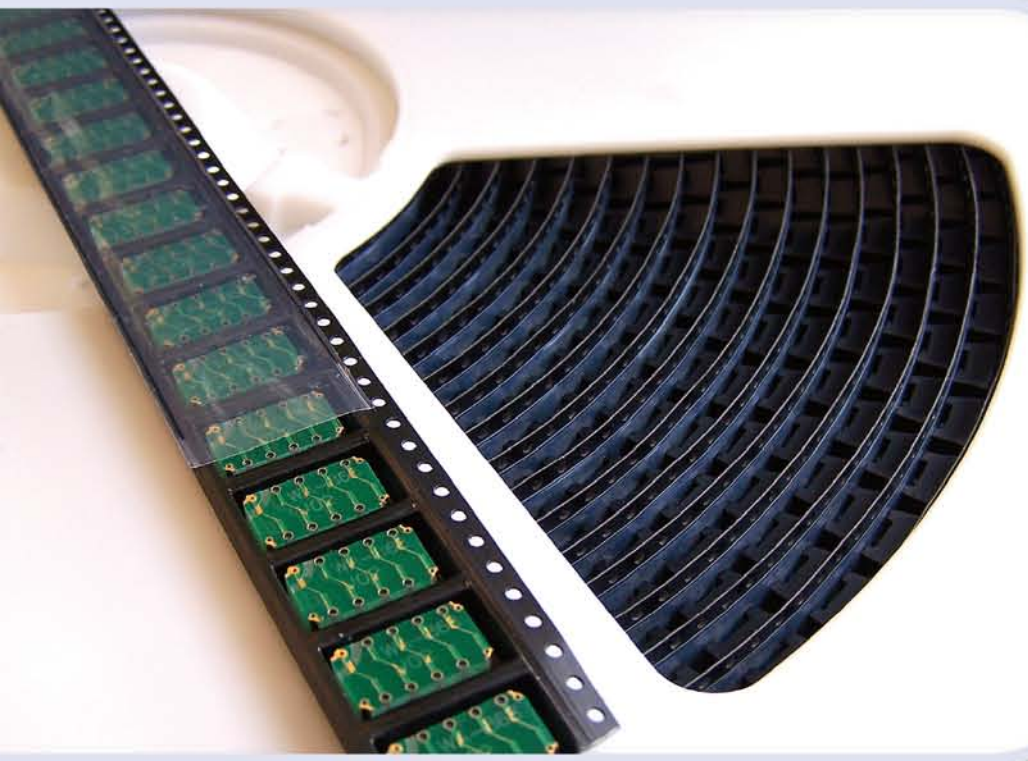
Ingenious Antennas for ISM Applications

Single-band / Multi-band Antennas adapted for special Requirements



«THE ANTENNA – THE MAGIC COMPONENT»

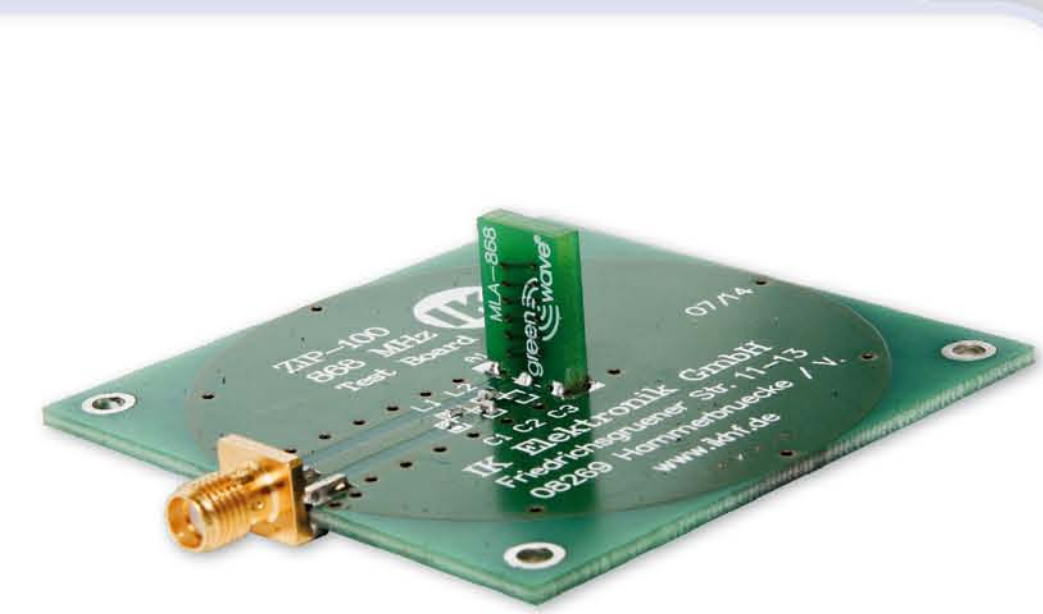
- **Neglecting the antenna design issues and antenna parameters is the most popular problem during development of an electronic device or system. Tenth of dB's in transmission power or input sensitivity of a radio transceiver are often considered, but the deciding influence of the effectivity, input impedance and pattern of the antenna on the system performance is not taken into account.**
- **To avoid trouble and headache during and after design process please ask IK Elektronik - your antenna specialist!**

«TARGET: LOW COST, SMT MOUNT»

- **Main requirements:**
  - **Low size and weight**
  - **Taping & Reeling for SMT assembly**
  - **Low total cost for use in a high volume production**
- **Selected Technology:**
  - **3D wounded wire structure on double layer FR-4 PCB**
  - **Horizontal mount on a main PCB**
- **Product Details:**
  - **Frequency 863 … 873MHz**
  - **Gain 0dBi max.**
  - **Size 15.0 x 8.0 x 3.2mm³**
  - **Operating Temperature –10 … +60°C**

«TARGET: CIRCULAR POLARISATION»

- **Main requirements:**
  - **Circular polarisation in a small enclosure**
  - **N female connector**
  - **Robust design for rough industrial environment**
- **Selected Technology:**
  - **True helical antenna with broadband matching network**
  - **Plastic enclosure filled with low loss dielectric**
- **Product Details:**
  - **Frequency 2.46 ±75MHz**
  - **Gain 4dBic**
  - **Polarisation RHCP, axial ratio 1.8 max.**
  - **Size Ø 30.0mm x 78.7mm**
  - **Operating Temperature –40 … +70°C**



«TARGET: LOW SIZE, HIGH EFFICIENCY»

- **Main requirements:**
  - **Omni-directional pattern and good efficiency for use with a broadcast transmitter**
  - **Low size for mounting in an special enclosure**
  - **Stable electrical performance**
- **Selected Technology:**
  - **Monopole on multi-layer FR-4 PCB and additional internal load for shorten the monopole length**
  - **Vertical mount using mounting holes (THT)**
- **Product Details:**
  - **Frequency 863 … 873 MHz**
  - **Efficiency >80%**
  - **Additional matching network necessary**
  - **Size 10.0 x 17.0 x 3.0mm³**
  - **Operating Temperature –40 … +80°C**