

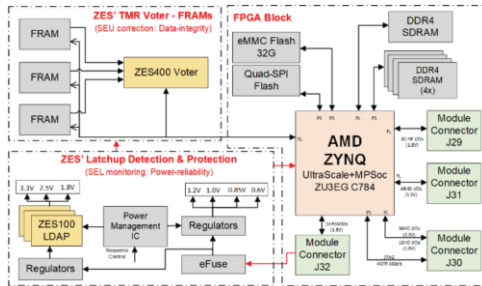
## New-Space and Constellation components

### System-on-Module ZSOM™-F01

**ZES**  
ZERO-ERROR SYSTEMS

- ZSOM™-F01 Webinar (contact us for link): 2025-04-29; 10:00-11:00am
- AMD Zynq™ UltraScale+™ MPSoC device XCZU3EG-1SFVC7841

- Arm Quad-core Cortex™-A53 1.2GHz
- Arm Dual-core Cortex™-R5 500MHz
- Mali™-400MP2 GPU 667MHz



#### Memory

- DDR4 SDRAM (4GB for PS, 1GB for PL)
- QSPI Flash (256Mbit)
- I2C EEPROM (4Kbit)
- eMMC Flash (32GB)

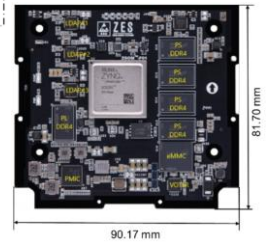
#### I/O

- 180 user PL I/O pins and 26 user PS MIO pins (on one bank)
- 10/100/1000Mbps Gigabit Ethernet (1x PS, 1x PL)
- Supports SATA3.1, USB2.0, USB3.0, PCIe2.0/1.0 x4, and Display Port (Shared GTx)

#### SEL and SEU protection

- SEL protection by ZES100 RadHard (LDAP-IC) x 3pcs
- SEU protection by TMR ZES400 RadHard Voter-IC with external FRAMs (3pcs)
- proprietary EDAC suitable for BRAMs (within FPGA), Flash, eMMC, and DDR memories

#### Evaluation Board available



### IMUs: Successful radiation tests

**EPSON**

- Radiation: 20krad TiD
- SWaP: 24 x 24 x 10 mm<sup>3</sup>; 10g ; 16mA @ 3.3V
- Temperature Range: - 40°C to + 85°C
- Test Reports on request; IMUs with different performance grades and same technology available



Name	Gyroscope				Accelerometer	
	Bias	Range	ARW	Band Width	Range	Initial Bias
M-G370PDG0	0.8°/h	± 450°/s	0.06°/vh	189Hz	±8G / ±16G	2mG (1σ)
M-G370PDT0	0.8°/h	± 200°/s	0.03°/vh	189Hz	±8G / ±16G	2mG (1σ)

※ These products aren't designed for space applications. Radiation test result doesn't mean EPSON guarantee the performance in space applications.

### New radiation tolerant P-channel Power MOSFET

**infineon**

- P-Channel extension to radTolerant N-Channel MOSFET family
- Designed for short to medium lifetime satellites, e.g. LEO missions
- Radiation: SEE & TiD tolerant, LET of 46MeV-cm<sup>2</sup>/mg, 30krad
- Qualified according to automotive standard AEC-Q101
- Operating temperature range: -55°C to +175°C
- Applications: Protection switch, load switch, power distribution, battery management systems, ...



Product name	Package	Channel	BV <sub>DSS</sub> (V)	Q <sub>G</sub> (nC)	R <sub>DS(on)</sub> @25°C (mΩ)	I <sub>DC</sub> @25°C (A)	I <sub>dputs</sub> (A)	Power dissipation (W)	Gate voltage	Die size
BUP06CP038F-01	TO-252-3	P	-60	63	38	45	-140	125	+/- 20	6