

M9600 Modems

M9600 serial Modems are designed especially for Power Industrial applications. M9600 offers maximum reliability and flexibility connection for RTUs based on digital PLCC, fiber or microwave analog channels.

M9600 serial of Modems utilize TI's C24xx or C28xx DSP with the advantages of high integrate, high performance, small size and low power consumption

Features

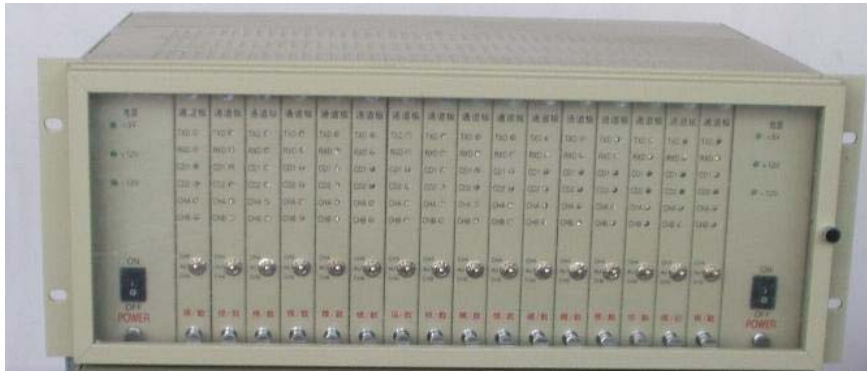
- Versatile, reliable and durable- designed especially for Power Industrial applications. Easy interfaces with Digital PLCCs, RTUs and PCs
- Central Carrier Frequency: 300Hz~4 kHz, bandwidth: 600Hz~4KHz, user-programmable in steps of 1 Hz
- Data Interface: RS232, RS485, RS489, EIA530, X.21,V.35 and V.11 multi-protocol
- Photo-diode isolators, TVS diodes & Ferrite Beads, providing additional protection against over-voltages, ground potential rise and ground loops beyond standard requirements in the harsh substation environment
- M9600 modem features a very user-friendly Human Machine Interface software utility. It provides the following extended facilities and characteristics:
 - Collection of operational status information from modem.
 - Setting of the transmission frequencies bandwidth, modulation type, levels and data rate.
 - Generation of signals for transmission test.

Application

All of M9600 Modem modules have the same size: 45mm X 75mm. The core module is mounted on a mother board. The mother board is composed of the custom required power modules and connectors.



A M9603 is on the mother board



An example of Modem pool

Technical data

Modulation

Protocol	<ul style="list-style-type: none"> ● M9601 & M9603 support Bell 103/202, CCITT V.21/V.23, Frequency Shift Key (FSK) modulation. ● M9604 supports V.32 QAM, speeds up to 9600 bps.
Data Rate	<ul style="list-style-type: none"> ● M9601 & M9603: 200, 300, 500 & 1200bps ● M9604: up to 9600 bps.

Transmission	4-wire or 2-wire, full duplex operation.
Central Carrier Frequency	300Hz~4 kHz, user-programmable in steps of 1 Hz
Bandwidth	600Hz~4KHz, user-programmable in steps of 1 Hz
Automatic Gain Control	range > 0~-50dB
Impedance	600 ohms
Transmit level	-21 dBm to 0 dBm, user-programmable in steps of 0.5dB
Receive level	- 43 dBm to +3 dBm
Receive sensitivity	-43dB

Data Interface

M9601	RS232
M9603	2M PCM, directed connected with DPLC-100
M9604	RS232, RS485, RS489, EIA530, X.21, V.35 and V.11
EMI/RFI	Photo-diode isolated & TVS

Power supply

M9600 module	+3.3V, <200mA
Power module on mother board	36~72VDC, 220V(option)

Operating Environment

Temperature Range	0°C to 55°C.
Humidity.	5 to 95%, non-condensing