Audible and LED Indication for Shelf Power Conditions

**Highlights**

- Provides contacts to activate local and remote customer alarm systems.
- Provides local and remote indication of alarms in a system.
- Provides separate cutoff controls for local and remote systems.
- Factory-set option switches on the Alarm card define alarm operation according to customer requirements; no user configuration required.
- Supports Major, Minor, Power Good (Major), and Power Status (Minor) alarms.
- Supports two, three, or four redundant power supplies in a single or dual shelf system.
- Supports Major and Minor alarms configured in co-located SC5001 LTUs and SC5553 DSEs.
- Built-in time delay of approximately 100ms prevents transient signals from triggering the alarm.
- Minimum on-time LED illumination - approximately 0.75 seconds.

**Overview**

The SpectraComm Alarm card is a single-slot card that monitors specific conditions in the shelf via the backplane and provides local and remote indication of alarms. When installed in a SpectraComm shelf with two, three, or four power supplies in a single or dual SpectraComm shelf, the Alarm card monitors Power Good and Power Status conditions. When installed in the same shelf with SC5001 LTUs and the SC5553 DSEs, the Alarm card monitors Major and Minor alarms configured in those devices.

Front panel LEDs show Major and Minor alarms in effect, and the front panel switch controls the local audible ACO alarm. The Alarm rear panel wire-wrap adapter provides alarm contact outputs that can activate visual and audible alarms within a central office and also remote customer alarm systems.

When an alarm is detected, front panel LEDs illuminate, providing a local indication. At the same time, internal relays are activated, providing external control of visual and/or audible indications.

**Figure 1: SC ALARM Card Applications**

Central site shows the SC ALARM card and shelf devices installed in a SC 5000 High Density shelf, and attached to contact alarm devices.
SC Alarm Card Physical Specifications

**Single-slot Blade**
- Width: 178 mm (7.0 in)
- Height: 21 mm (0.81 in)
- Depth: 241 mm (9.5 in)
- Weight: 0.28 kg (10 oz)

**Environmental Specifications**

**Non-Operating**
- Temperature: -40 to 85 degrees C (-40 to 185 degrees F)
- Relative Humidity: 5% to 95%
- Altitude: 0 to 12,191 m (40,000 ft)

**Operating**
- Temperature: 0 to 50 degrees C (32 to 122 degrees F)
- Relative Humidity: 5% - 95% non-condensing
- Altitude: 0 to 3,047 m (0 to 10,000 ft)

**Electrical Characteristics**

- Power (AC or DC), voltage, frequency, and fusing determined by your SpectraComm shelf or enclosure
- Power Dissipation: 4 Watts maximum

**Compliance**

- Safety: UL Approved
- NEBS Level III Certified

Operational Specifications

**Modes of Operation**
Factory-set option switches on the circuit card determine operation. Can be re-set by the user when network environment changes.

**Switch Options**
- Enable/Disable Power Good
- Enable/Disable Power Status Pull-up Resistor (Future use)
- Power Status Threshold (set according to the number of power supplies in the shelf system (2, 3, or 4))
- Enable/Disable Power Status Detector

**Alarms**
- Major Alarms
- Minor Alarms
- Power Good Alarm
- Audible Alarm