



## FlashPoll • DSP9612RM INDUSTRIAL RACK-MOUNT MODEM

### KEY FEATURES

- Designed to optimize communication links where high speed or an unlimited number of drops is necessary.
- Dual Mode: 9600/4800 bps and FSK, Bell202T 0-1800bps
- 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** RM16M Rack, RMX Shelf and Motorola/UDS RM16M Universal Data Shelf

### PERFORMANCE & APPLICATION

The **Raymar-Telenetics** FlashPoll DSP9612RM 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 DSP9612RM is a rack-mount modem designed for 4-wire, full-duplex, or 2-wire, half-duplex operation over a voice-band leased line or private line. The modem design utilizes the latest digital-signal processing (DSP) technology to achieve high performance.

### COMPATIBILITY

In FlashPoll Mode (9600/4800 bps), the DSP9612RM employs **Raymar-Telenetics'** proprietary modulation and encoding scheme to achieve fast modem training time. In Bell 202T Mode, the modem is end-to-end 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, FlashPoll is optimized for fast receiver equalizer training and extremely low throughput delay.

The dual mode capability allows the DSP9612RM to communicate with existing Bell 202T (0 - 1800 bps) remote modems, which can then be upgraded at a later date to a **Raymar-Telenetics** DSP9612FP FlashPoll standalone or DSP9612RM Rack Mounted modems.



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# FLASHPOLL • DSP9612RM • DUAL MODE RACK-MOUNT MODEM

## PRODUCT SPECIFICATIONS

The rack-mount modem can be installed in the **Raymar-Telenetics** RM16M Rack, RMX Shelf and Motorola/UDS RM16M Universal Data Shelf. The modem occupies only one rack slot, eliminating the hassle of equipment trays and power bricks required for standalone modems.

### GENERAL SPECIFICATIONS

<b>Data Rate:</b>	<i>FlashPoll Mode:</i> 9600 or 4800 bps asynchronous, +1% - 2.5%
	<i>Bell 202T Mode:</i> 0 - 1800 bps asynchronous 1% - 2.5%
<b>Data Format:</b>	8 or 9 data bits with 1 or more stop bits
<b>Line Requirement:</b>	TELCO Voice band 4 or 2 wire leased line or private metallic circuits 26 to 19 AWG
<b>Operating Modes:</b>	2-wire half-duplex or 4-wire full-duplex
<b>Modulation:</b>	Raymar-Telenetics proprietary ( <i>FlashPoll Mode</i> ) and FSK ( <i>Bell 202T Mode</i> )
<b>Equalizer:</b>	Automatic, adaptive
<b>Training Time:</b>	RTS to CTS delay <i>FlashPoll Mode:</i> 23 msec <i>Bell 202T Mode:</i> 8,33,59,219 ms
<b>Cable Equalizer:</b>	Fixed transmitter and receiver cable equalizer,selectable
<b>Power Supply:</b>	From RM16M Rack
<b>Surge Protection:</b>	Provided at power line and leased line. Up to 15KV(Standalone version)
<b>Carrier Control:</b>	Constant or switched, DIP switch selectable
<b>Carrier Loss Recovery:</b>	Built-in train on Data (typically less than 10 sec)
<b>Receiver Dynamic Range:</b>	+3 to -30 dbm or -10 to -43dbm (DIP switch selectable)
<b>Operating Temperature:</b>	-40°C to +85°C

### MECHANICAL SPECIFICATIONS

<b>Form Factor:</b>	Rack-Mount Modem Card
<b>Dimensions:</b>	9" deep x 6.25" high x 0.87" thick
<b>Weight:</b>	8 oz.

### 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)	

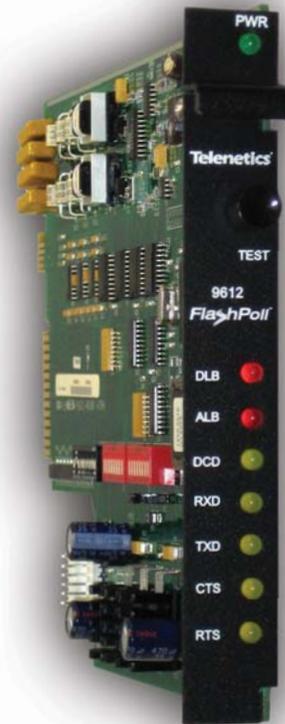
#### Front panel loopback control for testing:

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

### 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 (Host Ready)

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



### WARRANTY

Raymar-Telenetics manufactured products are warranted against defects in hardware material and workmanship under normal use for one (1) year from date of original retail purchase. Defective product will be repaired or replaced, determination to be made by Raymar-Telenetics, at no charge. Repaired or replaced products are warranted for 90 days or for original warranty period, whichever is longer. Warranty extends to original end-user only.

**RAYMAR  
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0070-0519-002 REV:B  
03/31/2009

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