

Signal Management and Transmission Easy and Reliable.



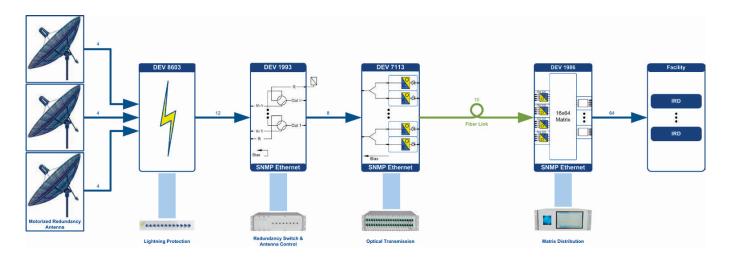
THE ART OF ENGINEERING

# RELIABLE TECHNOLOGY TRUSTED EXPERTISE

An equipment supplier that specializes in just one area of signal transmission can only help you in a limited way. DEV delivers integrated systems for the entire signal distribution chain – so we can become your long-term strategic partner that meets all your signal transmission needs – for satellite, broadcast and military applications, as well as for HFC (Hybrid Fiber Coax) networks.

We supply the complete range of products and systems for optical and electrical transmission of Radio Frequency (RF) signals via coaxial cable or fiber. DEV Systemtechnik was established to develop and manufacture groundbreaking RF transmission equipment which make signal transmission easy and more reliable for customers. DEV Systemtechnik supports our Made in Germany products all over the world.

# Example of an L-Band Signal Transmission System



### GULFSAT, Kuwait

"When DEV Sales Managers demonstrated their RF Matrix Switch ARCHIMEDES at our premises in Kuwait, we were impressed with its features. We decided to install DEV ARCHIMEDES in our teleport in Cyprus as we can manage and control the services remotely."

**Nikesh Paul Mathew** Senior Satellite Engineer GULFSAT

### Österreichische Rundfunksender (ORS), Vienna, Austria

"When I visited the DEV stand at IBC and saw ARCHIMEDES with all its performance and features it was clear to me that this RF Matrix Switch Solution will be the product of choice to replace the old switching solution. It is much more flexible and its state-of-the-art technology will support ORS's future requirements. The decision was easy as we have had good experience with DEV products."

**Peter Knorr** *Manager DVB Systems*ORS Group

# AMT Group, Networks & Communications, Moskow, Russia

"When it comes to availability and technical specification, DEV products are outstanding. They meet all requirements of AMT Group to design and deploy a high performance, redundant digital head end for DVB and IPTV operators in Russia."

#### Zaven Kirakosov

Division Manager
AMT Group, Networks & Communications

# INNOVATION – DRIVEN BY YOU

Innovation at DEV is driven by the ever-changing needs of customers. Our passionate team of experts is dedicated to meeting your requirements – now and in future.

Our focus on your needs is the key to what sets our products apart: versatility, smart design and a comprehensive range of functions for permanent operation, even under extreme environmental conditions. We also design our products and systems in a unique way so they deliver multiple features, while maximizing performance of your system, and minimizing space, power consumption and maintenance requirements. These principles power our systematic approach to the ongoing development of signal distribution infrastructure.

# **DEV Services - Support at its Best**

The Availability and Reliability of your equipment is crucial. At DEV, we feel responsible for the success of your project. That is why we offer a unique security package for all our high quality and high availability products. Our products come with a support package that is unrivaled in the market and sets a new industry standard. From installation to operation – the qualified technical DEV staff will support you with the best and fastest solution. For more than three years you will benefit from our outstanding services free of charge.

# **DEV TripleC Protection**

TripleC stands for Competent and Complete Care for your RF signals. This security package is included as standard for all new DEV products. It contains a warranty period of 37 months for all DEV systems, and in case of failure, free shipping of the equipment to and from the factory. The DEV TripleC Protection also gives you direct access to our technical experts and guaranteed service levels with defined reaction times for support and fault analysis.





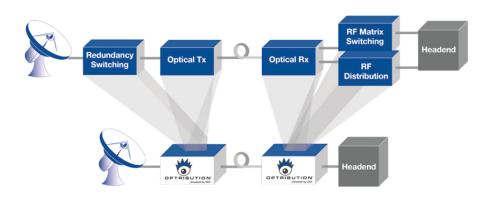
# OPTICAL RF SIGNAL TRANSMISSION WITH OPTRIBUTION®

Our Optribution® product family covers the complete spectrum of high-performance and high-availability RF signal transmission equipment to meet your current and future transmission needs for RF over fiber. Our Optribution® product solution converts RF to optical and optical to RF. With software features like signal recording, automatic switch back, and more we make operators' life much easier.

# Optribution® RF over Fiber Product Line

- Four Indoor Chassis
- Two Outdoor Chassis
- Optical Transmitters
- Optical Receivers
- De-/Multiplexers

- CWDM and DWDM Systems
- Splitters and Combiners
- Integrated RF Splitters
- Matrix Switches
- Redundancy Switches



With OPTRIBUTION

### Ericsson UK, Guildford, England

"Upgrading Ericsson Television Ltd satellite and terrestrial signal distribution network from copper to fibre using DEV Optribution equipment has seen considerable improvements, both in reliability and signal quality.

The fibre infrastructure is unaffected by electromagnetic interference or cable length. As a result the fibre was routed in the most convenient way around the building, rather than previously worrying about cable lengths and avoiding sources of interference.

The resulting improvement from the fibre distribution as measured in our laboratories shows an improvement of carrier to noise margin by 8-10dB. To date the

system has been 100% reliable. The ability to remotely monitor and log signal levels from our dishes is an enormous benefit.

As a result of the fibre distribution, weak signals from satellites where we are on the footprint fringes can now be received confidently and reliably. This is important for our core business in our development labs, and especially for our customer support team who need to monitor and analyse errors from customer transmissions in many European countries."

#### John Fowler

Engineering Infrastructure Manager Ericsson UK

# **Broadcasting Center Europe (BCE) Luxembourg**

"As we moved the teleport to Junglinster (Luxembourg) we needed to expand and upgrade our infrastructure with the latest connectivity technology to operate a modern antenna park. DEV's RF transmission portfolio was exactly what we needed to realize our plans. They supported us to design the electro-optical RF Signal Management end to end. It was a real pleasure to cooperate with the DEV team. They are professionals working supportive and timely."

#### **Eugene Muller**

Head of TV & Radio Transmission
Broadcasting Center Europe (BCE), an RTL
Group Company

# RF AND FIBER TRANSMISSION AND SWITCHING

## Your Best Fit Partner

Our products are designed for operation in multiple frequency bands and impedances to meet a wide spectrum of unique customer needs.

- Systems Integrators for Cable Headends and Teleports
- Cable and HFC Network Operators
- IP TV Providers
- Satellite Operators
- Teleport and Playout Center Operators
- Military and Governmental Satellite Communications

## **Your Best Choice**

No matter what your needs, for any kind and combination of RF signal transmission via coaxial cable or fiber optic, for Broadband, CATV-Band, L-Band, C-Band, X-Band, Ku- or Ka-Band – DEV is your best choice.

Our highly motivated team of satellite communications, telecommunications and RF specialists have many years of practical experience in delivering field-proven technology and solutions. That is why customers who rely on DEV solutions include some of the world's most demanding communications providers, broadcasters and systems integrators.

# Vodafone Kabel Deutschland, Germany

"For more than ten years DEV Systemtechnik supplies RF Transmission products for the HFC (Hybrid Fiber Coax) Plant of Kabel Deutschland. The active and passive components for our broadband network run absolutely stable. For our future needs and competitiveness, we will have to focus even more on savings in rack space and power consumption as well as an increased level of flexibility and modularity. The DEV Team understands our requirements and adapts to our needs with new innovative developments."

#### **Frank Hellemink**

Chief Technology Officer
Vodafone Kabel Deutschland GmbH

### MDS America Inc., Stuart, Florida, USA

"We enjoy cooperating with the DEV Team so much because they find solutions for such a wide range of signal transmission tasks. Their order processing system is also very effective and they have always met their promised lead times."

#### **Allen Quinn**

Sales and Marketing Manager
MDS America Inc.

### Times Sage (CSS-Group), China

"As a DEV local partner in China, we strongly recommend DEV products to China Central Television, which is the most important customer for us. We designed the best technical and commercial solution for the project. It is always a pleasure to work with the DEV staff members as they are friendly, supportive and always reliable in terms of delivery time and performance of products. We at Times Sage have relied on DEV solutions for many years. They never disappointed us."

#### Mr. Zhang Hongying

Deputy General Manager of Wireless Communications Division Times Sage (CSS-Group)

# WHY CUSTOMERS LIKE WHAT WE DO FOR THEM

# Reliable Technology. Trusted Expertise

We develop and produce a complete spectrum of high-performance and high-availability RF signal transmission equipment to meet your current and future coaxial cable or fiber optic transmission requirements.

- Distribution Amplifiers, Splitters and Combiners
- Switching Systems and Distributing and Combing Matrices
- Routing Products and Multiplexers
- RF Signal Transmission over Optical Fiber
- Equipment for upgrading cable and HFC networks to DOCSIS 3.1

## Modular – Flexible – Controllable

We can also configure custom combinations within the DC-40 GHz frequency range. You can control your DEV equipment easily via our user-friendly Web Interface, SNMP or locally. Accessory products such as Lightning Protection, Bias Tees as well as Impedance Transformers help making your critical signal transmission easy and reliable.

# Ready to work with us?

We are always excited about helping our customers meet new challenges – and we believe you will enjoy working with us. Call us with any of your RF transmission needs between antenna and receiver.

Whatever your requirement, discover the DEV solution.

# **Discover Superior RF Solutions**



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