



Series56 Digital Modems

DM56-PR



Series56 Digital Modems

Table of Contents

- ▲ Overview
- ▲ K56flex Technology
- ▲ Remote Network
- ▲ Digital Modem Modules
- ▲ V.34*bis*-Compliant/56K-Capable
- ▲ High-Performance Design
- ▲ Architectural Overview
- ▲ Software Upgradable
- ▲ Features
- ▲ Configuration Guidelines
- ▲ Ordering and Pricing
- ▲ Upgrade Program

Series56 Digital Modems

Overview

▲ Digital Modems designed with K56flex technology

- 8-port, 12-port, 16-port and 48-port Series56™ Digital Modem modules

▲ Available across MAX™ and MAX TNT™ product line

- Simultaneous V.34*bis* and 56K access speeds
- High-performance DSP-based hierarchical processing
- Software upgradable for long-term hardware viability
- Compatible with existing modems

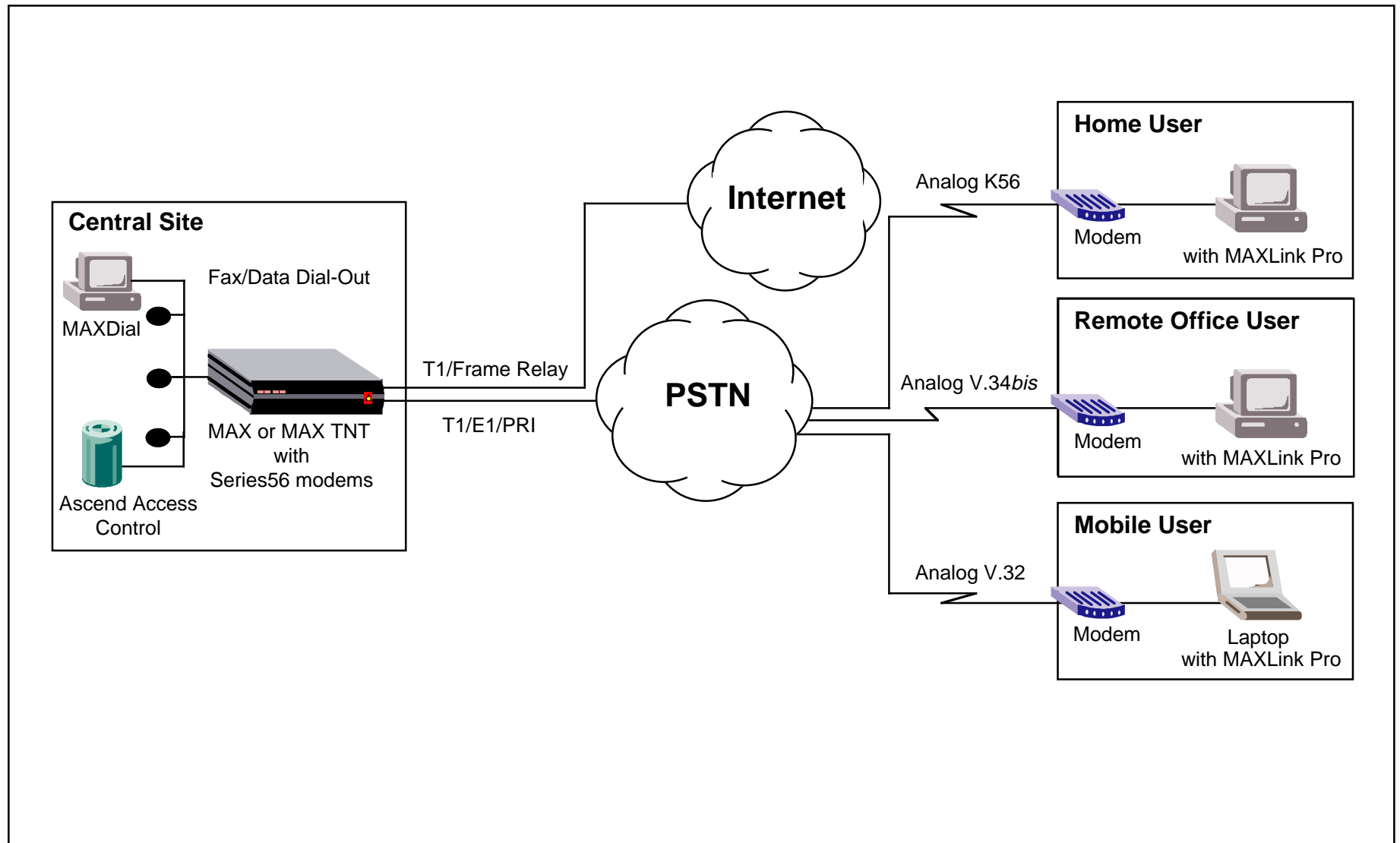
Series56 Digital Modems

K56flex Technology

- ▲ **K56flex co-developed by Rockwell and Lucent**
- ▲ **Ascend is founding member of Open56K Forum**
- ▲ **K56flex supported by over 400 modem and computer manufacturers and ISPs**
- ▲ **56 Kbps downstream data rates (33.6 Kbps upstream)**
- ▲ **High-quality videoconferencing/telegaming**
- ▲ **Uses existing phone network**

Series56 Digital Modems

Remote Network



Series56 Digital Modems

Digital Modem Modules

- ▲ **8-port Digital Modem modules**
 - MAX 1800
- ▲ **12-port Digital Modem modules**
 - MAX 20XX
 - MAX 40XX
- ▲ **16-port Digital Modem modules**
 - MAX 40XX
- ▲ **48-port Digital Modem modules**
 - MAX TNT
- ▲ **Upgrade program available**

Series56 Digital Modems

V.34*bis*-Compliant/56K-Capable

- ▲ **Doubles the downstream throughput of 28.8 Kbps**
- ▲ **Digital signal improves connect rate/reliability**
- ▲ **Supports high bandwidth protocols (V.34*bis*)**
- ▲ **Supports V.42 LAPM, MNP 2-4, 10 Error Correction**
- ▲ **Supports V.42*bis* and MNP 5 data compression**

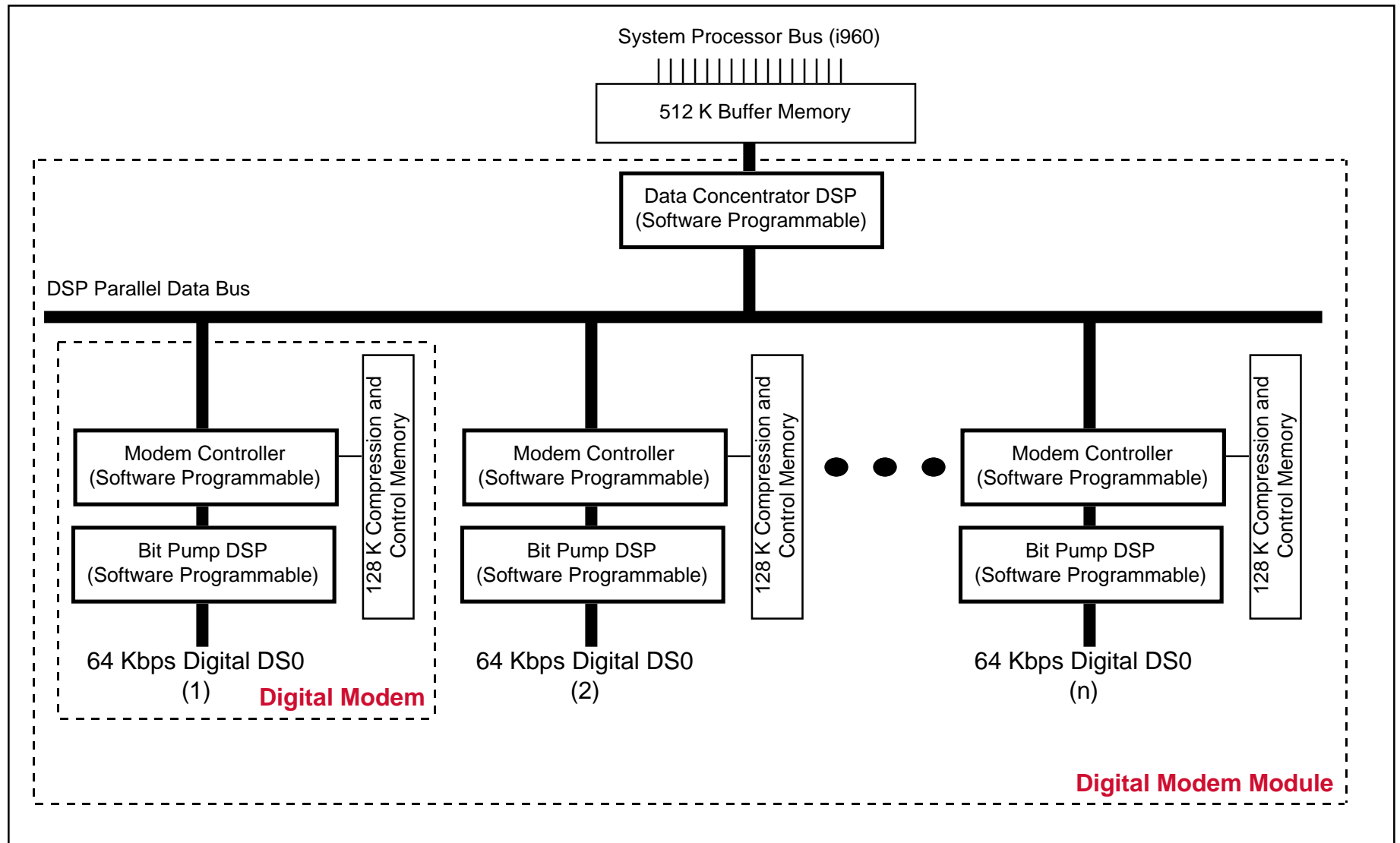
Series56 Digital Modems

High-Performance Design

- ▲ Fully-digital signal processing
- ▲ New architecture with additional DSP and SRAM
- ▲ Hierarchical three-processor system
- ▲ Offloads system CPU processing

Series56 Digital Modems

Architectural Overview



Series56 Digital Modems

Software Upgradable

- ▶ **RAM-based controller code**
- ▶ **RAM-based bit-pump code**
- ▶ **Backward-compatibility with modem protocols**

Series56 Digital Modems

Features

▲ Data modem modes

- K56flex upgradable to ITU-T 56 Kbps, V.34*bis*, V.34, V.32*bis*, V.32, V.22 and below

▲ Internal error correction and compression

- V.42 LAPM, MNP2-4 and MNP10 Error Correction
- V.42*bis* and MNP 5 data compression

▲ MNP 10EC enhanced cellular performance

▲ Fax modem send and receive rates up to 14.4 Kbps

- V.33, V.17, V.29, V.27*ter* and V.21 channel 2
- Group 3, T.30 protocol and class 1, 2 supported

▲ Downloadable modem controller and data pump firmware

Series56 Digital Modems

Configuration Guidelines

# of Modems/Module	Series56 Digital Modem Module	MAX Usage	Maximum # Modules/Chassis	Maximum # Modems/Chassis
8	MX-SL-8MOD-S56	MAX 1800	2	16
12	MX-SL-12MOD-S56	MAX 2000 MAX 4000* MAX 4002** MAX 4004**	2 6 4 6	24 72 48 72
16	MX-SL-16MOD-S56	MAX 1800 MAX 4000* MAX 4002** MAX 4004**	1 4 3 4	16 64 48 64
48	TNT-SL-DM48-S56	MAX TNT • Single shelf • 2nd shelf • Total System	6 8 14	288 384 672

*For International Only

**For North America Only

Series56 Digital Modems

Ordering and Pricing

Model Number	Description	List Price
MX-SL-8MOD-S56	8-port V.34 <i>bis</i> and K56flex slotcard	\$ 4,400
MX-SL-12MOD-S56	12-port V.34 <i>bis</i> and K56flex slotcard	\$ 5,700
MX-SL-16MOD-S56	16-port V.34 <i>bis</i> and K56flex slotcard	\$ 6,800
TNT-SL-48MOD-S56	48-port V.34 <i>bis</i> and K56flex slotcard	\$24,000

Series56 Digital Modems

Upgrade Program

From [Existing Model #]	To [Series56 Model#]	Upgrade Model Number	List Price	Net Upgrade Price
MX-SL-8MOD	MX-SL-8MOD-S56	HWUP-MX-88-S56	\$4,400	\$ 3,250
MX-SL-8MOD	MX-SL-12MOD-S56	HWUP-MX-812-S56	\$5,700	\$ 3,800
MX-SL-12MOD	MX-SL-12MOD-S56	HWUP-MX-1212-S56	\$5,700	\$ 2,850
MX-SL-12MOD	MX-SL-16MOD-S56	HWUP-MX-1216-S56	\$6,800	\$ 4,800
TNT-SL-DM48	TNT-SL-48MOD-S56	HWUP-MX-TNT-S56	\$24,000	\$ 12,000

Upgrade Instructions:

1. Place order using upgrade model number and appropriate upgrade price from the table above. For orders to be processed, they must include the model number and serial number of each modem module being upgraded.
2. Ascend will acknowledge the order, confirming price and delivery. The terms of the agreement are based on customer acceptance that pricing is contingent upon 30 day return (45 days; International orders) of upgraded equipment.
3. Upon receipt of Series56 modules, replaced equipment is returned via RMA.
4. If equipment is received consistent with upgrade agreement, an invoice will be sent for the upgrade amount. Otherwise list prices will be used.