



# STEKOP

DIGITAL MICROWAVE BEAMS BM120C / BM200C

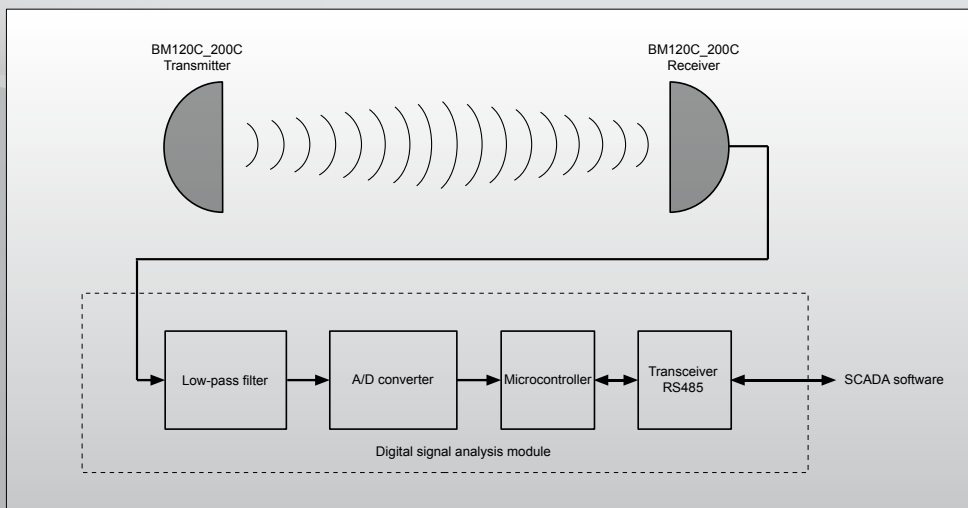


## Digital microwave beams BM120C / BM200C



The BM120C and BM200C devices are digital versions of the analogue microwave beams, types BM120M and BM200M, created by combining the microwave circuits of BM120M / BM200M microwave beams made by the Italian company AVS ELECTRONICS S.p.A. with the digital signal processing module designed by STEKOP SA company. The application of digital signal processing in the BM120C / BM200C beams created completely new quality when compared to classical analogue designs. The advanced analysis of signal shape and its duration as well as automatic adjustment to environmental changes ensured high likelihood of intruder detection and increased immunity of the BM120C / BM200C devices to false alarms. Additionally, digital technology applied in the beams allowed them to be remotely monitored and configured.

The single microwave beam set is composed of two modules: the transmitter (Tx) and the receiver (Rx), both of which may operate in one of five channels. With proper selection of the working channels it is possible to design on the basis of the BM120C / BM200C microwave beams any, even the most complex, perimeter security system where all operating microwave beam sets (i.e. transmitter-receiver) do not interfere with each other. Connection of all modules in the system by the two-wire RS485 bus significantly simplifies wiring of the entire system and hence improves its reliability as well as reduces its installation and maintenance costs.



Block diagram of the microwave beam type BM120C/BM200C

Software upgrade of the BM120C / BM200C microwave beams is performed remotely by a software loading tool and it is based on uploading to the device a file that contains image of the microcontroller program memory.



The microwave beams type BM120C / BM200C are supplemented with a wide variety of mounting brackets that simplify installation and application of the beams.

- **SB 20** - wall-mounted holder
- **SB 120** - floor-mounted pole (screwed to the floor)
- **SB 130** - floor-mounted pole (concreted in the floor)
- **AMP** - antenna anti-removal kit

The fixing bracket allows antenna orientation to be independently regulated in three dimensions: height, azimuth and elevation. Thus the antenna orientation can be exactly adjusted even if the microwave beam is installed in a hilly area (e.g. on a slope).



## Technical specifications

Maximum range .....	120 m (BM120C)
200 m (BM200C)	
Maximum beam width .....	3-10 m (BM120C)
4-16 m (BM200C)	
Operating frequency .....	10,525 GHz
Number of channels .....	5
Antenna orientation adjustment .....	vertical / azimuth / elevation
Signal processing .....	digital (signal shape, duration and level)
Log size .....	3967 events
Alarm signal recorder .....	255 recordings 15 sec. each
Communication interface.....	RS485 (electrically isolat)
General purpose inputs .....	3 inputs, 2EOL type
Power supply voltage .....	+12 V <sub>DC</sub>
Supply current (average) .....	180 mA @ +12 V <sub>DC</sub> (receiver)
	220 mA @ +12 V <sub>DC</sub> (transmitter)
	330 mA @ +12 V <sub>DC</sub> (heater)
Operating temperature range.....	-40 °C / +55 °C
Case protection class.....	IP54
Dimensions .....	225 x 225 x 136 mm

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