Operational Description

1. SMPS PART
   A. DC OUTPUT : Supplies DC power to enable product operation. (3.3V & 12V)
   B. COUPLING PART : Couples the PLC signals to the powerlines.
2. AFE (ANALOG FRONT END) : Filters and amplifies analog signals.
3. AD9975 (A/D & D/A CONVERTER):
   A. Converts analog signals to digital signals and vice versa.
   B. Provides 100MHz frequency needed for XPLC21 operation.
4. XPLC21 (PLC PHY & PLC MAC) :
   A. 24Mbps PLC chip,
   B. Supports 256 PSK DMT
   C. Packatizes Ethernet data and transmits to a remote modem through the powerline channels.
   D. Can be used for access network or home networking purposes.
5. ADM6992 (ETHERNET SWINCHING CHIPSET)
   A. Performs Ethernet switching of the Ethernet MII data from the XPLC21 and converts to PHY
6. OSC 50MHZ : Generates basic frequency needed for product operation
7. EEPROM : Saves basic configuration data of the XPLC21
8. RJ45 PORT : Port for Ethernet communication
9. MAX232 : Converts serial data from TTL LEVEL to EIA232
10. RS232 PORT : Port for serial communcation