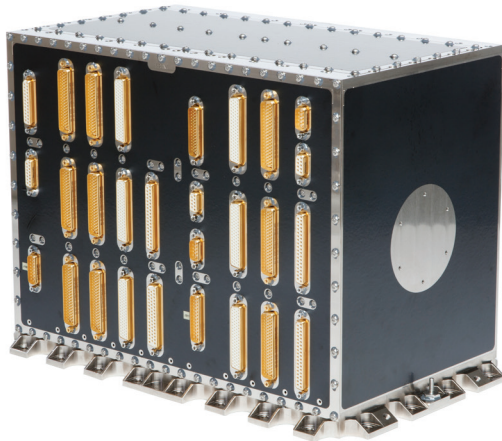


Remote Terminal Unit (RTU)

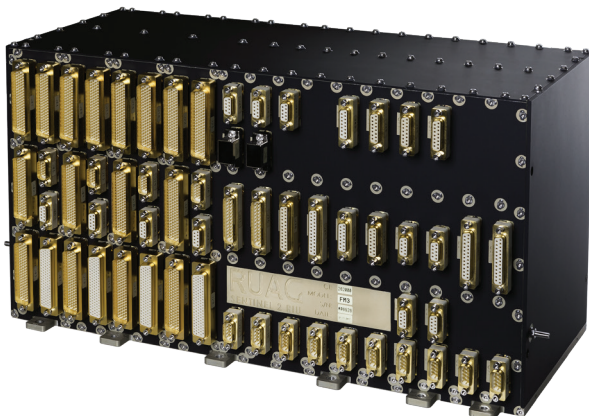
The Remote Terminal Unit (RTU) is a fully redundant high reliable unit for bridging between the On Board Computer (OBC) and platform electronic interfaces. The RTU is flexible and have capability to handle most of the needed platform interfaces such as standard I/O, AOCs and Propulsion. The RTU is connected to the OBC via 1553 standard bus interface.

TYPE A



- Compact Unit with connections on both sides maximising the number of interfaces per volume/mass
- Operational by flexible instruction list handling
- Flexible interfaces by SW or simple HW configuration

TYPE B



- Connection only on one side minimising the spacecraft cabling footprint
- Operational by user friendly TM/TC
- Flexible interfaces by simple HW configuration

KEY FEATURES

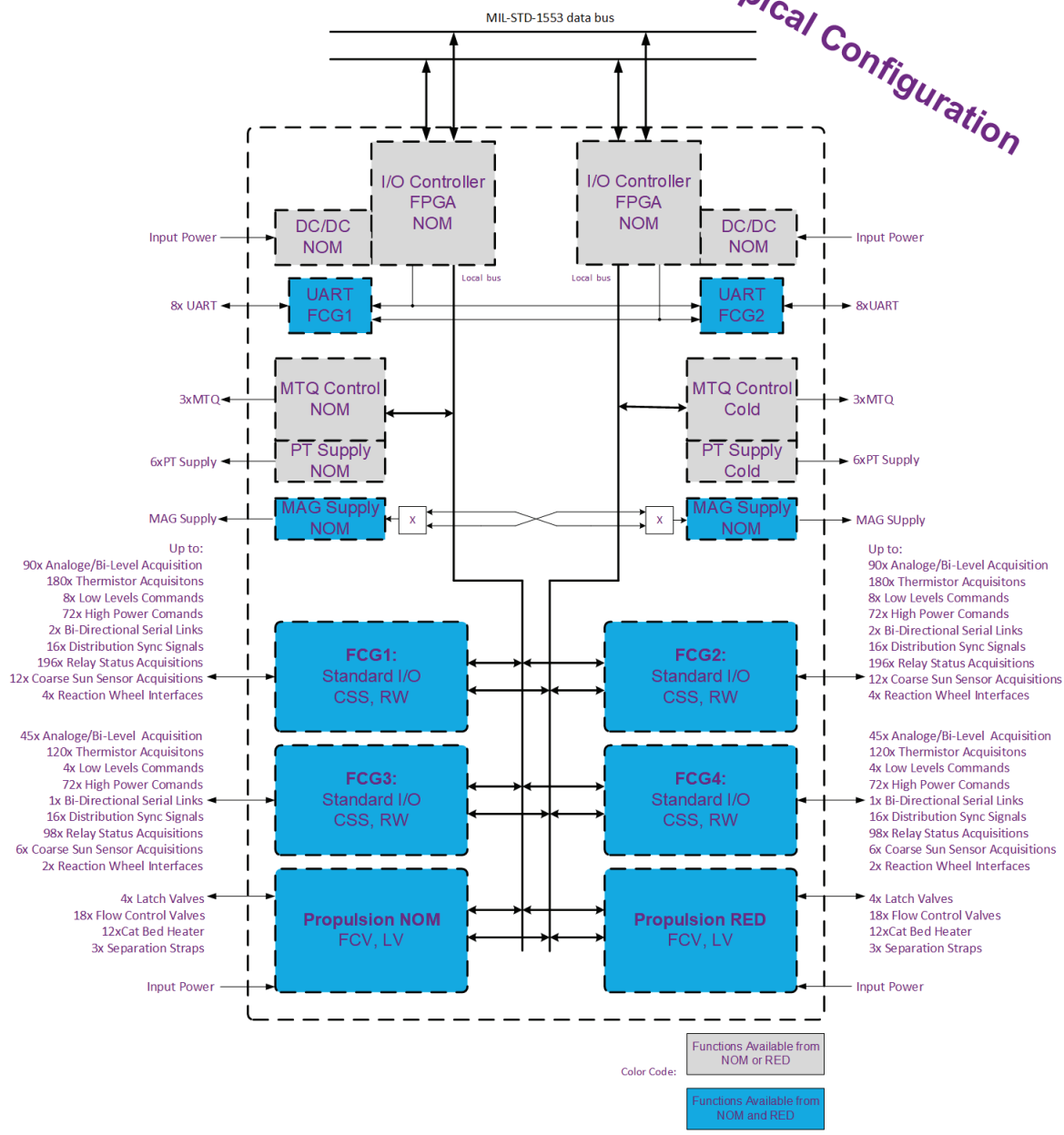
- Fully deterministic commanding and acquisitioning
- Including 4 Fault Containment Groups (FCG) giving full flexibility of selection for e.g. tripled thermistor acquisitions
- Simple specific mission adaptations by modular approach

INTERFACES (typical)

Analogue / Digital Bi-Level Acquisitions	270*	4 x 28 4 x 24
Thermistor Acquisitions	600*	4 x 90
Low Level Commands	24*	-
High Power Commands	288*	4 x 88
Bi-Directional Serial Links	6*	4 x 1
Synch Signal Distribution	2 x 16	-
Relay Status TM	588*	4 x 24
Standard Balanced Link Output	-	4 x 1
Position Sensor TM	-	2 x 1
Attitude Anomaly Detector TM	-	3 x 5
UART	2 x 8	-
MTQ Control	2 x 3	2 x 3
Reaction Wheel Control	12*	-
Pressure Transducer Supply	2 x 6	4 x 1
Magnetometer Supply	2 x 1	3 x 1
Latch Valves	2 x 4	2 x 2
Flow Control Valves	2 x 18	2 x 4
Cat Bed Heaters	2 x 12	-
Bi-phase Stepper Motor	-	4 x 2
Release Device Activation	-	2 x 1
MIL-1553	2 x 2	2 x 2
Primary Input Power	22 - 37V	22 - 37V
Propulsion Input Power	22 - 37V 32 - 52V	22 - 37V
32 - 52V	22 - 37V	
ON/OFF by HPC	2 x 2	4 x 2
ON/OFF Status	2 x 1	4 x 1

* Distributed over 4 FCGs

Typical Configuration



BUDGETS

	TYPE A	TYPE B
Form factor	392 x 242 x 277 mm	467 x 212 x 250 mm
Power consumption (standby only acquisitions)	15W	15W
Mass	16.6 kg	17 kg
In-orbit life-time	15 years	15 years

RUAG SPACE HERITAGE

- >3500 failure free equipment years in orbit
- >300 Launcher On-Board Computers
- >120 Satellite Data Handling Systems
- EDRS-C, MTG, ExoMars Rover, Hispasat 36W-1, SARah, Electra, Euclid, Gaia, Galileo, Solar Orbiter, Sentinel-2, EarthCARE, Sentinel-6, JUICE, Metop SG