

10 Gigabit Ethernet Solutions



Performance



Convincing cabling solutions

Ready for Real10 Performance

get more

More innovation

- Real 10 GbE performance
- Forward-thinking designs
- Investment security
- Proven technology

More usability

- Tool-less termination and installation
- Easy and secure handling
- Automatic grounding
- Modular, scalable system



GENUINE 10 GIGABIT – FOR MORE BANDWIDTH

10 Gigabit Ethernet is the technology that speeds up corporate, campus and municipal data centers and local networks and allows them to merge with long-distance traffic networks. Of course, the right physical layer has to be in place first, namely a cabling infrastructure genuinely equipped to handle 10 Gigabit. The best available is from R&M, the top name for layer 1.

The trend to more bandwidth remains unabated for several reasons. Voice, data and video communication networks are merging and have to be accessible from everywhere. An increasing number of people are working on one and the same project at different locations and have to have online access to the same data in real time. A high level of data security and availability is essential. All this is being taken yet another step forward with the expansion of e-commerce, remote diagnosis and also Web 2.0 applications such as blogs, Wikis, podcasts and video portals. The quantity of transmitted and stored data is forecast to triple over the next five years.

Forecasts do not necessarily come true, but this trend is a reality. You must respond by finding ways of flexibly implementing new business processes that take full advantage of future growth opportunities, processes that ensure secure data, flexible access and high availability. An adequate cabling infrastructure must be the solid foundation for these efforts. More bandwidth costs money. Too little bandwidth costs even more money. That is why it is important for you to think ahead. Opt for a future that is open to communication.

The Importance

of High-Performance Cabling

High-performance data networks require high-capacity cabling. However, this investment involves much more than the technical solution. Along with being guaranteed genuine 10 Gigabit Ethernet performance, IT managers expect full support in meeting their business and strategic challenges. That is why Real10 from R&M stands for:

Efficiency

Installation expenses are one thing, operating costs another. With a 10 Gigabit cabling solution, you can provide services efficiently and expand your infrastructure as required while maintaining a full range of possibilities for migration between copper and fiber optics.

Flexibility

Business processes change. You have to change right along with them. With the 10 Gigabit solutions you have sufficient reserve capacity to take up applications, services and technologies at short notice. That gives you competitive advantages for your SANs, LANs or MANs.



Reliability

Availability is everything. Reduce your downtime where it occurs the most frequently: in your physical network. Minimize uncertainties and fault sources to ensure the continued existence of your company and its data.

Productivity

Faster applications, shorter access times. With the right IT infrastructure, you can help all employees to make better use of their time and to enjoy their work more. Both aspects are essential for productivity.

090.2226



Competency

Make your own IT unit more competent by taking advantage of far-ranging expertise from R&M and its fine service based on a spirit of partnership. A high-performance IT unit is an unbeatable asset for responding quickly and remaining economical.

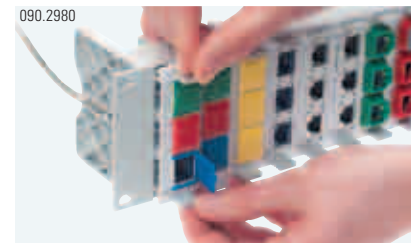


The Systems

The Solutions

Simple and complete

Click, click and the module is finished. R&M supplies copper and fiber optic platforms for cabling and distribution tasks as a complete and fully developed modular system. Installation requires minimal effort.



Versatile and efficient

Whether you have a SAN, LAN or MAN, the 19-inch solutions from R&M perform their job efficiently in each sector. Good for the budget: With this modular approach, users are flexible and can plan according to their actual requirements.



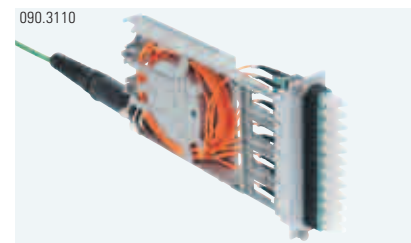
Bottom-up security

Network security begins with cabling. That is why security and availability are integral parts of R&M solutions. The options range from add-on color coding to the security lock for plug connectors.



Individually assembled

Save time and money with out-of-the-box cabling from R&M. Whether you need short trunk cables for your rack or long multi-fiber loose tubes for your backbone... R&M is the top name in individually assembled plug & play solutions that are 100% inspected.



Life-long quality

To ensure that you can continue communicating securely and efficiently in the future, R&M is committed to sustainable product development, responsiveness to customers and a qualified partner program. These efforts range from expertise transfer to lifetime warranty.



MODULAR AND EFFICIENT – IN COPPER AND FIBER OPTICS

Cabling solutions from R&M are the ideal platform for 10 Gigabit Ethernet. Modular systems give planners more freedom to go in the direction they want. Convenient installation techniques increase installation efficiency. Flexible copper and versatile fiber optic products ensure genuine 10 Gigabit performance.

Needs-based investment

Installation expenses are one thing, ongoing operating costs another. With a 10 Gigabit cabling solution from R&M, you can provide services efficiently and expand your infrastructure as required while maintaining a full range of possibilities for migration between copper and fiber optics.



Automatic contact

A plus for electricians: Automatic shield contacting with a sturdy bayonet saves time in assembly. IDC technology from R&M speeds up wiring. Every twist of the wrist yields reliable results.

Innovative and compatible

Those who prefer unshielded copper cabling can enter the 10 GbE age with Real10 UTP. Innovative WARP technology from R&M simplifies installation and increases system flexibility while ensuring a high level of compatibility.



100% quality

Independent laboratories certify the Cat. 6 modules from R&M. That means you can be sure that whatever bears the 10 GbE label has genuine 10 GbE inside. Additional assurance is provided by 100% individual module testing at the R&M production operations in Switzerland.

Compact and sustainable

Fiber optic systems from R&M deliver the desired performance wherever unsurpassable top performance is required. Ultra-precise and compact plug connectors offer long-lasting reliability.



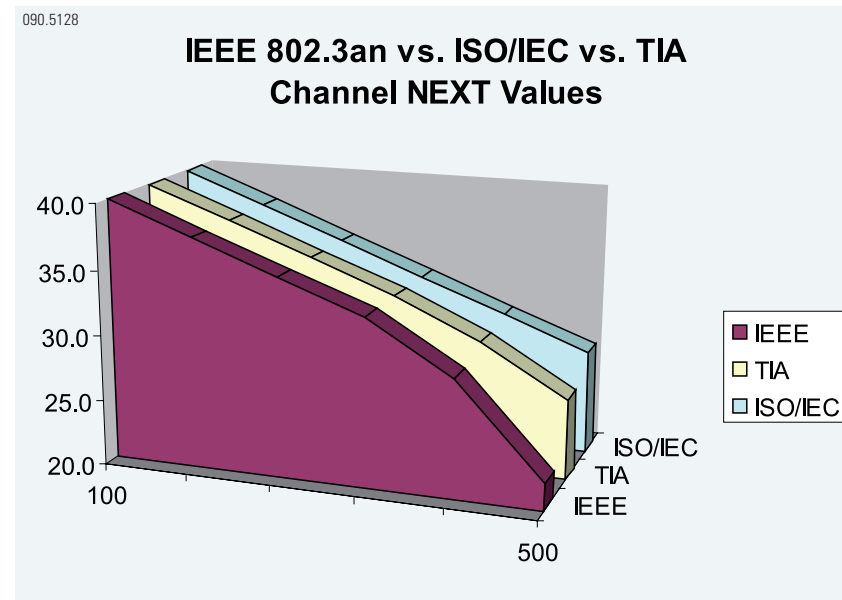
The Planning

RELIABLE APPROACH – SUSTAINABLE SOLUTION

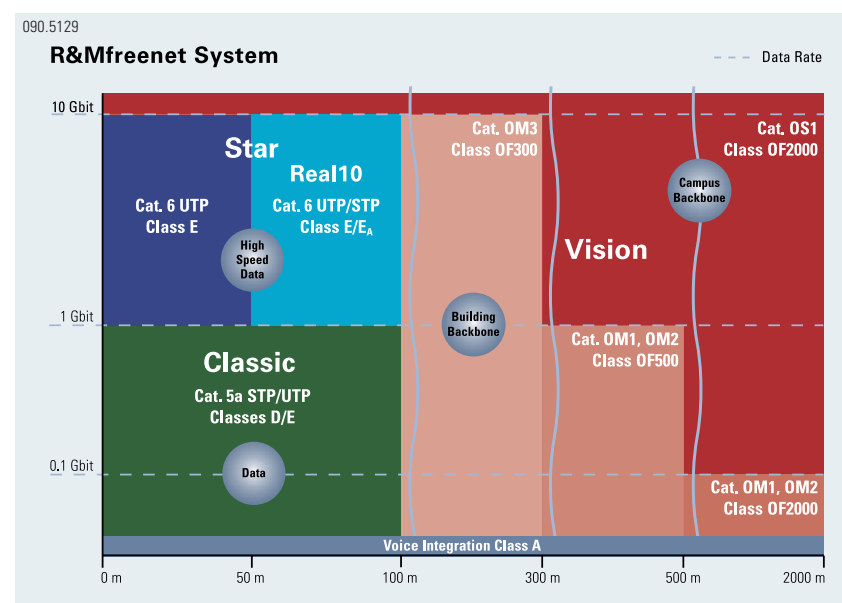
Companies, data centers, network operators and similar users select a sustainable solution when they opt for 10 Gigabit Ethernet. Performance can be increased tremendously with high-frequency technology. The infrastructure transmits immense quantities of data and reliably accommodates new equipment generations. Of course, all this assumes that the cabling can meet the highest requirements.

Top-grade fiber optic cabling in accordance with IEEE 802.3ae does so effortlessly. With copper cabling, the physical factors pose additional challenges. Only fully developed systems and products of unique quality are suitable for 10 GbE infrastructures. The first choice in this respect is the R&Mfreenet modular cabling system with its reliable premium lines of copper and fiber optic cabling.

The demanding ISO/IEC 11801 ed. 2002 adm. 1, with Class E_A as defined there, is the recommended basis for the planning, installation and use of copper cabling. It exceeds the channel requirements of all other pertinent standards (EIA/TIA 568B.2-10, IEEE 802.3an, ISO/IEC TR 24750). The ISO/IEC standard offers greater operational security, which adds real value to your investments.



NEXT, the crosstalk at the near end of the channel, is a critical parameter for 10 GbE transmissions. The figure shows the required NEXT values (in dB) over the given frequency (in kHz). Where IEEE bends and EIA/TIA becomes soft, ISO/IEC remains totally consistent, as consistent as Real10 from R&M.



High-performance data networks require fully developed cabling systems such as R&Mfreenet with its Real10 copper range and its Vision fiber optic range for 10 GbE.

The Applications

FLEXIBILITY IN HIGH-END DATA CENTERS

Larger data quantities, faster access, greater memory density, even more consolidation, still more security and service, more applications... with all this, data centers are quickly becoming overwhelmed. This network congestion can be alleviated with 10 GbE. High-end data centers emerge with all the more leeway. The right cabling system increases the flexibility of IT management while giving it a sustainable scope of action and a clear strategy for infrastructure investments. Guaranteed performance, convenient installation and easy maintenance are compelling advantages of modular cabling solutions from R&M. So too are their Swiss precision and premium quality as well as the ease with which copper and fiber optic media can be integrated into them. They provide organizational support, from access to SAN, with their easy handling and clear labeling, their uncluttered layouts and optimized port density.



INVESTMENT PROTECTION FOR CAMPUS AND BUILDINGS

10 GbE all the way to the individual workplace? What is fiction today could well be standard practice tomorrow. Real-time applications, software as a service, online collaboration, simultaneous engineering and computer-aided manufacturing are all gaining ground. They require more resources and higher bandwidths in LANs. Copper is a reasonably priced solution for horizontal cabling. Fiber optics may be perfect for the backbone. A modular principle and systematic thinking can help in individually planning the right approach. The R&Mfreenet cabling system with its Real10 and VISION ranges supports this approach: horizontal copper, vertical copper or fiber optics, fiber optics across the entire campus or also horizontal fiber optics.



NEW OPPORTUNITIES FOR CARRIERS AND PROVIDERS

Ethernet is everywhere. Carriers and service providers are also convinced of its strengths and benefits. Metro Ethernet networks are now being created with standard, reasonably priced, and adaptable network topology. They integrate the needs of companies, administrative authorities and private users seamlessly and fully. The step to 10 GbE expands the potential of advanced carrier Ethernet services yet again, whether this involves the formation of VPNs with service level agreements or the launch of interactive multimedia service packages. The reliable cabling solutions from R&M reflect this future-safe approach. They are modular, scalable and universally usable and have superb transmission values thanks to their perfect quality. A single system can bring about efficient convergence from a LAN with less expensive copper cabling through campus networks with multimode optical fibers to a MAN featuring single-mode fibers.



www.rdm.com

Headquarters Switzerland

Reichle & De-Massari AG
Binzstrasse 31
CHE-8622 Wetzikon/Switzerland
Phone +41 (0)44 933 81 11
Fax +41 (0)44 930 49 41

Sales Switzerland

Buchgründelstrasse 13
CHE-8622 Wetzikon/Switzerland
Phone +41 (0)44 931 97 77
Fax +41 (0)44 931 93 29

www.rdm.com

Your local R&M partners

Benelux
China/Hong Kong/Taiwan
Germany
France
Great Britain
Italy
Japan
Korea
Austria
Poland
Scandinavia
Singapore
Spain
Ukraine
Hungary
United Arab Emirates

