ODC

■ Ordnance Device Controller(ODC)

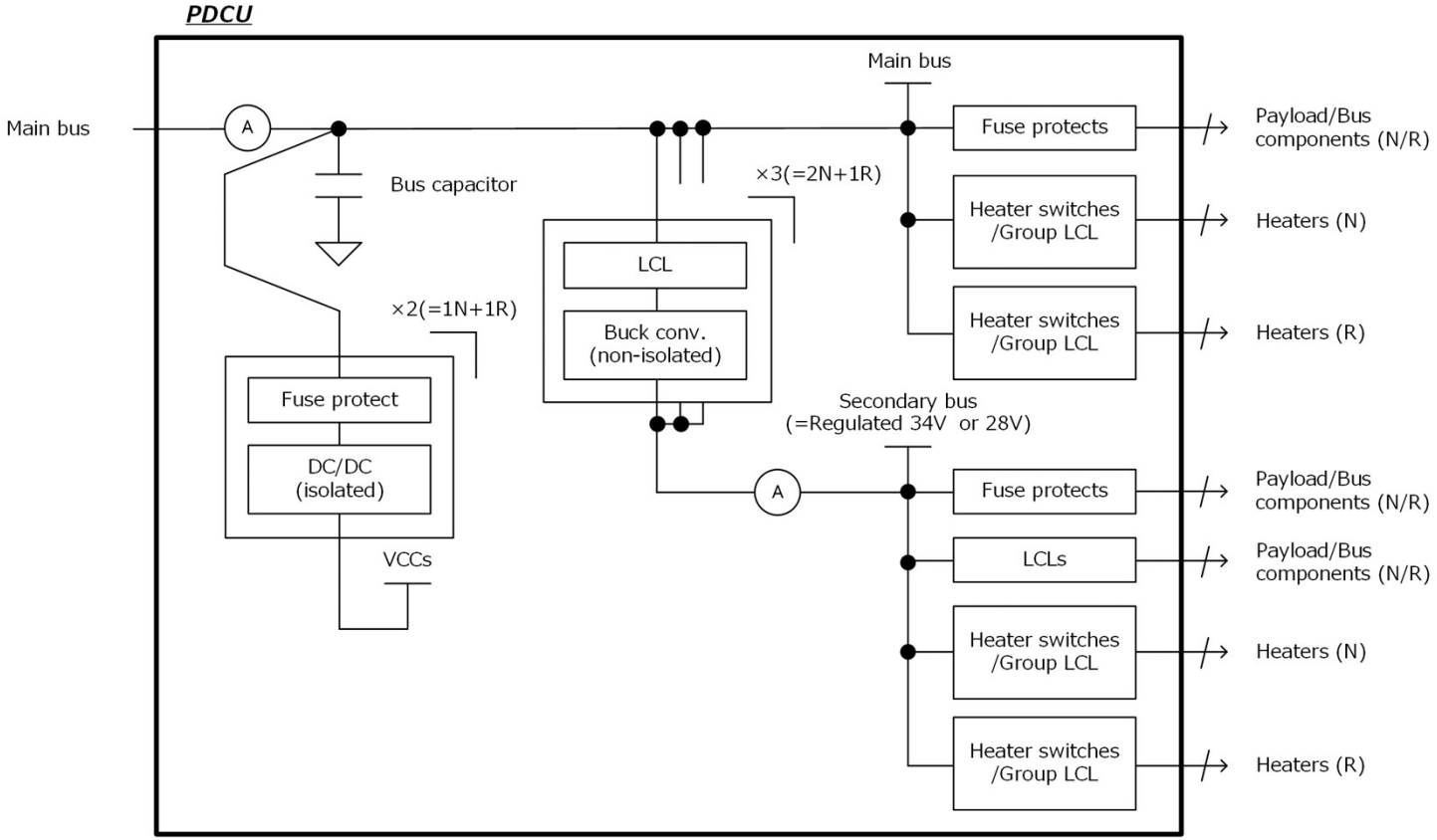
□ Functions and Features

- Driving (firing) Electro-Explosive Device(EED) of deployment mechanism on solar array wing or pyro-valves in propulsion subsystem, etc.
- Having internally fully-redundant configuration and 3-inhibit arming switches for safety operation
- Sufficient quantity of drivers equipped required for most of GEO satellite missions
- DS2000 ODC has rich flight proven heritages

Details of DS2000 ODC are shown as follows:

ODC

■ Block Diagram of DS2000 PDCU



ODC

■ Major Characteristics of DS2000 ODC

Property	Characteristics
Communication I/F	Discrete CMD, Active Bi-level/Passive Bi-level TLM
Power I/F(=Battery) Input voltage	 17.9 to 29.3 V under ignition
ENA Relay Arming 1 Arming 2	 2ch(1N/1R) 2ch(1N/1R)
Firing switch Output current Load impedance	Max.48(24N/24R) Expandable to Max. 80ch Simultaneous ignition: 4 circuits 4.0 to 8.0A(firing pulse for 20 to 40ms) 1.05 +/- 0.10 ohm
Operating temperature	-20 to +60 deg C
Dimension（L×W×H）	332×186×246(mm)
Mass	6.5 kg nom.
Random vibration Shock	9.29 (in plane),14.15(out of plane) Grms 9800m/s^{2}srs
Radiation	For GEO 1 year
EMI/EMC	MIL-STD-461C compliant
EEE Parts grade	Class 1

ODC

■ External View of DS2000 ODC and Consisting Modules

Module	Function	Handling	Width	Mass
ODC CONT1	Arming relay	Input interface from battery Mechanical relay for armig1 and arming2	55mm	1.7kg
ODC CONT2	Command & Telemetry interface	Command & Telemetry interface	55mm	2.0kg
ODC SW	Firing switch	Max. 22 firing switches per module	22mm	1.2kg

ODC consisting of following modules
- ODC CONT1 x 1
- ODC CONT2 x 1
- ODC SW x 3