

# FGD-03F

## Floating Gate Dosimeter (FGDOS®)



The power of small things

Target Specification. Preliminary

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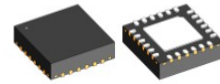
### FEATURES

- FGDOS® radiation sensor with digital output
- 200 uGy (20 mrad) resolution
- Total Ionizing Dose (TID) radiation up to 500 Gy
- Chip Serial Number
- Interface for microcontroller applications
- Internal +18V Charge Pump for Sensor Recharging
- Programmable Sensitivity 10 kHz/Gy or to 60 kHz/Gy
- Standby Mode by pin
- Passive detection mode (zero power consumption)
- Temperature monitor integrated on-chip
- 5V supply voltage

### APPLICATIONS

- Radiation sensor
- Active and Passive Dosimetry
- Space
- Particle Physics Facilities

### PACKAGE



QFN32 5x5m (2 sensors)

## GENERAL DESCRIPTION

FGD-03F is a high TID digital radiation sensor based in FGDOS® principle.

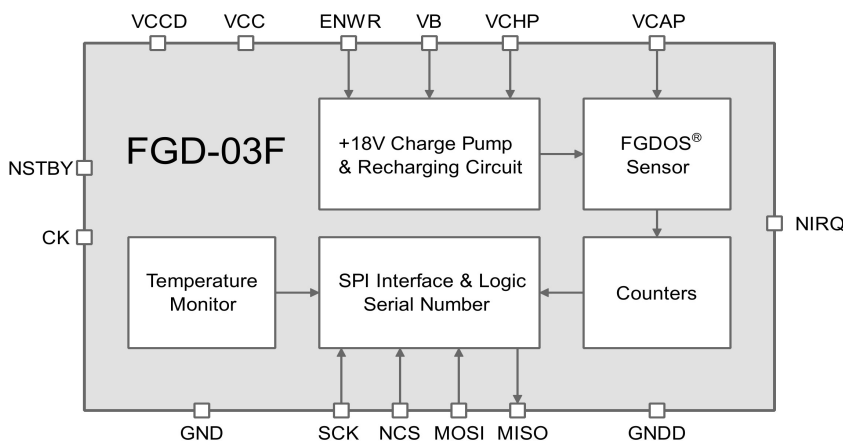
Sensor output is a frequency modulated pulse train proportional to radiation dose. Internal counters allow radiation dose digital value to be read via SPI Interface.

Chip serial number is provided for sensor tracking

In passive mode, the chip is still sensing the accumulated radiation dose even when there is no power supply.

Internal +18V Charge Pump allows FGDOS® sensor recharging from a single 5V supply.

On-chip temperature sensor and reference channel are provided for extended precision applications, via digital post-processing .



FUNCTIONAL BLOCK DIAGRAM

