ATTACHMENT C.

- BLOCK DIAGRAM -

RSS (Remote Subsystem, RU)

RSS consists of several components; CPRI interface and Digital IF function through optic, ORU to control RSS, Downlink drive amplifier, low-level noise amplifier, RFU to have down converter function, Band Pass Filter function, FEU acts as coupling role and PSU to provide power to each unit from DC -48V.

RSS system can be easily installed at pole, wall in case of outdoor type and installed at indoor wall in case of in-building usage. According to operation environments, RSS is composed of Indoor type and Outdoor type. Outdoor type is reflected in structure to consider watertight-ness, installation environment and refrigeration unlike outdoor type, so, external connection cable is located at rack below

RSS system provides the following functions

- RF frequency Change function (PLL parameter value)
- Attenuator Change function (Tx/Rx attenuator value)
- Alarm transmit function (PA/FEU/Transceiver)
- Periodic keep-alive transmit function
- Rx RSSI parameter detection value transmit function
- Tx Output power detection transmit function
- Inventory Read/Write function
- TDD status transmit function (PA/FEU)
- AGC Value transmit function
- PA Status value transmit function (Current Temperature, Current Power Value, VSWR, etc)
- PA control function
- HW/SW reset function
- HW/SW enable/disable function
- TDD On/Off function
- PA ALC, shut-down temperature, shut-down VSWR level function

Block configuration – RSS

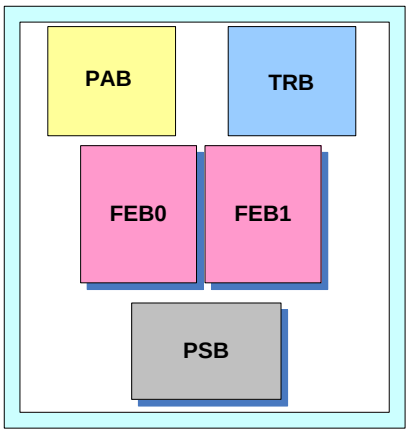

Figure III-3 RSS Block configuration

Item	Unit	Unit Description
RF Processing	PAB (Power Amp. Block)	- Power Amplifier - Provide 1Carrier/1Cell processing function per card
RF Front-end	FEB (Front-End Block)	- Provide filtering function for removing noise & Band pass
Transceiver & Optic Interface	TRB (Transceiver & Optic Block)	- Provide CPRI based interface - Provide optical interface between MSS and RSS
Power Supply	PSB (Power Supply Block)	- Convert and distribute -48VDC to 27VDC
RSS Chassis	RSS Chassis	- Outdoor type

System Installation & Operation

RAS 6000 system can be variously configured by system operation purpose or environment, and provides star topology according to connection method between MSS and RSS.

- System Installation / Operation Configuration

RAS 6000 system provides various installation / operation configuration such as 1FA/Omni, 1FA/3Sector, 3FA/Omni, 3FA/3Sector, 1FA/Omni 9 Cell, etc.

Power distribution diagram

PDPU for MSS

The power of MSS is PDPU as basic type. If external input power is -48VDC, PDPU is substituted for DCMP as redundancy architecture. AC input or Battery are separately configured as external device.

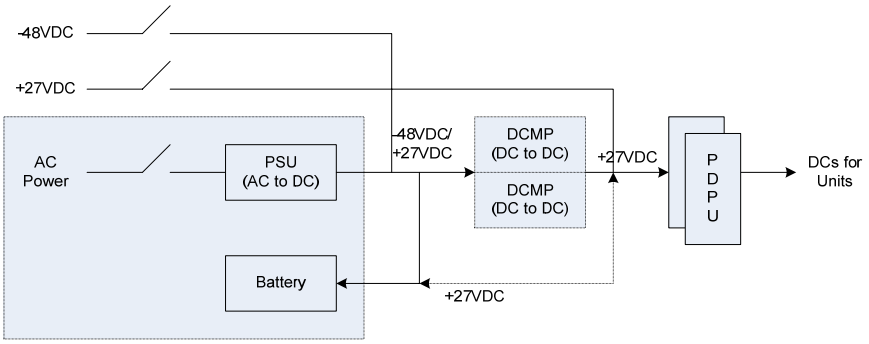

Figure III-4 PDPU for MSS

PSU for RSS

It is designed by condition of receiving DC (-48VDC) power from external rectifier, and major diagram is as follow.

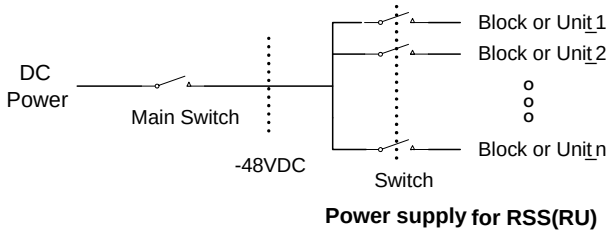

Figure III-5 PSU for RSS