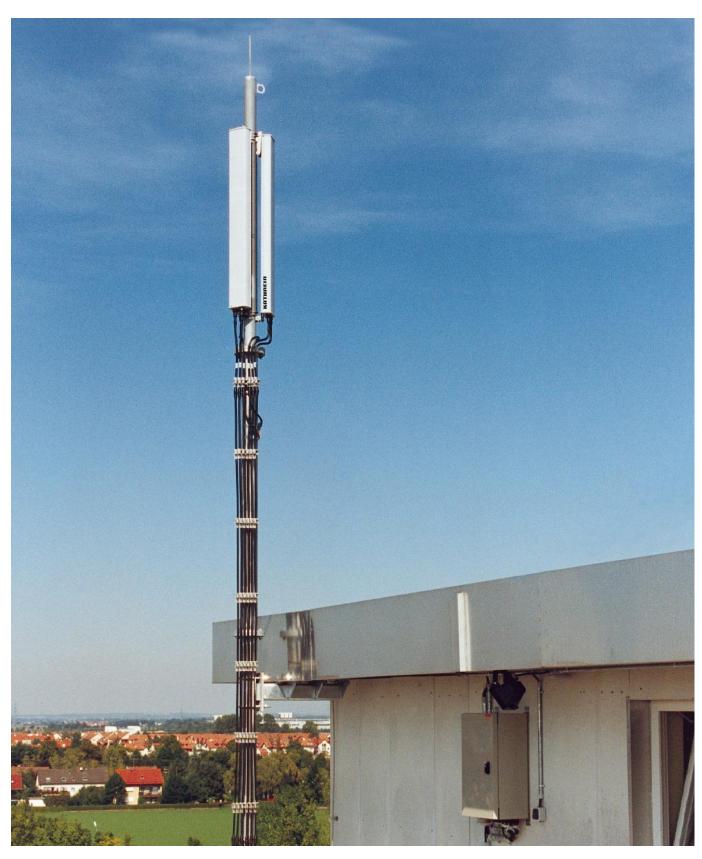
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380-512 MHz

# **Base Station Antennas for Mobile Communications**





# **Summary of Directional Antennas**



## 360 - 512 MHz

| Туре          |                 |      |              | Type No.   | Frequency Range | Height  | Input           | Max.<br>Power | Page |
|---------------|-----------------|------|--------------|------------|-----------------|---------|-----------------|---------------|------|
| Panel         | 420/450         | 63°  | 9 dBi        | K 73 36 21 | 406 – 512 MHz   | 493 mm  | N female        | 500 W         | 16   |
| Panel         | 390/420         | 65°  | 11 dBi       | K 73 30 37 | 380 – 430 MHz   | 992 mm  | 7-16 female     | 500 W         | 17   |
| Panel         | 420/450         | 67°  | 12 dBi       | K 73 30 21 | 400 – 512 MHz   | 992 mm  | N female        | 620 W         | 17   |
| Panel         | 420/450         | 67°  | 12 dBi       | K 73 30 27 | 400 – 512 MHz   | 992 mm  | 7-16 female     | 840 W         | 17   |
| Panel         | 390/420         | 65°  | 14 dBi       | K 73 33 37 | 380 – 430 MHz   | 1983 mm | 7-16 female     | 500 W         | 18   |
| Panel         | 420/450         | 68°  | 15 dBi       | K 73 33 21 | 400 – 512 MHz   | 1983 mm | N female        | 620 W         | 18   |
| Panel         | 420/450         | 68°  | 15 dBi       | K 73 33 27 | 400 – 512 MHz   | 1983 mm | 7-16 female     | 1030 W        | 18   |
| Panel         | 450             | 110° | 13 dBi       | 738 049    | 440 – 470 MHz   | 2574 mm | 7-16 female     | 500 W         | 19   |
| Panel         | 390/420         | 115° | 8.5 dBi      | 739 504    | 380 – 430 MHz   | 974 mm  | 7-16 female     | 500 W         | 20   |
| Panel         | 390/420         | 115° | 11.5 dBi     | 739 506    | 380 – 430 MHz   | 1934 mm | 7-16 female     | 500 W         | 20   |
| Panel         | 420/450         | 120° | 9 dBi        | 731 291    | 400 – 470 MHz   | 992 mm  | 7-16 female     | 500 W         | 21   |
| Panel         | 450             | 200° | 11 dBi       | 738 050    | 440 – 470 MHz   | 2574 mm | 7-16 female     | 500 W         | 22   |
| LogPer        | 420/450         | 67°  | 10.5 dBi     | K 72 22 41 | 406 – 512 MHz   | 353 mm  | N female        | 300 W         | 23   |
| LogPer        | 420/450         | 67°  | 10.5 dBi     | K 72 22 47 | 406 – 512 MHz   | 353 mm  | 7-16 female     | 300 W         | 23   |
| XPOL-F        | Panel           |      |              |            |                 |         |                 |               |      |
|               | 380-500         | 65°  | 12 dBi       | 741 515    | 380 – 500 MHz   | 992 mm  | 2 x 7-16 female | 500 W         | 24   |
|               | 380-500         | 65°  | 15 dBi       | 741 516    | 380 – 500 MHz   | 1983 mm | 2 x 7-16 female | 500 W         | 25   |
|               | 380-430         | 68°  | 14.5 dBi 6°T | 742 242    | 380 – 430 MHz   | 2000 mm | 2 x 7-16 female | 500 W         | 25   |
| LogPer        | 450/900         |      | 10.5 dBi     | 739 990    | 400 – 512 MHz   | 353 mm  | 7-16 female     | 100 W         | 26   |
|               |                 | 60°  | 11.5 dBi     |            | 824 – 960 MHz   |         |                 |               |      |
| LogPer        | 420/450         | 87°  | 9 dBi        | K 73 23 21 | 406 – 512 MHz   | 400 mm  | N female        | 500 W         | 27   |
| Corner        | 390/420<br>/450 | 44°  | 11 dBi       | K 73 12 21 | 360 – 490 MHz   | 500 mm  | N female        | 180 W         | 28   |
| Helix<br>RHCP | 420/450         | 33°  | 12 dBi       | K 73 51 21 | 400 – 470 MHz   | 718 mm  | N female        | 500 W         | 29   |

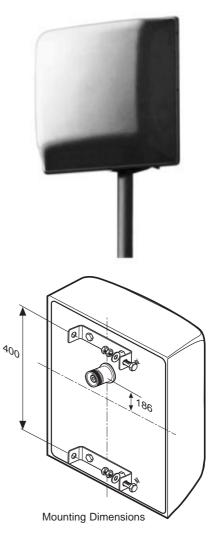


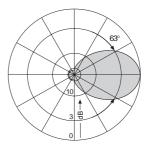
#### Panel 420/450 63° 9dBi

| Type No.              | K 73 36 21  |  |
|-----------------------|---|--|
| Input                 | N female  |  |
| Frequency range       | 406 – 512 MHz   |  |
| VSWR                  | < 1.4   |  |
| Gain                  | 9 dBi   |  |
| Impedance             | 50 Ω  |  |
| Polarization          | Vertical  |  |
| Half-power beam width | H-plane: 63° / E-plane: 63°   |  |
| Max. power            | 500 Watt (at 50 °C ambient temperature)   |  |
| Weight                | 6 kg  |  |
| Wind load             | Frontal: 220 N (at 150 km/h)  |  |
|                       | Lateral: 100 N (at 150 km/h)  |  |
|                       | Rearside: 330 N (at 150 km/h)   |  |
| Max. wind velocity    | 200 km/h  |  |
| Packing size          | 603 x 567 x 282 mm  |  |
| Height/width/depth    | 493 / 493 / 209 mm  |  |
| Scope of supply:      | patterns.  Antenna including two weather-proof covers for straight and elbow connector, but without mounting hardware.  |  |
| Material:             | Dipoles and reflector screen: Weather-resistant aluminum. Radome: Fiberglass, colour: White. All screws and nuts: Stainless steel.  |  |
| Attachment:           | Use clamps K 61 14 0 for tubular mast diameters of 40 – 521 mm (see the "Mounting Hardware" part of this catalogue).  |  |
| Ice protection:       | Due to the very sturdy antenna construction and<br>the protection of the radiating system by the<br>radome, the antenna remains operational even<br>under icy conditions. |  |
| Grounding:            | All metal parts of the antenna including the  |  |

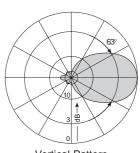
mounting kit are DC grounded.

The inner conductor is capacitively coupled.





Horizontal Pattern



Vertical Pattern



| Panel 390/420 | 65° | 114Ri | Panal | 120/150 | 67° | 12dRi |
|---------------|-----|-------|-------|---------|-----|-------|
| Panel 390/420 | 63  | HUDI  | ranei | 420/430 | 0/  | IZUDI |

| K 73 30 37                     | K 73 30 21  | K 73 30 27   |
|--------------------------------|---|--|
| 7-16 female                    | N female  | 7-16 female  |
| 380 – 430 MHz                  | 400 – 512 MHz   |  |
| < 1.5                          | < '   | 1.2  |
| 11 dBi                         | 12  | dBi  |
|                                | 50 Ω  |  |
|                                | Vertical  |  |
| H-plane: 65°                   | H-plane: 67°  |  |
| E-plane: 36°                   | E-plan  | ne: 33°  |
| 500 Watt                       | 620 Watt  | 840 Watt   |
| (at 50 °C ambient temperature) |   |  |
| 12 kg                          |   |  |
| Frontal:                       | 500 N (at 1   | 50 km/h)   |
| Lateral:                       | Lateral: 220 N (at 150 km/h)  |  |
| Rearside                       | e: 715 N (at 1  | 50 km/h)   |
| 200 km/h                       |   |  |
| 1062 x 562 x 274 mm            |   |  |
| 992 / 492 / 190 mm             |   | m  |
|                                | 7-16 female 380 – 430 MHz < 1.5 11 dBi  H-plane: 65° E-plane: 36° 500 Watt (at 50° Frontal: Lateral: Rearside | 7-16 female 380 – 430 MHz < 1.5 < 1.5 11 dBi H-plane: 65° E-plane: 36° E-plane: 36° C ambient temp 12 kg Frontal: 500 N (at 1 Lateral: 220 N (at 1 Rearside: 715 N (at 1 200 km/h 1062 x 562 x 274 r |

Arrays: This antenna is especially suitable as a com-

ponent in arrays to achieve various radiation

patterns.

Scope of supply: Antenna including two weather-proof covers

for straight and elbow connector, but without

mounting hardware.

Material: Radiators: Silver-plated copper.

Reflector screen: Weather-resistant aluminum.

Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.

Attachment: Use clamps K 61 14 0 .. for tubular mast dia-

meters of 40 - 521 mm (see the "Mounting

Hardware" part of this catalogue).

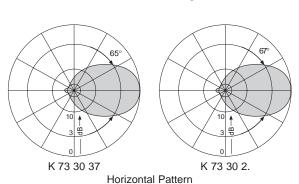
Ice protection: Due to the very sturdy antenna construction and

the protection of the radiating system by the radome, the antenna remains operational even

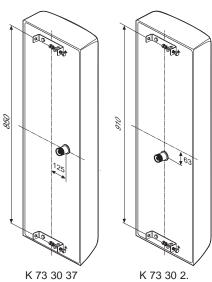
under icy conditions.

Grounding: All metal parts of the antenna including

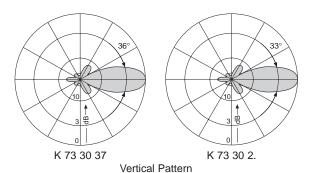
the mounting kit and the inner conductor







Mounting Dimensions





#### Panel 390/420 65° 14dBi | Panel 420/450 68° 15dBi

| Type No.              | K 73 33 37          | K 73 33 21          | K 73 33 27  |
|-----------------------|---------------------|---------------------|-------------|
| Input                 | 7-16 female         | N female            | 7-16 female |
| Frequency range       | 380 – 430 MHz       | 400 – 5             | 12 MHz      |
| VSWR                  | < 1.5               | < '                 | 1.2         |
| Gain                  | 14 dBi              | 15                  | dBi         |
| Impedance             |                     | 50 Ω                |             |
| Polarization          |                     | Vertical            |             |
| Half-power beam width | H-plane: 65°        | H-plane: 68°        |             |
|                       | E-plane: 20°        | E-plan              | ne: 17°     |
| Max. power            | 500 Watt            | 620 Watt            | 1030 Watt   |
|                       | (at 50 °            | C ambient temp      | erature)    |
| Weight                |                     | 19 kg               |             |
| Wind load             | Frontal:            | 1100 N (at 1        | 50 km/h)    |
|                       | Lateral:            | 440 N (at 150 km/h) |             |
|                       | Rearside            | : 1540 N (at 1      | 50 km/h)    |
| Max. wind velocity    | 180 km/h            |                     |             |
| Packing size          | 2062 x 562 x 274 mm |                     |             |
| Height/width/depth    | 1983 / 485 / 190 mm |                     |             |

Arrays: This antenna is especially suitable as a com-

ponent in arrays to achieve various radiation

patterns.

Scope of supply: Antenna including two weather-proof covers

for straight and elbow connector, but without

mounting hardware.

Material: Radiators: Silver-plated copper.

Reflector screen: Weather-resistant aluminum.

Radome: Fiberglass, colour: Grey. All screws and nuts: Stainless steel.

Attachment: Use clamps K 61 14 0 .. for tubular mast dia-

meters of 40 - 521 mm (see the "Mounting

Hardware" part of this catalogue).

Ice protection: Due to the very sturdy antenna construction and

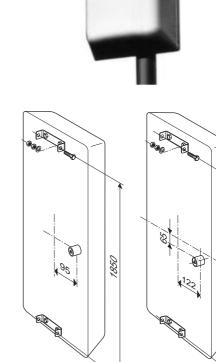
> the protection of the radiating system by the radome, the antenna remains operational even

under icy conditions.

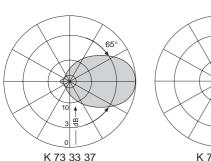
Grounding: All metal parts of the antenna including

the mounting kit and the inner conductor

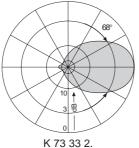
are DC grounded.

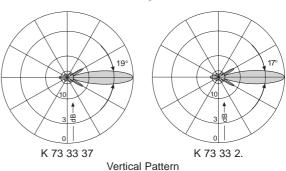


K 73 33 37 K 73 33 2. Mounting Dimensions



Horizontal Pattern





## **Eurocell Panel Antenna**



#### Panel 450 110° 13dBi

| Type No.              | 738 049                                 |                     |  |
|-----------------------|---|---------------------|--|
| Input                 | 7-16 female                             |                     |  |
| Frequency range       | 440                                     | – 470 MHz           |  |
| VSWR                  |   | < 1.5               |  |
| Gain                  |   | 13 dBi              |  |
| Impedance             |   | 50 Ω                |  |
| Polarization          | \                                       | Vertical            |  |
| Front-to-back ratio   | > 18 dB                                 |                     |  |
| Half-power beam width | H-plane: 110° / E-plane: 15°            |                     |  |
| Max. power            | 500 Watt (at 50 °C ambient temperature) |                     |  |
| Weight                | 12 kg                                   |                     |  |
| Wind load             | Frontal:                                | 460 N (at 150 km/h) |  |
|                       | Lateral:                                | 300 N (at 150 km/h) |  |
|                       | Rearside: 1                             | 020 N (at 150 km/h) |  |
| Max. wind velocity    | 200 km/h                                |                     |  |
| Packing size          | 2702 x 272 x 160 mm                     |                     |  |
| Width/height/depth    | 2574 / 258 / 103 mm                     |                     |  |

Material: Radiator: Silver plated copper.

Reflector screen: Weather-resistant aluminum.

Radome: Fiberglass, colour: Grey. All screws and nuts: Stainless steel.

Attachment: See the "Mounting Hardware" part of this

catalogue.

Ice protection: Due to the very sturdy antenna construction and

the protection of the radiating system by the radome, the antenna remains operational even

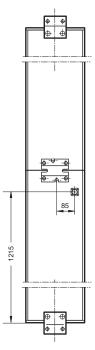
under icy conditions.

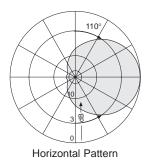
Grounding: All metal parts of the antenna including

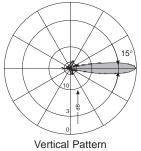
the mounting kit and the inner conductor

are DC grounded.

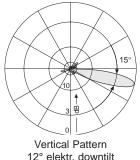








738 049



12° elektr. downtilt 737 439



#### Panel 390/420 115° 8.5dBi | Panel 390/420 115° 11.5dBi

| Type No.         |          | 739 504                                 | 739 506             |  |
|------------------|----------|---|---------------------|--|
| Input            |          | 7-16 female                             |                     |  |
| Frequency rang   | e        | 380 – 4                                 | 30 MHz              |  |
| VSWR             |          | < '                                     | 1.5                 |  |
| Gain             |          | 8.5 dBi                                 | 11.5 dBi            |  |
| Impedance        |          | 50                                      | Ω                   |  |
| Polarization     |          | Ver                                     | tical               |  |
| Front-to-back ra | atio     | > 18 dB                                 |                     |  |
| Half-power bear  | m width  | H-plane: 115°                           | H-plane: 115°       |  |
|                  |          | E-plane: 33°                            | E-plane: 18°        |  |
| Max. power       |          | 500 Watt (at 50 °C ambient temperature) |                     |  |
| Weight           |          | 4.5 kg                                  | 9 kg                |  |
| Wind load        | Frontal: | 160 N (at 150 km/h)                     | 340 N (at 150 km/h) |  |
|                  | Lateral: | 100 N (at 150 km/h)                     | 220 N (at 150 km/h) |  |
| Rearside:        |          | 360 N (at 150 km/h)                     | 750 N (at 150 km/h) |  |
| Max. wind veloc  | city     | 200 km/h                                |                     |  |
| Packing size     |          | 1102 x 272 x 160 mm                     | 2062 x 272 x 160 mm |  |
| Height/width/de  | pth      | 974 / 258 / 103 mm                      | 1934 / 258 / 103 mm |  |

Material: Radiator: Copper, tin-plated.

Reflector screen: Weather-resistant aluminum.

Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.

Attachment: See the "Mounting Hardware" part of this

catalogue.

Ice protection: Due to the very sturdy antenna construction and

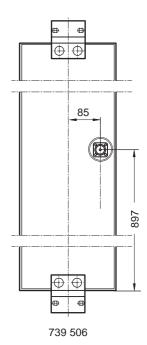
the protection of the radiating system by the radome, the antenna remains operational even

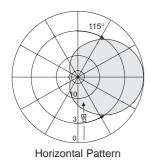
under icy conditions.

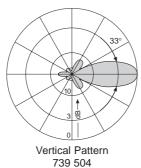
Grounding: All metal parts of the antenna including

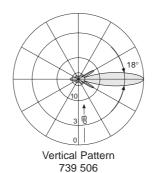
the mounting kit and the inner conductor













#### Panel 420/450 120° 9dBi

| Type No.              | 731 291                                 |      |
|-----------------------|---|------|
| Input                 | 7-16 female                             |      |
| Frequency range       | 400 – 470 MHz                           |      |
| VSWR                  | < 1.5                                   |      |
| Gain                  | 9 dBi                                   |      |
| Impedance             | 50 Ω                                    |      |
| Polarization          | Vertical                                |      |
| Front-to-back ratio   | > 22 dB                                 |      |
| Half-power beam width | H-plane: 120° / E-plane: 50°            |      |
| Max. power            | 500 Watt (at 50 °C ambient temperature) |      |
| Weight                | 9 kg                                    |      |
| Wind load             | Frontal: 500 N (at 150 k                | m/h) |
|                       | Lateral: 220 N (at 150 k                | m/h) |
|                       | Rearside: 715 N (at 150 k               | m/h) |
| Max. wind velocity    | 200 km/h                                |      |
| Packing size          | 1062 x 562 x 274 mm                     |      |
| Height/width/depth    | 992 / 492 / 190 mm                      |      |

Scope of supply: Antenna including two weather-proof covers

for straight and elbow connector, but without

mounting hardware.

Material: Dipole system: Brass and copper.

Reflector screen: Weather-resistant aluminum.

Radome: Fiberglass, colour: White. All screws and nuts: Stainless steel.

Attachment: Use clamps K 61 14 0 .. for tubular mast dia-

meters of 40 - 521 mm (see the "Mounting

Hardware" part of this catalogue).

Ice protection: Due to the very sturdy antenna construction and

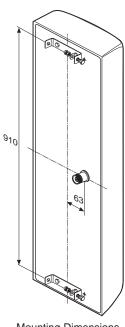
the protection of the radiating system by the radome, the antenna remains operational even

under icy conditions.

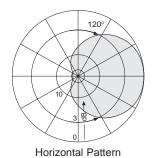
Grounding: All metal parts of the antenna including

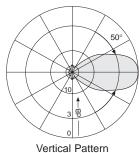
the mounting kit and the inner conductor











## **Eurocell Panel Antenna**



#### Panel 450 200° 11dBi

| Type No.              | 738 050                                 |  |
|-----------------------|---|--|
| Input                 | 7-16 female                             |  |
| Frequency range       | 440 – 470 MHz                           |  |
| VSWR                  | < 1.5                                   |  |
| Gain                  | 11 dBi                                  |  |
| Impedance             | 50 Ω                                    |  |
| Polarization          | Vertical                                |  |
| Front-to-back ratio   | > 18 dB                                 |  |
| Half-power beam width | H-plane: 200° / E-plane: 15°            |  |
| Max. power            | 500 Watt (at 50 °C ambient temperature) |  |
| Weight                | 14 kg                                   |  |
| Wind load             | Frontal: 530 N (at 150 km/h)            |  |
|                       | Lateral: 390 N (at 150 km/h)            |  |
|                       | Rearside: 1020 N (at 150 km/h)          |  |
| Max. wind velocity    | 200 km/h                                |  |
| Packing size          | 2702 x 272 x 160 mm                     |  |
| Height/width/depth    | 2574 / 258 / 103 mm                     |  |
|                       | (460 mm incl. subreflector)             |  |

Material: Radiator: Copper, tin-plated.

Reflector screen: Weather-resistant aluminum.

Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.

Attachment: See the "Mounting Hardware" part of this

catalogue.

Ice protection: Due to the very sturdy antenna construction and

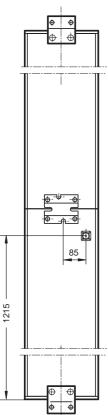
the protection of the radiating system by the radome, the antenna remains operational even

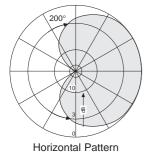
under icy conditions.

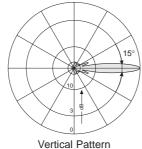
Grounding: All metal parts of the antenna including

the mounting kit and the inner conductor









# **Logarithmic-periodic Broadband Antenna**



#### LogPer 420/450 67° 10.5dBi

| Type No.                | K 72 22 41                              | K 72 22 47            |  |
|-------------------------|---|-----------------------|--|
| Input                   | N female                                | 7-16 female           |  |
| Frequency range         | 406 - 5                                 | 512 MHz               |  |
| VSWR                    | < '                                     | 1.4                   |  |
| Gain                    | 10.5                                    | i dBi                 |  |
| Impedance               | 50                                      | Ω                     |  |
| Side-lobe suppression   | > 25 dB at 44                           | 10 – 512 MHz          |  |
|                         | > 20 dB at 406 - 440 MHz                |                       |  |
| Polarization            | Either horizontal or vertical           |                       |  |
|                         | by relocating two clamps                |                       |  |
| Half-power beam width   | H-plane: 67° / E-plane: 53°             |                       |  |
| Max. power              | 300 Watt (at 50 °C ambient temperature) |                       |  |
| Weight                  | 9 kg                                    |                       |  |
| Wind load (at 150 km/h) | Horizontal: Fronta                      | l 55 N, lateral 90 N  |  |
|                         | Vertical: Fronta                        | l 55 N, lateral 440 N |  |
| Max. wind velocity      | 180 km/h                                |                       |  |
| Packing size            | 1172 x 372 x 225 mm                     |                       |  |
| Width/height/depth      | 1153 / 353 / 180 mm                     |                       |  |



Arrays: Several antennas can be combined to increase

the gain and to produce radiation patterns with

very high side-lobe suppressions.

Scope of supply: Antenna with weather protective casing for

straight connectors.

Material: Radiator and mounting kit: Aluminum.

Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.

Attachment: To tubular masts of 48 – 115 mm diameter

using supplied clamps.

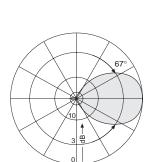
Ice protection: Due to the very sturdy antenna construction and

the protection of the radiating system by the radome, the antenna remains operational even

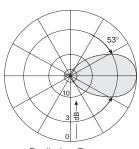
under icy conditions.

Grounding: All metal parts of the antenna including

the mounting kit and the inner conductor



Radiation Pattern in H-plane



Radiation Pattern in E-plane

## **Directional Antenna - Dual Polarization**



#### Two independent systems for +45° and -45° polarization

#### XPol Panel 380-500 65° 12dBi

| Type No.                     | 741 515                                 |  |  |
|------------------------------|---|--|--|
| Input                        | 2 x 7-16 female                         |  |  |
| Connector position           | Rearside                                |  |  |
| Frequency range              | 380 – 500 MHz                           |  |  |
| VSWR                         | < 1.5                                   |  |  |
| Gain                         | 12 dBi (430 – 500 MHz)                  |  |  |
|                              | 11.5 dBi (380 – 430 MHz)                |  |  |
| Impedance                    | 50 Ω                                    |  |  |
| Polarization                 | +45°; -45°                              |  |  |
| Front-to-back ratio, copolar | > 25 dB                                 |  |  |
| Half-power beam width        | ± 45° polarization                      |  |  |
|                              | Horizontal: 65°, vertical: 36°          |  |  |
| Isolation                    | > 30 dB                                 |  |  |
| Max. power                   | 500 Watt (at 50 °C ambient temperature) |  |  |
| Weight                       | 8 kg                                    |  |  |
| Wind load                    | Frontal: 550 N (at 150 km/h)            |  |  |
|                              | Lateral: 220 N (at 150 km/h)            |  |  |
|                              | Rearside: 715 N (at 150 km/h)           |  |  |
| Max. wind velocity           | 200 km/h                                |  |  |
| Packing size                 | 1062 x 562 x 274 mm                     |  |  |
| Height/width/depth           | 992 / 492 / 190 mm                      |  |  |

Material: Radiators: Tin-plated copper.

Reflector screen: Weatherproof aluminum.

Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.

Ice protection: Due to the very sturdy antenna construction and

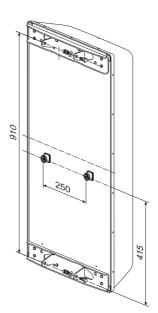
the protection of the radiating system by the radome, the antenna remains operational even

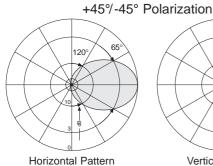
under icy conditions.

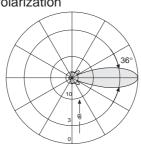
Grounding: The metal parts of the antenna including

the mounting kit and the inner conductors









Vertical Pattern

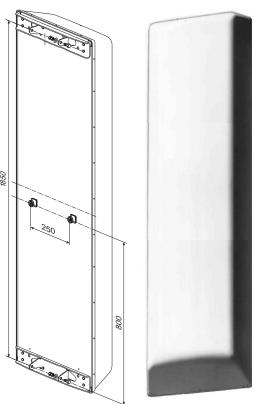
## **Directional Antenna - Dual Polarization**



Two independent systems for +45° and -45° polarization

#### XPol Panel 380-500 65° 15dBi | XPol Panel 380-430 68° 14.5dBi 6°T

| Type No.                     | 741 516                                 | 742 242         |  |  |
|------------------------------|---|-----------------|--|--|
| Input                        | 2 x 7-16 female                         |                 |  |  |
| Connector position           | Rear                                    | side            |  |  |
| Frequency range              | 380 – 500 MHz                           | 380 – 430 MHz   |  |  |
| VSWR                         | < 1                                     | 1.5             |  |  |
| Gain                         | 15 dBi (430 – 470 MHz)                  | 14.5 dBi        |  |  |
|                              | 14.5 dBi (380 – 430 MHz)                |                 |  |  |
| Impedance                    | 50                                      | Ω               |  |  |
| Polarization                 | +45°;                                   | -45°            |  |  |
| Front-to-back ratio, copolar | > 25 dB                                 |                 |  |  |
| Half-power beam width        | ±45° polarization                       |                 |  |  |
|                              | Horizontal: 65°                         | Horizontal: 68° |  |  |
|                              | Vertical: 18°                           | Vertical: 18°   |  |  |
|                              |   | Downtilt: 6°    |  |  |
| Isolation                    | > 30 dB                                 |                 |  |  |
| Max. power                   | 500 Watt (at 50 °C ambient temperature) |                 |  |  |
| Weight                       | 19 kg                                   |                 |  |  |
| Wind load                    | Frontal: 1100 N (at 150 km/h)           |                 |  |  |
|                              | Lateral: 440 N (at 150 km/h)            |                 |  |  |
|                              | Rearside: 1540 N (at 150 km/h)          |                 |  |  |
| Max. wind velocity           | 200 km/h                                |                 |  |  |
| Packing size                 | 2060 x 562 x 274 mm                     |                 |  |  |
| Height/width/depth           | 2000 / 492 / 190 mm                     |                 |  |  |
|                              | <u> </u>                                |                 |  |  |



Material: Radiators: Tin-plated copper.

Reflector screen: Weatherproof aluminum. Radome: Fiberglass, colour: Grey. All screws and nuts: Stainless steel.

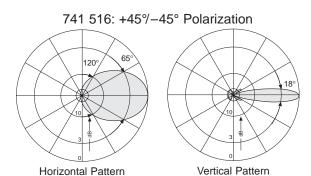
Ice protection: Due to the very sturdy antenna construction and

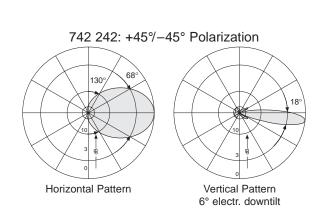
the protection of the radiating system by the radome, the antenna remains operational even

under icy conditions.

Grounding: The metal parts of the antenna including

the mounting kit and the inner conductors





# **Logarithmic-periodic Directional Antenna**



#### LogPer 450/900 68/60° 10.5/11.5dBi

| Type No.                | 739 990                                 |                       |
|-------------------------|---|-----------------------|
| Input                   | 7-16 female                             |                       |
| Frequency range         | 440 – 512 MHz                           | 824 – 960 MHz         |
| VSWR                    | < 1.4                                   |                       |
| Gain                    | 10.5 dBi                                | 11.5 dBi              |
| Impedance               | 50 Ω                                    |                       |
| Polarization            | Vertical                                |                       |
| Half-power beam width   | H-plane: 68°                            | H-plane: 60°          |
|                         | E-plane: 54°                            | E-plane: 48°          |
| Front-to-back ratio     | > 23 dB                                 | > 25 dB               |
| Max. power              | 100 Watt (at 50 °C ambient temperature) |                       |
| Weight                  | 9 kg                                    |                       |
| Wind load (at 150 km/h) | Horizontal: Fronta                      | l 55 N, lateral 90 N  |
|                         | Vertical: Fronta                        | l 55 N, lateral 440 N |
| Max. wind velocity      | 180 km/h                                |                       |
| Packing size            | 1172 x 372 x 225 mm                     |                       |
| Length/width/depth      | 1160 / 350 / 170 mm                     |                       |



Material: Radiator and mounting kit: Aluminum.

Radome: Fiberglass, colour: Grey.
All screws and nuts: Stainless steel.

Attachment: To tubular masts of 48 – 115 mm diameter

using supplied clamps.

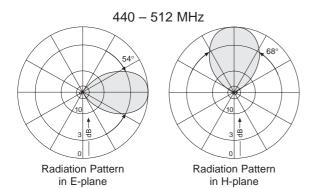
Ice protection: Due to the very sturdy antenna construction and

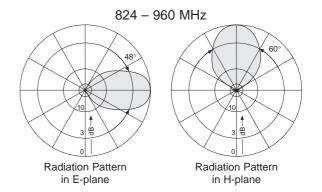
the protection of the radiating system by the radome, the antenna remains operational even

under icy conditions.

Grounding: All metal parts of the antenna including

the mounting kit and the inner conductor





# **Logarithmic-periodic Broadband Antenna**



#### Very small wind load

#### LogPer 450 87° 9dBi

| Type No.              | K 73 23 21                              |
|-----------------------|---|
| Input                 | N female                                |
| Frequency range       | 406 – 512 MHz                           |
| VSWR                  | < 1.3                                   |
| Gain                  | 9 dBi                                   |
| Impedance             | 50 Ω                                    |
| Side-lobe suppression | > 28 dB at 440 - 512 MHz                |
|                       | > 21 dB at 406 - 512 MHz                |
| Polarization          | Vertical                                |
| Half-power beam width | H-plane: 87° / E-plane: 62°             |
| Max. power            | 500 Watt (at 50 °C ambient temperature) |
| Weight                | 8.3 kg                                  |
| Wind load             | Frontal: 54 N (at 150 km/h)             |
|                       | Lateral: 150 N (at 150 km/h)            |
|                       | Rearside: 80 N (at 150 km/h)            |
| Max. wind velocity    | 180 km/h                                |
| Packing size          | 914 x 482 x 482 mm                      |
| Width/height/depth    | 860 / 400 / 400 mm                      |



Scope of supply: Antenna with weather protective casing for

straight connectors.

Material: Radiator: Weather-resistant aluminum.

Radome: Fiberglass, colour: White. Mounting kit: Hot-dip galvanized steel. All screws and nuts: Stainless steel.

Attachment: To tubular masts of 60 – 115 mm diameter

using supplied clamps.

Ice protection: Due to the very sturdy antenna construction and

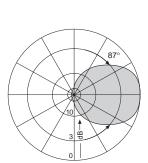
the protection of the radiating system by the radome, the antenna remains operational even

under icy conditions.

Grounding: All metal parts of the antenna including

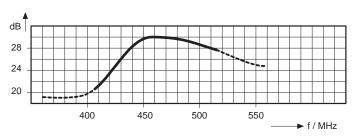
the mounting kit and the inner conductor

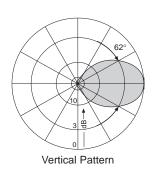
are DC grounded.



Horizontal Pattern

#### Typical side-lobe suppression





## **Corner-reflector Antenna**



#### Corner 390/420/450 44° 11dBi

| Type No.              | K 73 12 21                              |
|-----------------------|---|
| Input                 | N female                                |
| Frequency range       | 360 – 490 MHz                           |
| VSWR                  | < 1.5 (360 – 490 MHz)                   |
|                       | < 1.3 (400 – 470 MHz)                   |
| Gain                  | 11 dBi                                  |
| Impedance             | 50 Ω                                    |
| Polarization          | Vertical                                |
| Half-power beam width | H-plane: 44° / E-plane: 67°             |
| Max. power            | 180 Watt (at 50 °C ambient temperature) |
| Weight                | 2.8 kg                                  |
| Wind load             | 140 N (at 150 km/h)                     |
| Max. wind velocity    | 150 km/h                                |
| Packing size          | 842 x 524 x 187 mm                      |
| Height/width/depth    | 500 / 1155 / 577 mm                     |



Scope of supply: Antenna with weather protective casing for

straight connectors, mounting kit included.

Material: Radiator and reflector: Weather-resistant

aluminum.

Mounting U-bold: Stainless steel.
All screws and nuts: Stainless steel.

Attachment: To tubular masts of 30 – 54 mm diameter using

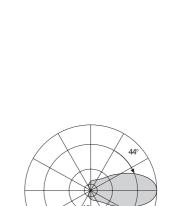
supplied U-bolts.

Special features: The antenna is partly dismantled for easy

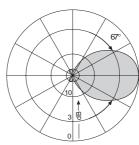
dispatch.

Grounding: All metal parts of the antenna including

the mounting kit and the inner conductor



Horizontal Pattern



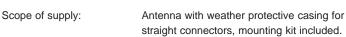
Vertical Pattern



#### • Circular polarization

#### Helix 420/450 33° 12dBi

| Type No.               | K 73 51 21   |
|------------------------|--|
| Input                  | N female   |
| Frequency range        | 400 – 470 MHz  |
| Polarization           | right handed circular (RHCP)                         |
| VSWR                   | < 1.2  |
| Gain                   | 12 dB  |
|                        | (ref. to the circularly polarized isotropic antenna) |
| Impedance              | 50 Ω   |
| Max. power             | 560 Watt (at 50 °C ambient temperature)              |
| Weight                 | 12 kg  |
| Wind load              | 450 N (at 150 km/h)                                  |
| Max. wind velocity     | 200 km/h   |
| Packing size           | 1684 x 388 x 277 mm                                  |
| Reflector diameter     | 718 mm   |
| Length / tube diameter | 1540 / 204 mm  |
| Length / tube diameter | 1540 / 204 mm  |



Material: Antenna: Copper band helix in protective fiber-

glass tube, colour: Grey.

Reflector screen: Weather-resistant aluminum. Attachment construction: Hot dip galvanized

steel.

All screws and nuts: Stainless steel.

Attachment: To tubular masts of 60 – 125 mm diameter using

supplied U-bolts.

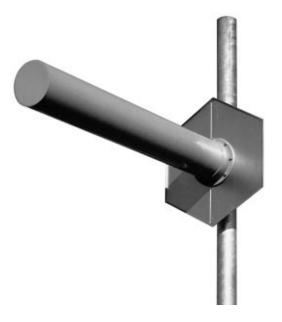
Grounding: All metal parts of the antenna including

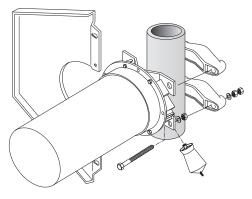
the mounting kit and the inner conductor

are DC grounded.

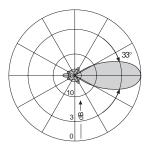
Please note: The reflector screen is made of two parts and

can be removed for transport.





Mounting Instructions



Relative field strength in mid-band