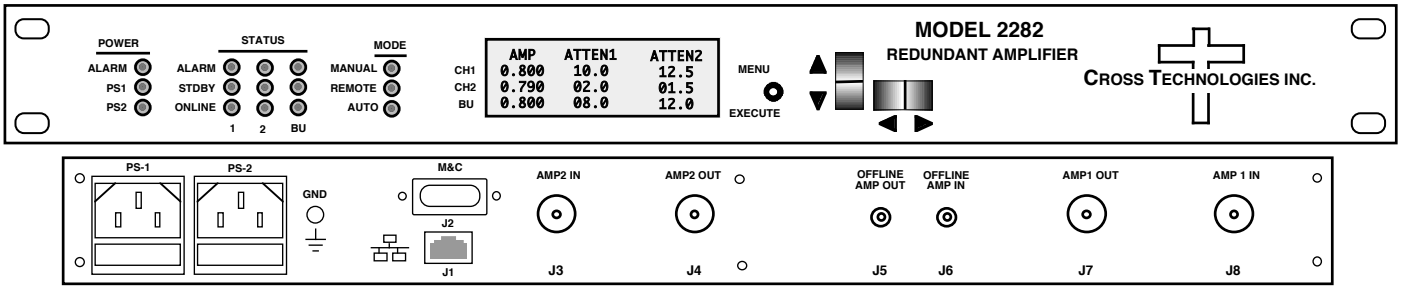
CROSS TECHNOLOGIES, INC.

DATA SHEET

REV_E 2/22/24

2282-122-23 Redundant Amplifier, 0.95-2.15 GHz, +45 OIP3

The Model 2282-122-23 Redundant Amplifier, 0.95-2.15 GHz, +45 OIP3 (**of the amplifiers)**, monitors and controls internal amplifiers configured in a 1:1 or 1:2 redundant configuration. **Peregrine Model PE43704 variable attenuators can adjust the input and output signals into and out of the amplifiers by 30 dB in 0.5± 0.5 dB steps by the front panel controls and the M&C**. Front panel LEDs indicate power, status (online, standby, alarm), and mode (auto, manual, remote). The amplifiers' current is measured and a fault is signaled if the current deviates from user selected thresholds. Multi-function switches select Auto, Manual or Remote operation, priorities for 1:2, and the signal path in the Manual mode. Remote operation via the RS232/RS485 M&C interface allows selection of priorities (1:2) and the signal path. Ethernet is available as an option. An LCD display shows each amplifier's current, and signal path. Form C relay contact closures indicate amplifier and power supply status, switch position, Auto, Remote, and Manual operation. Connectors are type N, female for the RF in and out signals, DB9 for monitor and control. **A fan on the right side of the chassis enhances cooling.** It is housed in a 1RU chassis and has redundant power supplies, each fed by separate, fused 100-240 ±10% VAC AC input connectors.



Front and Rear Panels (2282-122-23 shown with optional Ethernet)

EQUIPMENT SPECIFICATIONS*

Input Characteristics (RF)

Impedance/Return Loss	50Ω/12dB
Frequency	0.95 to 2.15 GHz
Noise Figure, Max.	10 dB at max gain

Output Characteristics (L-Band)

Impedance/Return Loss	50Ω /**9.5 dB**
OIP3 **(of the amplifier)**	**+45 min**
Output 1 dB compression	**+28 dBm at max. gain (of the amplifier)**

Channel Characteristics

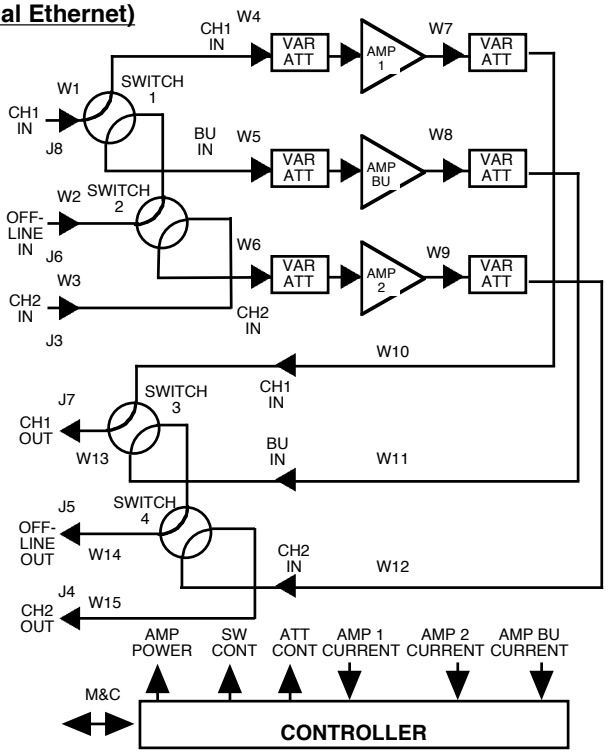
Gain, maximum	**+35 dB ± 2 dB, 0.95 to 2.15 GHz**
Gain, adjust, each att.	30 dB adjustment in **0.5 ± 0.5 dB Steps**
Spurious, 2nd harmonic	**<-55 dBc in band, 0 dBm out, at 1 GHz**
Variable Attenuator	**Peregrine, PE43704**
Frequency Response	**± 1 dB across band, ± 0.25 dB, any 40 MHz BW**

Controls, Indicators

Gain, Amp Select	direct readout LCD; pushbutton switches or remote
Status and mode	Green, Red, Yellow LEDs
Remote	RS232C/RS485/422, 9600 baud (Ethernet Optional)

Other

RF In/Out	Type N (female), 50Ω
RF Off line In/Out	SMA (female), 50Ω
Alarm/Remote Conn.	DB9 - NO or NC contact closure on Alarm
Cooling Fan	Fan **on the right side of the chassis enhances cooling**
Size	19 inch standard chassis 1.75" high X **19.0"** deep
Power	100-240 ± 10% VAC, 47 - 63 Hz, **150** watts max.



2282-122-23 Block Diagram

Other Options
W6-SLOPE - Variable Slope Equalizer provides a 0 to +6 db, ±0.5 dB adjustment

Remote M&C Ethernet Options
W8 - Ethernet w/web browser Interface
W18 - Ethernet w/SNMP (and MIB) Interface
W18-v3 - Ethernet w/SNMPv3 (and MIB)
W28 - Ethernet w/direct TCP/IP Interface
W828 - W8 +W18 +W28

*10˚C to 40˚C; Specifications subject to change without notice.

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