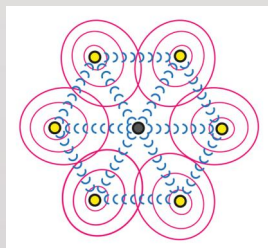


## Wireless LAN Outdoor Solution For the Smart City



### Performances and quality at low cost

Broadband Smart Grid series is the breakthrough for the "Always on" wireless connection of the city of the future, with high performances and quality at low price.

### IEEE802.11abgn Access Point

Two equipment to meet the needs for coverage of large indoor or outdoor area:

- BSG4452 - includes a 2,4GHz and a 5GHz radio modules - with omnidirectional SiSo integrated antenna - that can be used simultaneously for dual frequency WiFi wireless coverage, with data rates up to 150Mbps;
- BSG4422N - includes a 2,4GHz 802.11n MIMO radio module - with omnidirectional MIMO integrated antenna - that can be use for WiFi wireless coverage with data rate up to 300Mbps.

Model	Radio Nr.	Integrated Omni Antenna	Data Input	Standard	Band	Data Rate
BSG4452	2	SiSo 2,4GHz + SiSo 5GHz	LAN	802.11a/b/g/n	2,4 GHz 5 GHz	150Mbps 150Mbps
BSG4422N	1	MiMo 2,4GHz	LAN	802.11b/g/n	2,4 GHz	300Mbps

### Flexibility

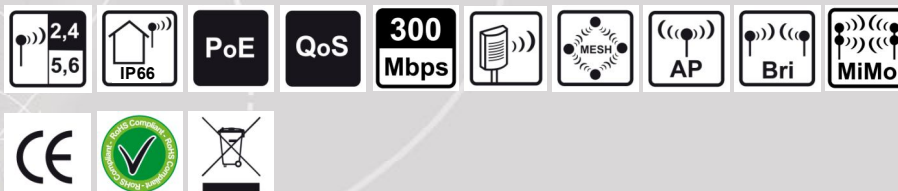
The device can be configured for "Stand Alone" Access Point, Bridge or Station operation, allowing the WiFi wireless coverage as well as Mesh network implementation with simultaneous 2,4GHz distribution. The integration of two omnidirectional antennas inside the enclosure, allows to speed up and facilitate all the installation activities.

### Access Point with Bandwidth and multiSSID management

BSG4400 systems appliances allow comprehensive bandwidth management. Both the upstream bandwidth and the resources available to each client can be monitored, prioritized and limited as required in order to attain the desired Quality of Service levels. Furthermore, BSG4452 supports multiSSID protocol for multi WLAN management to allow private or public multi-service offer.

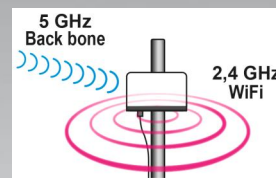
### Features

Small size, linear and attractive aesthetics, ease of installation, make BSG line equipment the ideal for all network application, perfectly integrated into the urban context.



## Serie BROADBAND SMART GRID

The BSG series - Broadband Smart Grid - , represents an optimization of the performance, quality and cost ratio, applicable to new generation wireless transmission systems. The BSG series have been specially designed to guarantee the connection "always on" of city of the future. BSG uses 1 or 2 radio modules 802.11 a,b,g,n with integrates omnidirectional antennas. The attractive design with simple and essential lines, combined both to its small size and to the innovative hook "at pole" (you can install the Base Station on poles up to 400 mm in diameter), allow the installation of the equipment in any place and in a fast and safe way.



Mainly used as "Stand Alone" Access Point for 2,4GHz or 5GHz wireless distribution, the devices can also be configured Bridge or Station operation, allowing the WiFi wireless coverage as well as Mesh network implementation with simultaneous 2,4GHz distribution.

The BSG devices can be managed via web interface or dedicated user interface.

The equipment can store all the traffic logs regarding access and traffic connection. An FTP server and about 100MByte memory are housed on board to store files and data.

Connection and data security are guaranteed by a WEP key of 104 bit with WPA and WPA2 access control.

Intelligent management of the signal's priority and of bandwidth allocation, allows to satisfy all the request in terms of Quality of Service QoS.

The BSG series has been designed with the aim of full compatibility with the most current data transfer methods. It is the most powerful solution for developing networks dedicated to internet data traffic in areas like:

- Public WiFi areas
- Hotels, Restaurants, Bars
- Camping, B&B, other accomodation
- School and Colleges
- Hospitals, private building
- Sporting Centers
- Trade Fairs, Aiports, Seaports
- .....

Technical Characteristics	BSG4452		BSG4422N
Nr. Radio Module	2		1 MIMO 2x2
IEEE Standard	802.11a/b/g/n Hiperlan 2		802.11b/g/n
Frequency	2,400 - 2,483 GHz	5,470 - 5,725 GHz	2,400 - 2,483 GHz
Modulation	DSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16-QAM, 64-QAM)		
Channel Bandwidth	20 MHz - 2x20 MHz		
Channel Management	Manual - Automatic - DFS - Radar Free		
Antenna Type	Omnidirectional - Integrated		
Maximum Output Power	100mW EIRP @ 2,4GHz - 1W EIRP @ 5GHz		100mW EIRP
Power Adjustment	20 dB in step di 1 dB		
RX Sensitivity	2,4GHz	5GHz	2,4GHz
	-96dBm @ MCS0 20MHz	-99dBm @ MCS0 20MHz	-96dBm @ MCS0 20MHz
	-94dBm @ MCS0 40MHz	-94dBm @ MCS0 40MHz	-94dBm @ MCS0 40MHz
	-80dBm @ MCS3 20MHz	-79dBm @ MCS3 20MHz	-80dBm @ MCS7 20MHz
	-77dBm @ MCS3 40MHz	-76dBm @ MCS3 40MHz	-77dBm @ MCS7 40MHz
Wireless Mode	Access Point, Bridge, Repeater, WDS, Station, Hot Spot		
Data Encryption	WEP 64/128 bit; WPA, WPA2, TKIP, AES-CCM-TKIP, PSK/EAP, Mac Filtering, IP Filtering, Radius Server, Proprietary WDS, Firewall Integrato		
Ethernet Standard	10/100/1000 Base-T Gigabit — Auto MDI/X — standard 802.3		
VLAN Support	802.1q - Multiple VLAN interface – Inter VLAN routing		
VPN Support	IPSEC, PPPoE, EoIP, PPTP, L2TP		
QoS Support	802.1p - IPToS RFC791 - CBQueueing - PCQ, RED, SFQ, FIFO queue - CIR - MIR - peer-to-peer management		
Network Routing	OSPF – RIP - BGP - STP - RSTP - NAT – MPLS – IPv6 - MME		
Mesh	HWMP+ , proprietary layer 2 wireless mesh routing protocol		
Management	Telnet, SSH, FTP, Proprietary GUI, WEB		
Power Supply Type	Power Over Ethernet (POE) Technology		
Power Supply	18Vdc 550mA		
Operating Temperature	- 35°C / +60°C		
Dimension mm (H x L x D)	150 x 260 x 60		
Weight	1,1 Kg		
Mounting Pole Diameter	30 - 50 mm with mast clamp or 50 - 400mm with metal strip		
Protection	IP66		
Standards	EN300328 EN301489-17 EN60950-1 ERC70-03		