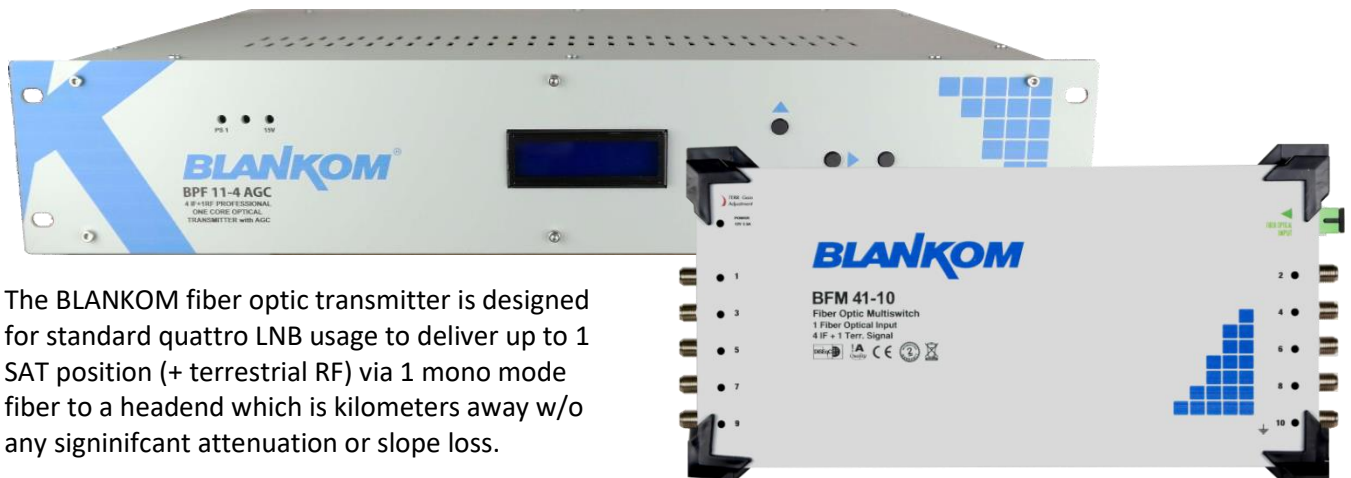


## Fiber optic Transmitter and optical Multiswitch for 1x SAT + 1x Terrestrial



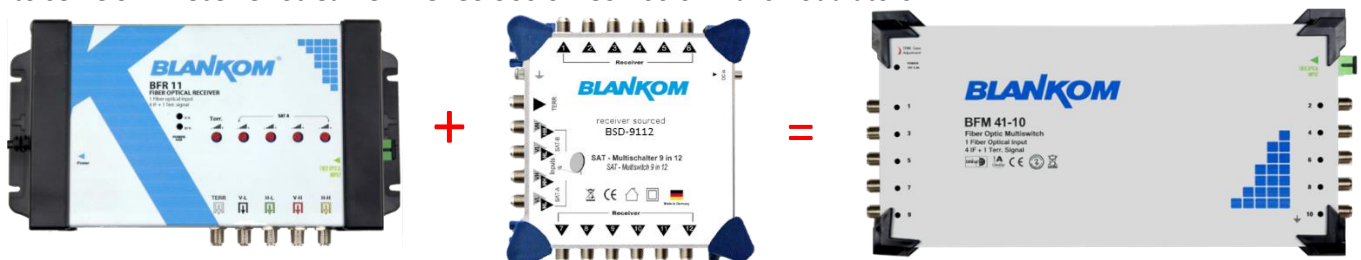
The BLANKOM fiber optic transmitter is designed for standard quattro LNB usage to deliver up to 1 SAT position (+ terrestrial RF) via 1 mono mode fiber to a headend which is kilometers away w/o any significant attenuation or slope loss.

The corresponding Multiswitch BFM-41-10 is a direct optical receiver with an integrated SAT/Terr multiswitch to serve villa-/condo-/residential regions by splitting the fiber into up to 32, 64 or more.

### Main Features

- 1 Satellite (4x Quad Quattro L/C-band MDU LNB support)
- RF transported over a single fiber optic cable available as 4dBm and 8dBm
- Up to 64 optical signals can be splitted
- Front panel: Gain adjustment for each input
- Voltage LED Indicators
- LNB voltage short circuit protection
- LNB voltage control enabled with on-off switch
- Automatic fan cooling system
- Isolated linear DFB laser CWDM standard wave operating range
- 47-870 MHz (Digital Terrestrial)
- 950-2150 MHz (SAT- IF) working bandwidth
- Built-in high linear AGC amplifier BPF 11- 4 or 8 transmitter (standard)
- BPF 11-8 transmitter with internal tilt level adjustment (standard)
- Electromagnetic resistance
- High RF resistance against heavy thunderstorms
- Easy installation and plug&play application, serving many homes, condos, Villas...
- Integrated optical Receiver and Multiswitch for 10 TV-sets or SAT Receiver

Instead of the long distance fiber 1:1 SAT – Position LNB – Signal Transmission with Transmitter and Receiver BPF-11-4 AGC and BFR-11, the Receiver needs an extra Multiswitch connected for the SAT-IF coax distribution to the Headend receivers. In this system design the multiswitch is directly integrated to serve up to 10 TV-sets or SAT-Receiver. So the BFM-41 can be used for houses, small towers or residential aereas as well as for smaller headends to serve SAT-Receiver-Streamer like IGS-900 or IGS-700 or Transmodulators.



**Technical Specifications Transmitter BPF-11:**

Input	5 F-female connectors (4 IF+1RF) (75 Ohm)
Output	1 SC/APC (Full Band) Optic connector
SAT Frequency Range	950-2150 MHz
TERR Frequency Range	47-870 MHz
SAT Gain	23dB ± 2
TERR Gain (DVB-C/DVB-T)	15dB ± 1
Gain Settings	0..15dB (LCD-Keypad)
Optical Output Power	4 mW (6dBm) (or 8mW versions for longer distances upon request)
Optical Wavelength Range	1270... max. 1570nm (CWDM)
Max. TERR Signal Input	90 dB ±3
Max. SAT Signal Input	80 dB ±3
Power Supply	100-240 VAC 50W
Operating Temperature	-40+85°C
Dimensions	480x285x90mm
Weight	3700 g

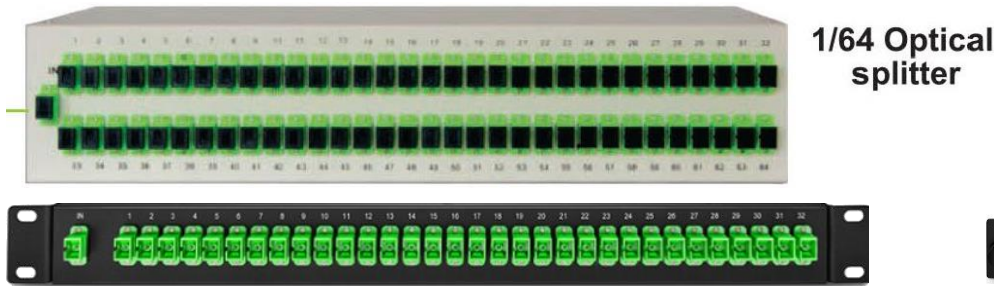
**Optic Multiswitch: BFM-41-10** *( might be renamed to BFM-11-10)*



**Technical Specifications optical Multiswitch BFM-41-10** *(BFM-11-10):*

Input	1x SC/APC optic connector, mono mode
Output	10x F-female connectors (4 IF+1RF) (75 Ohm)
SAT Frequency Range	950-2150 MHz
TERR Frequency Range	47-870 MHz with adjustment
SAT-SAT Isolation	>35dB
SAT-TERR Isolation	>40dB
Receiver Output Isolation	>36dB
Max. optical Input Power	2 mW
Optical Wavelength Range	1270...1330nm (CWDM) (1270 contains Terr+ VL)
Power Supply	External 100-240VAC to 12VDC 3A
Operating Temperature	-15...+40°C
Dimensions	225x140x60mm
Weight	590g

**Examples for optical splitter types SC/APC:**



**1:32 optical Splitter**

**1/64 Optical splitter**



**1:4-Splitter**

If more SAT Receiver /TV set ports are needed in a house, just use an optical splitter and install 2 (or more) BFM-units

**Corresponding Products for multiple SAT-positions:**

**2-SAT-Positions** with Transmitter- Multiswitch- couple **BPF-21-4 AGC** and **BFM-21-10**

**3-SAT-Positions** with Transmitter- Multiswitch- couple **BPF-41-4 AGC** and **BFM-31-10**

**4-SAT-Positions** with Transmitter- Multiswitch- couple **BPF-41-4 AGC** and **BFM-44-10**

For the optical 1-fiber transmitters (1-4 SAT positions + terrestrial) BLANKOM optical SAT-systems are using the following wavelengths: The transmission is carried out in CWDM with 20nm spacing.

The first SAT-LNB polarization Vertical Low including the terrestrial part in the range 47-870 MHz is transmitter on 1270nm. All other SAT - LNB wavelengths result from this: 1270...1570nm (CWDM):

1270	1290	1310	1330	1350	1370	1390	1410	1430	1450	1470	1490	1510	1530	1550	1570
SAT-Pos. A				SAT-Pos. B				SAT-Pos. C				SAT-Pos. D			
VL+terr	HL	VH	HH	VL	HL	VH	HH	VL	HL	VH	HH	VL	HL	VH	HH

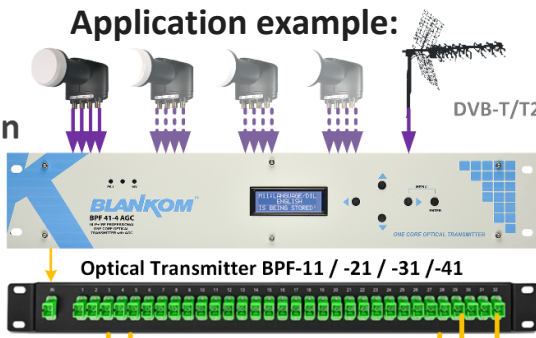


**Application example:**

**Central SAT Reception**

With 1 – 4 SAT-Positions by selecting the right Transmitter for 1,2,3 or 4 SAT-Positions to the same fiber

(BPF-31 might be skipped, use BPF-41 instead)



**Optical Splitter up to 64**

Selection of number of SAT-Positions for different regions possible

