TX station: 4xEkr2-omni
Gain solid integration : enabled

Site Name: Labelitaly

## General data of Antenna System

| | |
|---|---|
| TX station | 4xEkr2-omni |
| Site Name | Labelitaly |
| System of coordinates | Geographic |
| Longitude | 00°00'00.000" |
| Latitude | 00°00'00.000" |
| Ground level a.s.l. (m) | 100.0 |
| Antenna system height (m) | 50.0 |
| Transmitter power(Watt) | 1000.000 |
| Carrier wave frequency (MHz) | 128.000 |
| Antenna system central frequency (MHz) | 128.000 |
| Antenna base diagrams type 1 | LABEL ITALY-EKR_2 AERONAUTICAL PANEL |
| Antenna base diagrams type 2 | - |
| Polarization (H/V/C/X) | V |
| Transmitting cable attenuation (dB) | 0.0 |
| Additional attenuations(dB) | 0.0 |
| Base diagrams sectors (T = All, F = Front) | T |
| Velocity factor of cables to Antennas (0÷1) | 0.88 |
| Coordinate System(C = cartesian, P = polar) | P |
| Mast side / diameter(cm): | 100.0 |
| Mast cross section (T/Q/C) | Q |
| Structure rotation w.r.t. North (°) | 0.0 |
| Mast rotation w.r.t. North (°) | 0.0 |

## Information about antennas used in the System

| | *Antenna type 1* |
|---|---|
| Manufacturer | LABEL ITALY |
| Antenna model | EKR_2 AERONAUTICAL |
| Band start(MHz) | 118 |
| Band stop(MHz) | 144 |
| diagrams Frequency(MHz) | 125 |
| Polariz (H,V,C,X) | V |
| Vertical dist (cm) | 185 |
| Height (cm) | 135 |
| Width (cm) | 190 |
| Thickness (cm) | 62 |
| Weight (Kg) | 35 |
| Maximum power (KW) | 2 |
| Gain (dBd) | 8 |
| North E.C. (cm) | 0 |
| East E.C. (cm) | 0 |
| Return loss (dB) | 20 |
| R.C.Phase (°) | 0 |

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## Geometr. and electrical data of Antenna System

| | *Power (%)* | *Tilt (°)* | *Az. (°/N)* | *Phase (°)* | | *V dist. (m)* | *Scr-d (cm)* | *Scr-Az (°/N)* | *Rot. (1÷4)* | *Type (1÷2)* | *L cables (cm)* | *Car. phase (°)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *1* | 25.000 | 0 | 0 | 0 | +0.0 | 0.00 | 130.0 | 0.0 | 1 | 1 | 0.0 | 0.0 |
| *2* | 25.000 | 0 | 90 | 0 | +0.0 | 0.00 | 130.0 | 90.0 | 1 | 1 | 0.0 | 0.0 |
| *3* | 25.000 | 0 | 180 | 0 | +0.0 | 0.00 | 130.0 | 180.0 | 1 | 1 | 0.0 | 0.0 |
| *4* | 25.000 | 0 | 270 | 0 | +0.0 | 0.00 | 130.0 | 270.0 | 1 | 1 | 0.0 | 0.0 |

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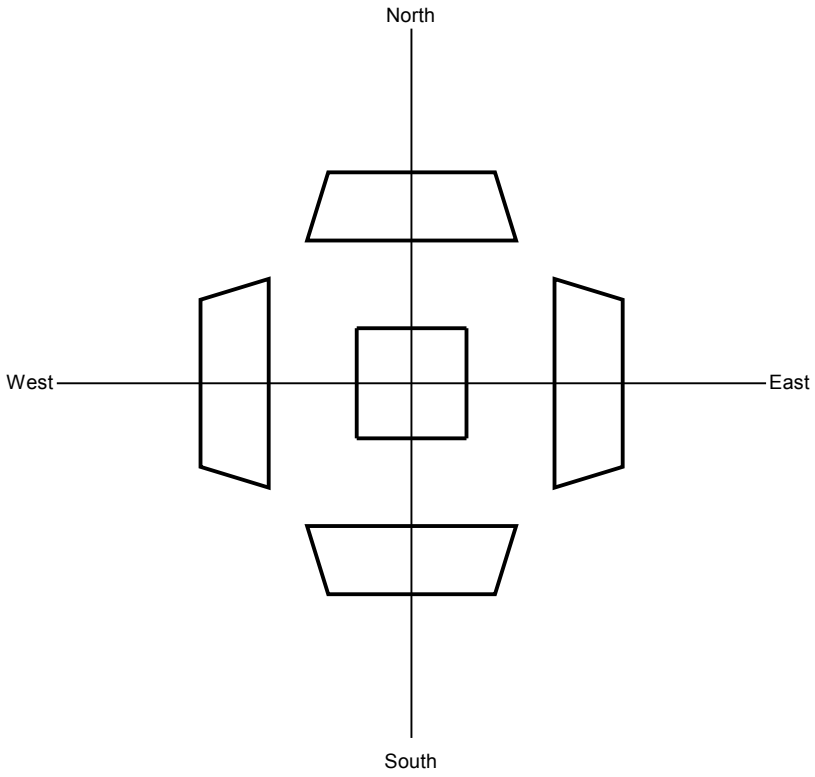
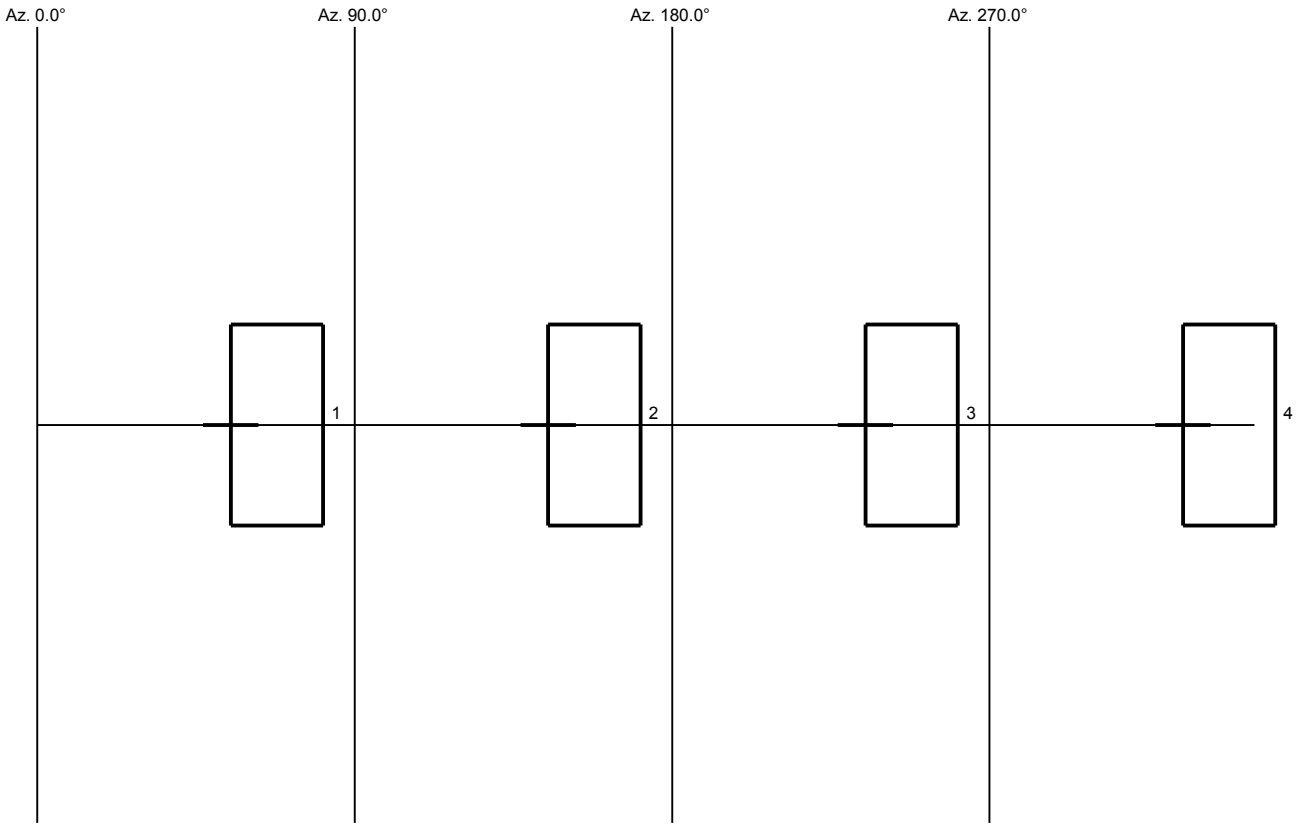
## Plan of antenna system




## Side of antenna system



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## Antennas arrays data

| | | | | |
|---|---|---|---|---|
| A. Antennas array azimuth (°/N) | 0 | 90 | 180 | 270 |
| B. Number of antennas | 1 | 1 | 1 | 1 |
| C. Nominal power supply (W) | 250.00 | 250.00 | 250.00 | 250.00 |
| D. Losses (addit. + cables) (dB) | 0.0 | 0.0 | 0.0 | 0.0 |
| E. Effective power supply (W) | 250.00 | 250.00 | 250.00 | 250.00 |
| F. Theor. maximum gain (dBd) | 7.88 | 7.88 | 7.88 | 7.88 |
| G. Distribution losses (dB) | 0.00 | 0.00 | 0.00 | 0.00 |
| H. Nominal max gain [F - G] (dBd) | 7.88 | 7.88 | 7.88 | 7.88 |
| I. Compensation losses (dB) | 0.00 | 0.00 | 0.00 | 0.00 |
| J. Effec. max gain [H - I] (dBd) | 7.88 | 7.88 | 7.88 | 7.88 |
| K. Effec. max gain (times) | 6.14 | 6.14 | 6.14 | 6.14 |
| L. Effec. max power [E * K] (KW) | 1.5359 | 1.5359 | 1.5359 | 1.5359 |
| M. Max power depr. angle (°) | 0.0 | 0.0 | 0.0 | 0.0 |
| N. Max power az. angle (°) | 0 | 90 | 180 | 270 |

## Diagram in dBK calculated at horizon

| Az. (°/N) | dBK | Az. (°/N) | dBK | Az. (°/N) | dBK | Az. (°/N) | dBK |
|---|---|---|---|---|---|---|---|
| 0 | 1.2 | 90 | 1.2 | 180 | 1.2 | 270 | 1.2 |
| 10 | 0.9 | 100 | 0.9 | 190 | 0.9 | 280 | 0.9 |
| 20 | 0.1 | 110 | 0.1 | 200 | 0.1 | 290 | 0.1 |
| 30 | -0.1 | 120 | -0.1 | 210 | -0.1 | 300 | -0.1 |
| 40 | 0.3 | 130 | 0.3 | 220 | 0.3 | 310 | 0.3 |
| 50 | 0.3 | 140 | 0.3 | 230 | 0.3 | 320 | 0.3 |
| 60 | -0.1 | 150 | -0.1 | 240 | -0.1 | 330 | -0.1 |
| 70 | 0.1 | 160 | 0.1 | 250 | 0.1 | 340 | 0.1 |
| 80 | 0.9 | 170 | 0.9 | 260 | 0.9 | 350 | 0.9 |

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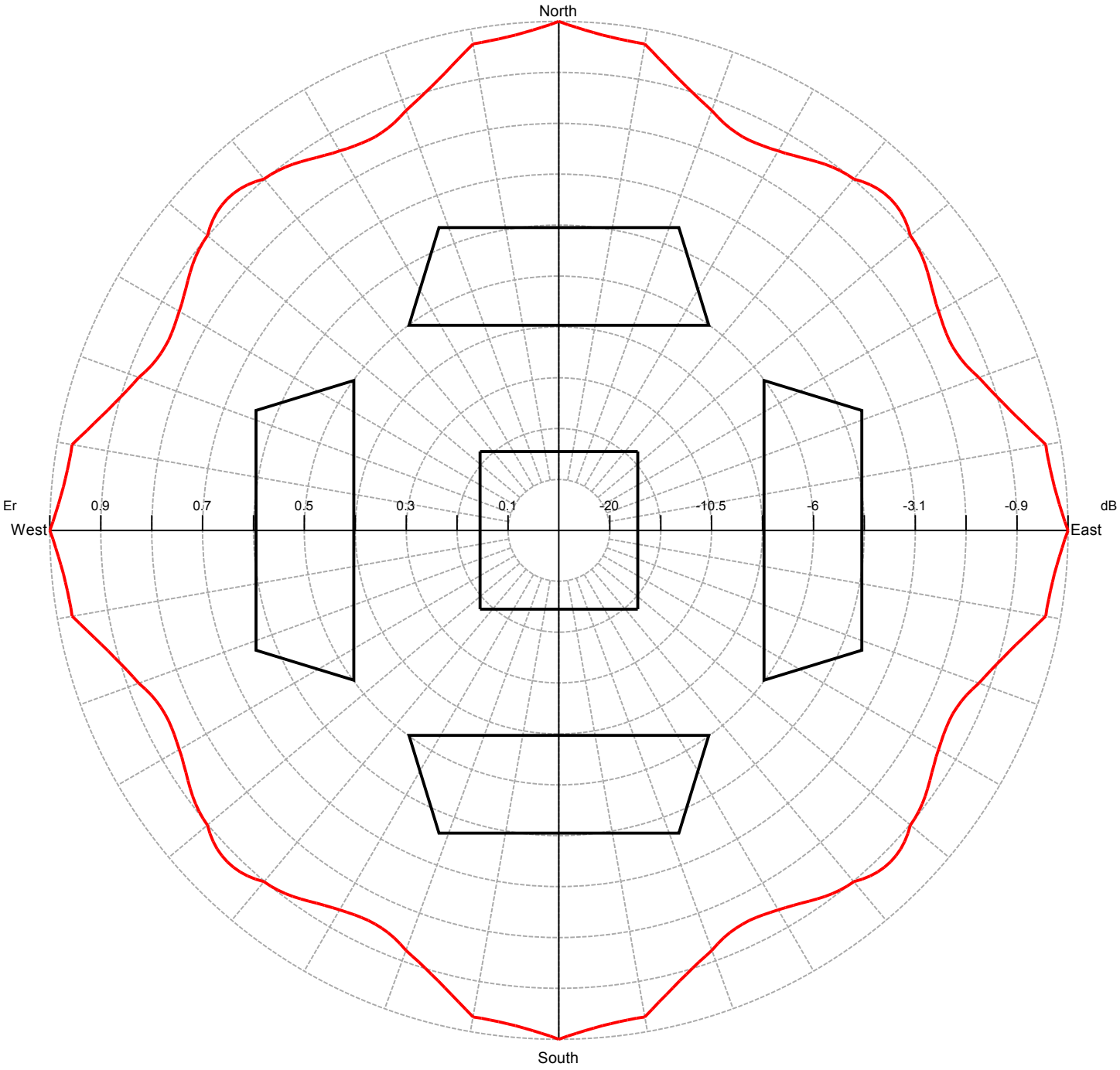
## Horizontal diagram at 0.0° depres. (Total Antenna)




0.0° depres. (Total Antenna), Gain (dBd): 1.2

ERP T.Max(KW): 1.319 ERP E.Max(KW): 1.319

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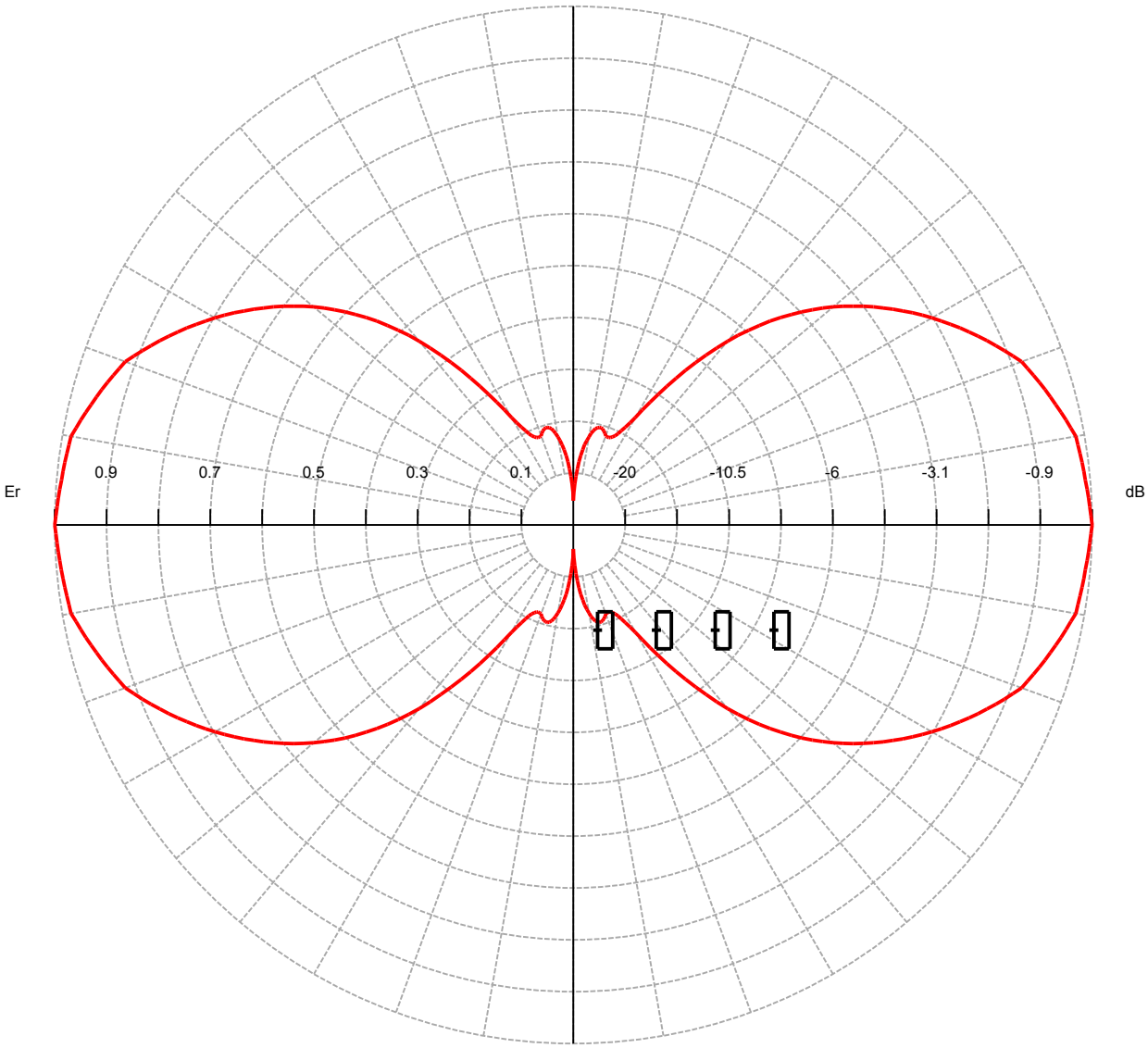
## Vertical diagram at an azimuth of 0.0° degrees




0.0° Az. (Total Antenna), Gain (dBd): 1.2

ERP T.Max(KW): 1.319 ERP E.Max(KW): 1.319