

## Planar Combination Antenna F60ZVW\_WP

WLAN 2400/5300 MHz + GSM 850/900/1800/1900 MHz + UMTS  
+ GPS low current

Window Mount



- **Adhesive bonding antenna waterproof IP68, appropriate to mount the antenna outside**
- **No changes and modifications on the body**
- **Including 868 MHz – services and DECT**
- **Our products are RoHS- and REACH-conform**



## Technical Data

| <b>GSM</b>          |   | <b>GPS</b>           |                   |
|---------------------|---|----------------------|-------------------|
| Frequency Range     | 850/900/1800/1900 + 2100 MHz  | Frequency            | 1575.42 MHz       |
| VSWR*               | < 2.0 typ.  | VSWR                 | 1.5 typ.          |
| Peak Gain*          | +1 dBi typ. (900 MHz)<br>+3 dBi typ. (1800 MHz)<br>+4 dBi typ. (2100 MHz) | Peak Gain            | 18 dBi typ.       |
| Power max.          | 10 W  | Power Supply         | 3V ±10%; 4mA typ. |
| Diagnostic resistor | 10 kΩ (others on request)   | V <sub>DD</sub> max. | 4.0V              |
|                     |   | Input Power max.     | +10dBm            |
|                     |   | Current max.         | 4.5mA             |

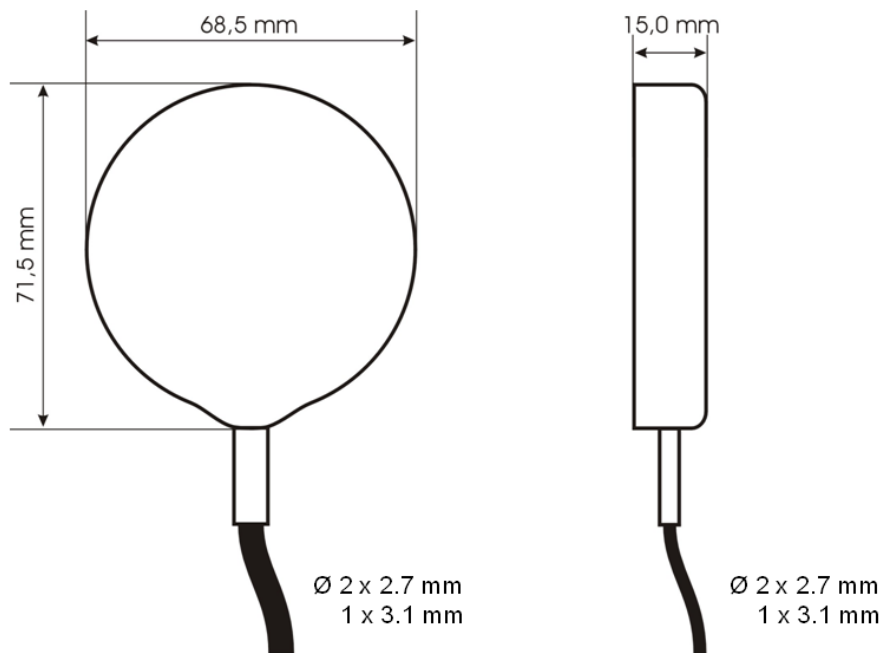
## WLAN

|                 |  |
|-----------------|--|
| Frequency Range | 2400/5300 MHz                                    |
| VSWR*           | < 2.0 typ.                                       |
| Peak Gain*      | +4 dBi typ. (2400 MHz)<br>+1 dBi typ. (5300 MHz) |
| Power max.      | 10 W   |

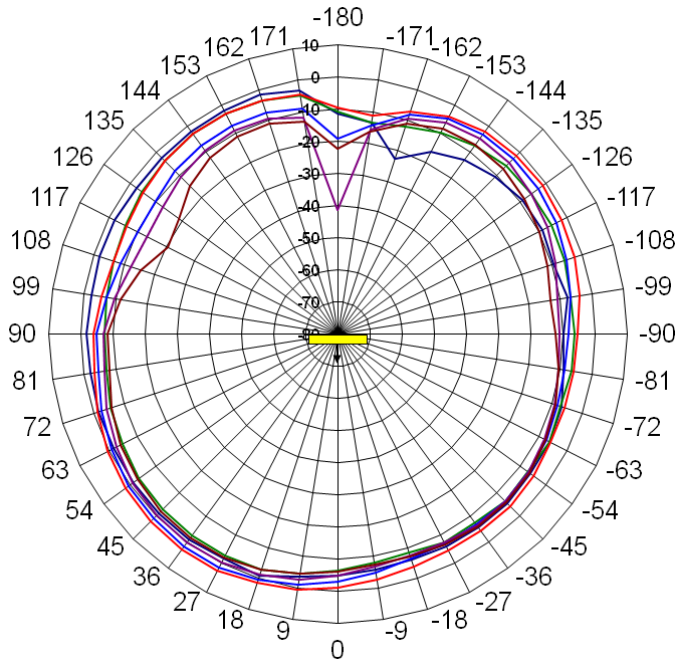
\* Measured with 0.6m cable on 30x30cm glass pane

## Mechanical Data

|                       |   |
|-----------------------|---|
| Dimensions (ØxH)      | ca. 70 mm x 15 mm   |
| Temperature Range     | -40°C to +85°C (operating temperature)  |
| Connection (Standard) | ca. 3m connecting cable RG174 with GSM/FME(f); GPS/SMA(m)<br>ca. 3m connecting cable RG174 low loss with WLAN/SMA(m)<br>Other cablelengths and connectors see ordering example and connector list in Internet |

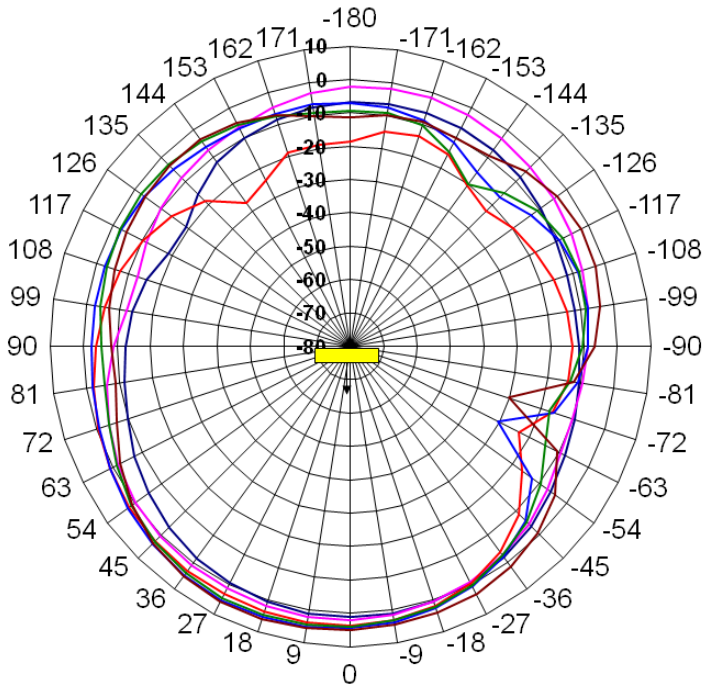


**Radiation diagram (typ.)\***



**GSM 900 MHz**  
Peak Gain: +1 dBi

- 820
- 848
- 876
- 904
- 932
- 960



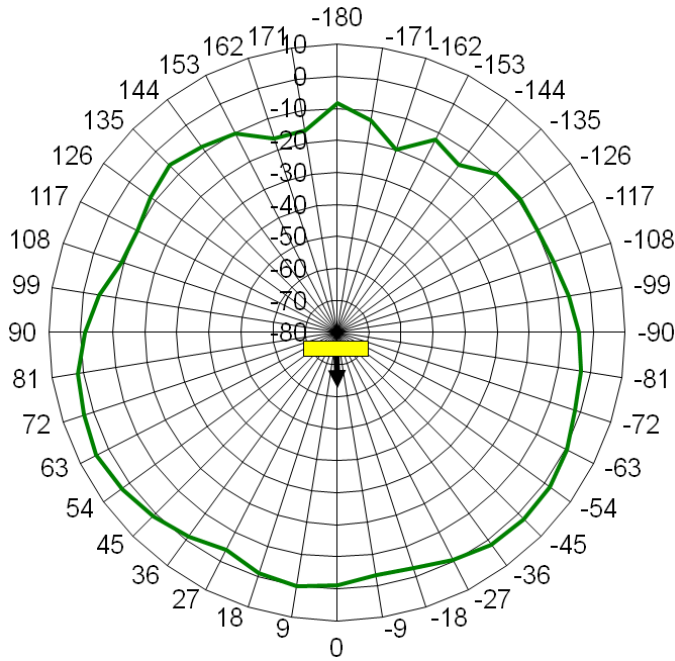
**GSM 1800 MHz**  
Peak Gain: +3 dBi

- 1710
- 1788
- 1866
- 1944
- 2022
- 2100

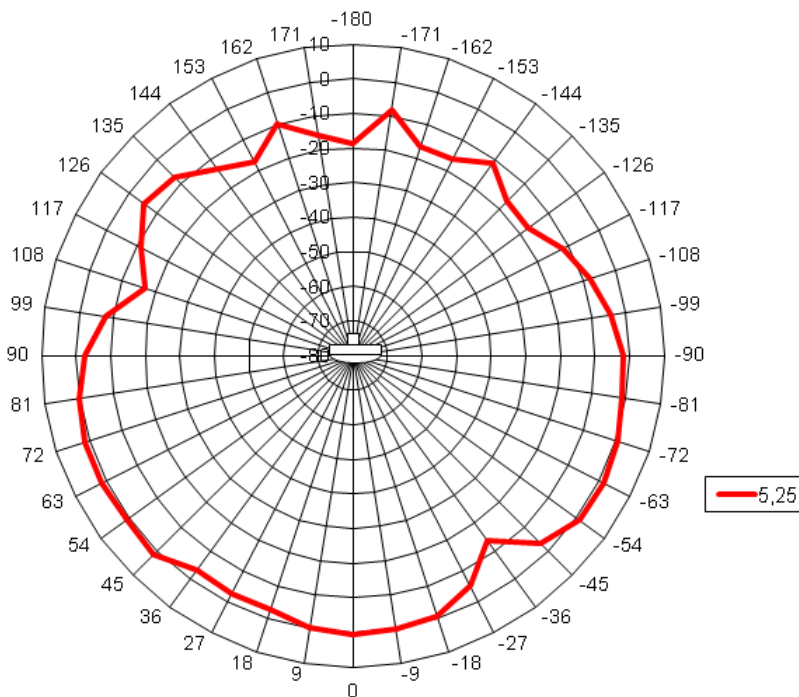
**GSM 2100 MHz**  
Peak Gain: +4 dBi

\* Measured with 0.6m cable on 30x30cm glass pane

**Radiation diagram (typ.)\***



WLAN 2400 MHz  
Peak Gain: +4 dBi



WLAN 5300 MHz  
Peak Gain: +1 dBi

\* Measured with 0.6m cable on 30x30cm glass pane

### Accreditation

|                                     |        |                     |                 |
|-------------------------------------|--------|---------------------|-----------------|
| <input type="checkbox"/>            | E-Code | <b>e 13 02 1510</b> | high gain (A)   |
| <input type="checkbox"/>            | E-Code | <b>e 13 02 1509</b> | low gain (L)    |
| <input checked="" type="checkbox"/> | E-Code | <b>e 13 03 6371</b> | low current (V) |

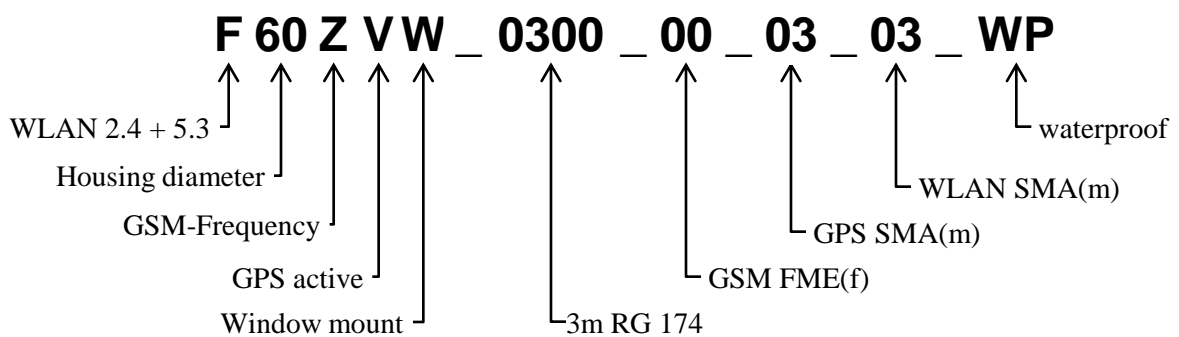
### Mounting Instructions

- To avoid mechanical stress the antenna should not be attached on doors or flaps.
- No extra ground planes are necessary for this antenna (ground plane inside).
- Mountable on all clean, smooth and stainless surfaces.
- Mountable on glass and non-metallic materials.
- Don't stick the antenna under +10°C to get an optimal adhesion of the sticker.
- Clean seating nonfat before sticking by using the delivered cleaning cloth
- First remove protection foil on one side of the sticker and stick it on the seating, avoid formation of bubbles.
- Now the other protection foil has to be removed from the sticker. Stick the antenna on with it's level side and advantage direction (cable pointing below) and apply sufficient pressure.

**Delivery includes:** Sticker; cleaning cloth with isopropanol

**Important:** Before sticking please test the adhesive bonding possibility of the material!

### Ordering example



### Warranty

The lawful warranty conditions apply.