Remote Control Panel

RCP2-1000-RM
For Rack Mount SSPAs

RCP2-1000 Remote Control Panel

DESCRIPTION

The Paradise Datacom Remote Control Panel (RCP2-1000-RM) was designed to provide easy remote monitor and control of Paradise Datacom's Rack Mount Solid State Power Amplifier.

Control of the RCP2-1000-RM can be handled through Front Panel operation, or remotely through Parallel or Serial communication to a remote computer.

The RCP2-1000-RM front panel includes ten LEDs that indicate the internal state of the Compact Outdoor SSPA. Five fault condition LEDs on the left side of the front panel indicate any SSPA major faults, in addition to a summary fault state.

A 2 line by 40 character LCD provides an extremely user friendly interface. Virtually all of the controller's setup and adjustments are accessible from the LCD.

Four navigation buttons and a separate Enter key allow the user to navigate the firmware menu on the LCD. Separate buttons have been provided for frequently used functions.

Common feed interfaces are offered as standard and isolation is provided at all RF interfaces.

A range of RF hardware options is offered to meet specific system requirements.

FEATURES

- Menu Driven LCD for user friendly monitor and control
- Front Panel or Remote Operation
- 2 line x 40 character LCD
- Parallel I/O; Form C Contact Closure Outputs & Opto-Isolated Inputs
- RS-232/485 Serial Interface for Remote M&C
- 1 Rack Unit height to maximize cabinet space
- Audible alarms
- Field programmable firmware
- Windows™ based remote M&C Software

AT A GLANCE

The front panel displays the Mute and Online statuses of the Rack Mount SSPA, and allows monitoring of the following fault states:

- Summary
- Voltage
- Temperature
- Current
- Power Supply

OPTIONS

- DC Operation
- Ethernet Port

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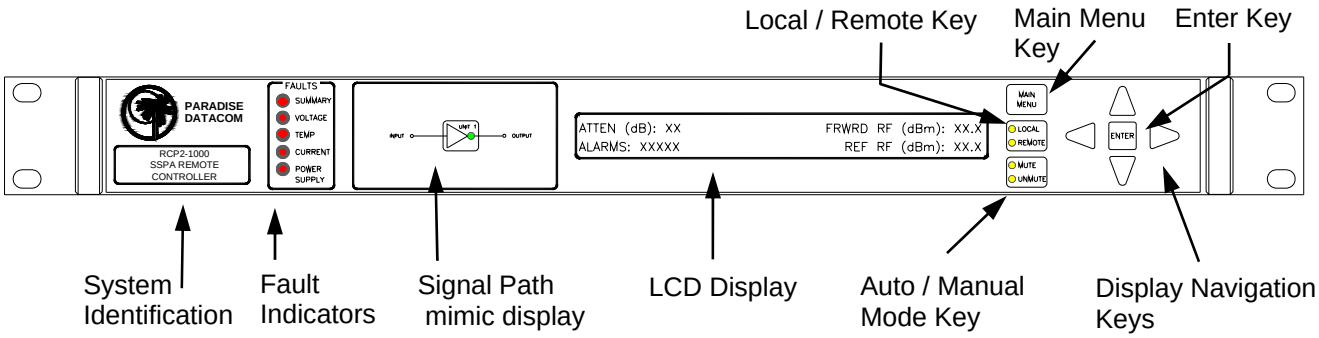
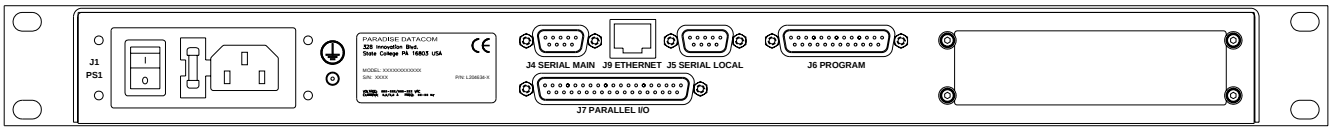
RCP2-1000 Front Panel Description



General Specifications

Characteristic	Specification
Configurations	RCP2-1000-RM; Remote Control Panel for Rack Mount and High Power Outdoor SSPAs
Serial Communications	RS-232 / RS-485 2-wire
Parallel I/O Status Outputs Control Inputs	 Form C Relay Contacts (10 sets) Contact Closure to Ground
AC Input Power	85-265 VAC, 47-63 Hz, 1 A max, >0.93 power factor
Mechanical Dimensions	1.75 in. H x 19 in. W x 13.3 in. D [1 RU] 45 mm H x 483 mm W x 338 mm D
Weight	5 lb. (2.3 kg)
Environmental Temperature	0 - 50^{o} C

Rear Panel Connectors and Pin Identification



The RCP2-1000-RM includes two serial communications ports (J4 and J5). The Main Serial Port (J4) allows remote communication with a personal computer. The Local Serial Port (J5) allows a serial interface with a remote Rack Mount SSPA. Interface parameters are set by internal RCP hardware and cannot be reconfigured by user.

In addition, the RCP2-1000-RM features a 37-pin Parallel I/O port that contains a series of contact closures for monitoring remote SSPA faults as well as opto-isolated inputs for controlling some of the SSPA functions. Inputs react on the closure to ground.

The following tables show the pin outs for the Main Serial Port (J4), Local Serial Port (J5) and Parallel I/O Port (J7).

Main Serial Port (J4) Pin Outs

Pin	Function
1	RS485 TX+ (HPA Transmit +)
2	RS485 TX- (HPA Transmit -)/RS232 TX
3	RS485 RX+ (HPA Receive -)/RS 232 RX
4	RS485 RX- (HPA Receive +)
5	GND
6	Service Request 1 Form C relay NC contact (Closed on HPA Summary Fault)
7	Service Request Common Form C relay common contact
8	Service Request 2 Form C relay NO contact (Opened on HPA Summary Fault)
9	120 Ohm termination (must be connected to pin 4 in order to enable termination)

Local Serial Port (J5) Pin Outs

Pin	Function
1	RS485 RX+
2	RS485 RX-
3	RS485 TX-
4	RS485 TX+
5	GND
6,7,8	Not Used
9	120 Ohm termination (must be connected to pin 1 in order to enable termination)

J7, Parallel I/O Connector Pin-out

Pin #	Function / Description
16	Auto/Manual Toggle
17	Mute Toggle
18	Auxiliary Fault Input
35	Online/Standby Toggle
36	Local/Remote Toggle
37	Fault Clear
19	Ground
1	Closed on Power Supply Fault
2	Open on Power Supply Fault
20	Power Supply Fault Common
3	Auxiliary Fault / Auto/Manual Common
21	Closed on Auxiliary Fault; Closed on Auto Mode
22	Open on Auxiliary Fault; Closed on Manual Mode
4	Closed on Mute
5	Open on Mute
23	Mute Common
6	BUC Fault Common
24	Closed on BUC Fault
25	Open on BUC Fault
7	Closed on Temperature Fault
8	Open on Temperature Fault
26	Temperature Fault Common
9	Voltage Fault / Online Standby Common
27	Closed on Voltage Fault; Closed on Standby
28	Open on Voltage Fault; Closed on Online
10	Closed on DC Current Fault
11	Open on DC Current Fault
29	DC Current Fault Common
12	Low RF Fault Common
30	Closed on Low RF Fault
31	Open on Low RF Fault
32	Reserved, Make no connection
13	Reserved, Make no connection
14	Reserved, Make no connection
15	No COM Fault Common
33	Closed on COM Fault
34	Open on COM Fault