

Planar Combination Antenna F70ZAR

Roof Mount

**GSM 850/900/1800/1900 MHz + UMTS + GPS high gain
+ WLAN 2400/5300 MHz**



- **Waterproof TÜV passed IP69K mounted**
- **Antenna available in black, white and blue other colours on demand**
- **Including 868 MHz – services and DECT**
- **Our products are RoHS- and REACH-conform**



Technical Data

GSM

Frequency Range	850/900/1800/1900 + 2100 MHz
VSWR*	< 2.0 typ.
Peak Gain*	+5 dBi typ. (900 MHz) +3 dBi typ. (1800MHz) +1 dBi typ. (2100 MHz)
Power max.	10 W
Diagnostic resistor	10 k Ω (others on request)

GPS

Frequency	1575.42 MHz
VSWR	1.5 typ.
Peak Gain	25 dBi typ.
Power Supply	3V to 5V; 25mA typ.
V _{DD} max.	+10V _{DC}
Input Power max.	+17dBm
Current max.	30mA

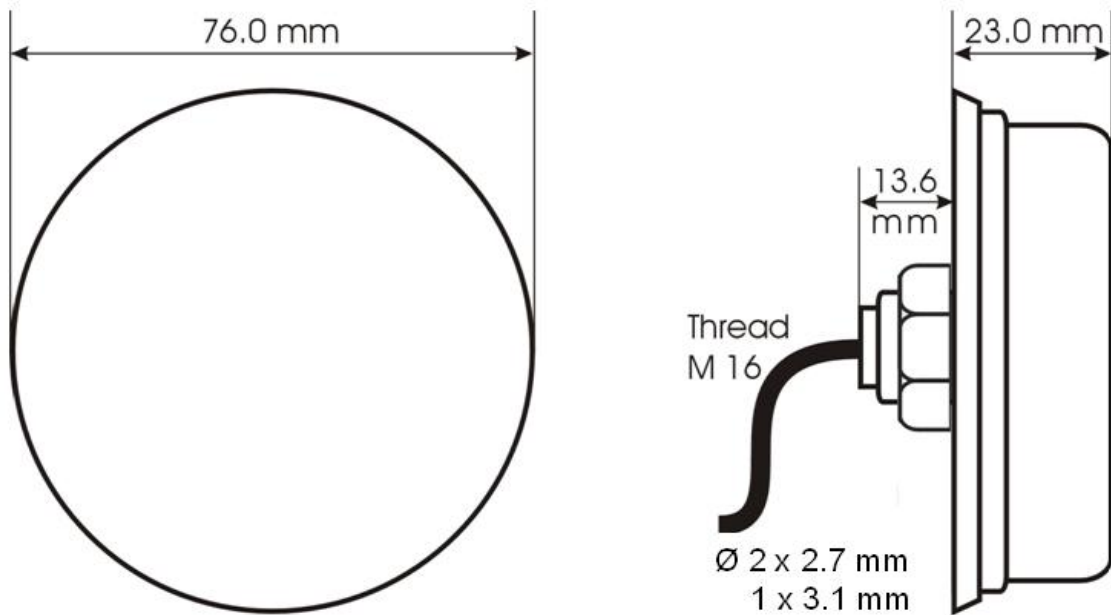
WLAN

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

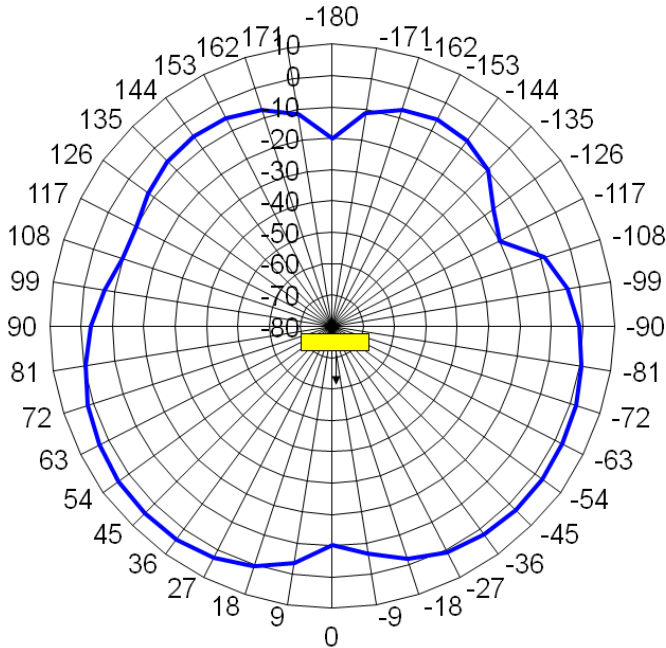
* Measured with 0.6m cable on 30x30cm ground plane

Mechanical Data

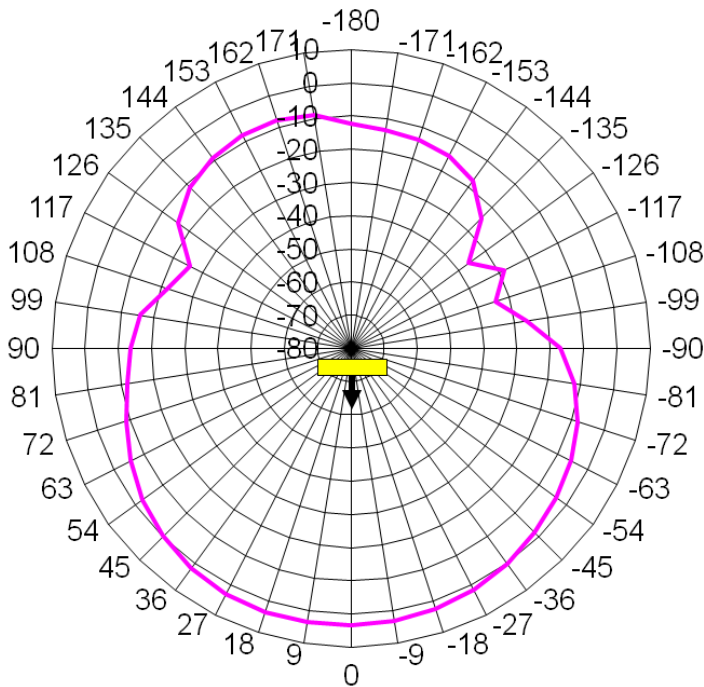
Dimensions (ØxH)	ca. 76 mm x 23 mm
Temperature Range	-40°C to +85°C (operating temperature)
Connection (Standard)	ca. 3m connecting cable RG174 with GSM/FME(f); GPS/SMA(m) ca. 3m connecting cable RG174 low loss with WLAN/SMA(m) Other cablelengths and connectors see ordering example and connector list in Internet



Radiation diagram (typ.)*



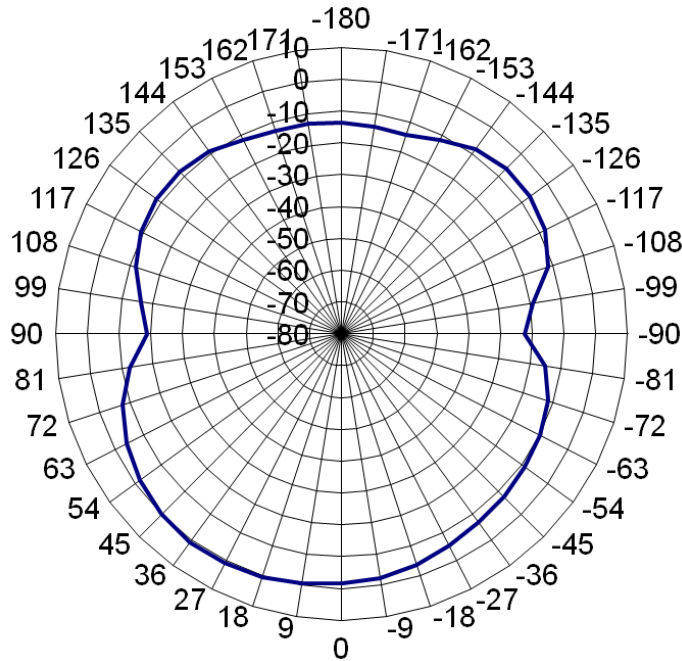
GSM 900 MHz
Peak Gain: +5 dBi



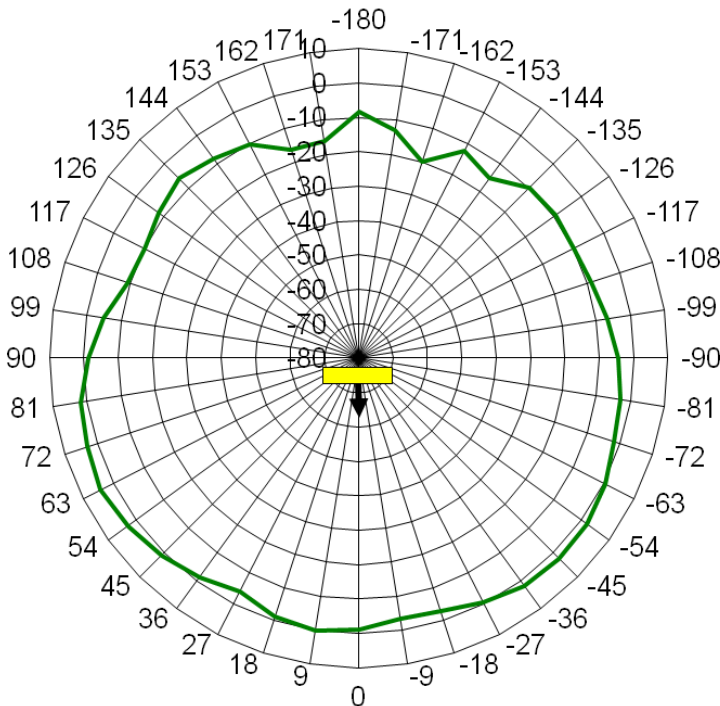
GSM 1800 MHz
Peak Gain: +3 dBi

* Measured with 0.6m cable on 30x30cm ground plane

Radiation diagram (typ.)*



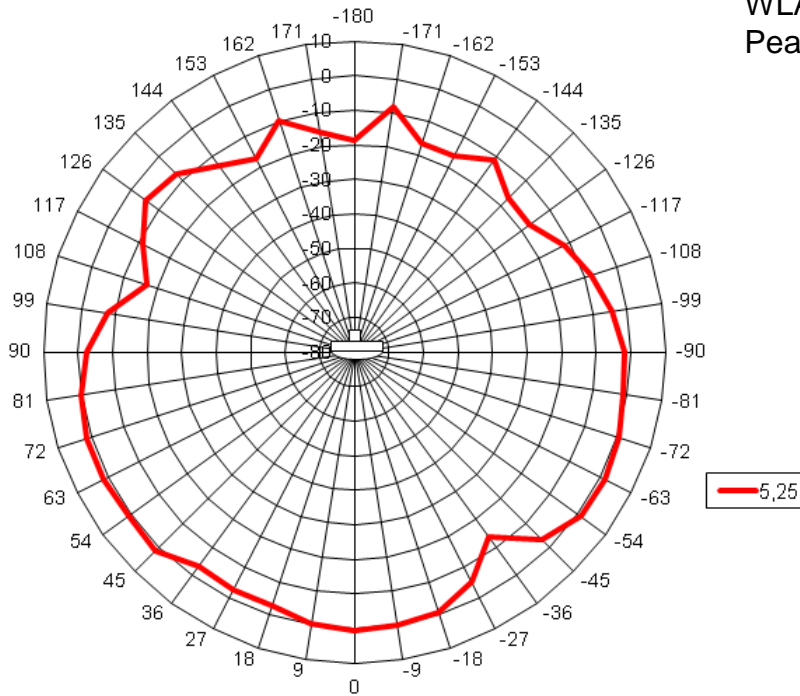
GSM 2100 MHz
Peak Gain: +1 dBi



WLAN 2400 MHz
Peak Gain: +4 dBi

* Measured with 0.6m cable on 30x30cm ground plane

Radiation diagram (typ.)*



* Measured with 0.6m cable on 30x30cm ground plane

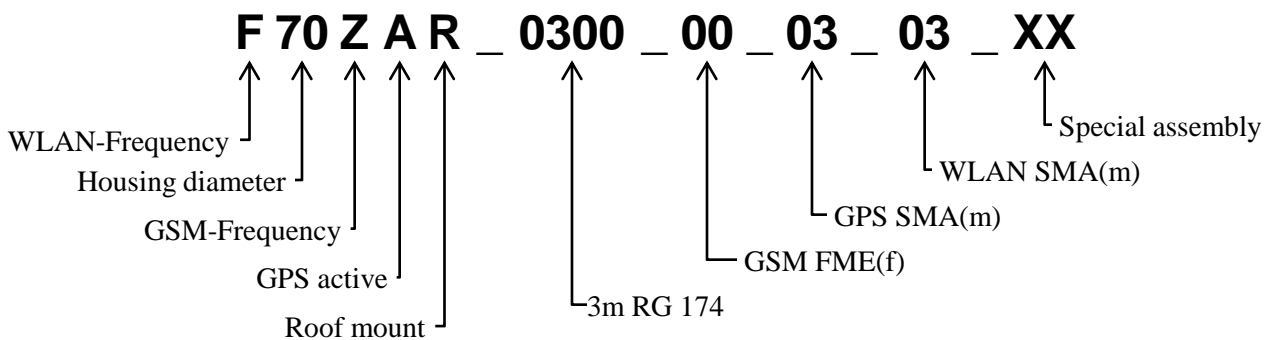
Accrediation

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

Mounting Instructions

- No extra ground planes are necessary for this antenna (ground plane inside).
- Mountable on all clean, smooth and rust free surfaces.
- Tightening torque on M16 nut is min. 4Nm to max. 6Nm
- Mountening bore hole is Ø 16mm (+2mm/-0mm)
- Alternatively the bottom is available as aluminum diecast with tightening torque 12 Nm to max. 15 Nm (AL).
- Mounting on a separate support possible, if the cable entrance is watertide.
- Antenna available with waterproof cable entrance (PW or AW).

Ordering example



Warranty

The lawful warranty conditions apply.