

## GPS-C FLEX/70/GSM/...

### Unity Gain $\frac{1}{4}$ $\lambda$ Mobile Antenna for the 450 MHz Band

- External antenna whip mounted on the GPS-Combi mount.
- Flexible antenna made of steel wire covered with black silicone tubing.
- Easily removable for car wash.



#### DESCRIPTION

- GPS-antenna for fixed installations.
- Full hemispherical coverage.
- Built-in high gain, low noise amplifier.
- Right-Hand Circularly Polarized antenna (RHCP).
- 5 V supply voltage (3 V respectively 12 V available on request).
- DC supply via RF-connector.

#### ORDERING DESIGNATIONS

| TYPE                | PRODUCT NO. | FREQUENCY     | ROOF THICKNESS |
|---------------------|-------------|---------------|----------------|
| GPS-C FLEX/70/GSM/s | 132000068   | 380 - 420 MHz | Max. 2.5 mm    |
| GPS-C FLEX/70/GSM/l | 132000069   | 410 - 450 MHz | Max. 2.5 mm    |
| GPS-C FLEX/70/GSM/h | 132000070   | 430 - 470 MHz | Max. 2.5 mm    |

#### SPECIFICATIONS FOR WHIP

| ELECTRICAL                    |                                                |
|-------------------------------|------------------------------------------------|
| MODEL                         | GPS-C FLEX/70/GSM/...                          |
| ANTENNA TYPE                  | $\frac{1}{4}$ $\lambda$ mobile antenna         |
| FREQUENCY                     |                                                |
| GPS-C FLEX/70/GSM/s:          | 380 – 420 MHz                                  |
| GPS-C FLEX/70/GSM/l:          | 410 – 450 MHz                                  |
| GPS-C FLEX/70/GSM/h:          | 430 – 470 MHz                                  |
| Also useable for the GSM Band | (790 – 960 MHz)                                |
| IMPEDANCE                     | Nom. 50 $\Omega$                               |
| POLARIZATION                  | Vertical                                       |
| GAIN                          | 0 dB (acc. to EIA RS-329-1) for the 70 cm band |
| BANDWIDTH                     | $\geq 50$ MHz @ SWR $\leq 2.5$                 |
| SWR                           | $\leq 1.7$ @ f.res. for the 70 cm band         |
| MAX. POWER                    | 25 W                                           |

| MECHANICAL |                                                          |
|------------|----------------------------------------------------------|
| MATERIALS  | Silicone tube over flexible bowden wire<br>Chromed brass |
| COLOUR     | Black                                                    |
| HEIGHT     | Approx. 140 mm                                           |
| WEIGHT     | Approx. 25 g                                             |
| MOUNTING   | On the GPS-Combi mount                                   |

#### SPECIFICATIONS FOR GPS-COMBI MOUNT

| ELECTRICAL General specifications |                                   |
|-----------------------------------|-----------------------------------|
| MODEL                             | GPS-COMBI MOUNT                   |
| ANTENNA TYPE                      | Active patch antenna              |
| FREQUENCY                         | 1575 MHz                          |
| IMPEDANCE                         | Nom. 50 $\Omega$                  |
| POLARIZATION                      | Circular right-hand               |
| COVERAGE                          | Hemispherical                     |
| GAIN                              | 28 dBic in axial direction (typ.) |
| CROSS-POLARIZATION ATT.           | > 10 dB (typ.)                    |
| SELECTIVITY                       | > 45 dB down @ $\pm 45$ MHz       |

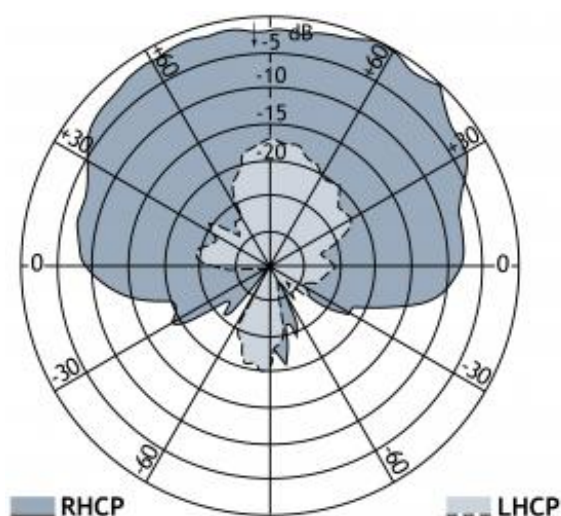
| BUILT-IN AMPLIFIER  |                                             |
|---------------------|---------------------------------------------|
| GAIN                | > 30 dB (typ.)                              |
| NOISE FIGURE        | < 1 dB (typ.)                               |
| P <sub>1dB</sub>    | Approx. +7 dBm                              |
| SWR (output)        | $\leq 2.0$                                  |
| SUPPLY VOLTAGE      | 5 $\pm$ 0.5 VDC (3 V resp. 12 V on request) |
| CURRENT CONSUMPTION | Approx. 25 mA                               |

## MECHANICAL (only for the GPS-part)

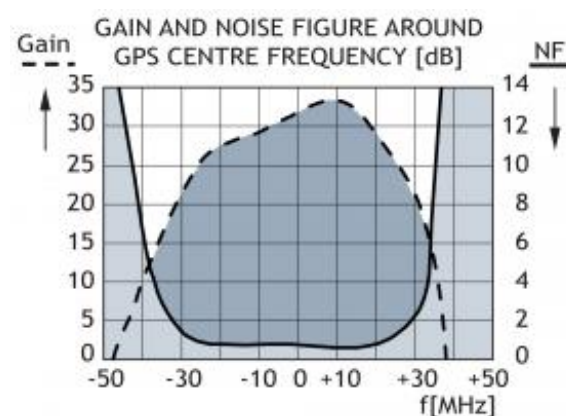
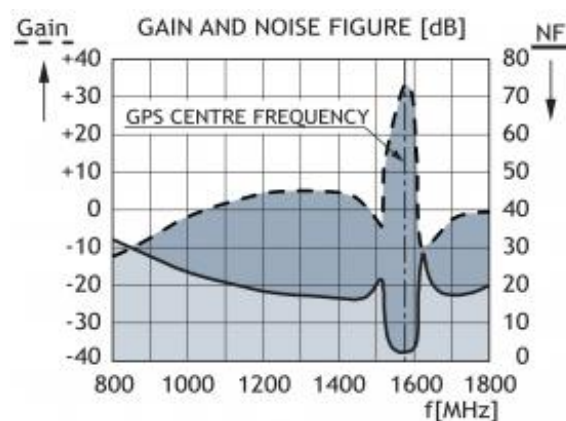
|                                |                                                                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| MATERIALS                      | Cu-nite brass<br>Stainless steel<br>Reinforced thermoplastic                                                                                 |
| ANTENNA COLOUR                 | Black                                                                                                                                        |
| TEMP. RANGE                    | -35° C → +75° C                                                                                                                              |
| CONNECTOR                      | FME (male for GPS) +<br>FME (female for mobile antenna)                                                                                      |
| RECOMMENDED<br>INSTALL. TORQUE | 4 ± 0.5 Nm                                                                                                                                   |
| DIMENSIONS(H x L)              | Approx. 30 x 89 mm                                                                                                                           |
| ROOF THICKNESS                 | Max. 2.5 mm                                                                                                                                  |
| WEIGHT                         | Approx. 114 g                                                                                                                                |
| MOUNTING                       | ø18.0 mm dia. hole for roof thickness up till 2.0 mm.<br>ø18.5 mm dia. hole for roof thickness 2.0 - 2.5 mm.<br>Tools for mounting included. |



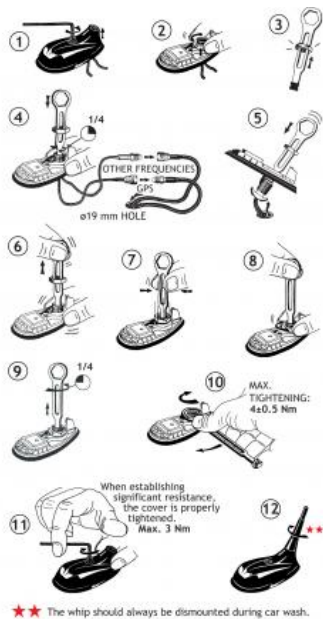
## VERTICAL RADIATION PATTERN



## TYPICAL RESPONSE CURVES



## MOUNTING INSTRUCTIONS



## CABLE MOUNTING

