TELEDYNE
PARADISE DATACOM
Everywhereyoulook™

RCP2-1000-CO
Remote Control Panel For Outdoor SSPAs

RCP2-1000-CO REMOTE CONTROL PANEL

Description:

The Teledyne Paradise Datacom RCP2-1000-CO remote control panel allows the operator to monitor and control a remote Compact Outdoor or High Power Outdoor SSPA.

The control panel features a color touchscreen display and an intuitive menu structure. Adjustments to the attenuation level and changes to the mute state can be made with a few taps on the touchscreen.

Completely redundant power supplies are incorporated with universal input and power factor correction. The use of flash memory allows easy field programmable firmware updates.

The RCP2-1000-CO features status windows where the user can observe various operational parameters of the connected amplifier. For example, the RF/Temp menu displays the forward RF output power (current and record high values), SSPA temperature (current and record high values), the attenuation setting, and for SSPAs with the option, the reflected RF.

FEATURES

- Menu Driven display for user friendly monitor and control
- Front Panel Touchscreen
- 1 Rack Unit height to maximize cabinet space
- RS-232/485 Serial Interface for Remote M&C
- Audible alarms
- Removable power supplies
- Field programmable firmware
- Windows®-based remote M&C Software
- Ethernet Port

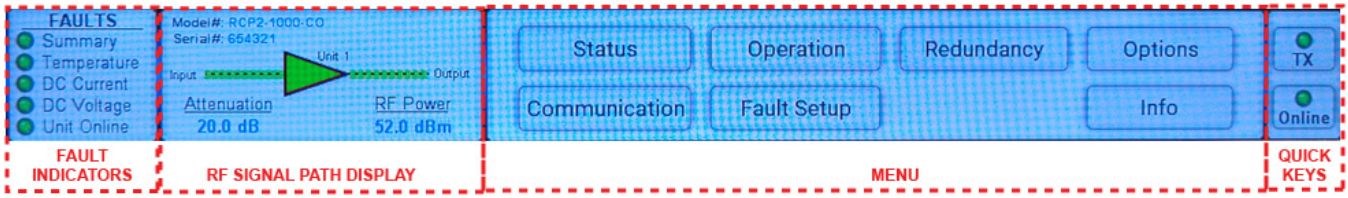
OPTIONS

- Adapter cables for compatibility with previous generation systems
- DC Operation

RCP2-1000-CO RF/TEMP MENU

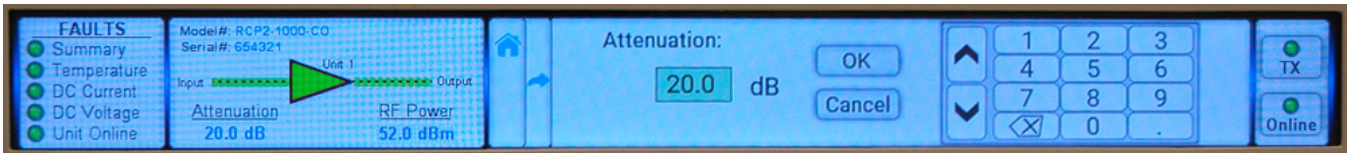
Remote Control Panel

There are four main areas on the touchscreen display: Fault Indicators, RF Signal Path Display, Menu and Quick Keys.



RCP2-1000-CO TOUCHSCREEN DISPLAY, MAIN AREAS

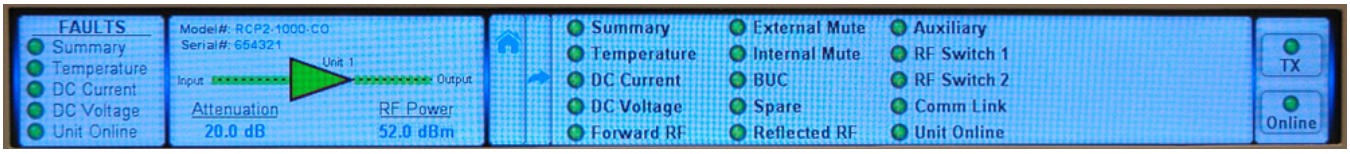
The RCP2-1000-CO remote control panel allows the operator to remotely access a Teledyne Paradise Datacom Compact Outdoor or High Power Outdoor amplifier to verify its internal conditions and provide necessary adjustments to its mute and attenuation settings.



RCP2-1000-CO ATTENUATION SETTING

RCP2-1000-CO MUTE MENU

The RCP2-1000-CO remote control panel provides a full set of fault indicators that reflect the operational status of the remotely connected amplifier.



RCP2-1000-CO FAULT PANEL

The RCP2-1000-CO remote control panel and a remote amplifier may be linked together through 2-wire twisted pair shielded cable (such as 24 AWG twisted pair telephone cable). The cable should be connected between the Serial Local connector (port J5) of the controller and the M&C connector (port J4) of the amplifier.

Communication over an Ethernet cable is also possible, connecting the controller's Ethernet port (J9) with the M&C connector (J4) of the amplifier.

This option uses a different firmware set than the other controllers and thus limits its use to that of a remote control panel.

RCP2-1000-CO
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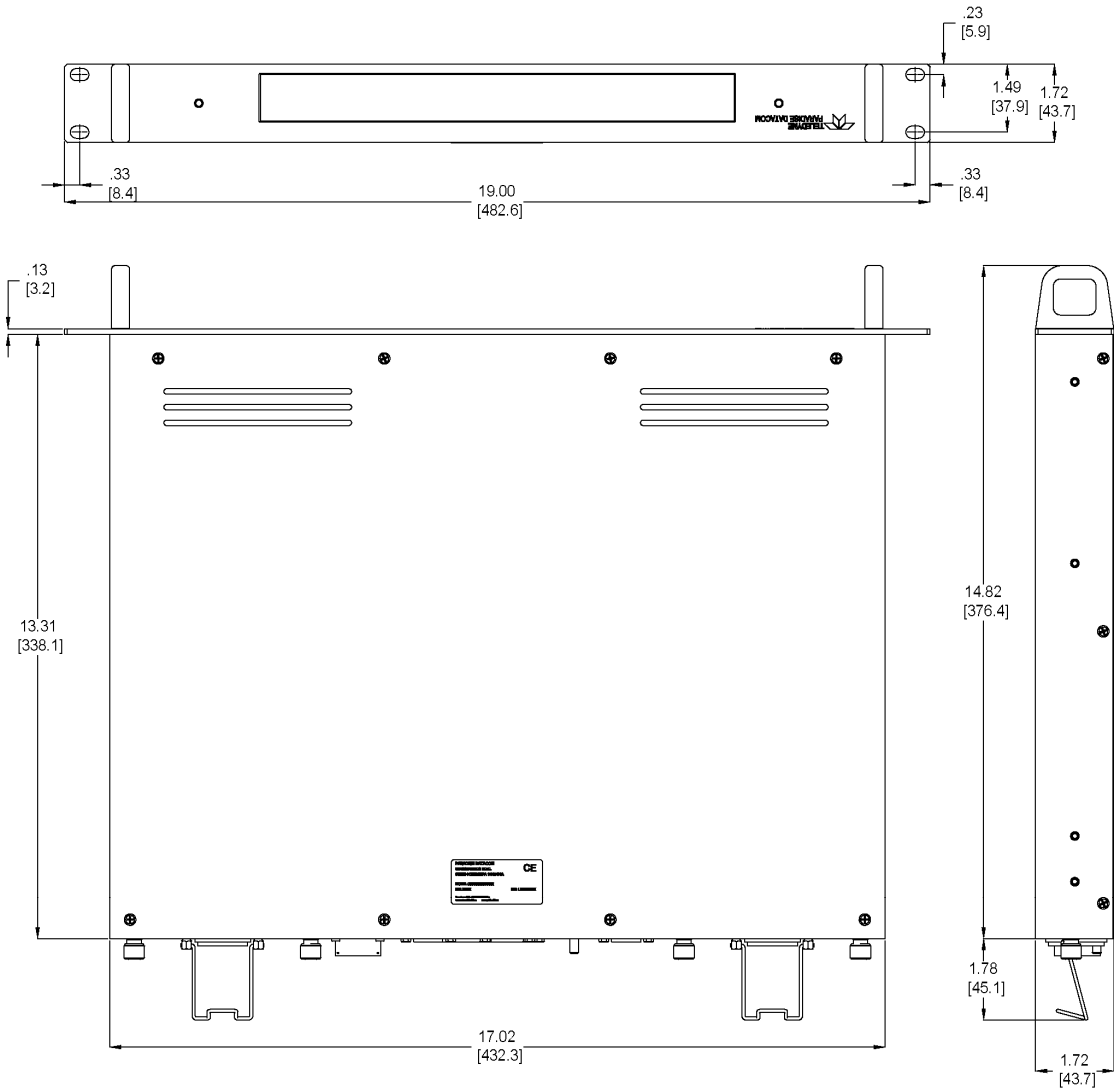
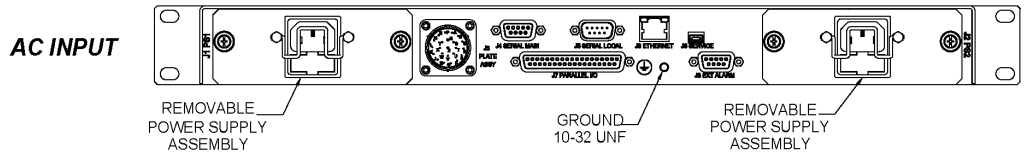
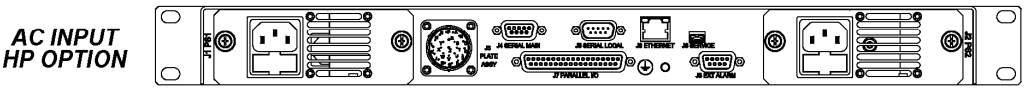
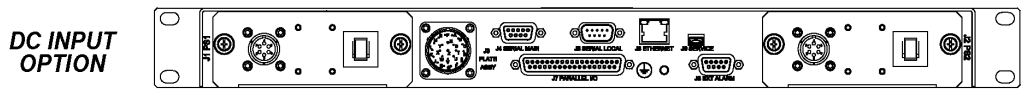
Outline Drawing









NOTES:

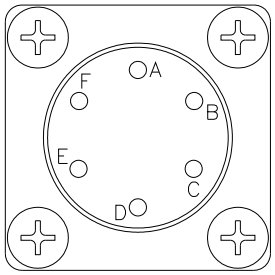
1. DIMENSIONS ARE IN INCHES [mm].

J1, J2 - Power Supply Requirements

ID	Input Voltage Range	Line Frequency	Input Power	Power Factor
J1	85-265 VAC	47-63 Hz	100 W	.93
J2	85-265 VAC	47-63 Hz	100 W	.93
J1, J2	36-72 VDC	Max. DC Input Current @ 48V - 2A		

J1, J2 - DC Input Option Pin Outs

Pin	Function
A	+ 48 VDC
B	+ 48 VDC
C	- 48 VDC
D	- 48 VDC
E	Ground
F	Ground



MS3112E10-6P
Mates to MS3116F10-6S

J5 - Serial Local Pin-out (For Remote SSPA Control)

Function	Pin	Notes
RS485 RX+	1	
RS485 RX-	2	
RS485 TX-	3	
RS485 TX+	4	
Ground	5	
Termination (120 Ohm)	9	Connect to pin 1 to terminate unit on end of bus

J3 - Switch Connector, MS3112E16-23S

Pin	Function
L	Power Supply #1 +13-17 VDC, 900mA or +24V, 1.5A (-HP models only)
J	Power Supply #2 +13-17 VDC, 900mA or +24V, 1.5A (-HP models only)
G	Power Supply #3 +13-17 VDC, 900mA or +24V, 1.5A (-HP models only)
E,D	Switch Common, +26 VDC, 5A max
W,U	Switch #1 Position 1 (Tx)
P,S	Switch #1 Position 2 (Tx)
F,H	Switch Common, +26 VDC, 5A max
T,V	Switch #2 Position 1 (Rx)
N,R	Switch #2 Position 2 (Rx)
A,B,C	AMP Support GND
K,M	Switch Common, +26 VDC, 5A max

J4 - Serial Port (Main) Pin Out

Pin	Function
1	RS485 TX+
2	RS232 Out or RS485 TX-
3	RS232 In or RS485 RX-
4	RS485 RX+
5	Signal Ground
6	Service Request 1
8	Service Request 2
7	Service Request Common
9	Termination (120 Ohm)

Note: The RCP2-1000-CO remote control panel can be connected to a remote outdoor SSPA's J4 M&C connector in two ways:

- Serial RS232/RS485 cable from port J5 (Serial Local)
- CAT5/5E Ethernet cable from port J9 (Ethernet)

Connections to the J3, J7 and J8 connectors on the remote control panel are not necessary to operate a remote amplifier with the RCP2-1000-CO controller.

J7 - Parallel I/O Connector Pin-out

Identification	Signal	Pin	Function	Notes
Amp 1 Alarm	Output	1	Closed on Fault	Relay Contacts: 30 VDC @ 0.5 A
		20	Common	
		2	Open on Fault	
Amp 2 Alarm	Output	21	Closed on Fault	Relay Contacts: 30 VDC @ 0.5 A
		3	Common	
		22	Open on Fault	
Amp 3 Alarm	Output	4	Closed on Fault	Closed on Phase Combined Mode
		23	Common	
		5	Open on Fault	Open on Phase Combined Mode
Auto/Manual Mode	Output	24	Closed on Manual	
		6	Common	
		25	Closed on Auto	
Local/Remote Mode	Output	7	Closed on Local	
		26	Common	
		8	Closed on Remote	
Switch #1 Position	Output	27	Switch #1, Position #1	
		9	Common	
		28	Switch #1, Position #2	
Switch #2 Position	Output	10	Switch #2, Position #1	
		29	Common	
		11	Switch #2, Position #2	
Power Supply #1 Alarm	Output	30	Closed on Fault	
		12	Common	
		31	Open on Fault	
Power Supply #2 Alarm	Output	13	Closed on Fault	
		32	Common	
		14	Open on Fault	
Priority Setting	Output	33	Closed on Priority 2	
		15	Common	
		34	Closed on Priority 1	
Auxiliary Input	Input	16	Ground to Activate	5mA max current on all inputs
Priority Select	Input	17	Ground to Activate	Toggle Function
Auto/Manual	Input	18	Ground to Activate	Toggle Function
Amp 3 Standby	Input	35	Ground to Activate	
Amp 2 Standby	Input	36	Ground to Activate	
Amp 1 Standby	Input	37	Ground to Activate	
Input Ground	Common	19		(isolated)

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J8 - External Alarm Pin-out

Function	Pin	Notes
External Alarm 1	1	Closure to Ground, 5mA max short circuit current, 5 VDC open circuit voltage
External Alarm 2	2	
External Alarm 3	3	
Ground	4,8,9	
Auxiliary Alarm 1	5	Closure to Ground, 5mA max short circuit current, 5 VDC open circuit voltage
Auxiliary Alarm 2	6	
Auxiliary Alarm 3	7	

J9 - Ethernet Port Pin-out

Pin	Notes
1	TX+
2	TX-
3	RX+
6	RX-
4,5,7,8	GND

General Specifications

Characteristic	Specification
Configurations	Remote Control Panel (RCP2-1000-CO)
Alarm Input	Closure to Ground, (Ground=OK / Open=Fault)
Serial Communication	RS232 / RS485 4 wire
AC Input Power	85-265 VAC, 47-63 Hz, 1 A max, > 0.93 power factor
DC Input Power (48 VDC Input Option)	36-72 VDC, Maximum DC Input current @ 48V - 2 Amps
Mechanical / Environmental	
Dimensions	1.75 in. H x 19.0 in. W x 13.3 in D [1RU] 44.5 mm H x 483 mm W x 338 mm D
Weight	5 lbs. (2.3 kg)
Temperature	0 to 50 °C operating
Relative Humidity	95% non-condensing

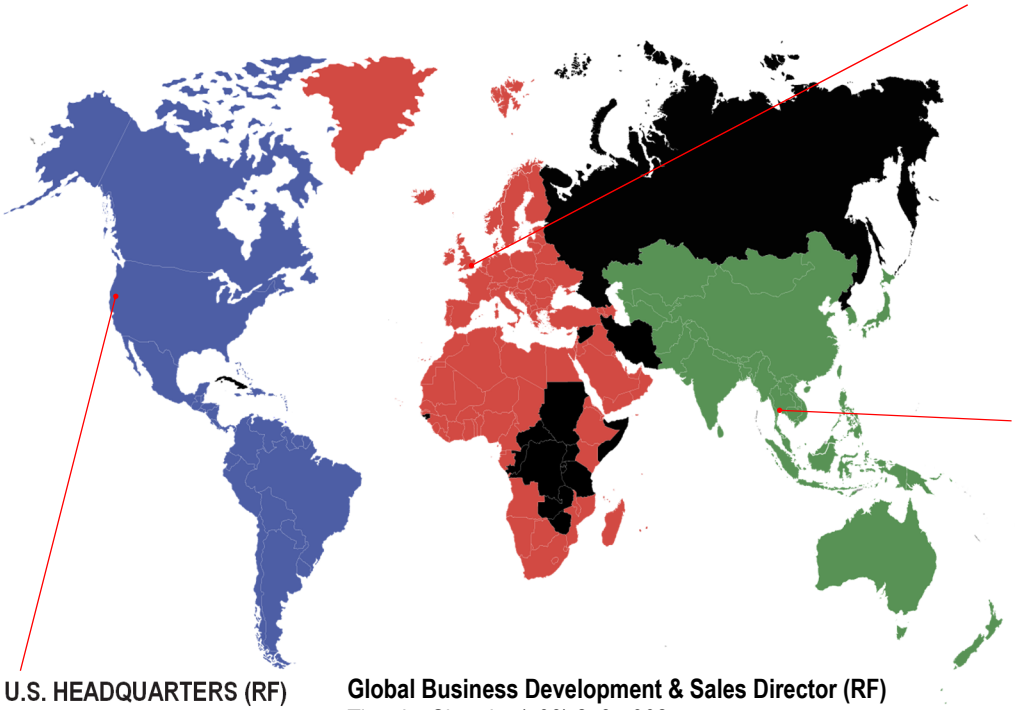
Configuration Matrix — Remote Control Panel

R	C	P	2	-	1	0	0	0	-	C	O			

COMMENTS:

OPTIONS	
[blank]	No options
-HP	High Power Option
-48	+48V DC Input

Global Sales Offices



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Data Security: Teledyne Paradise Datacom amplifiers and controllers do not inherently provide encryption to transmitted data, and have limited security measures to protect it. If the unit will be accessible over the Internet, exercise appropriate data security protocols. Teledyne Paradise Datacom strongly recommends placing the equipment behind a protective Firewall or setting up a VPN link with dual authentication for remote access.

Specifications are subject to change without notice.