RF Video Overlay
Solutions for TV services via FTTH Networks

Besides providing virtually infinite data transmission capacity, optical fiber is also the ideal medium for video transmission. RF Video Overlay technology enables the distribution of video/TV signals over FTTH networks, allowing end-users to enjoy both digital and analog TV at a data rate equal to several Gbit/s.

Upgrade your FTTH network

RF Video Overlay allows you to add a large range of TV services to your offering, thus providing a sharp competitive edge.

Reduce your OPEX

Reducing complexity is the key to easier maintenance and cutting your network operating costs.

Cost-effective and always available

RF Video Overlay provides reliable, high-end quality video transmission. Based on a mature technology, RF Video Overlay is easy to install with low CAPEX and is adaptable to any size of network.

Off-load your data traffic

Data traffic is not blocked by TV Video content, reducing the data capacity you need as well as the complexity of your network.

TV experience for the end customer

Nothing changes for the subscriber:
the TV experience remains the same.
However, the range of the offering is greater:
analog or digital, SDTV, HDTV or UHDTV (with no need for reinstallation or modification of the home network).

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Multiple Options for TV services

The kind of signals transmitted by the RF Video Overlay can come from a whole range of different sources. The classical approach is the transmission of cable television (CATV). Satellite TV can also be provided. At the same time, both digital cable TV (DVB-C, DVB-C2) and satellite TV services (DVB-S, DVB-S2) can be offered. The output signals of RF Video Overlay solutions are inherently compatible with standard TV or (U)HDTV sets and STBs (set-top boxes).

The table shows the enormous bandwidth capacity of the different RF video overlay options.

RF video Overlay solution	No. of AM TV channels (PAL, NTSC)	No. of QAM channels (DVB-C)	No. of 8-PSK channels (DVB-S)	DVB total data rate
CATV	35	59	-	3.04 Gbit/s
DVB-C	-	94	-	4.85 Gbit/s
CATV + 1xDVB-S	35	59	25	5.54 Gbit/s
DVB-C + 1xDVB-S	-	94	25	7.35 Gbit/s
1xDVB-S	-	-	25	2.50 Gbit/s
2xDVB-S	-	-	50	5.00 Gbit/s
4xDVB-S	-	-	100	10.00 Gbit/s

Notes:

CATV: average number of TV channels

AM TV: transmission usually with ~36 FM radio channels

QAM: 256-QAM with 6.8 Mbit/s symbol rate and 188/204 RS FEC recommended

DVB-S: L-band 950 ... 2200 MHz with 8-PSK and 36 Mbit/s symbol rate, 9/10 BCH-LDPC and 188/204 RS FEC recommended

Optical Ethernet and RF Video Overlay

FTTH networks based on point-to-point fiber optic connection and optical Ethernet can deliver data rates of up to 1 Gigabit (1Gbit/s) usable for bidirectional services, such as data and Voice over IP.

TV services are provided by RF Video Overlay. Analog TV, digital TV (DVB-C / DVB-T2) and satellite TV (DVB-S + DVB-S2) transmission is possible.
Our integrated termination units provides all three services to the end customer.

Profi-SAT: Complete broadcast of a TV satellite

This solution enables full feed-in of the complete range of satellite TV channels over FTTx (fiber optic access) networks (e.g. ASTRA19°), making these available to subscribers. This technology is based on the transmission of (DVB-S) TV signals consisting of multiple independent SAT IF bands (satellite feeds).

Fiber.DOCSIS: RFoG-All-Fiber Solution for CATV operators

BKTEL®-is an RFoG-based optical transmission system delivering not only CATV but also a DOCSIS-compliant optical reverse path.
In particular for CATV operators, Fiber.DOCSIS offers an easy migration path from an HFC to an all-fiber-based network.

You have questions?

Visit us online.
On our website you will find a lot of informa-
FTTH network solutions and a wide range of active and product range of active and passive components:
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