

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