

# EXTENDED USER MEMORY CARD

## INDUSTRIAL GRADE SD CARD

### Highlights

- Industrial SLC card
- Best reliability for data storage
- Higher amount of Program/Erase cycles
- Extended temperature range

### Typical Applications

- Extend your Flexy local data storage
- Store historical data
- Store camera images



eWON offers you an industrial Grade SD Card, 1 GB, with SLC (Single-Level-Cell) NAND Flash, designed for demanding industrial applications where customer data requires the highest level of reliability, durability, and data integrity.

Industrial applications impose very different demands in terms of environmental stresses, data endurance requirements and expected usable life compared to consumer products. Moreover, most consumer-use SD cards are designed for low cost by equipping them with MLC or TLC flash memory. As a result, they are not suitable for storing operating systems or file systems. In contrast, the data retention behavior and maximum number of Program/Erase cycles is typically 20 times higher for a SLC than for a MLC (Multi-level-Cell) SD card.

The eWON SD card is already EXT3 formatted and therefore can be directly inserted into a Flexy without any further formatting requirements.

Thanks to this Extended User Memory card (EUM card), the embedded file system (/usr directory) of your eWON can be extended to store historical logging data or camera images of an IP camera plugged into an eWON. Your local memory can be extended by a factor of 30-60 depending on your Flexy memory settings.

As an example, some users might want to send limited data to a server but store all data on the SD card for traceability purposes. Another use would be to store some particular data extracted from the eWON memory through the Export Block Descriptor and/or BASIC programming.



## CHARACTERISTICS

- Part Number ( P/N): FAC90601\_0100
- Data capacity: 1GB
- Pre-formatted with EXT3 filesystem
- Transfer mode: SD Class 6
- Compatible with SD Specifications Version 2.0
- High reliability, operating at -40°C to 85°C

Type		Measurement
Temperature	Operation	-40°C to 85°C
	Non-Operation	-55°C to 90°C
Humidity	Operation	8% ~ 95% relative humidity, non-condensing
	Non-Operation	8% ~ 95% relative humidity, non-condensing

- SLC (Single-Level-Cell) NAND Flash
- Water proof, Dust proof and ESD Resistant
- Card supported voltage: 2.7V to 3.6V
- Resistance to Shock and Vibration
- Enhanced endurance: Equipped with a global static wear leveling algorithm, which drastically improves the endurance of the installed flash memory. Current SLC based cards can be erased up to 100.000 times. This means that under normal mixed write workload conditions they can be fully written around 10 times per day for a period of 10 years before they wear out.
- MTBF (@25°C) >5,000,000 hours
- Read Disturb Protector Auto Refresh technology to ensure data integrity especially in frequent read operations
- Enhanced power cycling support
- Support BCH ECC up to 72bit/1KByte
- Form factor: 32 x 24 x 2.1mm
- RoHS compliant. The components, lead terminals, etc. are all free from hazardous substances prohibited by the RoHS Directives of the EU (European Union)
- CE & FCC certification
- VCCI certification