



## Directional TETRA antennas with folded dipole

107497, Moscow Chernicinsky pr-d 7/1  
Tel.: (495) 775-43-19, 462-44-14  
Tel./fax: 462-44-14  
E-mail: radial@radial.ru  
www.radial.ru

Model	Short description	Band, MHz	Gain, dBi
Y4-T	4-element yagi with folded dipole as feed element	380-400	8.15
Y6-T	6-element yagi with folded dipole as feed element	380-400	11.15
Y9-T	9-element yagi with folded dipole as feed element	380-400	13.15
Y4-UHF(L)	4-element yagi with folded dipole as feed element	390-440	8.15
Y6-UHF(L)	6-element yagi with folded dipole as feed element	400-445	11.15
Y9-UHF(L)	9-element yagi with folded dipole as feed element	395-430	13.15

2009



## 380-400 MHz Directional TETRA antennas Y4- T, Y6-T, Y9-T

107497, Moscow Chernicinsky pr-d 7/1  
Tel.: (495) 775-43-19, 462-44-14  
Tel./fax: 462-44-14  
E-mail: radial@radial.ru  
www.radial.ru

Y4-T



Y6-T



Y9-T



### Electrical specifications

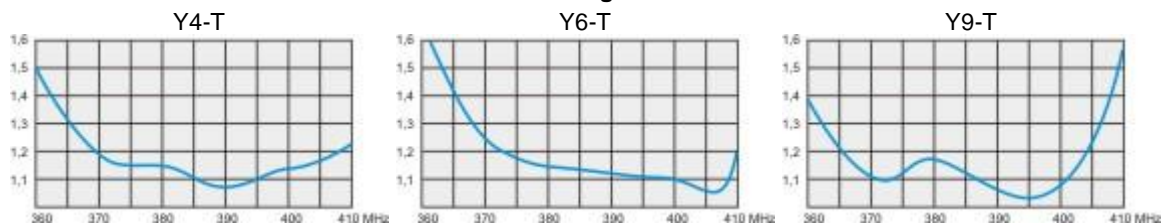
Model	Y4-T	Y6-T	Y9-T
Operating frequency band, MHz	380-400	380-400	380-400
VSWR, not more than	1.5	1.5	1.5
Gain, dBi	8.15	11.15	13.15
Sector, -3dB			
in vertical plane	60°	50°	40°
in horizontal plane	60°	50°	38°
Polarization	vertical	vertical	vertical
Impedance, Ohm	50	50	50
Max. power input, W	200	200	200

### Mechanical specifications

Model	Y4-T	Y6-T	Y9-T
Weight, kg	1.45	1.85	2.35
Size, mm	810x380x140	1250x380x140	2100x380x140
Construction material	Aluminium alloy	Aluminium alloy	Aluminium alloy
Mast diameter, mm	25-55	38-65	38-65
Rated wind velocity, m/s	50	45	45
Wind loading area, m <sup>2</sup>	0.04	0.05	0.08
Load of side wind 45 m/s, H	45	55	87
Rated wind velocity with 0.5" icing, m/s	28	28	28
Temperature range, °C	from -50 to +50	from -50 to +50	from -50 to +50
Connector	N-female	N-female	N-female

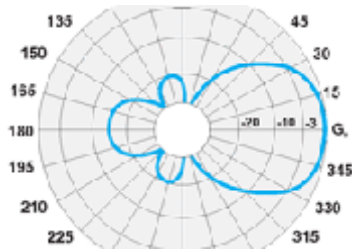
Antennas Y4, Y6, Y9-T were designed specifically to operate as a part of communication systems in regions with tough climatic conditions: at far North, mountainous regions, and maritime climatic zone. All-welded construction makes its invulnerable to icing and strong wind. Polymeric coating protects its from hostile environment. Once antennas Y4-T (Y6, Y9-T) are installed you can forget about it for a long time.

### VSWR diagrams

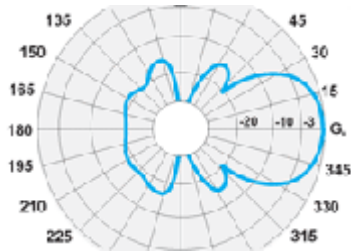


**E-plane pattern**

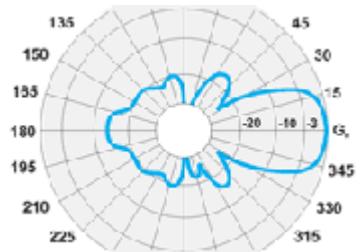
Y4-T



Y6-T

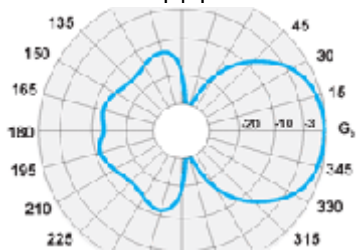


Y9-T

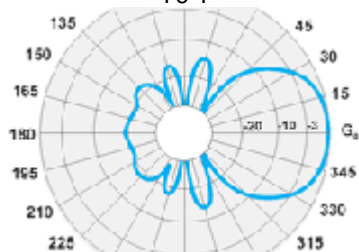


**H-plane pattern**

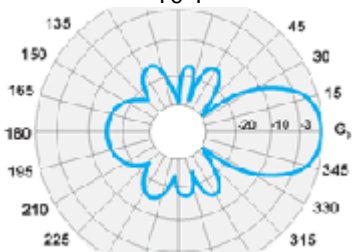
Y4-T



Y6-T



Y9-T





## 390-490 MHz Directional antennas Y4 UHF (L, H)

107497, Moscow Chernicinsky pr-d 7/1  
Tel.: (495) 775-43-19, 462-44-14  
Tel./fax: 462-44-14  
E-mail: radial@radial.ru  
www.radial.ru



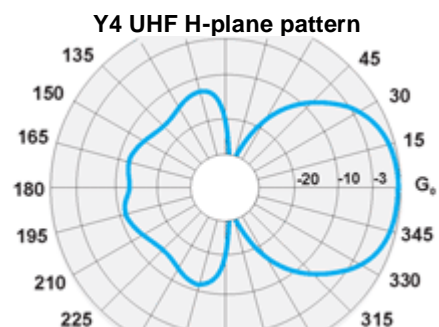
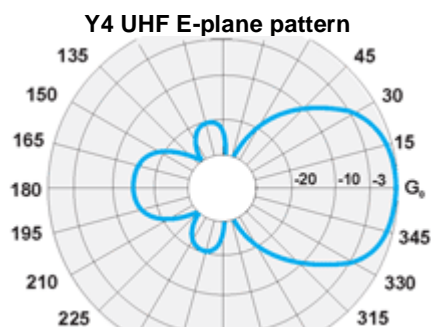
Electrical specifications

Model	Y4 UHF(L)	Y4 UHF(H)
Operating frequency band, MHz	390-440	430-490
VSWR, not more than		1.5
Gain, dBi		8.15
Sector , -3dB in vertical plane		63°
in horizontal plane		68°
Polarization		vertical
Impedance, Ohm		50
Max. power input, W		400

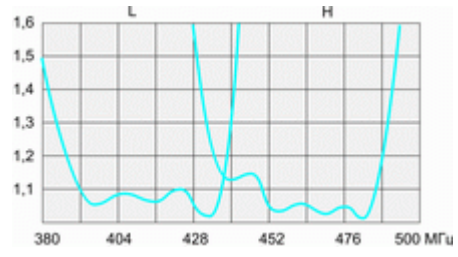
Mechanical specifications

Model	Y4 UHF(L)	Y4 UHF(H)
Weight, kg		1.45
Size, mm		840x350x120
Construction material		Aluminium alloy
Mast diametr, mm		25-55
Rated wind velocity, m/s		45
Wind loading area, m <sup>2</sup>	0.05	0.04
Load of side wind 45 m/s, H	55	45
Rated wind velocity with 0.5" icing, m/s		28
Temperature range, °C		from -50 to +50
Connector		N-female

Antenna Y4 UHF was designed specifically to operate as a part of communication systems in regions with tough climatic conditions: at far North, mountainous regions, and maritime climatic zone. All-welded construction makes it invulnerable to icing and strong wind. Polymeric coating protects it from hostile environment. This antenna will be optimal for subscriber radio stations, operating with frequency separation 10-12 MHz, due to wide operating band. There are not so many antennas able to provide such bandwidth!



VSWR diagram, Y4 UHF(L, H)



2009



## 400-475 MHz Directional antennas Y6 UHF (L, H)

107497, Moscow Chernicinsky pr-d 7/1  
Tel.: (495) 775-43-19, 462-44-14  
Tel./fax: 462-44-14  
E-mail: radial@radial.ru  
www.radial.ru



Electrical specifications

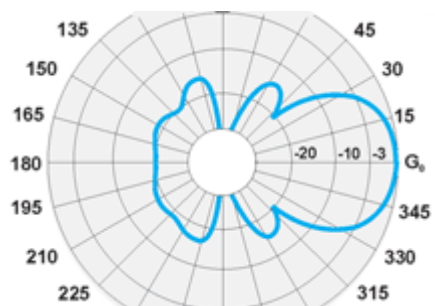
Model	Y6 UHF(L)	Y6 UHF(H)
Operating frequency band, MHz	400-445	435-475
VSWR, not more than		1.5
Gain, dBi		11.15
Sector, -3dB in vertical plane		53°
in horizontal plane		60°
Polarization		vertical
Impedance, Ohm		50
Max. power input, W		400

Mechanical specifications

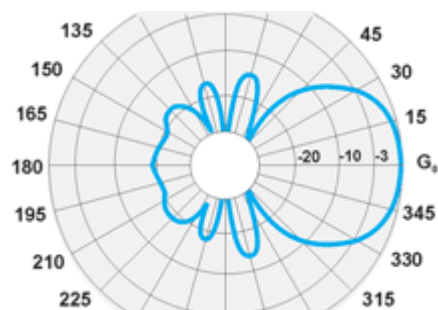
Model	Y6 UHF(L)	Y6 UHF(H)
Weight, kg		2.45
Size, mm		1100x350x120
Construction material		Aluminium alloy
Mast diameter, mm		38-65
Rated wind velocity, m/s		50
Wind loading area, m <sup>2</sup>		0.04
Load of side wind 45 m/s, H		50
Rated wind velocity with 0.5" icing, m/s		28
Temperature range, °C		from -50 to +50
Connector		N-female

Antenna Y6 UHF was designed specifically to operate as a part of communication systems in regions with tough climatic conditions: at far North, mountainous regions, and maritime climatic zone. All-welded construction makes it invulnerable to icing and strong wind. Polymeric coating protects it from hostile environment. Antenna Y6 UHF is perfect solution for making links between paging or trunking communication base stations. Once antenna Y6 UHF is installed you can forget about it for a long time.

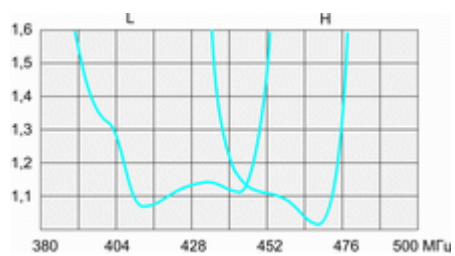
Y6 UHF E-plane pattern



Y6 UHF H-plane pattern



VSWR diagram, Y6 UHF(L, H)





## 395-470 MHz Directional antennas Y9 UHF (L, H)

107497, Moscow Chernicinsky pr-d 7/1  
Tel.: (495) 775-43-19, 462-44-14  
Tel./fax: 462-44-14  
E-mail: radial@radial.ru  
www.radial.ru



### Electrical specifications

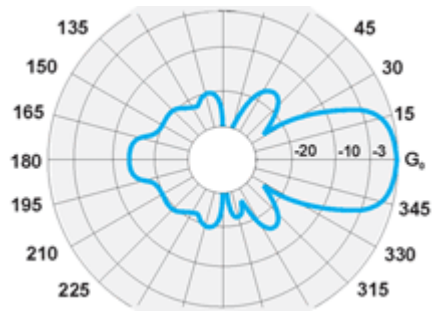
Model	Y9 UHF(L)	Y9 UHF(H)
Operating frequency band, MHz	395-430	435-470
VSWR, not more than		1.5
Gain, dBi		13.15
Sector, -3dB in vertical plane		36°
in horizontal plane		39°
Polarization		vertical
Impedance, Ohm		50
Max. power input, W		400

### Mechanical specifications

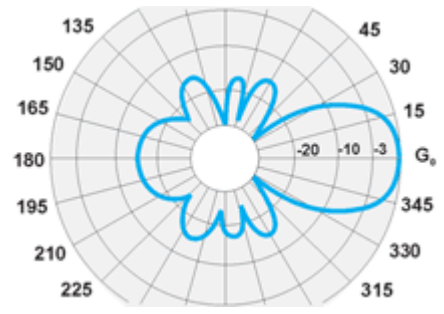
Model	Y9 UHF(L)	Y9 UHF(H)
Weight, kg		2.9
Size, mm		1800x360x120
Construction material		Aluminium alloy
Mast diameter, mm		38-65
Rated wind velocity, m/s		45
Wind loading area, m <sup>2</sup>	0.08	0.07
Load of side wind 45 m/s, H	85	75
Rated wind velocity with 0.5" icing, m/s		28
Temperature range, °C		from -50 to +50
Connector		N-female

Antenna Y9 UHF is unique product, involving high requirements to gain along with wide band and mechanical strength. Such antenna will provide highest possible range out of field of view, operating at maximum allowable transmitter power output. Polymeric coating ensures protection from hostile environment and icing.

Y9 UHF E-plane pattern



Y9 UHF H-plane pattern



VSWR diagram, Y9 UHF(L, H)

