

On-Board Computer



CAS500-3
Korea's Standard
OBC



2 x
Enhanced
Computational
Performance



FPGA Logic
Mission-critical
Reliability



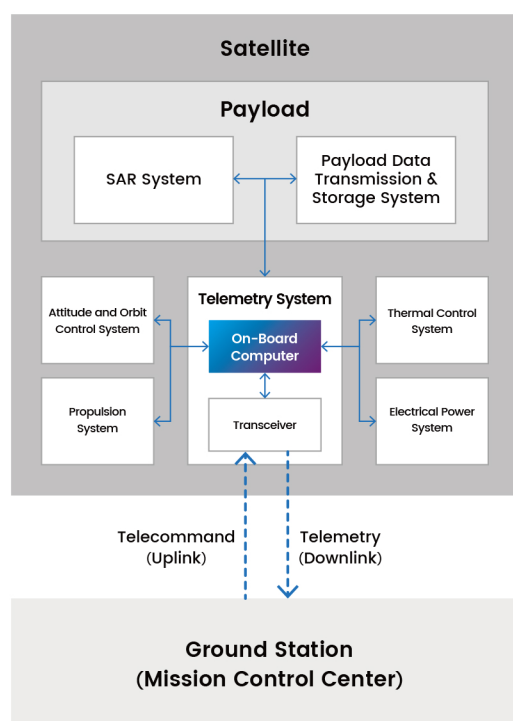
12 kg
Lightweight



67 W
Low Power
Consumption

The on-board computer is a core device of a satellite that controls all electronic devices inside the satellite, receives commands from the ground station, collects all status information, and sends it to the ground station.

It is a new on-board computer developed by Lumir in cooperation with Korea Aerospace Industries (KAI) for the CAS500-3 (technology verification satellite), and it is scheduled to be launched aboard Korea's fourth Nuri launch vehicle.



Item	Key Performance
Processor	Dual Core 32-bit Leon3 ASIC Processor
OS	RTEMS v4.11
External Interface	2 x MIL-STD-1553B
	2 x CAN (Spare)
	6 x DMAUART
Internal Interface	18 x SpaceWire via GR718 SpW Router (via LVDS Transceiver)
Mass Memory	4 Gbits (256M x 16) SDRAM
Safe Guard Memory	20 Mbits (512K x 40) SRAM
Decryption Memory	2 Mbits (128K x 8) MRAM
Ping-Pong Buffer	Internal Ram in FPGA
Uplink	4 kbps
Downlink	4096 bps (LBR) / 1.666 Mbps (HBR)
Power Consumption	67 W
Size	270 x 329.5 x 231.4 mm
Mass	12 kg

