over satellite, in full compliance with the DVB standards.

The Elevation family includes IP modulators, IP demodulators and IP modems, as well as a range of IP appliances that provide state-of-the-art traffic enhancement, compression and protection capabilities for the IP services.

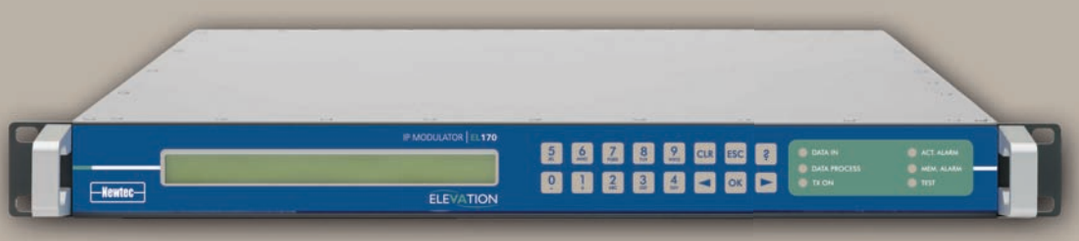
Elevation devices are native IP products that seamlessly integrate with terrestrial IP networks. They feature standard Ethernet/ Gigabit Ethernet interfaces and embedded IP routing and processing functions. The unique Cross-Layer optimization functionality boosts the efficiency and performance of the network by using the high level of integration of the Elevation devices to optimize the transmission at all layers of the OSI model and exploit all possible inter-layer dependencies.

The Elevation product line offers an exhaustive implementation of the DVB-S2 standard, including the most advanced and most efficient features such as Multistream, Variable Coding and Modulation (VCM), Generic Stream Encapsulation (XPE/ GSE), and the higher modulation schemes 16APSK and 32APSK.

Last but not least, the FlexACM option is the most effective implementation of the Adaptive Coding and Modulation mode of the DVB-S2 standard. By dynamically optimizing the link parameters at all times it doubles the average network capacity and it guarantees 100% service availability.

At the RF side, the satellite link budget can be improved by up to 2dB by activating the Equalink™ linear and non-linear predistortion option on the modulator or modem. Each Elevation demodulator also features the unique linear and non-linear link margin estimation tool NoDE to find the optimum operating point of any transmission very easily.

- **Native IP products** with GbE interface and embedded routing
- Best-of-class **traffic acceleration** and **service enhancement**
- **Cross-Layer Optimization**
- **Exhaustive implementation of the DVB-S2 standard**
- **FlexACM,** Point to Point & Point to Multipoint ACM solutions
- **Highest bandwidth efficienc y**
- **Equalink™** linear and non-linear predistortion
- Speeds up to **160 Mbps**
- **NoDE** Noise and Distortion Estimator



Professional equipment

Broadband systems

IP software

ELEVATION

IP Modulators

IP Demodulators

IP Modems

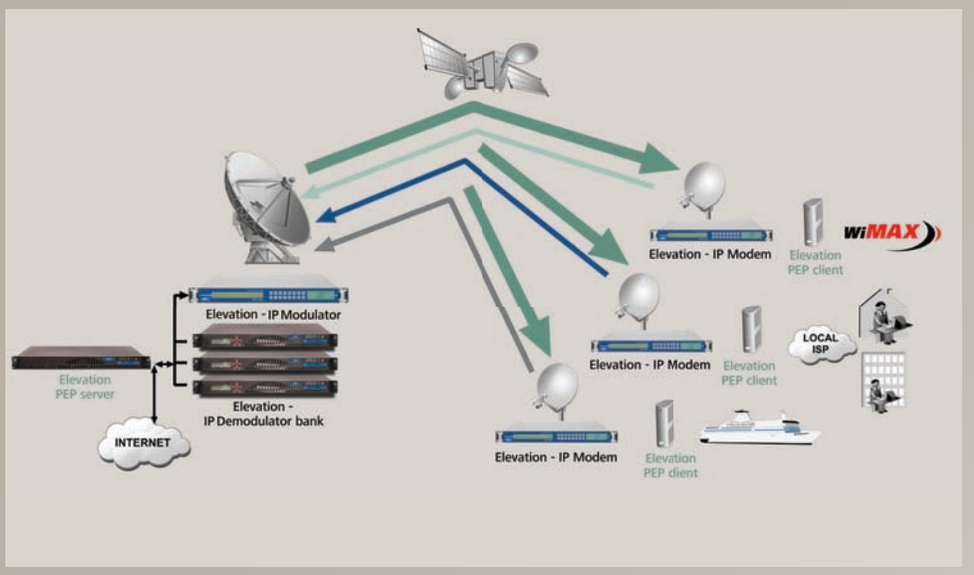
IP Receivers

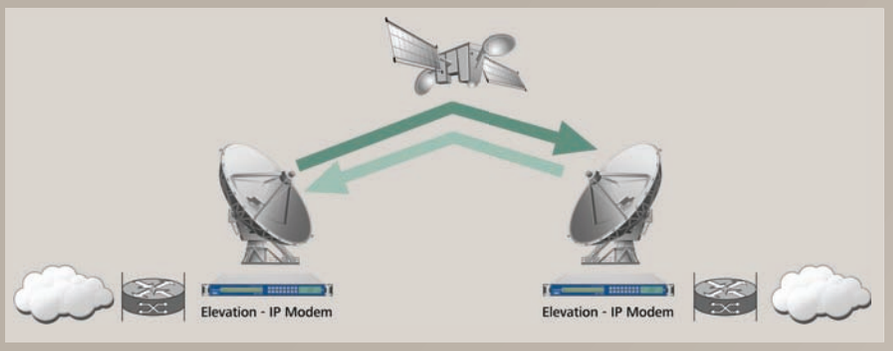
Satellite IP Appliances

Elevation Applications

ISP applications: backhauling via star IP trunking network

Elevation devices are ideally suited to implement Single Channels Per Carrier (SCPC) IP trunking networks. These networks provide a number of remote service providers with connectivity to the Internet backbone via satellite.
It is also possible to operate this network in ACM mode by adding a FlexACM controller and shaper in the hub (ACM in the forward link) and an embedded FlexACM controller in the modems (ACM in the return).



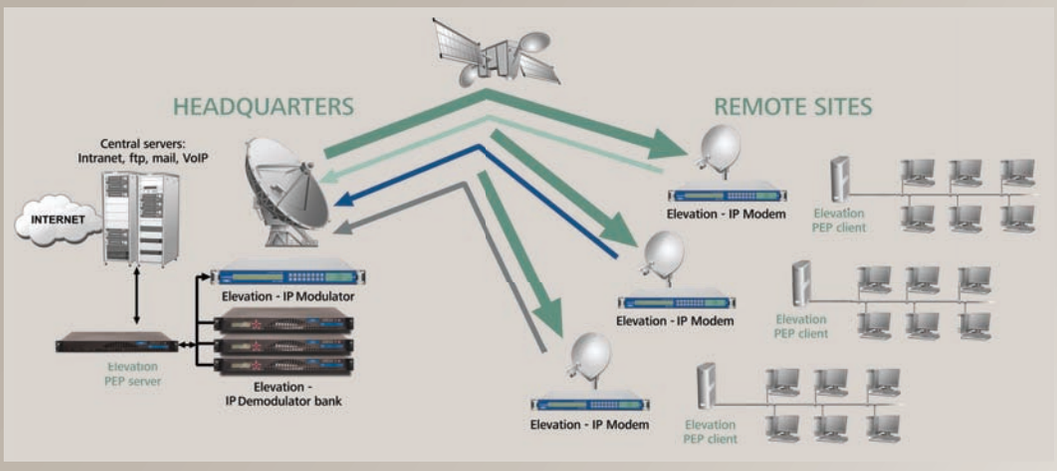


Backbone/leased line in the sky

Elevation IP modems can also be used to ensure a highly efficient point-to-point connection for different applications such as ISP interconnection to the Internet backbone or various other links that require a point-to-point connection. The high speed version of the Elevation modem allows to reach speeds of up to 155Mbps.

Corporate networking

In corporate networks remote offices are interconnected via a central site (hub). The network structure is very similar to the IP trunking network applications, except that end user management is usually performed in the hub.



APPLICATIONS

- IP trunking for ISPs, WiMax
- Backbone/leased line in the sky
- Corporate networking
- Primary distribution of IPTV
- IP-based TV or radio contribution
- Distribution of Digital Cinema
- Content distribution for Digital Signage
- Backhauling for Cellular Networks

Elevation Key Advantages

Highest bandwidth efficiency
for reduced operational costs

The combination of the most effective modulation standard with the most efficient IP encapsulation mechanisms and a unique linear and non-linear predistortion technology provides the highest possible data throughput in a given bandwidth, therefore reducing the cost of the space segment.

Highest service quality and availability
for higher customer satisfaction

Because Newtec has expertise in both satellite transmission technologies and in IP networks, Elevation equipment guarantees the best speed, quality and user experience for IP services over satellite, at all times.

Complete product offering
for an end-to-end solution

Elevation is unique in the market in the sense that it provides all the elements to implement IP services over satellite: traffic enhancement, traffic protection, traffic shaping, service enhancement and signal transmission. These features are embedded in transmission building blocks that integrate seamlessly with each other and with the IP network of the user.

Full Standard Compatibility
for guaranteed interoperability

Elevation devices are fully compliant with the DVB-S and DVB-S2 standards, so it is guaranteed to be interoperable with equipment from other vendors.

Highest agility
for future proof networks

The extensive range of hardware and software features and options of the Elevation family ensures that it can be customized and optimized for any IP application over satellite. The software upgrade capability makes the network implementation scalable and future-proof.

Shaping the future
of satellite communications

Newtec is world renowned as a market leader in Satellite Communications, delivering an extensive range of highly innovative products and solutions.
Since our foundation in 1985, TV Broadcasters, Telecom Service Providers, Integrators and Satellite Operators from all over the world have been relying on the exceptional performance and reliability of our unrivalled products.
At Newtec, we are committed to further innovating and in turn revolutionizing the satellite communications industry. We are able to achieve this through our passion for continually developing and perfecting new technologies. We design applications that use these technologies to best serve the specific needs of our customers. As part of our philosophy of openness, Newtec is also an active participant and a trendsetter in many industry standards.

Newtec America Inc.

1055 Washington Boulevard
Stamford, CT 06901
USA

Tel +1.203.323.0042
Fax +1.203.323.8406
www.newte.eu
sales@newtec.eu

Newtec Cy N.V.

Laarstraat 5
B-9100 Sint-Niklaas
Belgium

Tel +32.3.780.6500
Fax +32.0.3.780.6549
www.newte.eu
sales@newtec.eu

Newtec Asia Pacific PTE. LTD.

03-08 Cintech III Building
77 Science Park Drive
Science Park I
Singapore 118256
Singapore

Tel +65.6777.2208
Fax +65.6777.0887
www.newte.eu
sales@newtec.eu

Newtec América do Sul Equipamentos e Soluções por Satélite Ltda.

Rua Padre Estevão Pernet, 160
suite 1505,Tatuapé,
CEP 03315-000, São Paulo
Brazil

Tel +55.11.2092.6220
Fax +55.11.2093.3756
www.newte.eu
sales@newtec.eu

Newtec MENA

Dubai Internet City, Thuraya tower II,
office 1206
PO Box 502388
Dubai
United Arab Emirates

Tel +971.4.390.1878
Fax +971.4.368.6768
www.newte.eu
sales@newtec.eu

Newtec Diamond Satellite Communications (HK) Co. Limited

Level 28, Three Pacific Place
1 Queen's Road East, Hong Kong

Representation office in Beijing:
Suite 2020, Beijing Sunflower Tower
No. 37 Maizidian Street Chaoyang
District Beijing 100125
China

Tel +86.10.8231.8730
Fax +86.10.8231.8731
www.newte.eu
sales@newtec.eu

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www.newtec.eu

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