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Lokomotive antennas

Model	Short description	Band, MHz	Gain, dBi	Price, EUR
PA-153	Quarter wave folded vibrator	148,5-157	2.15	56
PA-156	Quarter wave folded vibrator	154-164	2.15	56
LA-156	Lowprofil	150-156	2.15	91
LA-UHF	Lowprofil, ABS	400-490	2.15	61
LA-433	Lowprofil, ABS	428-438	2.15	61
LA-446	Lowprofil, ABS	440-452	2.15	61
LA-CDMA	Lowprofil, ABS	453-467	2.15	61
PA-450	Quarter wave folded vibrator	450-470	2.15	56
PA-420	Quarter wave folded vibrator	405-445	2.15	56

2011

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149-164 MHz Lokomotive antennas PA-153, PA-156, LA-156

PA-153

PA-156

LA-156

Electrical specifications

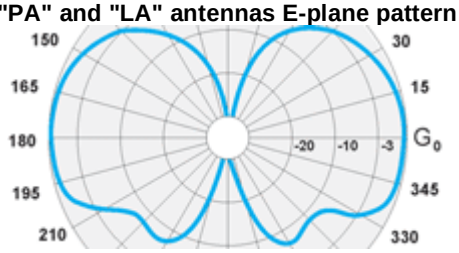
Model	PA-153	PA-156	LA-156
Operating frequency band, MHz	148.5-157	154-164	150-156
VSWR, not more than	1.5	1.5	1.5
Gain OFFSET, dBi	2.15	2.15	2.15
Sector in vertical plane , -3dB	65°	65°	65°
Impedance, Ohm	50	50	50
Max. power input, W	300	300	300

Mechanical specifications

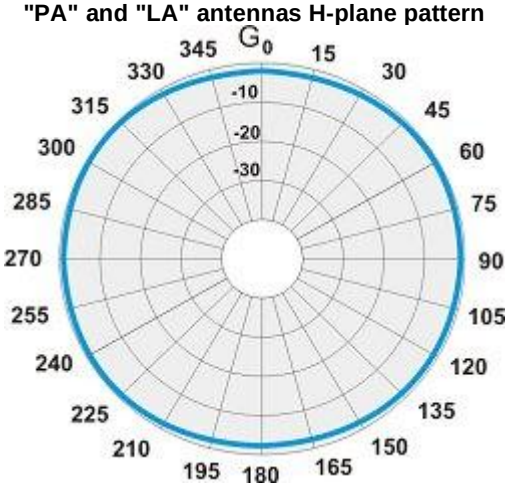
Model	PA-153	PA-156	LA-156
Weight, kg	0.8	0.6	0.9
Height/Length, mm	545	500	215
Construction material		Aluminium alloy	
Standard mounting		horizontal metal plane	
Rated wind velocity, m/s	55	55	55
Wind loading area, m^2	0.022	0,02	0.016
Rated wind velocity with 0.5" icing, m/s	42	42	42
Temperature range, °C		from -50 to +50	
Connector		N-female	

Locomotive antenna PA-156 with full grounding provided by all-metal construction ensures safety for motorman and equipment. Antenna is highly efficient at different communication ranges. It is mounted directly onto locomotive top employing four 8 mm diameter mounting holes. Long coupling cable enables to connect antenna directly to equipment. Wide bandwidth of antenna PA-156 assumes operation of radio station at any frequency, allocated by your local authorities.

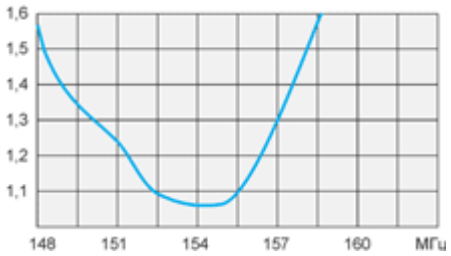
"PA" and "LA" antennas E-plane pattern



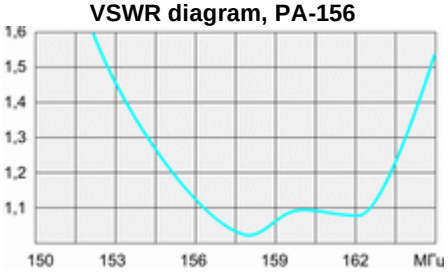
"PA" and "LA" antennas H-plane pattern



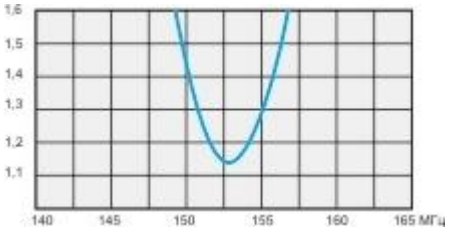
VSWR diagram, PA-153



VSWR diagram, PA-156



VSWR diagram, LA-156



2009

400-490 MHz
Lokomotive antenna LA-UHF.
Models LA-433, LA-446, LA-CDMA

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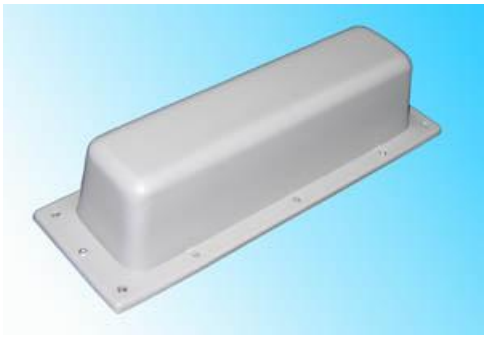


Electrical specifications

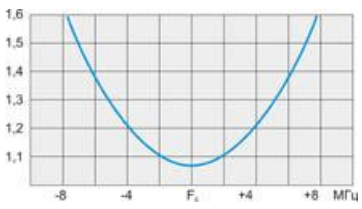
Model	LA-UHF	LA-433	LA-446	LA-CDMA
Operating frequency band, MHz	400-490	428-438	440-452	453-467
VSWR, not more than	1.5	1.5	1.5	1.5
Gain OFFSET, dBi	2.15	2.15	2.15	2.15
Sector in vertical plane , -3dB	65°	65°	65°	65°
Impedance, Ohm	50	50	50	50
Max. power input, W	300	300	300	300

Mechanical specifications

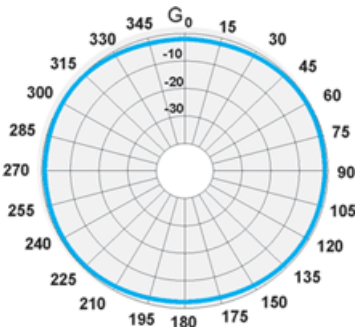
Model	LA-UHF	LA-433	LA-446	LA-CDMA
Weight, kg	not more 1			
Height/Length, mm	80			
Construction material	Aluminium alloy			
Radome	ABS			
Standard mounting	horizontal metal plane			
Rated wind velocity, m/s	55			
Wind loading area, m^2	0,008			
Rated wind velocity with 0.5" icing, m/s	42			
Temperature range, °C	from -50 to +50			
Connector	N-female			

Locomotive antennas a new series of models "LA" are purposed to be exploited in the railroad communications systems within the range 405-470 MHz. The equipment of TETRA standard that works in this range as well as the data transfer system may include these mobile antennas.
The "LA" models have low-profile construction, their height does not exceed 80 mm and they are protected by a strong case made of ABS-plastic. This ensures the improved aerodynamic characteristics and additional electrical safety of this antenna. The construction is grounded by direct current.

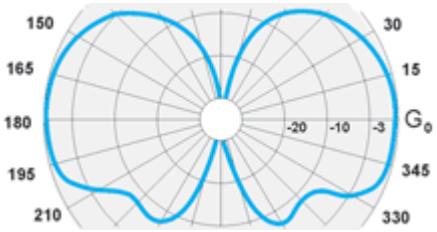
VSWR diagram, "LA" antennas



"LA" H-plane pattern



"LA" E-plane pattern



2009

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405-470 MHz Lokomotive antennas PA-420, PA-450

Electrical specifications

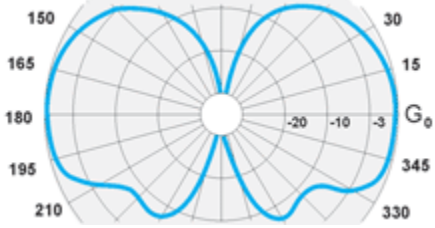
Model	PA-420	PA-450
Operating Frequency band, MHz	405-445	450-470
VSWR, not more than	1.5	
Gain OFFSET, dBd	0	
Sector in vertical plane , -3dB	65°	
Impedance, Ohm	50	
Max. Power input, W	300	

Mechanical specifications

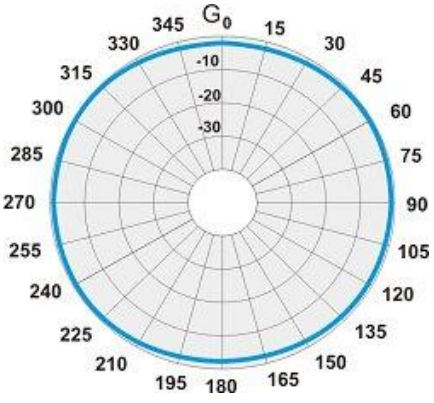
Model	PA-420	PA-450
Weight, kg	0.8	
Height/Length, mm	190	
Construction material	Aluminium alloy	
Standard mounting	horizontal metal plane	
Rated Wind Velocity, m/s	55	
Wind Loading area, m^2	0.006	
Rated Wind Velocity with 0.5" icing, m/s	42	
Temperature Range, °C	from -50 to +50	
Connector	N-female	

Locomotive antennas PA-420, PA-450 and a new series of models "LA" are purposed to be exploited in the railroad communications systems within the range 405-470 MHz. The equipment of TETRA standard that works in this range as well as the data transfer system may include these mobile antennas. The models PA-420 and PA-450 are all-metal quarter-wave loop vibrators. Their construction provides the direct grounding and the electric shock protection. The "LA" models have low-profile construction, their height does not exceed 80 mm and they are protected by a strong case made of ABS-plastic. This ensures the improved aerodynamic characteristics and additional electrical safety of this antenna. The construction is grounded by direct current.

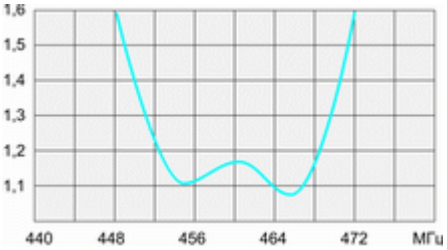
PA-450 E-plane pattern



PA-450 H-plane pattern



VSWR diagram, PA-450



2009