

7 BTS3012 Power Subsystem

About This Chapter

The BTS3012 power subsystem is composed of the power supply units in the cabinet. The power subsystem provides stable power supply for the BTS3012 through the mechanisms such as lightning protection and E1 filtering.

[7.1 Components of the BTS3012 Power Subsystem](#)

The functions of the BTS3012 power subsystem are performed by the power supply units. The power supply units consist of the DC lightning arrester, EMI filter, PGND bar, busbar terminal socket on top of the cabinet, and the busbar in the right of the cabinet.

[7.2 Power Distribution of the BTS3012](#)

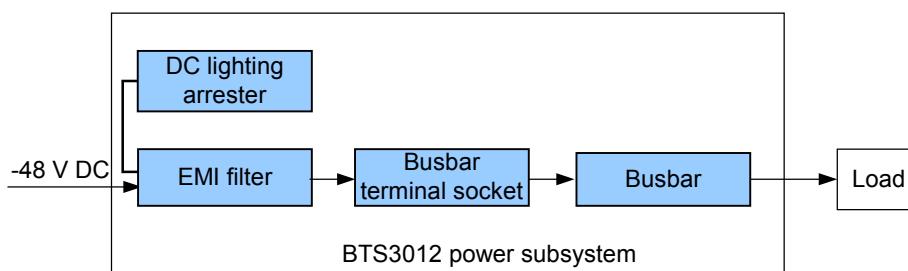
The BTS3012 power subsystem provides the input power with lightning protection and filtering and then distributes the power to the equipment in the BTS3012 cabinet through the busbar.

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Figure 7-1 shows the BTS3012 power subsystem.

Figure 7-1 BTS3012 power subsystem



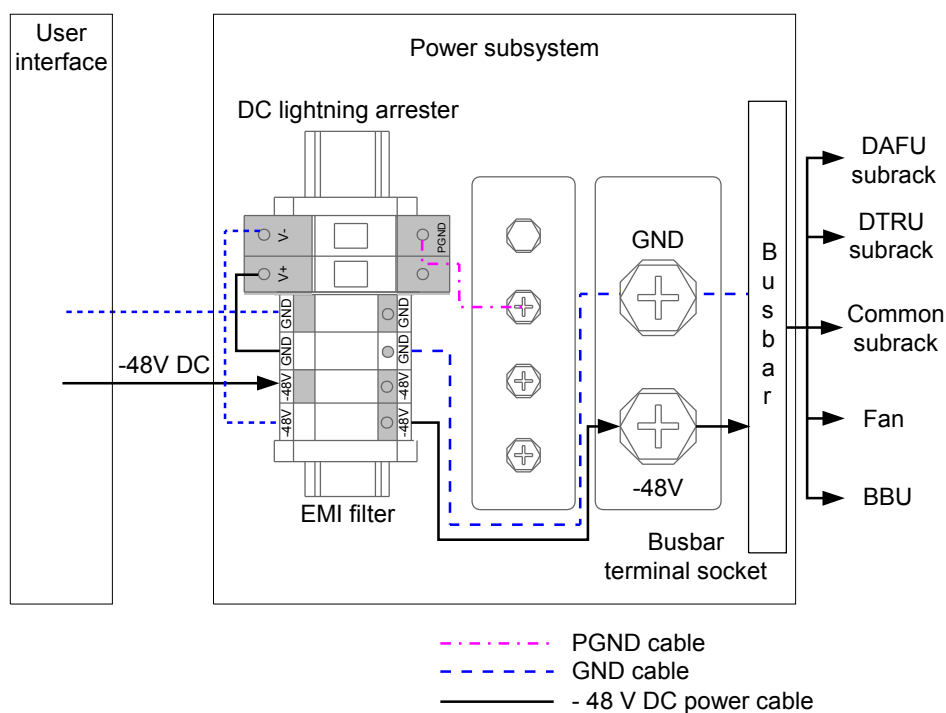
7.2 Power Distribution of the BTS3012

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DC Power Distribution

Figure 7-2 shows the block diagram of power distribution (–48 V DC) in the BTS3012.

Figure 7-2 BTS3012 power distribution (–48 V DC)



The external power is first processed through the DC lightning arrester and the EMI filter, and then sent to the equipment of the cabinet through the 10 power switches in the busbar.

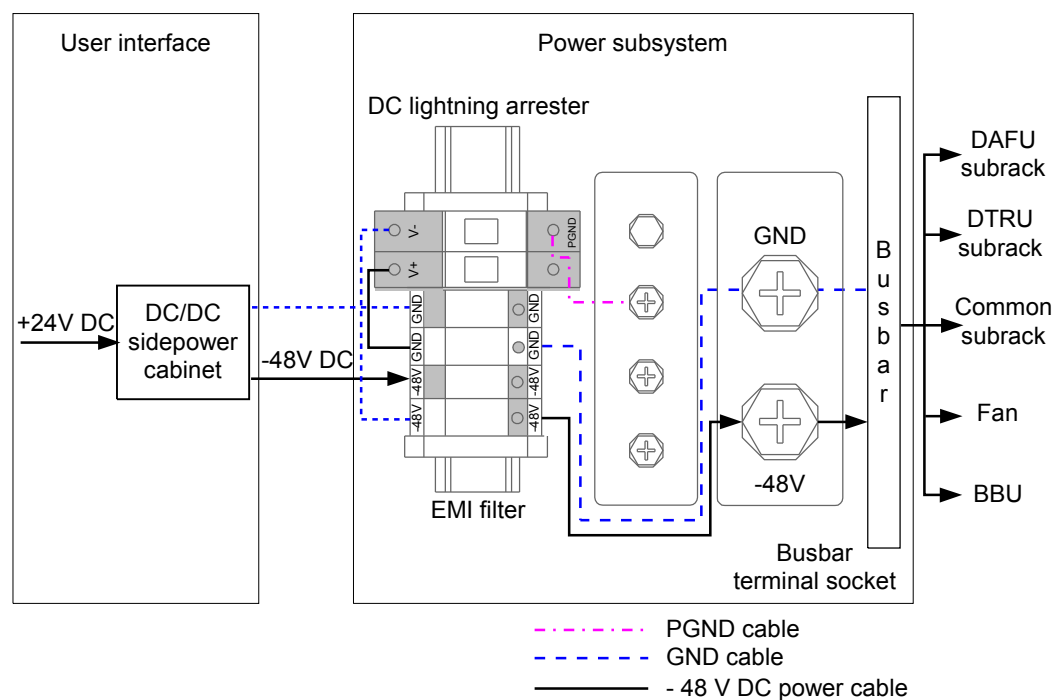
Table 7-1 lists the power switches on the busbar and the equipment in the cabinet.

Table 7-1 Mapping between the power switches and the equipment

Power Switch	Equipment
SW1	DAFU
SW2–SW4	DTRU 0–DTRU 2
SW5	FAN subrack
SW6–SW8	DTRU 3–DTRU 5
SW9	Common subrack
SW10	Transmission subrack

The BTS3012 uses the power cabinet DC/DC Sidepower to convert the external +24 V DC into –48 V DC for the BTS3012 cabinet. **Figure 7-3** shows the block diagram of power distribution (220 V AC or 110 V AC) in the BTS3012.

Figure 7-3 BTS3012 power distribution (+24 V DC)



AC Power Distribution

The BTS3012 uses the power cabinet AC/DC Sidepower to convert the external 220 V AC or 110 V AC into –48 V DC for the BTS3012 cabinet. **Figure 7-4** shows the block diagram of power distribution (220 V AC or 110 V AC) in the BTS3012.

Figure 7-4 BTS3012 power distribution (220 V AC or 110 V AC)