SIEMENS

# MOBY® U

## Mobile Data Memory - MDS U525

**Product Sheet**

**Version:** 01.00 of 12.12.03
A&D PT 7 M2, R. Völler


### Description

The MDS U525 is a mobile data memory (MDS) of the MOBY U long range identification system. It offers a large, 32-Kbyte memory and replaceable battery. It is especially designed for use in the automotive industry and other industrial production systems with similar requirements. Very low power consumption ensures a long life of approx. 7 years without changing the battery. Changing the battery lengthens the life of the MDS accordingly. The extremely sturdy, interference-proof MDS can be read and write-accessed at a distance of up to 3 m. Addressing of the MDS U525 is easy with the filehandler familiar from MOBY I (logical file addressing). In addition, the MDS can also be used with only direct memory access. With its transmission frequency in the ISM frequency band at 2.4 GHz, the MDS offers a very high net data transmission speed of approx. 8 Kbytes per second without multitagging and approx. 4 Kbytes per second even with multitagging and two MDSs.

### Ordering Data

| Product Description | Order No. | L-Price EURO/Unit | AL | ECCN |
|---|---|---|---|---|
| **Mobile data memory MDS U525** with 32-Kbyte memory, replaceable battery, IP 65 | **6GT2500-5CF10** | See FDB. | | |

### Technical Data

| | |
|---|---|
| **MDS type** | **MDS U525** |
| **Identification system** | **MOBY U** |

| | |
|---|---|
| Fixed code memory | MDS identification number (32 bits) |
| Read only memory | 128 bits, can be written once by user |
| Application memory | |
| Memory technology | RAM |
| Memory size | 32 Kbytes |
| Memory organization | Byte access, filehandler mode |
| Data retention | 10 years |
| MTBF (at +40°C) | 2.5 x $10^6$ hours (regardless of battery) |
| Read/write cycles | $10^7$ at +25°C |
| Read/write distance | 0.15 m to 3 m |
| Multitag capability | Yes |
| Power supply | Battery |

| | |
|---|---|
| Battery lifespan | ≥ 7 years [1]; no changing<br>≥ 10 years [1]; with battery change; > 5 times replaceable |
| Shock/oscillation in acc. w. DIN EN 60721-3-7, class 7 M3 | 50 g/10 g |
| Free fall in acc. w. DIN EN 60068-2-32 | 1 m |
| Torsion and bending stress | Not permitted |
| Mounting | 4 M4 screws |
| Battery compartment | on the back; battery cover with 4 screws |
| Recommended distance to metal | Can be mounted directly on metal |
| Protection rating in acc. w. DIN EN 60529 | IP 65 |
| Chemical resistance | See configuration manual |
| Housing | |
| Dimensions [L x W x H] | 111 x 67 x 23.5 |
| Color/material | Anthracite/plastic PA 12 GF 25 |
| Ambient temperature | |
| During operation | -25°C to +85°C |
| During transportation and storage | -40°C to +85°C |
| Weight, approx. | 100 g |
| **Certifications** | RF: I-ETS 330440+C1:1997<br>SAR: 99/519/EG<br>Safety: EN 60950:2000<br>EMC: EN 301489-01:2000<br>EN 301489-03:2000<br>ENV 50204:1995<br>FCC Part 15C<br>$_{C}UL_{US}$<br>Safe for pacemakers |

[1] The lifespan depends on several factors - the temperature, the time the MDS remains in the antenna field of the SLG (zones 1 and 2) and the amount of data read/written.

## Field Data

| | Standard | Minimum | Maxi-mum | |
|---|---|---|---|---|
| Limit distance ($S_g$), approx. | 2.0 m | 0.50 m | 3.0 m | Over-the-horizon transmissions can be actively limited (in 0.5 m steps from 0.5 m to 3.5 m) by SLG. |
| Working distance ($S_a$) | 1.4 m | 0.35m | 2.1 m | |
| Transmission window at $S_a$ | | | | |
| Length/width | 2.8 m | 0.70 m | 3.6 m | |

The field data apply to reading and writing the MDS together with SLG U92 without FCC certification. Applications with SLG U92 with FCC certification have reduced declarations for the transmission field (see product sheet Read/Write Device – SLG U92 wit FCC).

## Dimensional Drawing of MDS U525