

# COVER LETTER

## Differences between MOBY E ANT4 and ANT1

MOBY E antenna 4 (ANT4) was developed to make a higher speed of mobile data memories (MDS) in the field possible.

ANT4 is based on the available ANT1. ANT1 has been granted with SLG75 by FCC.

Electrical circuit of ANT4 is identical with ANT1.

The antenna coil (ANT1: 2 coils on an area of 50mm x 55mm) has been increased (ANT4: 1 coil on an area of 60mm x 280). Therefore the magnetic field - and so also the operation range - extends by the factor 3 from 70 to 210mm. But the working distance amounts to 70 mm by both antennas.

Additionally there is attached a shield plate (70mm x 280mm), which covers the whole antenna surface of ANT4. This plate is electrical connected with GND2 (outside shield). This additionally shield stabilizes the tuning to different mounting surfaces (plastic, metal ...).

From sight of SLG75 the electrical parameters remain the same as those of ANT1 ( $Z = 50$  ohms, phase =  $0^\circ$  at 13.56 MHz).

Mechanical dimensions:

ANT1: 70x 70x 20 (mm) length, width, height

ANT4: 320x 75x 30 (mm) length, width, height