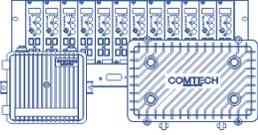


HFC Solutions for Network Evolution



COMTECH provides a wide spectrum of CATV transmission elements covering all the segments from the headend to the service access point. **More than 1000 product types** are available to serve the needs of the large as well as the small service providers. The user satisfaction is guaranteed by the excellent quality materials, by the professional experience of more than **25 years** and **2500000 sold network elements**. All our products are developed regarding to the customer feedbacks - the result is an easy-to-use product family with the highest level compatibility with all network topologies.

Take a look at our offer with the **unique automatic four-state ingress management** solution, with the **multiprotocol monitoring system** and with the **robust modular node/amplifier family designed for extreme environmental conditions**, which are working among others in Switzerland, in Malta and of course in Hungary.

"The reason why we co-operate with COMTECH Ltd is because they give us competitive products which perfectly stand up to our requirements. The products' operation safety and quality meet the highest requirements. COMTECH Ltd is a reliable partner for us because of the good co-operation and service background."

Our DOCSIS 3.1 solution



In order to serve the cable operators' need for devices allowing to use the CATV spectrum up to 1.2 GHz COMTECH has developed a wide group of network elements. Beside the brand new intelligent solutions also the up-to-date versions of the conventional and popular products are available for DOCSIS 3.1 purposes of course. The following survey contains our 1.2 GHz portfolio.

- **FOT3 1.2 GHz** High performance forward path optical transmitter
- **FOT3-B 1.2 GHz** Economical forward path optical transmitter (Low CAPEX and OPEX)
- **FOT3-C 1.2 GHz** O-band CWDM forward path optical transmitter
- **SFOR1200** Forward path optical receiver
- **DROR200** Dual return path optical receiver
- **QROR200** Quad return path optical receiver
- **MO1201** Intelligent optical node
- **MB1200** Modular bridger amplifier
- **LE1200** Modular line amplifier
- **MDA1200-B** Compact distribution amplifier
- **MDA1200-C** Intelligent amplifier
- **MDA1200-D** Compact distribution amplifier (rotary switch alignment)
- **HRF** Complete headend signal manager family
- **HFA1200** Forward path headend amplifier

Headend optical products



A really modern CATV headend launches and terminates optical signals. COMTECH provides all the needed elements of the optical-RF border surface in both signal directions. The dual and the most recent quad housing fills the requirement of higher density and this is supported by the possibility of the choice from the two different sized mainframes. All our headend optical products are managed and remote controlled beside the standardized local user interface.

- **FOT3** High performance forward path optical transmitter
- **FOT3-B** Economical forward path optical transmitter (Low CAPEX and OPEX)
- **FOT3-C** O-band CWDM forward path optical transmitter
- **SFOR1200** Forward path optical receiver
- **DROR200** Dual return path optical receiver
- **QROR200** Quad return path optical receiver
- **OCM1012** 12 slot mainframe with element management function
- **OCM1002** 2 slot mainframe with element management function (1U size)
- **OCM accessories** Accessories for OCM1012

Optical nodes



Optical nodes are key elements of each HFC network independent from the practical topology. COMTECH sells solutions for all the popular technologies such as:

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- **MO1004** 2x2 segmentable modular optical node with redundancy option
- **MO1003** 1x3 segmentable modular optical node with redundancy option
- **MO1002** Standard modular optical node
- **MO1201** Compact optical node
- **MDO801** Compact mini optical node
- **MDO800** Compact mini forward path optical receiver
- **MDO800E** Compact mini forward path optical receiver with SNMP monitoring
- **FOR1000H** Forward path receiver module for classical HFC networks
- **FOR1000F** Forward path receiver module for Fiber Deep networks
- **ROTxx** Return path transmitter module

Broadband Amplifiers



The hybride CATV networks contain broadband amplifiers after the optical node. Particularly in lower subscriber density areas more network layers are involved with these elements - this means a higher number of amplifiers with various roles. COMTECH sells different construction amplifiers for each network layers for the following functionalities:

[Read More](#)

- [MB1000](#) Modular bridger amplifier
- [MT1000](#) Modular trunk amplifier
- [LE1000](#) Modular line amplifier
- [LA1000](#) Compact line amplifier
- [LA834R-H](#) Compact line amplifier
- [MA830R](#) Compact mini line amplifier
- [MA834R](#) Compact mini line amplifier
- [MDA1036](#) Compact distribution amplifier
- [MDA836](#) Compact distribution amplifier
- [HA800L](#) Compact mini house amplifier
- [MA1012](#) Special amplifier for bandwidth extension

Monitoring Products



In the most european countries regulations prescribe that CATV networks have to be at service in the 99,99 percent of an arbitrary time interval. Since the network elements work in 24 hours often under very extreme environmental conditions it is hard to operate larger systems without management but observing the regulations. To overcome this problem COMTECH provides complete network management solutions. All the service providers can choose the corresponding protocol, gateway, server and transponder set from our product spectrum that contains transponders for OEM nodes and amplifiers too.

[Read More](#)

- [ComMon software](#) Management software with graphical user interface
- [HMSS](#) Monitoring server computer
- [HMTS-X2](#) Flexible network monitoring gateway for HMS and SMC protocols
- [HMTS](#) Network monitoring gateway for HMS and ComMon special protocols
- [HM-1002](#) Dual mainframe for HMTS
- [NMT-xxx](#) Transponders for COMTECH devices
- [RSW2](#) Return path ingress control switch
- [IR1](#) Wireless data reader
- [HMS Loader](#) HMS firmware loader
- [USB-CRF4 Kit](#) PC Kit for Local Management

Signal Organization



One of the largest challenge at building a headend is to realize a clear-cut and small sized RF connection network between the signal sources and the optical elements. COMTECH provides 1U sized active and passive signal organizers containing splitters, combiners and direction couplers with various coupling values optimized for optical or coaxial segments. As special products bandpassed and impedance matching types are developed too. For feeding this network high level amplifiers may be needed which are available in forward path and in return path. The amplifiers are insertable into the optical mainframes and can be managed by all COMTECH monitoring solutions.

- **HRF-Dx** Active forward path signal organizers optimized for optical segments
- **HRF-ORx** Passive return path signal organizers optimized for optical segments
- **HRF-C16** Active return path signal organizer optimized for optical segments
- **HRF-RRx** Active return path signal organizers optimized for coaxial segments
- **HRFM-xx** Passive forward path signal organizers
- **HRF-TP34** Headend cable organizer
- **HFA1000** Forward path headend amplifier

Optical passives



The optical networks need by all splitters, combiners, couplers and depending on the used technology WDM filters, multiplexers and demultiplexers. COMTECH deals in these elements and for mounting them on a headend also an optical rack is offered.

- **C4x-x-xx-xx** CWDM multiplexer/demultiplexer
- **C80-x-xx-xx** CWDM multiplexer/demultiplexer
- **C13-xx-xx-xx** Add drop multiplexer
- **WW-1L-xx-xx** WWDM filter
- **C-PLC-x-xx-xx** Optical splitter
- **HOP** Headend optical rack

Auxiliary Products



To achieve best performance precise gain and tilt set, cable simulation, automatic leveling and filtering could be needed. COMTECH produces these elements as modules insertable into the modular devices. Further auxiliary units are the remote powering transformer and the interactive subscriber connector realizing a well defined leadable service access point.

- **ASG535** Pilot control module
- **ASG610** Pilot control module
- **BEQ-A** ASG control module
- **RB622Q-C** Return path amplifier module (for LA834R-H)
- **RBS622Q-C** Return path amplifier module with monitoring option
- **RDFx20-Q** Return path amplifier with diplex filter (for HA800L)
- **Passives** Passive modules for Comtech products
- **Splitter 24** Subscriber side signal organizer
- **CS-OD** Outdoor cable simulator unit
- **EDA10/6x** Subscriber interactive connector
- **VTP48/5** AC Power supply

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