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DECT Antennas

Model	Short description	Band, MHz	Gain, dBi	Price, EUR
A-3D	Collinear, OMNI	1880-1900	3	61
A-5D	Collinear, OMNI	1880-1900	5.2	75
A-8D	Collinear, OMNI	1880-1900	8	82
SS-1D	Indoor, OMNI	1880-1900	1	20
SU-6D	Subscriber, Yagi	1880-1900	5.5	24
SU-12D	Subscriber, Yagi	1880-1900	12	88
SU-15D	Subscriber, Yagi	1880-1900	15	100
RAS-12D-60	Panel, sector in horiz. plane 60°	1880-1900	12	96
RAS-15D-60	Panel, sector in horiz. plane 60°	1880-1900	15	140
RAS-12D-90	Panel, sector in horiz. plane 90°	1880-1900	12	96
RAS-11D-120	Panel, sector in horiz. plane 120°	1880-1900	11	96
RAS-15D-90	Panel, sector in horiz. plane 90°	1880-1900	15	140
RAS-14D-120	Panel, sector in horiz. plane 120°	1880-1900	14	113
RAX-14D-70	Panel, X-pol	1880-1900	14	169
G 6D	Parabolic	1880-1900	17	405
G 12D	Parabolic	1880-1900	27	635



DECT 1880-1900 MHz Collinear antennas A-3D, A-5D, A-8D

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Electrical specifications

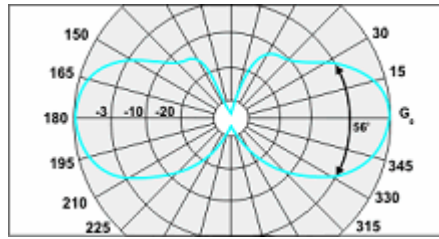
Model	A-3D	A-5D	A-8D
Operating Frequency band, MHz	1880-1900	1880-1900	1880-1900
Gain, dBi	3	5.2	8
VSWR, not more than	1.5	1.5	1.5
Polarization	vertical	vertical	vertical
Electrical downtilt	0°	0°	3°
Max. power input, W	10	10	10
Sector in H-plane (-3 dB)		360°	
Sector in E-plane (-3 dB)	56°	22°	10°
Impedance, Ohm	50	50	50

Mechanical specifications

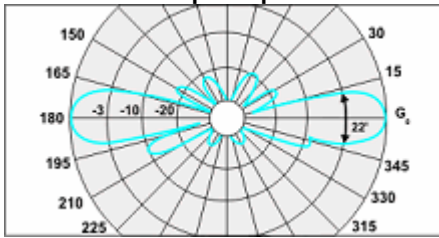
Model	A-3D	A-5D	A-8D
Dimensions (LxWxH), mm	35x35x370	35x35x840	35x35x1330
Weight, kg	0.1	0.28	0.38
Rated Wind Velocity, m/s	50	55	40
Radiator	PCB	PCB	PCB
Radome	grey PVC	grey PVC	grey PVC
Mounting kit	on a wall		on a mast
Connector	TNC-male		N-female (TNC optional)

These antennas are characterized by an ideally circular radiation pattern in horizontal plane and a gain coefficients of 3, 5,2 and 8 dBi correspondingly. The antenna A-3D is recommended to be applied as an inside-the-office antenna, while the rest of antennas - as the base antennas. The model A-8D has an increased gain and a tilt of the radiation pattern in a vertical plane what provides a maximum efficiency at receiving and transmitting the SHF power near the earth surface, where the subscribers are positioned.

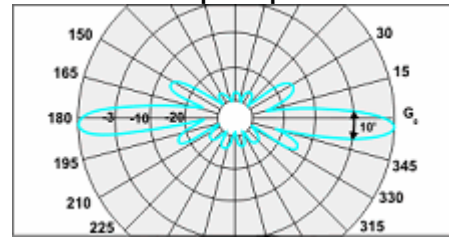
A-3D E-plane pattern



A-5D E-plane pattern



A-8D E-plane pattern





DECT 1880-1900 MHz Indoor Antennas SS-1D, SU-6D

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SS-1D



SU-6D



Electrical specifications

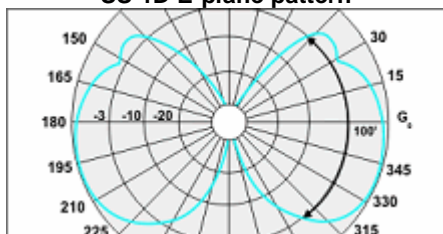
Model	SS-1D	SU-6D
Operating frequency band, MHz	1880-1900	1880-1900
Gain, dBi	1	5.5
VSWR, not more than	1.5	1.5
Polarization		vertical
Front-to-back ratio, dB	present	15
Max. power input, W	10	10
Sector in H-plane (-3 dB)	360°	90°
Sector in E-plane (-3 dB)	100°	52°
Impedance, Ohm	50	50

Mechanical specifications

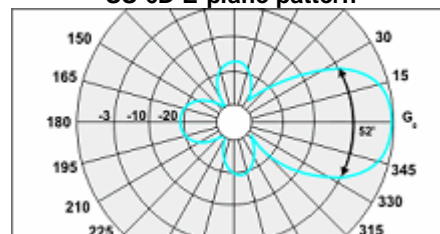
Model	SS-1D	SU-6D
Dimensions (LxWxH), mm	172x172x68	102x42x133
Weight, kg	0.08	0.25
Rated wind velocity, m/s	no data	55
Radiator	PCB	copper
Radome	Polystyrene white	ABS
Connector	N-female	TNC (N-fem, SMA - optional)
Mounting	On a ceiling	On a wall
Additional complete set	-	low loss cable 2.5 m

For creation of the inside-the-office or the inside-the-premises local DECT network these model would be very suitable. The antenna SS-1D is mounted on the ceiling and provides a circular radiation pattern, while the antenna SU-6D being fixed at any horizontal and vertical plane ensures the directional radiation of SHF power. Thus by means of using these antennas as well as the system of their feeding by the directed dividers of our production you will be able to construct an efficient inside-the-office communications system.

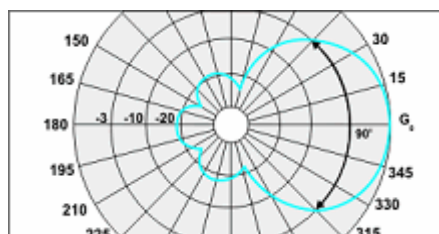
SS-1D E-plane pattern



SS-6D E-plane pattern



SU-6D H-plane pattern





DECT 1880-1900 MHz Subscribers' antennas SU-12D, SU-12D(M), SU-15D, SU-15D(M)

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SU-12D (wall mount.)



SU-15D (mast mount.)



SU-12D(M)



SU-15D(M)



SU-12D(M)Underside



Electrical specifications

Model	SU-12D/SU-12D(M)	SU-15D/SU-15D(M)
Operating frequency band, MHz	1880-1900	1880-1900
Gain, dBi	12	15
VSWR, not more than	1.5	1,5
Front-to-back ratio, dB	20	25
Polarization	vertical	vertical
Max. power input, W	10	10

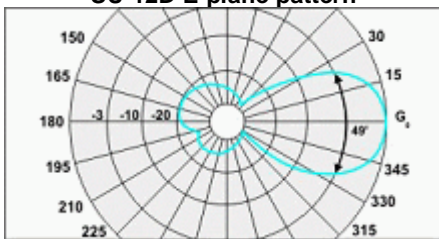
Sector in H-plane (-3 dB)	29°	30°
Sector in E-plane (-3 dB)	49°	32°
Impedance, Ohm	50	50

Mechanical specifications

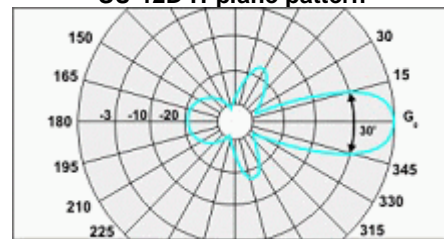
Model	SU-12D	SU-12D(M)	SU-15D	SU-15D(M)
Dimensions (LxWxH), mm	284x95x164	284x95x164	294x103x294	294x103x294
Weight, kg	0.8	0.8	1.2	1.2
Rated wind velocity, m/s	55	55	55	55
Radiator	copper	copper	copper	copper
Radome			grey, ABS	
Mounting	On a wall or on a mast with "Norma", CP-55D, CP-115, CP-220			
Connector	N-female on a cable	N-female	N-female on a cable	N-female

The subscribers' antennas SU-12D and SU-15D are assigned for the street application at constructing the DECT networks. Due to their construction (the antenna's array consists of passive and active "patch" elements) these antennas possess an increased gain and provide a reliable communication facilities for any distant subscriber. The antennas have a cable output what is very convenient for the encapsulating of the connector and for antenna mounting both on the pipe and on the wall of the building. For connecting the antenna to the base station or to the DECT-repeater we suggest you to use the feeders and the jumpers of our production which are specially designed for the energy transmission with the minimum losses.

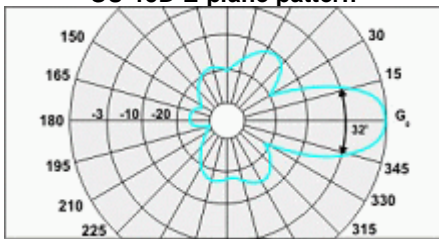
SU-12D E-plane pattern



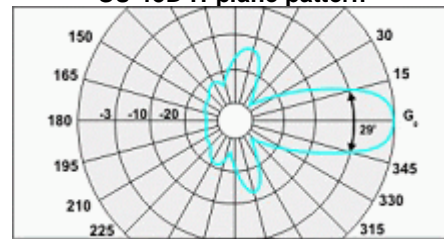
SU-12D H-plane pattern



SU-15D E-plane pattern



SU-15D H-plane pattern





DECT 1880-1900 MHz Panel antennas RAS-12D-60, RAS-15D-60

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RAS-12D-60



RAS-15D-60

Electrical specifications

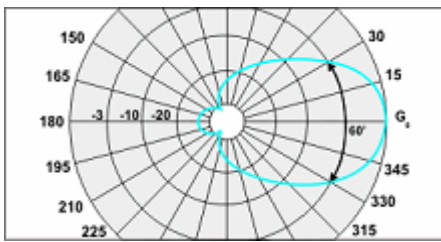
Model	RAS-12D-60	RAS-15D-60
Operating Frequency band, MHz	1880-1900	1880-1900
Gain, dBi	12	15
VSWR, not more than	1.5	1.5
Front-to-back ratio, dB	25	25
Polarization	vertical	vertical
Electrical downtilt	3°	6°
Max. Power input, W	20	20
Sector in H-plane (-3 dB)	60°	60°
Sector in E-plane (-3 dB)	18°	10°
Impedance, Ohm	50	50

Mechanical specifications

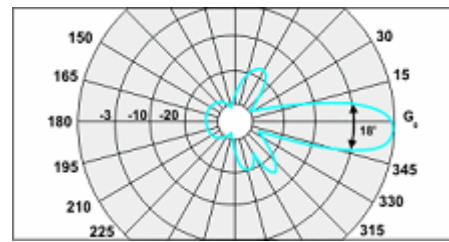
Model	RAS-12D-60	RAS-15D-60
Dimensions (LxWxH), mm	204x63x518	204x63x1015
Weight, kg	1.2	2
Rated Wind Velocity, m/s	55	43
Radiator	copper	copper
Radome		grey, ABS
Mounting	on a mast 30-220 mm with "Norma" or CP-55D, CP-115, CP-220	
Connector	N-female on a cable	

As the base antennas for DECT networks we suggest to use these narrow-sector antennas which have a standard servicing area within the sector of 60°. The antennas have a small electrical tilt of the radiation pattern beam in a vertical plane. For better narrowing of the main lobe it is possible to use our tilt mechanism MN-1. The cable output is very much convenient for the encapsulating of the connector, especially if the antenna is mounted on the wall.

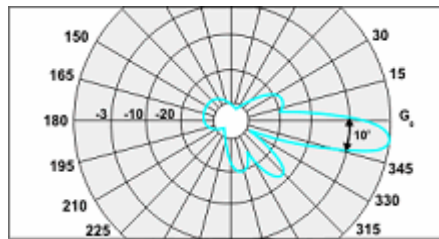
H-plane pattern "RAS-60"



RAS-12D-60 E-plane pattern



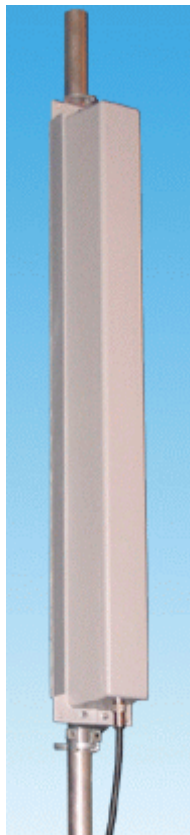
RAS-15D-60 E-plane pattern





DECT 1880-1900 MHz
Panel antennas
RAS-11D-120, RAS-14D-120,
RAS-12D-90, RAS-15D-90

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RAS-15D-90 (mast mount.)



RAS-11D-120 (wall mount.)

Electrical specifications

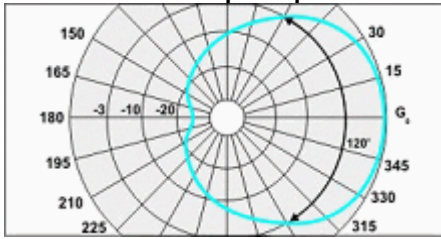
Model	RAS-11D-120	RAS-12D-90	RAS-14D-120	RAS-15D-90
Operating frequency band, MHz	1880-1900	1880-1900	1880-1900	1880-1900
Gain, dBi	11	12	14	15
VSWR, not more than	1.5	1,5	1.5	1.5
Front-to-back ratio, dB	22	25	23	25
Polarization			vertical	
Electrical downtilt	0°	0°	2°	2°
Max. power input, W	10	10	10	10
Sector in H-plane (-3 dB)	120°	90°	120°	90°
Sector in E-plane (-3 dB)	17°	17°	10°	9°
Impedance, Ohm	50	50	50	50

Mechanical specifications

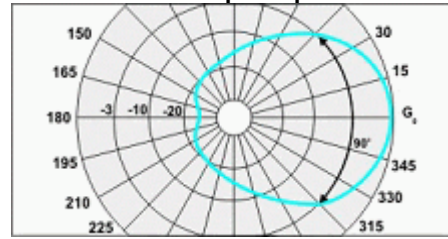
Model	RAS-11D-120	RAS-12D-90	RAS-14D-120	RAS-15D-90
Dimencions (LxWxH), mm	138x103x580	138x103x580	138x103x1034	138x103x1034
Weight, kg	1.45	1.4	2.7	2.6
Rated wind velocity, m/s	40	43	40	43
Radiator	PCB	PCB	PCB	PCB
Radome			grey, ABS	
Mounting	on a mast 30-220 mm with "Norma" or CP-55D, CP-115, CP-220			
Connector	N-female on a cable			

These antennas are assigned for the work within a compound of the base stations while sectoring the servicing area. Due to the increased gain and the standard sectors of the radiation pattern the adequately matched arrays from these antennas will provide the needed traffic and a high range of coverage of the DECT base station. Despite of the existing electrical tilt of the beam which positively influences upon the distribution of the irradiation energetic characteristics within the near-field zone, a mechanical tilt is also possible by means of the mechanism MN-1.

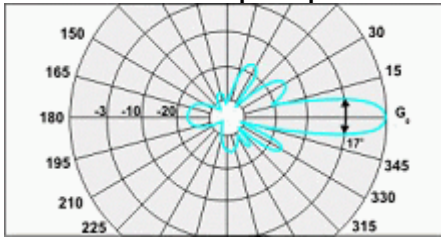
"RAS-120" E-plane pattern



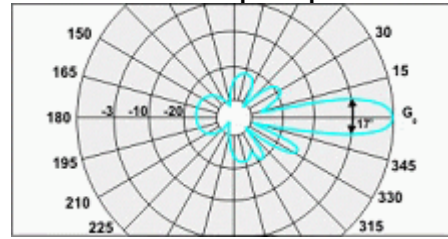
"RAS-90" E-plane pattern



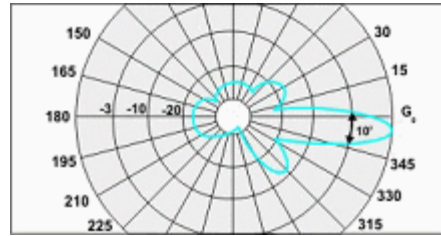
RAS-11D-120 E-plane pattern



RAS-12D-90 E-plane pattern



RAS-14D-120 and RAS-15D-90 E-plane pattern





DECT 1880-1900 MHz X-polarization Panel Antenna RAX-14D-70

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Electrical specifications

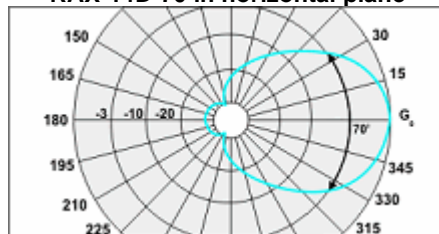
Model	RAX-14D-70
Operating Frequency band, MHz	1710-1900
Gain, dBi	14
VSWR, not more than	1.5
Front-to back ratio, dB	20
Polarization	$\pm 45^\circ$
Isolation, dB	-20
Electrical downtilt	0°
Max. power input, W	10
Sector in horizontal plane	70°
Sector in vertical plane	17°

Mechanical specifications

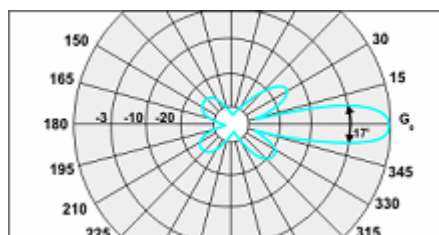
Model	RAX-14D-70
Dimensions (LxWxH), mm	204x63x518
Weight, kg	2
Rated Wind Velocity, m/s	50
Radiator	copper
Radome	grey, ABS
Mounting	on a mast (30-220 M) with "Norma" or CP-55D, CP-115, CP-220
Connector	N-female on a cable

Specially for the DECT standard an antenna RAX-14D-70 with the inclined polarization has been developed for the implementation of the spaced receiving technique. This panel consists of two independent antennas of polarization $\pm 45^\circ$, the gain of 14 dBi and the outputs separation not less than 30 dB. The irradiation sector by the level of a half power value is about 70°. For the adjustment of the radiation pattern in a vertical plane we suggest to use the tilt mechanism MN-1.

RAX-14D-70 in horizontal plane



RAX-14D-70 in vertical plane





**DECT 1880-1900 MHz/WLAN
2400-2485 MHz
Parabolic Antennas G 6D, G
12D, G 6W, G 12W**

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Electrical specifications

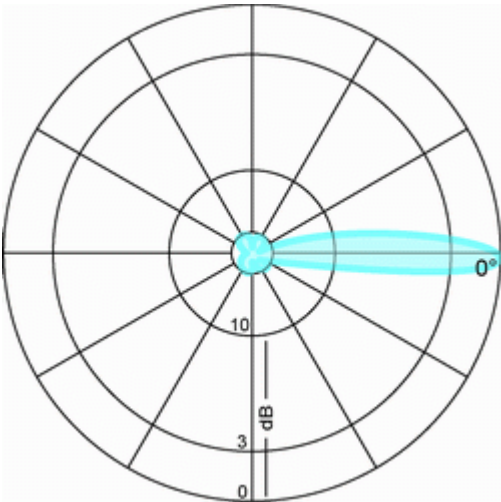
Model	G 6D	G 12D	G 6W	G 12W
Operating Frequency band, MHz		1880-1900		2400-2485
Gain, dBi	17	27	18	28
VSWR, not more than			1,3	
Front-to-back ratio			25	
Polarization			vert. -	horizont.
Max. power input, W			100	
Sector in H-plane	17°	12°	15°	10°
Sector in E-plane	15°	10°	13°	8°

Mechanical specifications

	600x600x590	1200x1200x400	600x600x590	1200x1200x400
Length/Width/Depth, mm	600x600x590	1200x1200x400	600x600x590	1200x1200x400
Weight, kg	7	20	7	20
Mast diameter, mm	36-68	38-115	36-68	38-115
Rated Wind Velocity, m/s				
Parabola diam., mm	600	1200	600	1200
Radiator			coppler	
Reflector			aluminum	
Radome			optional	
Mounting			Steel	

This unusual subscriber's equipment is a grave SHF antenna that is supposed to be used first of all for ensuring high reliability of the communication channel in all-weather conditions. The blasts of the wind, snow, ice, impudent ravens attacks - all these factors can hardly damage the all-welded array of aluminum profile of the 25mm cross section. The antenna feed is reliably protected by the plastic radio transparent case. The antenna mounting implies the change in polarization, and in 120-cm "plate" - also the adjusting of the beam taking into account the mast tilt and the direction to the object. Because of the fact that the antenna is made as an array, its windage is significantly lower than in the case of classical all-metal reflectors. Naturally the cost of these antennas is relatively high comparing with the mass products. However, if compared with the prices of the worldwide leader RFS for the similar production, our price seems to be very attractive.

G 6D, G 6W E-plane pattern



G 6D, G 6W H-plane pattern

