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Base WiFi antennas

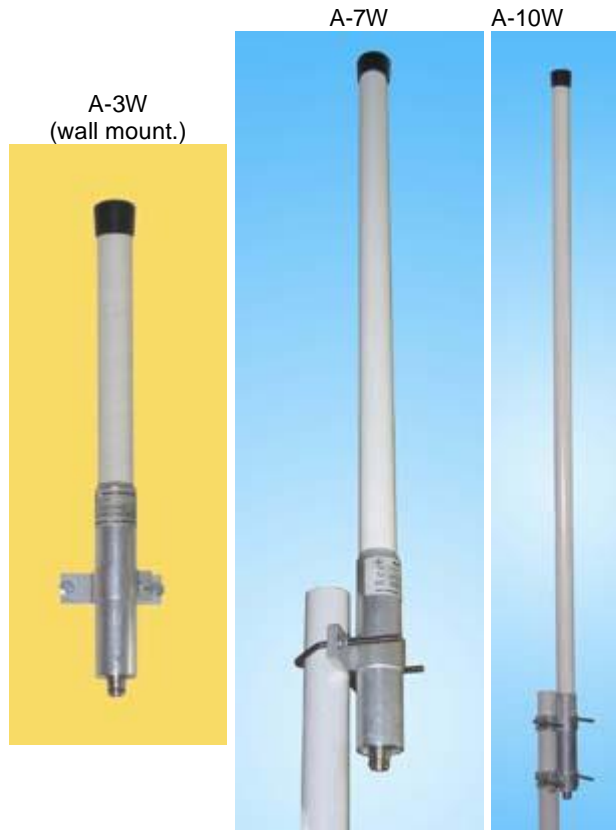
Model	Short description	Band, MHz	Gain, dBi
A-7W	Collinear, OMNI, fiberglass, white, 7dBi	2400-2485	7
A-10W	Collinear, OMNI, fiberglass, white, 10dBi	2400-2485	10
RAS-13W-60	Panel, sector in horiz. plane 60°, 13 dBi	2400-2485	13
RAS-16W-60	Panel, sector in horiz. plane 60°, 16 dBi	2400-2485	16
RAS-11W-120	Panel, sector in horiz. plane 120°	2400-2485	11
RAS-12W-90	Panel, sector in horiz. plane 90°	2400-2485	12
RAS-14W-120	Panel, sector in horiz. plane 120°	2400-2485	14
RAS-15W-90	Panel, sector in horiz. plane 90°	2400-2485	15
RAH-15W-90	Panel, sector in horiz. plane 90°, horizont.polar.	2400-2485	15

2009



WLAN 2400-2485 MHz Collinear antennas A-3W, A-7W, A-10W

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Electrical specifications

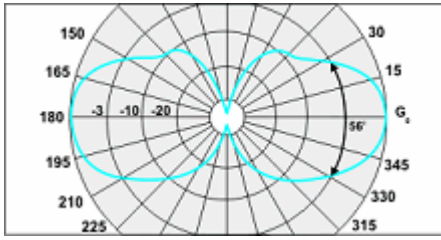
Model	A-3W	A-7W	A-10W
Operating frequency band, MHz	2400-2485	2400-2485	2400-2485
Gain, dBi	3	7	10
VSWR, not more than	1.5	1.5	1.5
Front-to-back ratio, dB			present
Polarization			vertical
Electrical downtilt	0°	6°	9°
Max. power input, W	10	10	10
Sector in H-plane (-3 dB)	360°	360°	360°
Sector in E-plane (-3 dB)	56°	14°	6.5°
Impedance, Ohm	50	50	50

Mechanical specifications

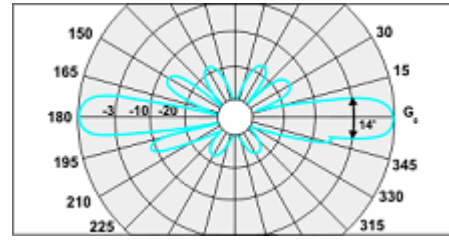
Model	A-3W	A-7W	A-10W
Dimensions (LxWxH), mm	35x35x370	35x35x840	35x35x1330
Weight, kg	0.1	0.28	0.38
Rated wind velocity, m/s	50	50	40
Radiator	PCB	PCB	PCB
Radome	white PVC		grey, PVC
Mounting		on a mast diam. 35-70 mm or on a wall	
Connector		N-female (TNC optional)	

These spike antennas possess an ideally circular radiation pattern in horizontal plane and a gain of 3, 7 and 10 dBi, correspondingly. The antenna A-3W is recommended to be applied as the inside-the-office antenna, where it is not possible to use the antennas with high gain. The models A-7W and A-10W have an increased gain and a tilt of the radiation pattern in the vertical plane what ensures the most efficient reception and transmission of SHF energy near the earth surface where the subscribers are positioned. These models are applied in the case of the central disposition of the base station or in the case when the objects are non-significantly distanced.

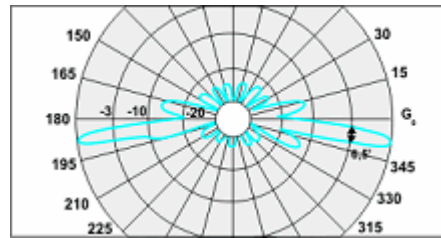
A-3W E-plane pattern



A-7W E-plane pattern (2.485 GHz)



A-10W E-plane pattern (2.4 GHz)





WLAN 2400-2485 MHz Panel antennas RAS-13W-60, RAS-16W-60

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Electrical specifications

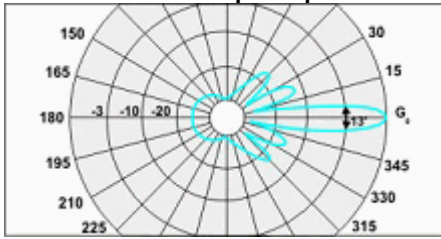
Model	RAS-13W-60	RAS-16W-60
Operating frequency band, MHz	2400-2485	2400-2485
Gain, dBi	13	16
VSWR, not more than	1.5	1.5
Front-to-back ratio, dB	25	25
Polarization		vertical
Electrical downtilt	0°	7°
Max. power input, W	20	20
Sector in H-plane (-3 dB)	60°	60°
Sector in E-plane (-3 dB)	13°	9°
Impedance, Ohm	50	50

Mechanical specifications

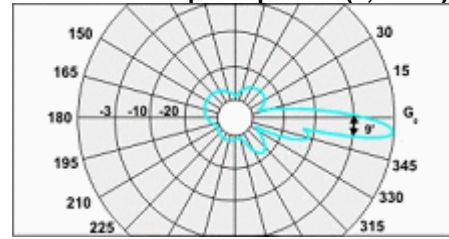
Model	RAS-13W-60	RAS-16W-60
Dimensions (LxWxH), mm	204x63x518	204x63x1015
Weight, kg	1.2	2
Rated wind velocity, m/s	55	43
Radiator	copper	copper
Radome	grey, ABS	grey, ABS
Mounting	on a mast 30-220 mm with "Norma" or CP-55D, CP-115, CP-220	
Connector	N-female on a cable	

As the base sector antennas for the WLAN networks we suggest to use these antennas (RAS-13W-60, RAS-16W-60) which have a standard servicing area within the sector of 60° and a high gain - up to 16 dBi. The antennas have a small electrical tilt of the radiation pattern beam in a vertical plane. To achieve a narrower main lobe one can use our inclination mechanism MN-1. The cable output is very convenient for the encapsulating of the connector, especially in the case when the antenna is mounted on the wall. The cable output is implemented on the high-quality cable of Huber-Suhner production and on a connector of Rosenberger production what ensures a stability of the characteristics.

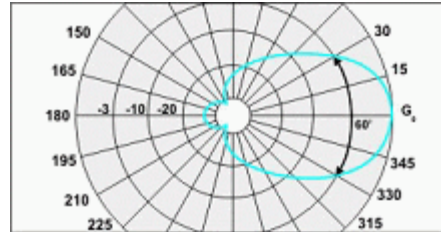
RAS-13W-60 E-plane pattern



RAS-16W-60 E-plane pattern (2,4 GHz)



"RAS-60" antennas H-plane pattern





WLAN 2400-2485 MHz
Panel antennas
RAS-11W-120, RAS-14W-120,
RAS-12W-90, RAS-15W-90

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RAS-11W-120



RAS-15W-90



Electrical specifications

Model	RAS-11W-120	RAS-12W-90	RAS-14W-120	RAS-15W-90
Operating frequency band, MHz	2400-2485	2400-2485	2400-2485	2400-2485
Gain, dBi	11	12	14	15
VSWR, not more than	1.5	1.5	1.5	1,5
Front-to-back ratio, dB	22	25	23	25
Polarization			vertical	
Electrical downtilt	3°	3°	7°	7°
Max. power input, W	10	10	10	10
Sector in H-plane (-3 dB)	120°	90°	120°	90°
Sector in E-plane (-3 dB)	13°	13°	7°	7°
Impedance, Ohm	50	50	50	50

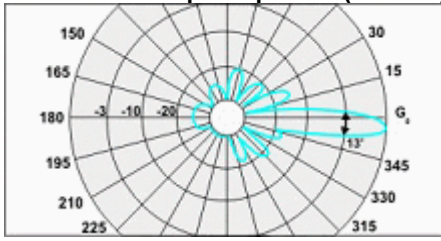
Mechanical specifications

Model	RAS-11W-120	RAS-12W-90	RAS-14W-120	RAS-15W-90
Dimencions (LxWxH), mm	138x103x580	138x103x580	138x103x1034	138x103x1034
Weight, kg	1.4	1.4	2.6	2.6
Rated wind velocity, m/s	43	43	43	43
Radiator	PCB	PCB	PCB	PCB
Radome	grey, ABS	grey, ABS	grey, ABS	grey, ABS
Mounting	on a mast 30-220 mm with "Norma" or CP-55D, CP-115, CP-220			
Connector	N-female on a cable			

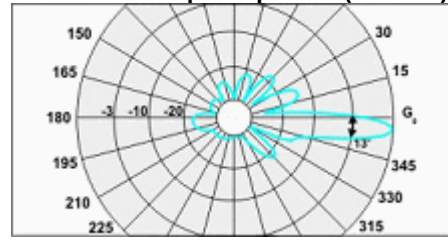
These antennas are assigned for their operation within the compound of the base stations while the service zones are sectored. By means of thee antennas it is also possible to create a circular antenna array if the allocation of the antennas with the circular radiation pattern is prevented by the various superconstructions and the building walls. The antennas are characterized by an increased gain and the standard sectors of the radiation pattern what will allow to use the radio-waves` energy with the maximum efficiency.

In spite of the existing electrical tilt of the beam which positively influences upon the energy distribution of the irradiation in the near-field zone the mechanical tilt is also possible by means of the mechanism MN-1.

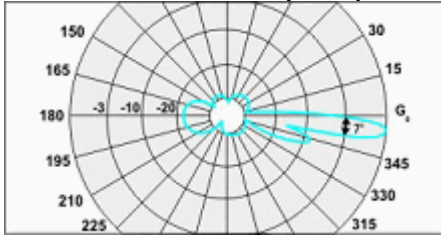
RAS-11W-120 E-plane pattern (2.4 GHz)



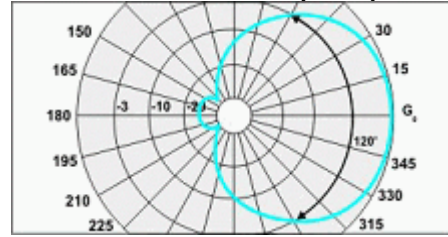
RAS-12W-90 E-plane pattern (2.4 GHz)



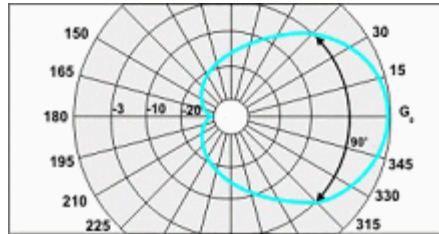
RAS-15W-90 and RAS-14W-120 E-plane pattern (2.4 GHz)



"RAS-120" antennas H-plane pattern



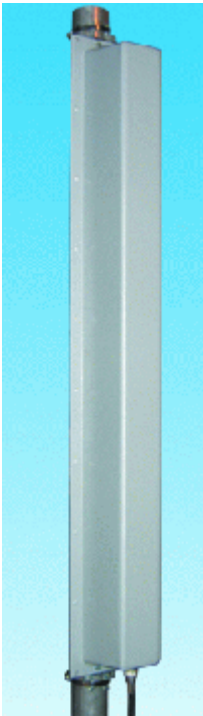
"RAS-90" antennas H-plane pattern





WLAN 2400-2485 MHz Panel antennas horizontal polarization RAH-15W-90

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Electrical specifications

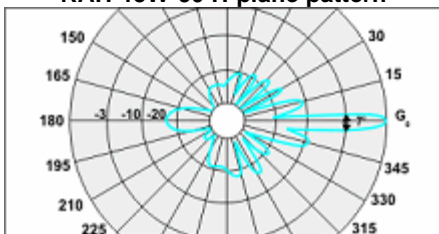
Model	RAH-15W-90
Operating frequency band, MHz	2400-2485
Gain, dBi	15
VSWR, not more than	1.5
Front-to-back ratio, dB	15
Polarization	horizontal
Max. power input, W	10
Sector in H-plane (-3 dB)	7°
Sector in E-plane (-3 dB)	90°
Impedance, Ohm	50

Mechanical specifications

Model	RAH-15W-90
Dimencions (LxWxH), mm	138x103x1034
Weight, kg	2.6
Rated wind velocity, m/s	43
Radiator	copper
Radome	grey, ABS
Mounting	on a wall or on a mast 30-220 mm with "Norma" or CP-55D, CP-115, CP-220
Connector	N-female on a cable

This base antenna with the horizontal polarization is ideally suitable for sectoring the servicing areas. The width of the radiation pattern by the level -3 dB is equal to 90°. By its construction this antenna is represented by an antenna array whole elements of which are fed in parallel what makes it possible to ensure the direction of the main lobe to be strictly horizontal within the whole working frequency band. The feeding circuit is made on the printed circuit board made of the high-quality SHF material.

RAH-15W-90 H-plane pattern



RAS-15W-90 E-plane pattern

