







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

GSM Antennas

Model	Short description	Band, MHz	Gain, dBi	Price, EUR
SS-3GL	Indoor, ceiling	860-970	3	32
SU-6GL	Subscriber, patch	860-970	5.5	38
SU-6GH	Subscriber, patch	1710-1900	5.5	38
RAO-4G-60	Panel, sector in horiz. plane 60°	806-890/870-960	13	235
RAO-4G-90	Panel, sector in horiz. plane 90°	806-890/870-960	12	216
RAO-4G-120	Panel, sector in horiz. plane 120°	806-890/870-960	11	207
RAO-11GL-60	Panel, sector in horiz. plane 60°	860-970	11	
RAO2-10GH-60	Panel, sector in horiz. plane 60°	1710-1880	10	
SU-12-915	Subscriber, patch	902-928	12	
RAS-12-915-60	Panel, sector in horiz. plane 60°	902-928	12	
Y5 GL	Directional subscribers	860-970	9	28
Y15-GL	15-element yagi GSM	870-960	12	
SV-2GL	Antennas power dividers	860-970		
SV-3GL	Antennas power dividers	860-970		
SV-4GL	Antennas power dividers	860-970		



GSM 860-970/1710-1900 MHz Subscribers' antennas SS-3GL, SU-6GL, SU-6GH

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	SS-3GL	SU-6GL	SU-6GH
Operating frequency band, Mhz	860-970	860-970	1710-1900
Gain, dBi	3	5.5	5,5
VSWR, not more than	1.5	1.5	1.5
Front-to-back ratio, dB	present	15	15
Polarization			vertical
Max. power input, W	50	50	50
H-plane beamwidth	360°	86°	86°
E-plane beamwidth	100°	55°	55°
Impedance, Ohm	50	50	50

Mechanical specifications

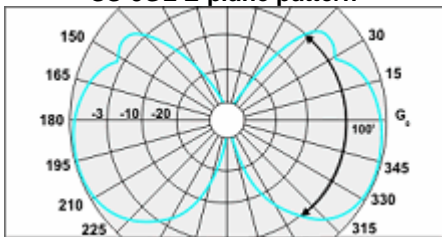
Model	SS-3GL	SU-6GL	SU-6GH
Dimensions (LxWxH), mm	250x250x90	195x50x265	195x50x265
Weight, kg	0.25	0.85	0.8
Rated wind velocity, m/s	no data	55	55
Radiator	copper	copper	copper
Radome	Polystyrene white	grey ABS	grey ABS
Mounting	On a ceiling		On a wall
Connector	N-female	N-female on a cable (SMA, TNC - optional)	

This small subscriber's antenna - SU-6G, will help to increase significantly the quality of the mobile cellular telephone operation. It will also ensure a reliable operation of the GSM repeater for improving the cellular coverage inside the premises: big iron-concrete buildings, the premises below the earth level, etc. The antennas are suitably mounted on the pipe-mast, on the wall, on

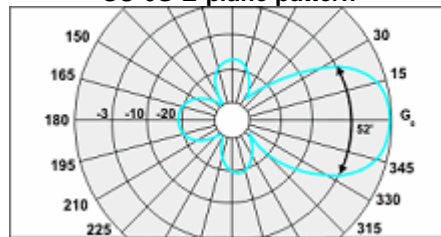
the horizontal surface by means of an additional wall bracket. For the direct switching to the cellular telephone it is necessary to make an additional order for the feeder of the needed length and for a jumper.

To create a distributed antenna network of the repeaters in GSM-900 the antennas of the ceiling mounting - SS-3GL - are often used. They are mounted on the ceiling panels and are switched to the feeder network through the power dividers.

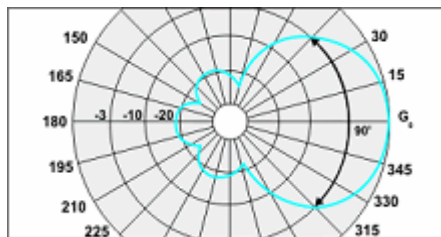
SS-3GL E-plane pattern



SU-6G E-plane pattern



SU-6G H-plane pattern





806-890/870-960 MHz Panel Antennas RAO-4G-60, RAO-4G-90, RAO-4G-120

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



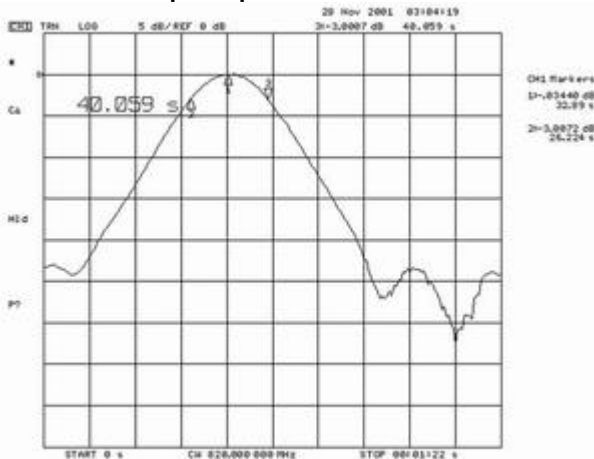
Electrical specifications

Model	RAO-4G-60	RAO-4G-90	RAO-4G-120
Operating Frequency band, Mhz	RAO-4G-60	RAO-4G-90	RAO-4G-120
		806-890	
	RAO-4G-60	RAO-4G-90	RAO-4G-120
		870-960	
VSWR, not more than		1,5	
Gain, dBi	13	12	11
Sector in vertical plane , -3dB, +/- 10		18 ⁰	
Sector in horizontal plane , -3dB, +/-50	60 ⁰	90 ⁰	120 ⁰
Impedance, Ohm		50	
Max. Power input, W		500	

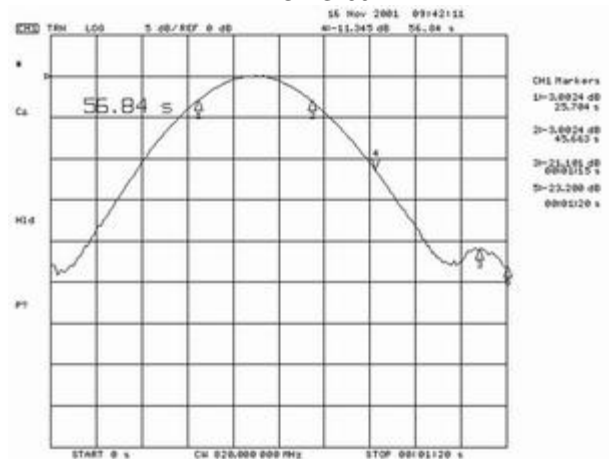
Mechanical specifications

Model	RAO-4G-60	RAO-4G-90	RAO-4G-120
Weight, kg	8,5	7	6,5
Radiating unit construction material		aluminum	
Radome material		Fiberglass	
Radome color		white	
Standard mounting		to a 45-60 mm dia. tube	
Optional mounting		1. to wall or mast 2. 5 to 15 adjustable downtilt	
Rated Wind Velocity, m/s		45	
Wind Loading area, m ²	0,43		0,34
Temperature Range, °C		-50 to +50	
Connector		N-female (7/16 DIN optional)	
Size, mm	400x1130x260		280x1230x160

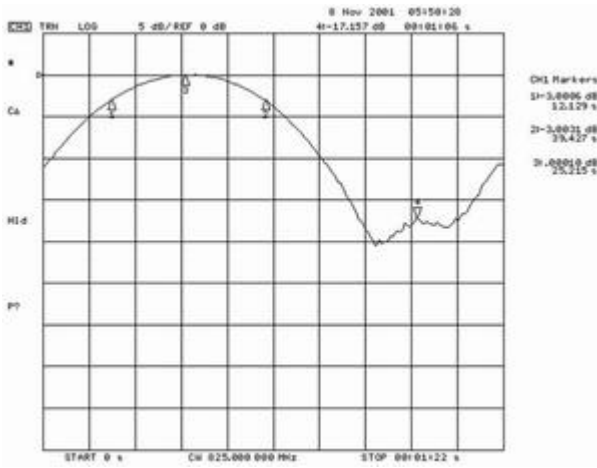
H-plane pattern RAO-4G-60



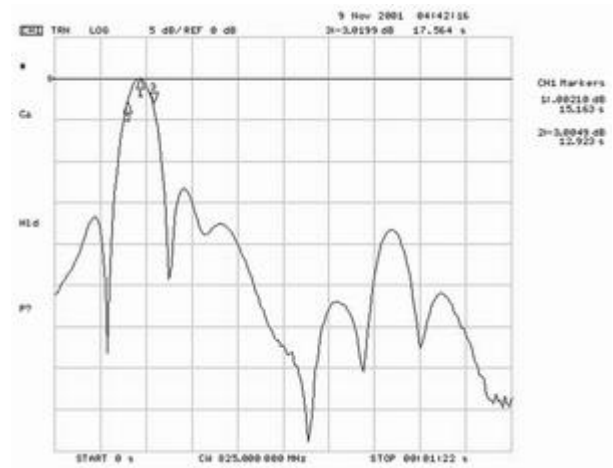
RAO-4G-90



RAO-4G-120



RAO-4G-60, RAO-4G-90, RAO-4G-120 E-plane pattern





860-970 MHz Panel antenna RAO-11GL-60



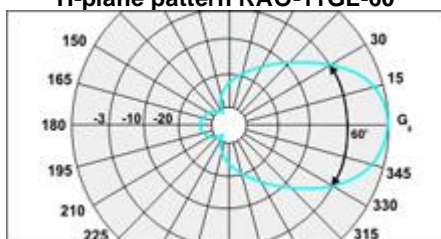
Electrical specifications

Model	RAO-11GL-60
Operating Frequency band, Mhz	860-970
VSWR, not more than	1,5
Gain,dBi	11
Sector in vertical plane , -3dB, +/- 10	30 ⁰
Sector in horizontal plane , -3dB, +/-50	60 ⁰
Impedance, Ohm	50
Max. Power input, W	50

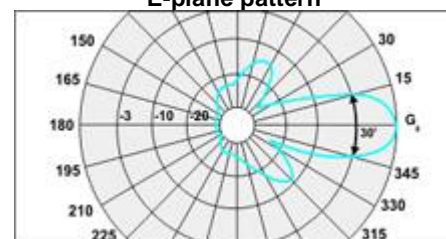
Mechanical specifications

Model	RAO-11GL-60
Weight, kg	1.2
Radiating unit construction material	copper
Radome material	ABS
Radome color	grey
Standard mounting	to a 45-60 mm dia. tube
Optional mounting	1. to wall or mast 2. 5 to 15 adjustable downtilt
Rated Wind Velocity, m/s	45
Temperature Range, °C	from -50 to +50
Connector	FME
Size, mm	204x63x518

H-plane pattern RAO-11GL-60



E-plane pattern





1710-1880 MHz Panel sector antenna RAO2- 10GH-60

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	RAO2-10GH-60
Operating frequency band, MHz	1710-1880
Gain, dBi	10
VSWR, not more than	1.5
Polarization	vertical
Max. power input, W	50
Sector in H-plane (-3 dB)	60°
Sector in E-plane (-3 dB)	36°
Impedance, Ohm	50

Mechanical specifications

Model	RAO2-10GH-60
Dimensions (LxWxH), mm	204x63x518
Weight, kg	1,3
Rated wind velocity, m/s	55
Radiator	PCB
Radome	grey, ABS
Mounting	on a wall or on a mast (max.diam.35 mm) with CP-55U
Connector	N-female on a cables



902-928 MHz Subscribers' antennas SU-12-915

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



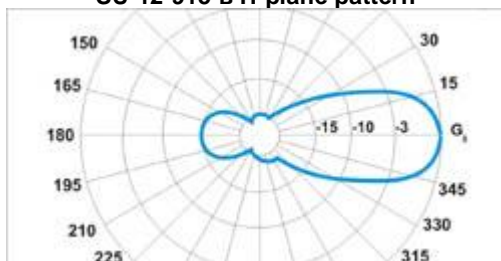
Electrical specifications

Model	SU-12-915
Operating Frequency band, MHz	902-928
VSWR, not more than	1.5
Gain, dBi	12
Sector in vertical plane , -3dB, +/- 1 ⁰	62 ⁰
Sector in horizontal plane , -3dB, +/-5 ⁰	39 ⁰
Impedance, Ohm	50
Max. Power input, W	10

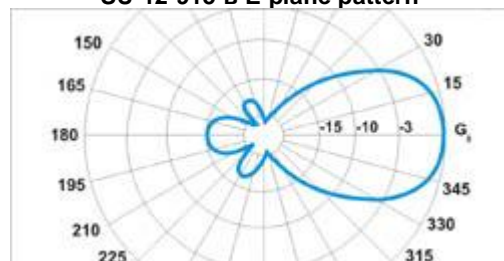
Mechanical specifications

Model	SU-12-915
Weight, kg	8.5
Radiating unit construction material	copper
Radome material	ABS
Radome color	grey
Standard mounting	to wall or mast
Rated Wind Velocity, m/s	55
Wind Loading area, m ²	0.43
Temperature Range, °C	-50 to +50
Connector	FMA-male
Size, mm	520x95x203

SU-12-915 в H-plane pattern



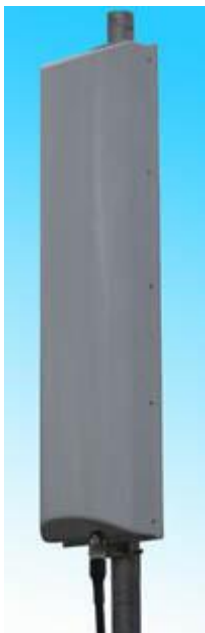
SU-12-915 в E-plane pattern





902-928 MHz Panel antenna RAS-12-915-60

Electrical specifications

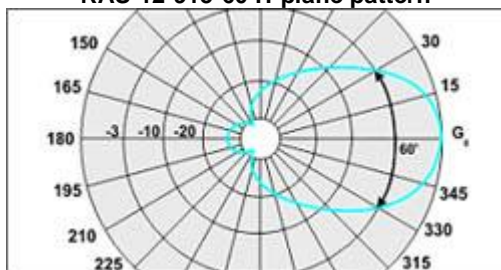


Model	RAS-12-915-60
Operating Frequency band, MHz	902-928
VSWR, not more than	1.5
Gain, dBi	12
Sector in vertical plane , -3dB, +/- 1 ⁰	18 ⁰
Sector in horizontal plane , -3dB, +/-5 ⁰	60 ⁰
Impedance, Ohm	50
Max. Power input, W	100
Electrical downtilt	3 ⁰

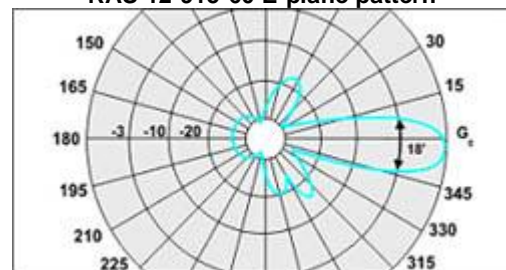
Mechanical specifications

Model	RAS-12-915-60
Weight, kg	1.2
Radiating unit construction material	copper
Radome material	Fiberglass
Radome color	white
Standard mounting	to a 45-60 mm dia. tube
Rated Wind Velocity, m/s	45
Temperature Range, °C	from -50 to +50
Connector	N-female
Size, mm	1150x150x290

RAS-12-915-60 H-plane pattern

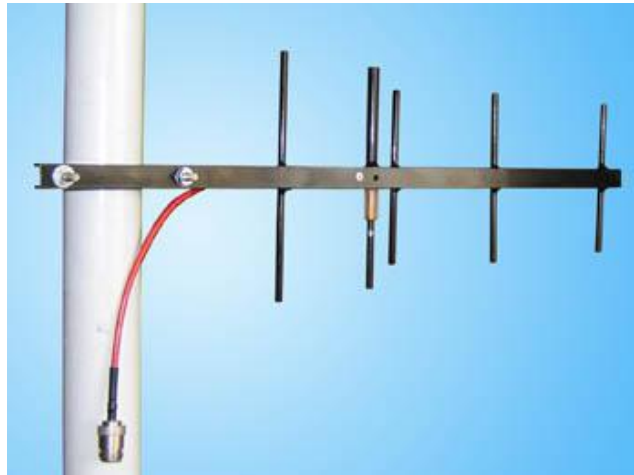


RAS-12-915-60 E-plane pattern





860-970 MHz Directional antenna Y5 GL



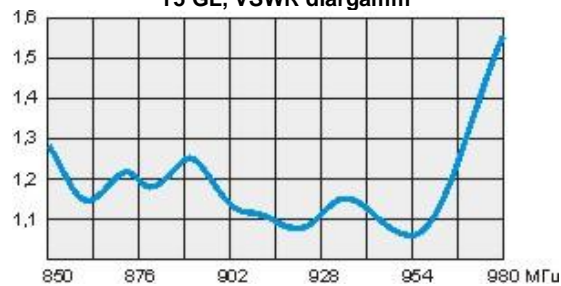
Electrical specifications

Model	Y5 GL
Operating frequency band, MHz	870-960
Gain, dBi	9
VSWR, not more than	1.5
Polarization	vertical
Max. power input, W	70
Sector in H-plane (-3 dB)	65°
Sector in E-plane (-3 dB)	60°
Impedance, Ohm	50

Mechanical specifications

Model	Y5 GL
Dimensions (LxWxH), mm	470x170x15
Weight, kg	0.24
Rated wind velocity, m/s	45
Construction material	Aluminium alloy
Mounting	on a mast (max.diam.55 mm)
Connector	N - female

Y5 GL, VSWR diargamm



Y5 GL H-plane pattern



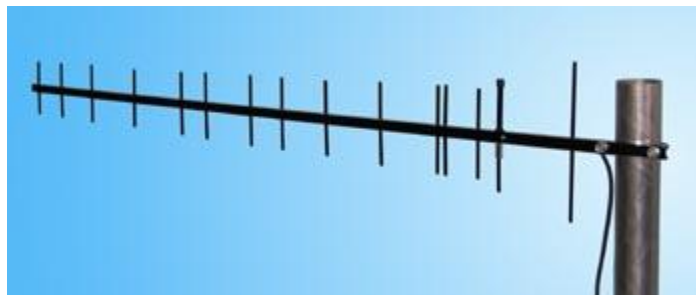
Y5 GL E-plane pattern





GSM 870-960 MHz Subscribers' antenna Y15-GL

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



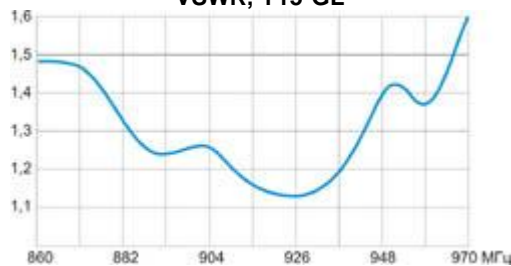
Electrical specifications

Model	Y15-GL
Operating frequency band, MHz	870-960
Gain, dBi	12
VSWR, not more than	1.5
Polarization	vertical
Max. power input, W	70
Sector in H-plane (-3 dB)	42°
Sector in E-plane (-3 dB)	38°
Impedance, Ohm	50

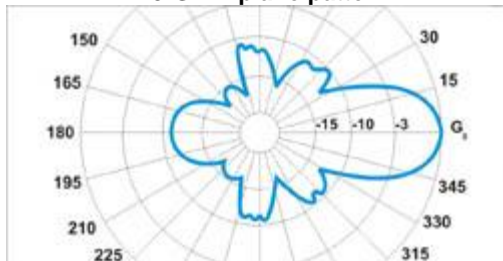
Mechanical specifications

Model	Y15-GL
Dimensions (LxWxH), mm	1330x220x15
Weight, kg	0.4
Rated wind velocity, m/s	45
Construction material	Aluminium alloy
Mounting	on a mast (max.diam.55 mm)
Connector	FME on a cable (N - optional)

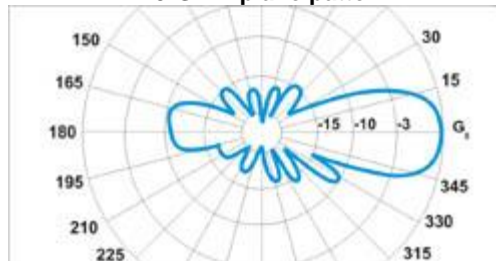
VSWR, Y15-GL



Y15-GL H-plane pattern



Y15-GL E-plane pattern





GSM 860-970 MHz SV antennas power dividers SV-2GL, SV-3GL, SV-4GL

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



SV-2GL



SV-3GL



SV-4GL

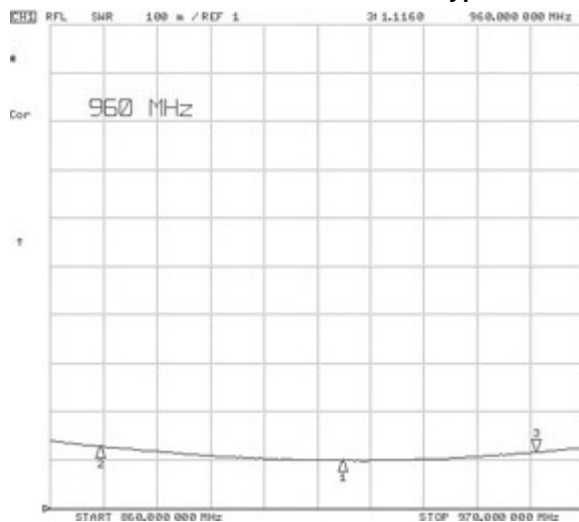
Electrical specifications

Model	SV-2GL	SV-3GL	SV-4GL
Operating frequency band, MHz	870-960	870-960	870-960
Insertion loss, dB	0.15	0.15	0.15
Impedance, Ohm	50	50	50
VSWR, not more than	1.15	1.15	1.15
Input power, not more, W	600	600	600
Temperature range, °C		from -30 to +60	
Inputs	2	3	4

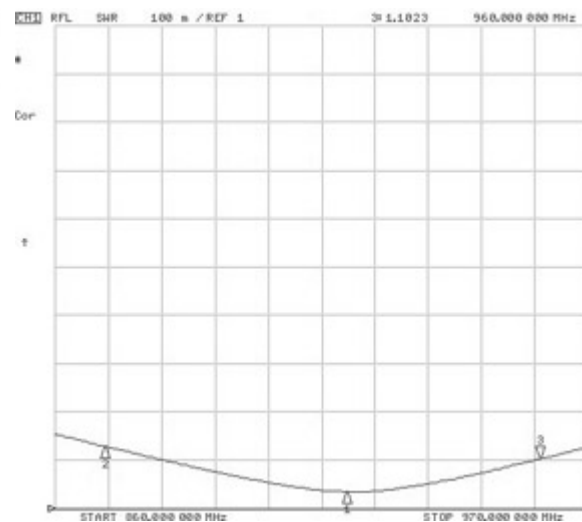
Mechanical specifications

Model	SV-2GL	SV-3GL	SV-4GL
Weight, g	204	246	280
Connects to feeder with	N-female	N-female	N-female
Connects to antenna with	N-female	N-female	N-female
Dimensions, mm	118x62x25	110x62x45	110x62x62

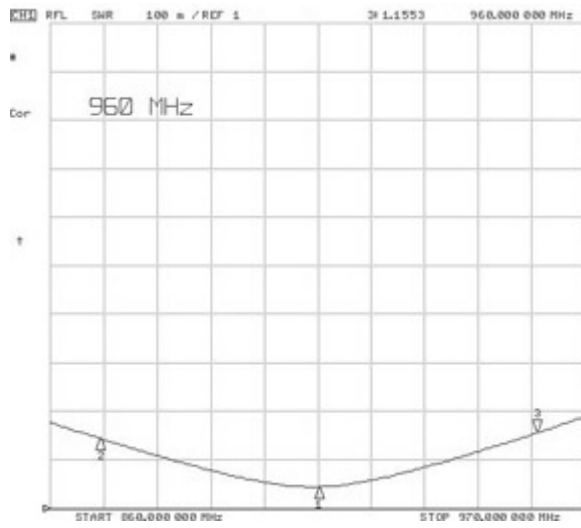
Typical dividers characteristics



SV-2GL



SV-3GL



SV-4GL

2009