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 0.5x 0.5 dB steps by the front panel controls and the M&C. Front panel LEDs indicate power, status (on, standby, alarm), and mode (auto, manual, remote). The amplifiers’ current is measured and if 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. The 2282-122-23 is housed in a 1RU chassis and is powered by redundant power supplies fed by separate, fused 100-240 ±10% VAC AC input connectors.

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: +30 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: RS232/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
- Size: 19 inch standard chassis 1.75” high X 16.0” deep
- Power: 100-240 ±10% VAC, 47 - 63 Hz, 150 watts max.

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