FlashPoll • DSP9612FP and DSP9612-LV
INDUSTRIAL MODEM

KEY FEATURES

- Designed to optimize communication links where high speed or where multi-point drops are necessary
- Dual Mode: 9600/4800 bps and FSK, Bell202T 0-1800 bps
- Fast train modem equalizer with 23 msec RTS/CTS delay
- DSP design with automatic adaptive equalizer
- Leased line interface protected with heavy-duty surge protection
- Installs in the **Raymar-Telenetics** and Motorola/UDS RM16M Universal Data Shelf
- DSP9612FP Powered by 85-265 VAC, 85-400 VDC
- DSP9612-LV Powered by low voltage DC, 10-53VDC

PERFORMANCE & APPLICATION

The **Raymar-Telenetics** FlashPoll DSP9612 is a dual mode, full-featured 9600 Fast Poll and Bell 202T leased line modem with the fastest training time in the industry: 23 msec RTS/CTS delay. Ideal for utility and industrial automation multi-drop applications, including SCADA systems, traffic automation, and oil & gas automation projects where an unlimited number of drops is desirable.

The DSP9612 is a standalone modem designed for 4-wire, full-duplex, or 2-wire, half-duplex operation over a voice-band leased line or private wire/unloaded metallic circuit. The modem design utilizes the latest digital-signal processing (DSP) technology to achieve high performance.

COMPATIBILITY

In FlashPoll Mode (9600/4800 bps), the DSP9612 employs **Raymar-Telenetics**' proprietary modulation and encoding scheme to achieve fast modem training time. In Bell 202T Mode, the modem is end-to-end and backward compatible with Bell 202T (0 - 1800 bps) modems.

OPTIMIZATION & CAPABILITY

Ideal for systems where fast response, short training time, and low throughput delay is required. The DSP9612 FlashPoll is optimized for fast receiver equalizer training and extremely low throughput delay. The dual mode capability allows the DSP9612 to communicate with existing Bell 202T (0 - 1800 bps) remote modems, which can then be upgraded at a later date to a **Raymar-Telenetics** DSP9612 FlashPoll modem.

FLASHPOLL • DSP9612 • DUAL MODE MODEM

PRODUCT SPECIFICATIONS

GENERAL SPECIFICATIONS

Data Rate:
FlashPoll Mode:
9600 or 4800 bps
asynchronous, +1% - 2.5%
Bell 202T Mode:
0 - 1800 bps asynchronous
+1% - 2.5%

Data Format:
8 or 9 data bits with 1 or more stop bits

Line Requirement:
TELCO Voice band 4 or 2 wire leased line /private wire and metallic circuits 26 to 19 AWG

Operating Modes:
2-wire half-duplex or 4-wire full-duplex

Modulation:
Raymar-Telenetics proprietary (FlashPoll Mode) and FSK (Bell 202T mode)

Equalizer:
Automatic, adaptive

Training Time:
RTS to CTS delay
FlashPoll Mode: 23 msec
Bell 202T Mode: 8,33,59,219 ms

Cable Equalizer:
Fixed transmitter and receiver cable equalizer, selectable

Power Supply:
Wide range switching power supply 85 to 265 VAC, 50/60 Hz, and 85 to 400 VDC

DSP9612-LV 10 to 53VDC

Surge Protection:
Provided at power line and leased line. Up to 15K (Standalone version)

Carrier Control:
Constant or switched, DIP switch selectable

Carrier Loss Recovery:
Built-in train on Data (typically less than 10 sec)

Receiver Dynamic Range:
+3 to -30 dbm or -10 to -43 dbm (DIP switch selectable)

Operating Temperature:
-40°C to +85°C

DSP9612FP

MECHANICAL SPECIFICATIONS

Enclosure:
Aluminum with removable front and rear panel

Dimensions:
5.70"W x 8.30"L x 1.50"H

Weight:
1.9 lb

INTERFACE CONNECTORS

Connector:
4-position screw terminal, 2- or 4-wire leased line or metallic circuit

Data Terminal Equipment:
DB-25F power connector

RS-232 (DTE) INTERFACE

Signal Name	Modem Input/Output	DB25	Pin Description
Earth	GND	1	Earth Ground
TXD	Input	2	Transmit Data
RXD	Output	3	Receive Data
RTS	Input	4	Request to Send
CTS	Output	5	Clear to Send
DSR	Output	6	Data Set Ready (Modem Ready)
SG	GND	7	Signal Ground
DCD	Output	8	Data Carrier Detected
DTR	Input	20	Data Terminal Ready (HostReady)

Note: DCD active indicates that carrier is present and data RxD is valid. DCD is not an energy detector.

DIAGNOSTIC FEATURES

Front panel L.E.D. for status monitoring:

Power (PWR)	Data carrier detect (DCD)
Request to send (RTS)	Data set ready (DSR)
Clear to send (CTS)	Analog loopback (ALB)
Transmit data (TXD)	Digital loopback (DLB)
Receive data (RXD)	

Front panel loopback control for testing:

Local Analog Loopback (ALB)
Local Digital Loopback (DLB)
Remote Digital Loopback (RDL)

RAYMAR TELENETICS

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