

TX station: EXAMPLE

Site name: TEST2

General data of antenna system

| | |
|---------------------------------------------------|----------|
| TX station | EXAMPLE |
| Site name | TEST2 |
| Site longitude (+ddd°pp'ss") | |
| Site latitude (+dd°pp'ss") | |
| Ground level a.s.l. (m) | 100 |
| Antenna system height a.g.l. (m) | 50.0 |
| Transmitter power (Watt) | 1000.0 |
| Carrier wave frequency (MHz) | 98.00 |
| Antenna system central frequency (MHz) | 98.00 |
| Filename of antenna base diagrams type 1 | AKG1.ANT |
| Filename of antenna base diagrams type 2 | |
| Antenna system polarization (H, V, C) | V |
| Transmitting cable attenuation (dB) | 0.5 |
| Additional attenuations (dB) | 0.5 |
| Base diagrams sectors (A = all, F = front) | A |
| Velocity factor of cables to antennas (0÷1) | 0.89 |
| Coordinate system (C = cartesian, P = polar) | P |
| Mast side/diameter (cm): | 10.0 |
| Mast cross section (Triangular, Square, Circular) | C |
| Mast rotation w.r.t. North (°) | 0 |
| Project picture filename (*.bmp) | |

Information about antennas used in the project*Antenna of type 1*

| | |
|--------------------------|----------------------|
| Manufacturer | LABEL ITALY SRL |
| Antenna model | AKG/1 - DIPOLO FM LB |
| Band start (MHz) | 87.5 |
| Band stop (MHz) | 108 |
| Diagrams frequency (MHz) | 98 |
| Polariz. (H, V, C) | V |
| Vertical dist. (cm) | 270 |
| Height (cm) | 140 |
| Width (cm) | 6 |
| Thickness (cm) | 90 |
| Weight (Kg) | 7 |
| Maximum power (KW) | 2 |
| Gain (dBd) | 1.95 |
| North E.C. (cm) | 0 |
| East E.C. (cm) | 0 |
| Return loss (dB) | -21.94 |
| R.C. phase (°) | -81.44 |

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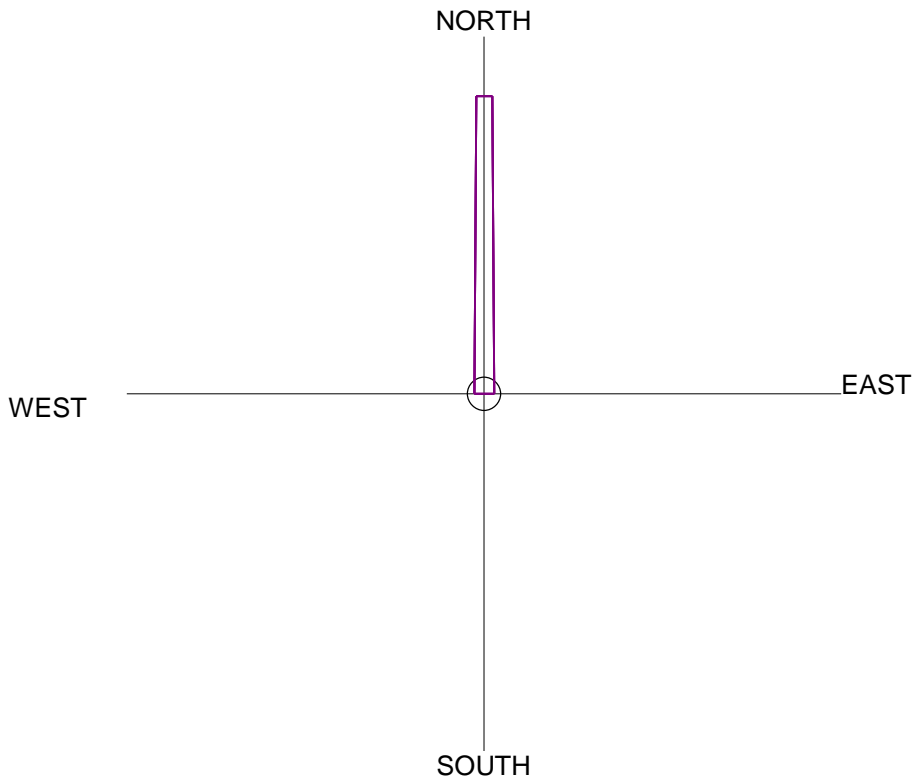
Geometr. and electrical data of antenna system

| | <i>Power</i> (%) | <i>Tilt</i> (°) | <i>Az.</i> (°/N) | <i>Phase</i> (°) | <i>V dist.</i> (m) | <i>Scr-D</i> (cm) | <i>Scr-Az</i> (°/N) | <i>Rot.</i> (1÷4) | <i>Type</i> (1÷2) | <i>L cables</i> (cm) | <i>Car. phase</i> (°) |
|---|---------------------|--------------------|---------------------|---------------------|-----------------------|----------------------|------------------------|----------------------|----------------------|-------------------------|--------------------------|
| 1 | 25.000 | 0 | 0 | 0 + 0 | 3.75 | 0.0 | 0.0 | 1 | 1 | 0.0 | 0.0 |
| 2 | 25.000 | 0 | 0 | 0 + 0 | 1.25 | 0.0 | 0.0 | 1 | 1 | 0.0 | 0.0 |
| 3 | 25.000 | 0 | 0 | 0 + 0 | -1.25 | 0.0 | 0.0 | 1 | 1 | 0.0 | 0.0 |
| 4 | 25.000 | 0 | 0 | 0 + 0 | -3.75 | 0.0 | 0.0 | 1 | 1 | 0.0 | 0.0 |

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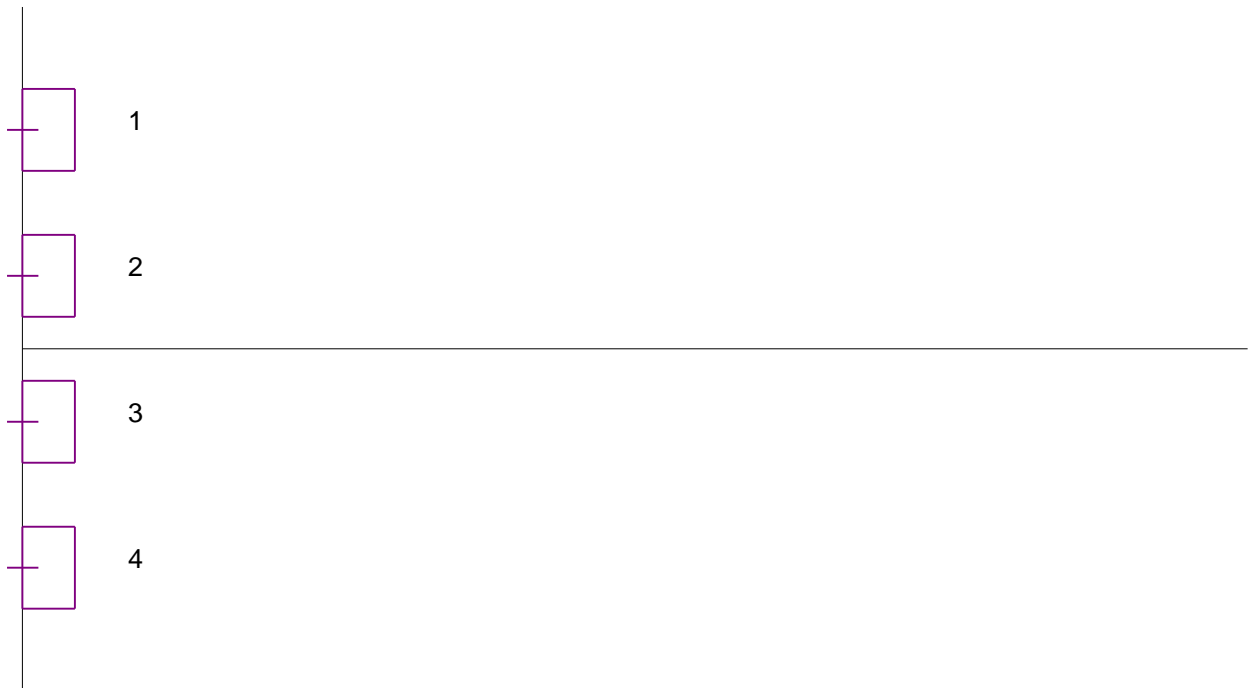
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Plan of antenna system



Side of antenna system

Az. 0°



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Antennas arrays data

| | |
|-----------------------------------|---------|
| A. Antennas array azimuth (°N) | 0 |
| B. Number of antennas | 4 |
| C. Nominal power supply (W) | 1000.00 |
| D. Losses (addit. + cables) (dB) | 1.0 |
| E. Effective power supply (W) | 794.33 |
| F. Theor. maximum gain (dBd) | 7.97 |
| G. Distribution losses (dB) | 0.00 |
| H. Nominal max gain [F - G] (dBd) | 7.97 |
| I. Compensation losses (dB) | 0.00 |
| J. Effec. max gain [H - I] (dBd) | 7.97 |
| K. Effec. max gain (times) | 6.27 |
| L. Effec. max power [E * K] (KW) | 4.9781 |
| M. Max power depr. angle (°) | 0.0 |

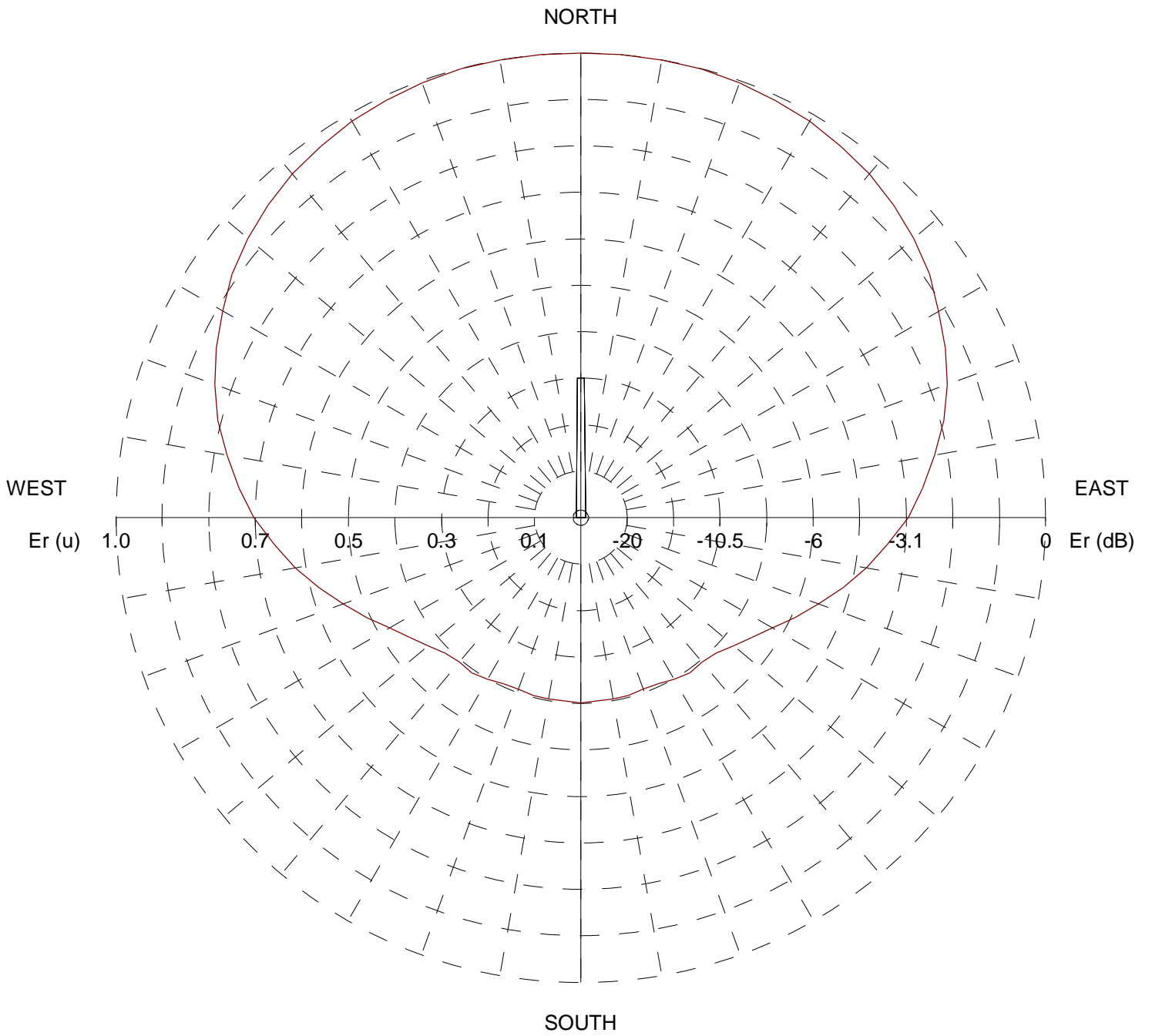
Diagram in dBK calculated at horizon

| Az. (°N) | dBK | Az. (°N) | dBK | Az. (°N) | dBK | Az. (°N) | dBK |
|----------|-----|----------|------|----------|------|----------|-----|
| 0 | 7.0 | 90 | 3.9 | 180 | -1.0 | 270 | 3.9 |
| 10 | 7.0 | 100 | 2.9 | 190 | -1.1 | 280 | 4.7 |
| 20 | 6.9 | 110 | 1.7 | 200 | -1.1 | 290 | 5.4 |
| 30 | 6.8 | 120 | 0.5 | 210 | -0.9 | 300 | 5.9 |
| 40 | 6.7 | 130 | -0.4 | 220 | -0.9 | 310 | 6.4 |
| 50 | 6.4 | 140 | -0.9 | 230 | -0.4 | 320 | 6.7 |
| 60 | 5.9 | 150 | -0.9 | 240 | 0.5 | 330 | 6.8 |
| 70 | 5.4 | 160 | -1.1 | 250 | 1.7 | 340 | 6.9 |
| 80 | 4.7 | 170 | -1.1 | 260 | 2.9 | 350 | 7.0 |

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Horizontal diagram



— 0.0° depres. (Total antenna), Gain (dBd): 8.0 ERP T.max (KW): 6.267 ERP E.max (KW): 4.978

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Vertical diagram

