



**3.4-3.6 GHz
5.15-5.35 GHz
5.75-5.85 GHz Antennas**

107497, Moscow Chernicinsky pr-d 7/1
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Model	Short description	Band, MHz	Gain, dBi	Price EUR
A-8X	Collinear, OMNI, fiberglass, white	3400-3600	8	76
A-11X	Collinear, OMNI, fiberglass, white	3400-3600	11	80
SU-12X	Subscriber antenna, ABS-grey	3400-3600	12	43
SU-15X	Subscriber antenna, ABS-grey	3400-3600	15	96
SU-18X	Subscriber antenna, ABS-grey	3400-3600	18	158
RAS-12X-60	Panel, sector in horiz. plane 60°	3400-3600	12	85
RAS-15X-60	Panel, sector in horiz. plane 60°	3400-3600	15	113
RAS-18X-60	Panel, sector in horiz. plane 60°	3400-3600	18	140
A-8Y	Collinear, OMNI, fiberglass, white	5150-5350	8	74
A-11Y	Collinear, OMNI, fiberglass, white	5150-5350	11	78
A-8Z	Collinear, OMNI, fiberglass, white	5750-5850	8	74
A-11Z	Collinear, OMNI, fiberglass, white	5750-5850	11	78
SU-12Y	Subscriber antenna, ABS-grey	5150-5350	12	32
SU-15Y	Subscriber antenna, ABS-grey	5150-5350	15	43
SU-18Y	Subscriber antenna, ABS-grey	5150-5350	18	96
SU-12Z	Subscriber antenna, ABS-grey	5750-5850	12	32
SU-15Z	Subscriber antenna, ABS-grey	5750-5850	15	43
SU-18Z	Subscriber antenna, ABS-grey	5750-5850	18	96



3400-3600 MHz Collinear antennas A-8X, A-11X

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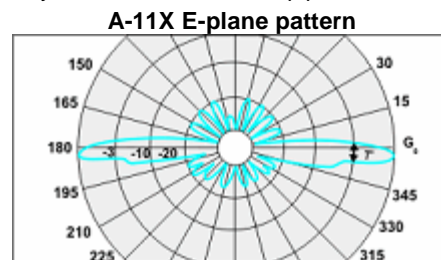
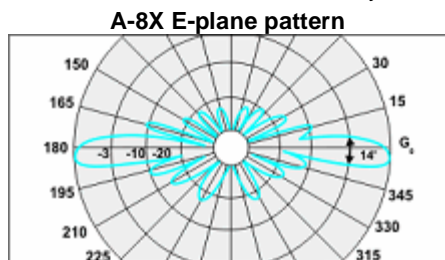
Electrical specifications

Model	A-8X	A-11X
Operating frequency band, MHz	3400-3600	3400-3600
Gain, dBi	8	11
VSWR, not more than	1.5	1.5
Polarization		vertical
Electrical downtilt (3.4 GHz)	3°	7°
Max. power input, W	10	10
Sector in H-plane (-3 dB)	360°	360°
Sector in E-plane (-3 dB)	14°	7°
Impedance, Ohm	50	50

Mechanical specifications

Model	A-8X	A-11X
Dimensions (LxWxH), mm	35x35x490	35x35x990
Weight, kg	0.15	0.31
Rated wind velocity, m/s	50	50
Radiator	PCB	PCB
Radome	grey PVC	grey PVC
Mounting kit CPK-70		On a mast (35-70 mm) or on wall
Connector		N-female (TNC optional)

For the work within the frequency range 3,4-3,6 GHz we suggest to use our new collinear vertical antennas A-8X and A-11X. These antennas possess an increased gain (8 and 11 dBi), an ideally circular radiation pattern, small electrical tilt of the beam in a vertical plane. These antennas are mounted by means of the wall bracket and by a worm buckle at the pipe-mast.





3400-3600 MHz Subscribers' antennas SU-12X, SU-15X, SU-18X

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SU-12X



SU-15X



SU-18X



Electrical specifications

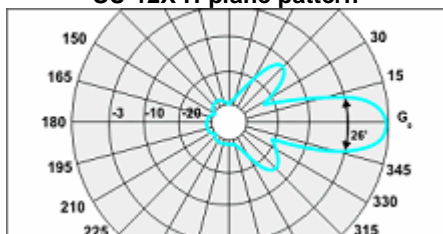
Model	SU-12X	SU-15X	SU-18X
Operating frequency band, MHz	3400-3600	3400-3600	3400-3600
Gain, dBi	12	15	18
VSWR, not more than	1.5	1.5	1.5
Front-to-back ratio, dB	26	27	28
Polarization	vertical	vertical	vertical
Max. power input, W	10	10	10
Sector in H-plane (-3 dB)	26°	12°	6°
Sector in E-plane (-3 dB)	70°	70°	70°
Impedance, Ohm	50	50	50

Mechanical specifications

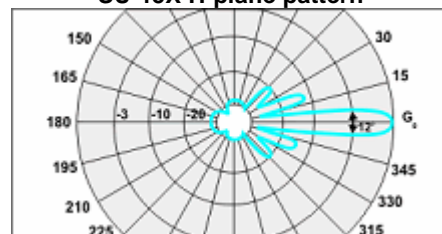
Model	SU-12X	SU-15X	SU-18X
Dimensions (LxWxH), mm	300x65x195	520x60x200	740x60x200
Weight, kg	0.54	1.1	1.5
Rated wind velocity, m/s	55	55	43
Radiator	PCB	PCB	PCB
Radome	grey, ABS	grey, ABS	grey, ABS
Mounting	On a wall or on a mast with "Norma", CP-55D, CP-1150, CP-220		
Connector	N-female on a cable		

As subscribers' antennas for the frequency values 3.4-3.6 GHz we propose the models SU-12X with the gain of 12 dBi, SU-15X with the gain of 15 dBi, SU-18X with the gain of 18 dBi. The antennas are implemented similarly to the models for the DECT and WLAN ranges. They possess a convenient cable output, can be mounted both on a mast and on a flat surface and have an all-weather types performance. All the subscribers' antennas have a narrow radiation pattern in H-plane and rather a wide radiation pattern in E-plane (70° by the level -3 dB). 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.

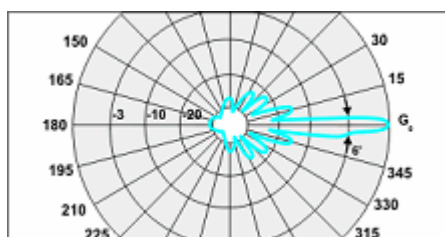
SU-12X H-plane pattern



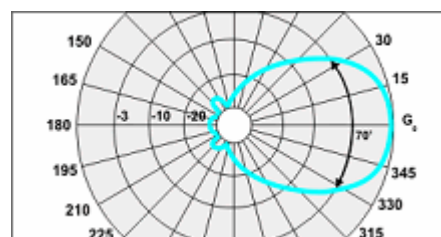
SU-15X H-plane pattern



SU-18X H-plane pattern



SU-12X, SU-15X, SU-18X E-plane pattern





3400-3600 MHz Panel antennas RAS-12X-60, RAS-15X-60, RAS-18X-60

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RAS-12X-60



RAS-15X-60



RAS-18X-60



Electrical specifications

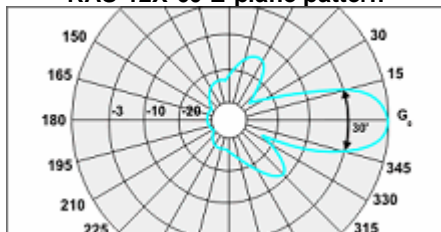
Model	RAS-12X-60	RAS-15X-60	RAS-18X-60
Operating frequency band, MHz	3400-3600	3400-3600	3400-3600
Gain, dBi	12	15	18
VSWR, not more than	1.5	1.5	1.5
Front-to-back ratio, dB	30	34	36
Polarization		vertical	
Max. power input, W	10	10	10
Sector in H-plane (-3 dB)	60°	60°	60°
Sector in E-plane (-3 dB)	30°	12°	6°

Mechanical specifications

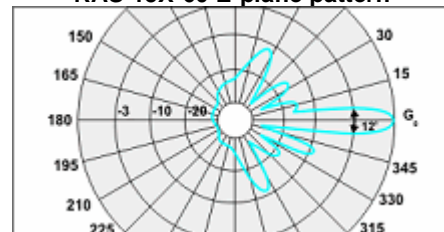
Model	RAS-12X-60	RAS-15X-60	RAS-18X-60
Dimensions (LxWxH), mm	195x65x300	200x60x520	200x60x740
Weight, kg	0.54	1.1	1.6
Rated wind velocity, m/s	55	55	43
Radiator	PCB	PCB	PCB
Radome		grey ABS	
Mounting	on a wall or on a mast 30-220 mm with "Norma" or CP-55D, CP-115, CP-220		
Connector	N-female on a cable		

A set of the panel sector antennas for 3,4-3,6 GHz is represented up to now by only these models. A high gain (up to 18 dBi), a standard sector of irradiation in horizontal plane of 60°, a reliable all-weather types performance, an universal way of mounting (on the wall, on the pipe-mast of the diameter 25-220mm), the cable output - all of these factors allow applying the antennas for the construction of the base stations WiMAX. 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.

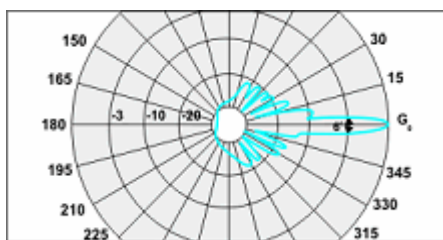
RAS-12X-60 E-plane pattern



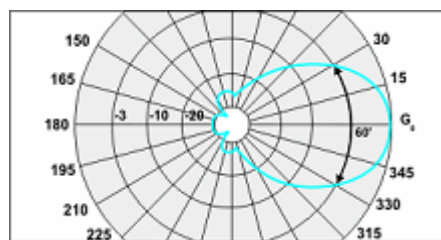
RAS-15X-60 E-plane pattern



RAS-18X-60 E-plane pattern



"RAS-X-60" antennas H-plane pattern





5150-5350 MHz Collinear antennas A-8Y, A-11Y

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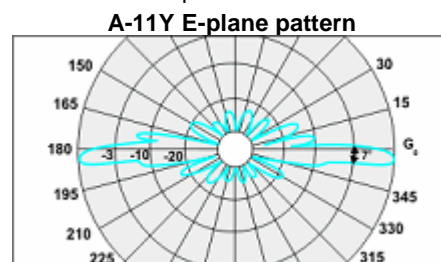
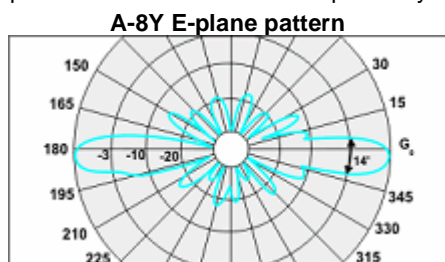
Electrical specifications

Model	A-8Y	A-11Y
Operating frequency band, MHz	5150-5350	5150-5350
Gain, dBi	8	11
VSWR, not more than	1.5	1.5
Polarization		vertical
Electrical downtilt	3°	7°
Max. power input, W	10	10
Sector in H-plane (-3 dB)	360°	360°
Sector in E-plane (-3 dB)	14°	7°
Impedance, Ohm	50	50

Mechanical specifications

Model	A-8Y	A-11Y
Dimensions (LxWxH), mm	35x35x370	35x35x810
Weight, kg	0.1	0.25
Rated wind velocity, m/s	50	50
Radiator	PCB	PCB
Radome	grey PVC	grey PVC
Mounting kit CPK-70		on a mast 35-70 mm or on wall
Connector		N-female

The vertical antennas A-8Y and A-11Y possess an increased gain (8 and 11 dBi), an ideally circular radiation pattern, small electrical tilt of the beam in a vertical plane. Their construction is formed by an antenna array with consequent feeding of the elements on the printed circuit board, implemented on the SHF material, which is characterized by a small value of the dielectric losses. The printed circuit boards are also plated by an SHF-lacquer, and the radome is encapsulated.





5750-5850 MHz Collinear antennas A-8Z, A-11Z

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Electrical specifications

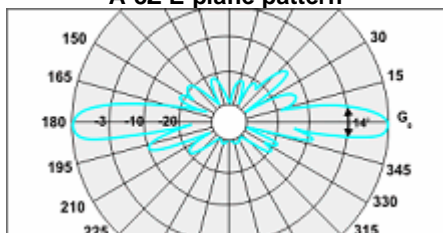
Model	A-8Z	A-11Z
Operating frequency band, MHz	5750-5850	5750-5850
Gain, dBi	8	11
VSWR, not more than	1.5	1.5
Polarization		vertical
Electrical downtilt (5.75 GHz)	1°	2°
Max. power input, W	10	10
Sector in H-plane (-3 dB)	360°	360°
Sector in E-plane (-3 dB)	14°	7°
Impedance, Ohm	50	50

Mechanical specifications

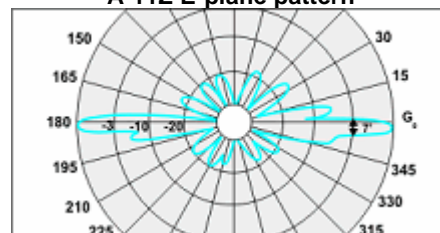
Model	A-8Z	A-11Z
Dimensions (LxWxH), mm	35x35x370	35x35x810
Weight, kg	0.1	0.25
Rated wind velocity, m/s	50	50
Radiator	PCB	PCB
Radome	grey PVC	grey PVC
Mounting kit CPK-70		On a mast (35-70 mm) or on wall
Connector		N-female

The vertical antennas A-8Z and A-11Z possess an increased gain (8 and 11 dBi), an ideally circular radiation pattern, small electrical tilt of the beam in a vertical plane. Their construction is formed by an antenna array with consequent feeding of the elements on the printed circuit board, implemented on the SHF material, which is characterized by a small value of the dielectric losses. The printed circuit boards are also plated by an SHF-lacquer, and the radome is encapsulated. The antennas are characterized by small sizes and reliable implementation.

A-8Z E-plane pattern



A-11Z E-plane pattern





5150-5350 MHz Subscribers' antennas SU-12Y, SU-15Y, SU-18Y

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SU-12Y



SU-15Y



SU-18Y



Electrical specifications

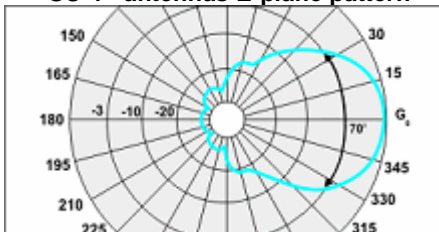
Model	SU-12Y	SU-15Y	SU-18Y
Operating frequency band, MHz	5150-5350	5150-5350	5150-5350
Gain, dBi	12	15	18
VSWR, not more than	1.5	1.5	1.5
Front-to-back ratio, dB	35	39	30
Polarization	vertical	vertical	vertical
Max. power input, W	10	10	10
Sector in H-plane (-3 dB)	26°	12°	6°
Sector in E-plane (-3 dB)	70°	70°	70°
Impedance, Ohm	50	50	50

Mechanical specifications

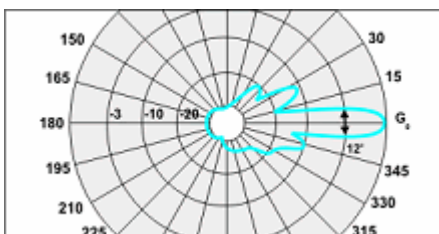
Model	SU-12Y	SU-15Y	SU-18Y
Dimensions (LxWxH), mm	130x50x100	300x65x195	520x60x200
Weight, kg	0.2	0.54	1.1
Rated wind velocity, m/s	55	55	43
Radiator	PCB	PCB	PCB
Radome	grey, ABS	grey, ABS	grey, ABS
Mounting	On a wall or on a mast with "Norma", CP-55D, CP-1150, CP-220		
Connector	N-female on a cable		

A new set of the subscribers' antennas for 5,15-5,35 GHz includes the models SU-12Y with the gain of 12 dBi, SU-15Y with the gain of 15 dBi, SU-18Y with the gain of 18 dBi. They have a convenient cable output, are mounted both on the mast and on the flat surface and possess an all-weather types performance. By their construction the active elements compose a printed circuit board, which is plated by a special SHF - lacquer in order to ensure the antennas' characteristics not to be changed during the whole exploitation period. The radome is encapsulated and, as well as in all antennas, a drainage is provided to escape the condensate formation. 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.

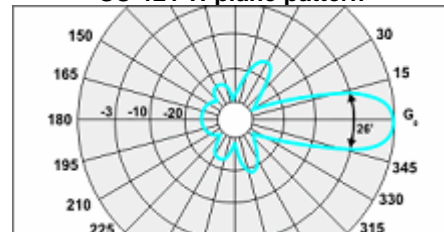
"SU-Y" antennas E-plane pattern



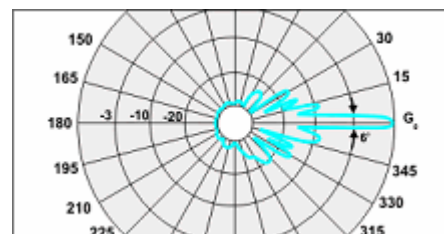
SU-15Y H-plane pattern



SU-12Y H-plane pattern



SU-18Y H-plane pattern





5750-5850 MHz Subscribers' antennas SU-12Z, SU-15Z, SU-18Z

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SU-12Z



SU-15Z



SU-18Z



Electrical specifications

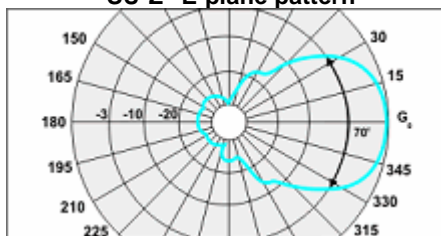
Model	SU-12Z	SU-15Z	SU-18Z
Operating frequency band, MHz	5750-5850	5750-5850	5750-5850
Gain, dBi	12	15	18
VSWR, not more than	1.5	1.5	1.5
Front-to-back ratio, dB	35	39	30
Polarization	vertical	vertical	vertical
Max. power input, W	10	10	10
Sector in H-plane (-3 dB)	26°	12°	6°
Sector in E-plane (-3 dB)	70°	70°	70°
Impedance, Ohm	50	50	50

Mechanical specifications

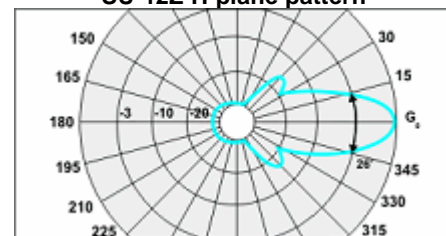
Model	SU-12Z	SU-15Z	SU-18Z
Dimensions (LxWxH), mm	130x50x100	300x65x195	520x60x200
Weight, kg	0.54	1.1	1.5
Rated wind velocity, m/s	55	55	43
Radiator	PCB	PCB	PCB
Radome	grey, ABS	grey, ABS	grey, ABS
Mounting	On a wall or on a mast with "Norma", CP-55D, CP-1150, CP-220		
Connector	N-female on a cable		

As for the portion of the frequency range of 5,75-5,85 GHz, it is presented by our new subscribers' antennas of the series named "SU". The models SU-12Z (12 dBi), SU-15Z (15 dBi), SU-18Z (18 dBi) possess all the advantages of the high-efficient antennas of the point-to-point type: a high gain value, the temporal and the climatic stability of the characteristics, a convenience of the mounting (on the wall or on the pipe-mast) and a convenience of the capsulation (a cable output). The cable output is implemented on the high-quality cable of Huber-Suhner production and on connector of Rosenberger production what ensures a stability of the characteristics.

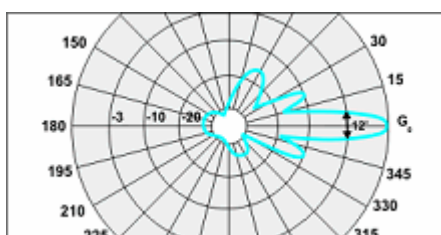
"SU-Z" E-plane pattern



SU-12Z H-plane pattern



SU-15Z H-plane pattern



SU-18Z H-plane pattern

