OPERATIONAL DESCRIPTION

Corinex PowerNet PCI card includes:

- **PCI card**
- **PCI outlet**

PCI card:

1) MAC controller RTL8130 with MII interface.
   - Into the controller from PCI BUS is entering 33MHz PCI clock.
   - To the controller is connected external crystal 25MHz.
   - From RTL8130 is going Tx clock and Rx clock with frequency 25 MHz into the circuit of the physical interface INT 5130

2) Circuit of the physical interfaces INT5130.
   - To the circuit is connected external crystal 100MHz (20MHz – 5-th harmonic frequency).
   - In INT5130 is open also clock signal DAC CLK 50MHz for DAC/ADC converter of the INT 1000.

3) AD/DA converter INT 1000
   - From converter DAC ADC INT 1000 is going through the 10 bit bus digital signal into INT 5130
   - Analog signal in the range 4-21 MHz is outgoing to the analogue part

4) Analogue part (OUT)
   - Frequency from DAC INT 1000 is going through band pass 4-21 MHz, amplifier with amplify An=1, suppressor diodes, band pass 4-21 MHz once again and connector J2 (7W2)

5) Analogue part (IN)
   - Aquired signal from PCI outlet is going from connector J2 (7W2) through the suppressor diodes to the circuit AGC on entry ADC INT 1000.

To the connector J2 (7W2) there connected signals:
- RXIN which is going to the PCI outlet
- TXOUT going to the PCI outlet
- Power supply of the PCI outlet +12VDC through the fuse 630mA
- TXEN which is connected blocking capacitor to the Ground

PCI outlet:

Consists from connector, which should be inserted into the PCI card, and 1.5m of shielded cable with additional shielded copper folium Signals TXOUT and TXIN are carried on independently shielded wires, signals TXEN and +12VDC are carried through the wires with common shielding.

1. Analogue part (OUT):
   Signal from PCI card is going through the cable
   suppressor diodes, amplifier with amplify AN=2.) through switch T/R SWITCH and through suppressor diodes on winding separating transformer.
2, Analogue part (IN):
   Signal from separating transformer going through suppressor diodes, band pass 4 – 21 MHz, suppressor diodes, amplifier, suppressor diodes and through cables to PCI card.
3, POWER part:

Separating transformer is winding on toroid core. Signal from secondary winding going through parallel coupling capacitor 10nF/400V a resistor 100kohm/500Vef. Parallel coupling varistor Uv=240 and fuse 630mA.

Transient voltage suppressors SAC 5,0. Peak pulse power dissipation with a 10/1000us minimum 500W. Peak pulse power surge current with a 10/1000us minimum 44A.