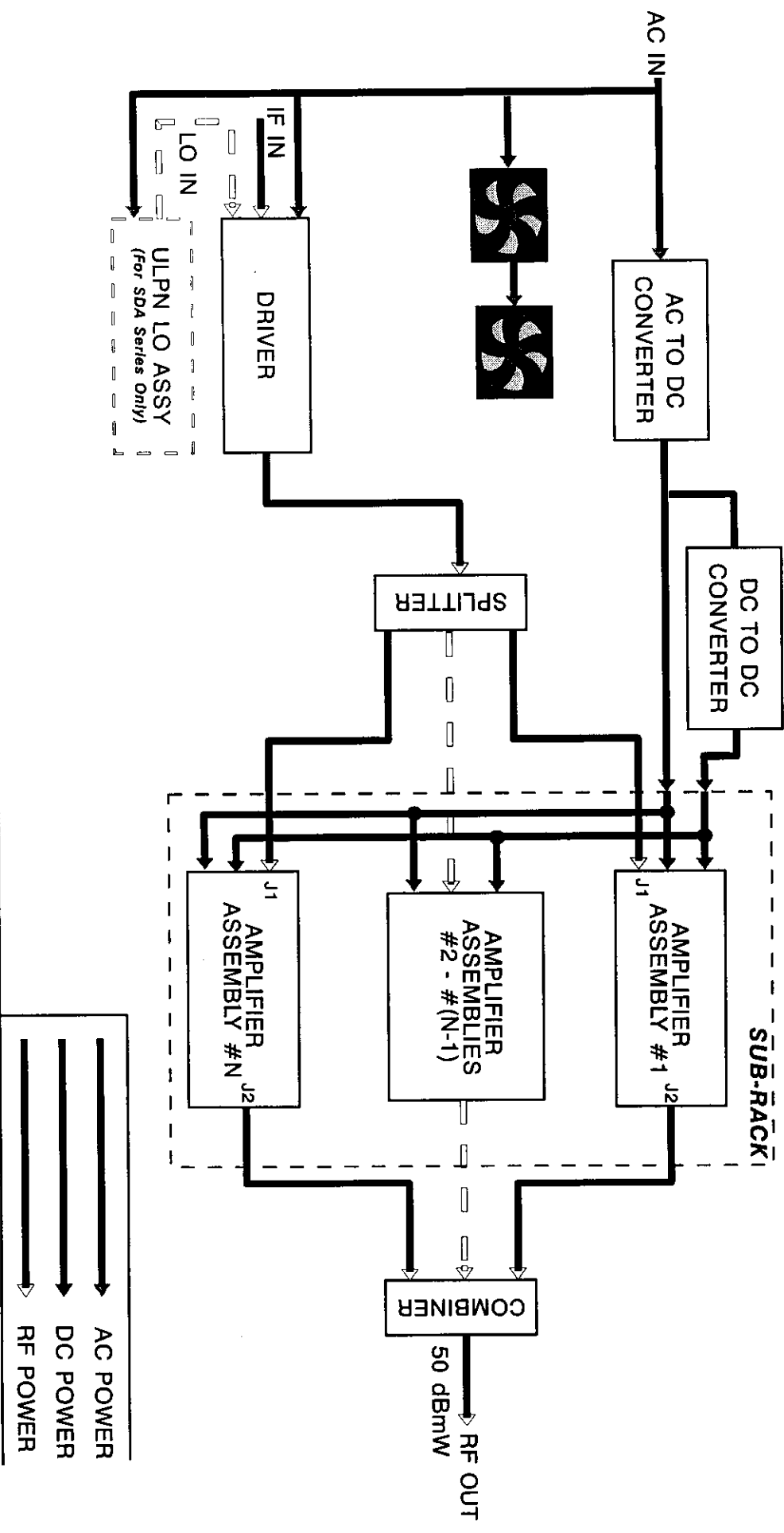


SD/SDA/HPB/SBM HIGH POWER SERIES BLOCK DIAGRAM OF RACK SINGLE TRANSMITTER SHOWN

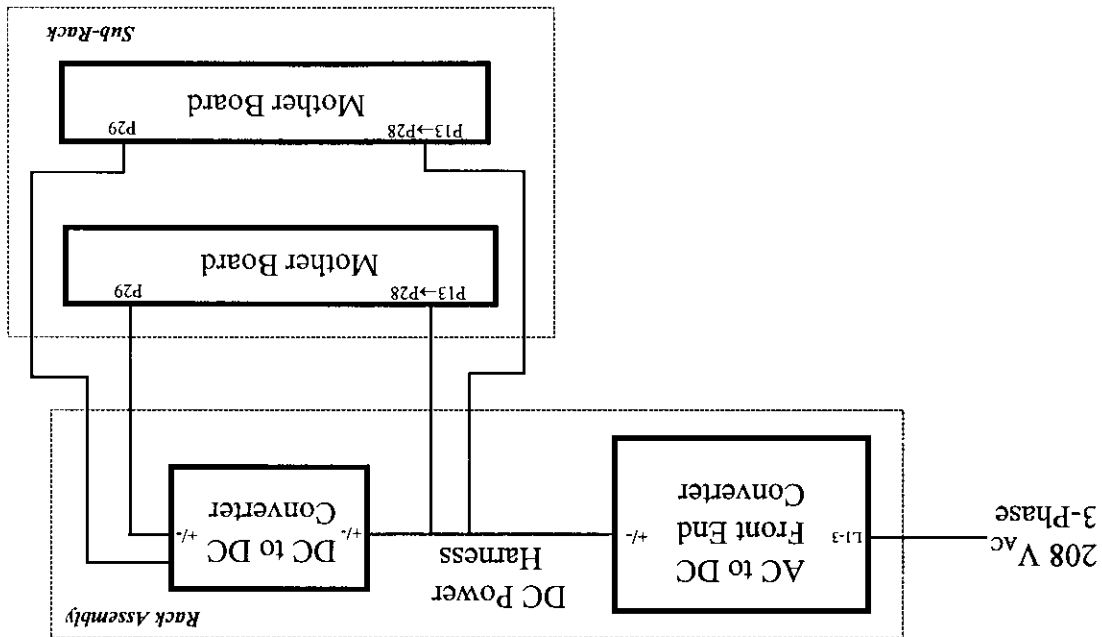


The AC to DC Front End Converter provides an input to the DC to DC Converter of 48 V_{dc}, as specified below in table A-2:

Table A-2

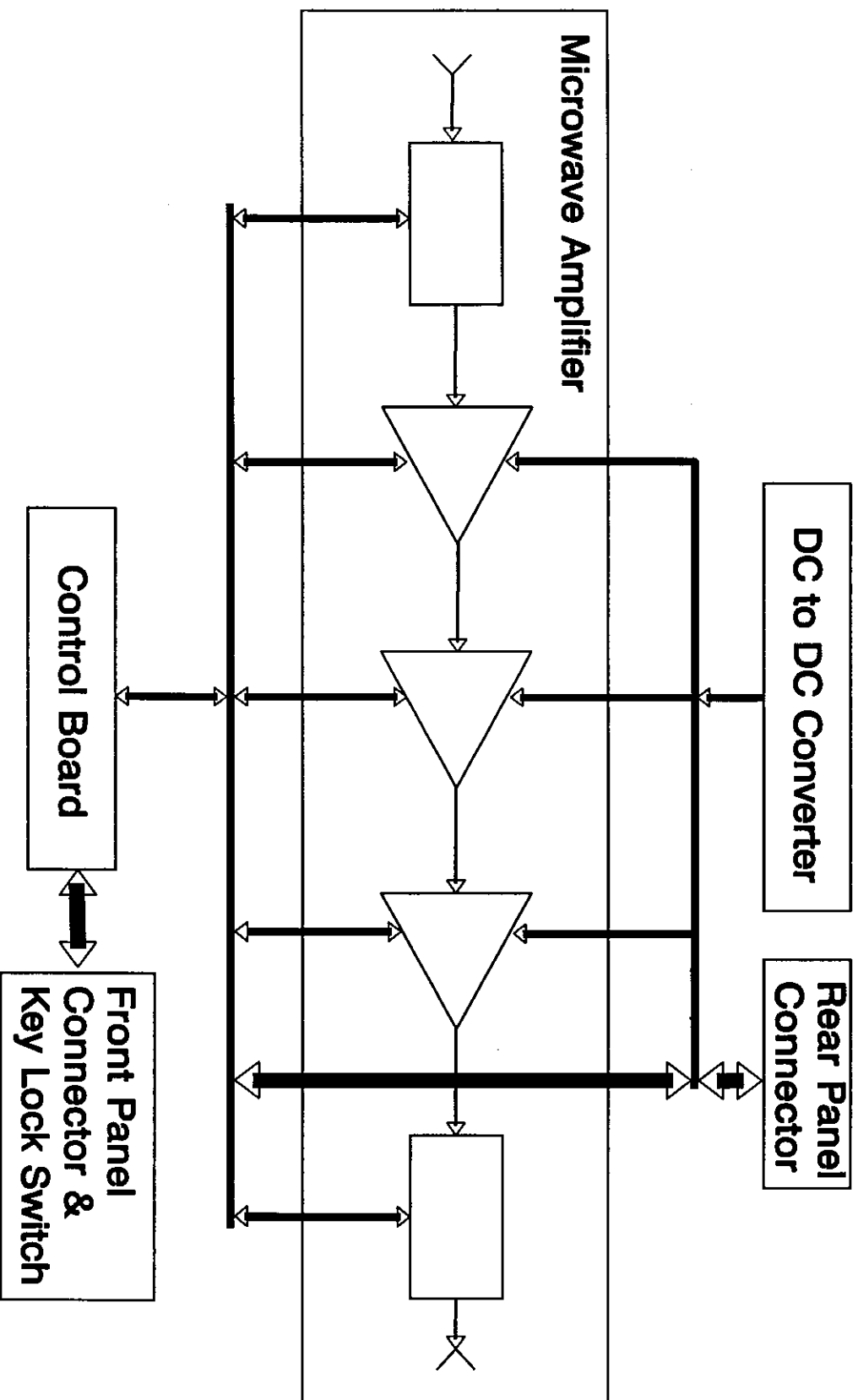
Transmitter Output Power (Watts)				48 Volts to 10 Volt/Amps
Fixed Digital	Fixed Analog	Agile Digital	Agile Analog	
50	200	40	120	0.35
100	300	80	240	0.70
125	375	100	300	0.87
150	450	120	360	1.05
175	525	140	420	1.22
200	600	160	480	1.40
HPB250	HPB250-A			0.35
HPB500	HPB500-A			0.70
HPB1000	HPB1000-A			1.40

DC Power Interconnection Block Diagram

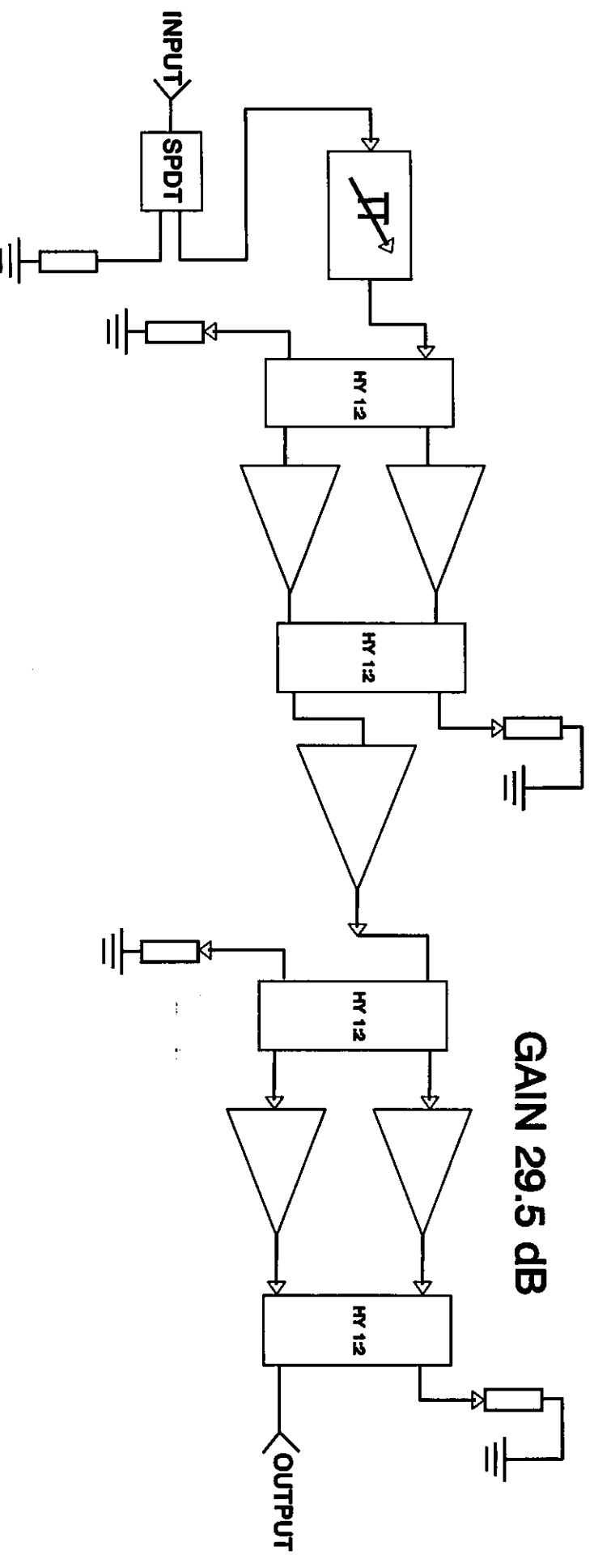


[illegible]

POWER AMPLIFIER SEGMENT BLOCK DIAGRAM



Power Amplifier Segment Block Diagram



The diagram illustrates the control system for the RS-232C and RS-485 I/O ports. At the center is the **MCU** (Microcontroller Unit), which is connected to **ROM** and **RAM**. The MCU receives various inputs: **RESET** (from the backplane), **COLD STANDBY** (from the backplane), **HOT STANDBY** (from the backplane), **FORWARD POWER**, **REFLECTED POWER**, **TEMPERATURE**, and **HIGH VOLTAGE DC**. The MCU outputs a **MUX ADDRESS** to two **MUX** (Multiplexer) blocks. The first MUX selects between **DRAIN VOLTAGE INPUTS (ANALOG)** and **DRAIN SUPPLY VOLTS (ANALOG)** for the **COMPARATOR**. The second MUX selects between **GATE VOLTAGE INPUTS (ANALOG)** and **GATE VOLTAGE SUPPLY VOLTS (ANALOG)** for the **INVERTER**. The MCU also controls a **CPLD** (Complex Programmable Logic Device), which manages the **D/A CONTROL** and the **DIGITAL TO ANALOG CONVERTER**. The **DIGITAL TO ANALOG CONVERTER** outputs to the **RF ATTENUATOR CONTROL** and **OVERVOLTAGE MONITOR**, which then output to the **RF ATTENUATOR** and **GATE VOLTAGE OUTPUTS (ANALOG)**. The system is powered by a **POWER SUPPLY** and includes a **FRONT PANEL LED** and **FRONT PANEL SWITCH**.

REV: B

POWER SUPPLY BLOCK DIAGRAM

