Colinear 4 dB Mobile Antenna for the 900 MHz Band

## DESCRIPTION

$>$ Encapsulated phasing coil.
> Black-chromed stainless steel whip.
$>3$ models, type "l", "m" and " h ", cover band segments suiting the most common 900 MHz CELLULAR networks such as EAMPS, ETACS, NMT-900 and EGSM.
> Stainless steel X-mount with M6-thread whip-fastening system.
$>$ Simple mounting exclusively with access from the outside.
$>$ Models available with X-mount (oblong), CX-mount (circular) and MM-mount (magnetic).
$>$ Choice between two connection principles:
$>$ X-mount, MM-mount: FME-connection (supplied without cable).
$>$ XP4-mount: Permanently attached 4 m low loss cable terminated with FMEconnector.

## SPECIFICATIONS

| Electrical |  |
| :---: | :---: |
| Model | MU 911-X/... |
| Frequency | 900 MHz -band covered by three models |
| Antenna Type | Collinear mobile antenna |
| Max. Input Power | 60 W |
| Polarisation | Vertical |
| Impedance | $50 \Omega$ |
| vswr | $\leq 1.3$ @ f. res. |
| Bandwidth | $\begin{aligned} & \geq 50 \mathrm{MHz} @ \text { VSWR } \leq 1.5 \\ & \geq 90 \mathrm{MHz} \text { @VSWR } 52.0 \end{aligned}$ |
| Gain (EIA RS-329-1) | 4 dB |


| Mechanical | Whip : Stainless steel and brass, black-chromed <br> Durable plastics <br> Mount : Black-chromed brass <br> Weather-and shockproof plastics <br> Stainless steel |
| :--- | :--- |
| Materials | $4 \pm 1 \mathrm{Nm}$ |
| Installation Torque | Black (RAL 9005) |
| Colour | Approx. $320 \mathrm{~mm} / 12.60 \mathrm{in}$. |
| Height | X-version : Approx. 80 g 20 g |
| XP4-version : Approx. 220 g |  |
| Weight | MM-version : Approx. 280 g |
| Mounting | 18 mm dia. hole |

ORDERING

| Model | Product No. | Description | Frequency |
| :---: | :---: | :---: | :---: |
| MU 911-X/I | 130001238 | X-mount (oblong) with FME-system | $824-894 \mathrm{MHz}$ (EAMPS) |
| MU 911-X/m | 130001242 |  | 872-950 MHz (ETACS) |
| MU 911-X/h | 130001508 |  | 880-960 MHz (EGSM \& NMT-900) |
| MU 911-CX/I | 130001239 | CX-mount (circular) with FME-system | 824-894 MHz (EAMPS) |
| MU 911-CX/m | 130001243 |  | 872-950 MHz (ETACS) |
| MU 911-CX/h | 130001233 |  | 880-960 MHz (EGSM \& NMT-900) |
| MU 911-XP4/I | 130001240 | XP4-mount (oblong) with 4 m cable + FME-connector | 824-894 MHz (EAMPS) |
| MU 911-XP4/m | 130001244 |  | 872 -950 MHz (ETACS) |
| MU 911-XP4/h | 130001234 |  | 880-960 MHz (EGSM \& NMT-900) |
| MU 911-CXP4/I | 130001241 | CXP4-mount (circular) with 4 m cable + FME-connector | 824-894 MHz (EAMPS) |
| MU 911-CXP4/m | 130001245 |  | 872 -950 MHz (ETACS) |
| MU 911-CXP4/h | 130001235 |  | 880-960 MHz (EGSM \& NMT-900) |
| MU 911-MM/I | 130001509 | MM-mount (magnetic) with FME-system | $824-894 \mathrm{MHz}$ (EAMPS) |
| MU 91-MM/m | 130001510 |  | 872 -950 MHz (ETACS) |
| MU 911-MM/h | 130001511 |  | 880-960 MHz (EGSM \& NMT-900) |



## INSTALLATION

This antenna should be mounted in the car roof to ensure best omnidirectional coverage. Mounting can take place exclusively with access from the outside when drilling an 18 mm dia. hole. Mounting can take place from the inside by drilling a 14 mm dia. hole. When mounting in a 14 mm dia. hole, remove the bottom plastic ring of the packing gasket with a sharp cutter.

> When cleaning the car in car-washing machines, remove the whip using a spanner, size 9 mm . After wash, refit the whip and tighten it lightly with the spanner. As the X-and CX-mounts are internally equipped with a bendable section, the antenna can always be adjusted to an upright position independent of the tilt angle of the installation spot (up to $30^{\circ}$ tilt).
> The MiniMag (abbreviated: MM) is a small, light-weight magnetic mount with a high attaching effect. A silicone layer applied to the contact surface protects the car roof and ensures maximum friction.
> Antennas with magnetic mount should be mounted at the centre of the vehicle roof to ensure best omnidirectional coverage.

## 1. INSTALLATION DIMENSION


2. INSTALLATION STEPS


Do not use sealer on rubber gasket or other places.
3.TUNING

The antenna is delivered factory-tuned and requires no further tuning.

## PLEASE NOTE

For safety reasons

1. When using the MU $911-\mathrm{MM} / \ldots$, car speed must not exceed $140 \mathrm{~km} / \mathrm{h}$.
2. If operating the MM-mount with other whips, whip length must never exceed 60 cm , and utilizing this maximum length, car speed must not exceed $115 \mathrm{~km} / \mathrm{h}$.
